A comparative analysis of perception of dividends by financial managers

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Abstract

This paper is a report about the perception of dividends by Chief financial officers (CFOs). The research encompasses five countries, on three continents, and covers three types of economies. Our cross-sectional study is concerned with both inter- and intra-societal differences that may or may not exist regarding the perception of dividends by those who are in charge of making such decisions in the firm. Using a survey instrument, we find that both similarities and dissimilarities exist inter- and intra-culturally. Perhaps the most important conclusion we reach is that dividend research must take a different track than it has been following so far.

Keywords: Perception; Dividend; Managers; Hierarchical grouping

The trouble of people is not that they don't know, but that they know so much that ain't so.

(Henry Whealer Shaw, *Josh Billing's Encyclopedia of Wisdom*)

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1. Introduction

The purpose of the research project reported in this paper is to show that there are inter- and intra-societal differences in the perception of dividends by financial managers. If one can find both spatial and temporal differences to exist within and between societies (or economies), then the creation and empirical validation of universally observable physics-imitating models might not be the best avenue to advance our knowledge and understanding of the dividend phenomenon.

The research project analyzes the results of a survey comprising 26 statements that was distributed to, and collected from, top corporate financial decision makers in five countries, on three continents, in order to gain insight into their understanding of what dividends are. Instead of analyzing market data based on the notion of what economic agents *should* think about dividends, and what their role in dividend decision making *should* be, this project is concerned with what the perception and motivation of these agents actually *are*. For this reason, it falls into a scant minority of research efforts on this topic.

Questions and issues pertaining to dividends and dividend policy have long been of interest to finance academics. It can be safely argued that finance as an academic research program (consistent with Lakatos, 1970), and as such later calling itself financial economics, got its start with the so called "bird-in-the hand" dividend models and Miller and Modigliani (1961) irrelevance hypothesis.

Why do shareholders love dividends? Why do firms pay dividends? Is there, or should there be, a corporate "dividend policy"? These questions, and the relationship between dividends and firm value, have been at the center of inquiry in modern finance/financial economics for more than half a century. During this period, research on these questions produced hundreds of papers and articles, several books and an untold number of doctoral dissertations. In a recent paper, Frankfurter and Wood (2002) statistically analyze the results of the critical mass of this research and reach the conclusion that no single hypothesis is universally proven as being not rejectable.[1] In other words, not a single dividend theory has unambiguous acceptance, because of conflicting empirical results. These results vary according to the statistical model used, the period for which data were available and the time horizon (monthly, weekly, daily data) covered by the research project. Yet, as Frankfurter and Wood (2002) show, these differences are not the reason for either the rejection or the acceptance of the findings of practically hundreds of studies.

Dividend theories and hypotheses can be grouped into six distinct classes:

1. The bird-in-the-hand theory, which was the first to "scientify" the wisdom of Graham and Dodd (1934), according to which the only reason for the corporation to exist is to pay dividends to its shareholders.
2. Tax effects both for corporations and for individuals.
3. Clientele effects (closely related, but nevertheless not totally identical to tax effects).
4. Signaling with dividends.

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[1] We use this language to be consistent with Friedman (1953) argument that a hypothesis can never be proven correct. It can only be proven not rejectable.

5. Agency theory and free cash flows.
6. Sociological and psychological theories.

The first five classes of theories have in common an underlying belief in the existence of the economically rational human being, often referred to as the *homo economicus*. Accordingly, all the models/theories that fall within one of these five classes attempt to explain dividends on the basis of economic rationale. They do this in spite of the fact that Black (1976) called the love of dividends and the willingness of firms to pay dividends the "dividend puzzle."[2] Models/theories in Class 6 are clearly different because they are based on patently dissimilar rationalities than that of the *homo economicus*.

In addition to Miller and Modigliani's (1961) irrelevance theory, according to which the investor should be indifferent between receiving dividends and leaving the money on the table, there have also been explanations and/or theories that indirectly say something about dividends. Among these are Lintner's (1956) dividend behavior explanation, Myers (1984), and Myers and Majluf (1984) pecking order hypothesis, and different arguments of liquidity effects.

We make no attempt here to cite extensively the dividend literature. For one thing, it is too voluminous, and, for another, it would not serve the purpose of this paper.[3] The important point here is this, if the results presented in this paper are credible and reasonable, then dividend research must take a different route than the one it has been traveling for much too long; that is, it must choose a path better oriented to what is generally called behavioral economics. The latter is, of course, gaining acceptance and recognition in economics research, as evidenced by the fact that the 2002 Nobel Prize in economics was awarded to a behavioral economist and a psychologist.

In Section 1 of this paper, we state our axioms, assumptions and the findings of an experimental study on which several of our hypotheses are based. In this section, we also catalogue some caveats one must consider when dealing with survey studies of perception or motivation. In Section 2, we present our research hypotheses and describe the present study. In Section 3, which is the first analytical section of the paper, we present the different statistics we calculate, and explain their meaning. In Section 4, we focus on the statistical tests we construct and interpret the test results.

Presenting the results is not an easy task because of the richness of the data and the extensive analyses to which they lend themselves. Although it would have been easy to create myriad tables and test results, it would have been difficult to present all these in a single research paper or within the page limitations of a journal. Readers who are concerned that we may have arbitrarily omitted some tables or results should contact us directly (see cover page). We would be happy to share any of these results (if they are obtainable). In Section 5 we offer our conclusions and chart a route for further inquiry.

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[2] As things often change, words and metaphors assume new and some times opposite meaning. During the "roaring" 1990's when dividends have been gradually reduced or omitted by the majority of US firms, the term "dividend puzzle" was used to describe this reduction/disappearance.

[3] Interested readers should refer to Frankfurter and Wood (2002), where they will find citations more than they bargained for.

2. Axioms, assumptions, and prior research

Felix qui potuit rerum cognoscere causas. Lucky is who understands the causes of things.

2.1. Axioms[4]

The study of the history and evolution of dividends in the modern corporation leaves no doubt about certain facts concerning the dividend phenomena,[5] which one can regard as axioms.[6] We must be specific about these, because what we consider axioms (and assumptions we make) are the bases for the development of our hypotheses and the tests to accept or reject these hypotheses.

Axiom #1 (Dividends evolved over the existence of the modern corporation). At the beginning of the modern corporation (roughly the emergence of the joint stock companies in England and the establishment of the stock market in Amsterdam, The Netherlands), dividends were all the earnings for an accounting period in the case of the former, and liquidating dividends in the case of the latter. Over time, with temporal changes back and forth concerning the magnitude of dividends, we reached a point where dividends are left to the discretion of management, and, more often than not, are symbolic with respect to the market value of the stock.[7] Consequently, one cannot find reasonable answers to what Black (1976) called the "dividend puzzle" if one disregards the fact that the universal practice of dividend payments from the firm to shareholder, evolved over time.

Axiom #2 (Dividend policies of firms change over time, given economic conditions, the availability of worthwhile investment opportunities, and other factors). As mentioned earlier, the trend of reducing dividends during the 1990s is markedly changing with the start of the 21st century. This is occurring in spite of the fact that Black (1990) "predicted" that dividends will gradually disappear and that firms that still pay taxable dividends will do so in order to escape improper accumulation charges that might have been brought against them otherwise by the IRS (see also Fama and French, 2001). This prediction seems to be wrong, because the start of the 21st century shows a reversal of the tendency to reduce dividends. But there is nothing new in this reversal, because this happened several times before: in the 19th century and the early parts of the 20th century (see Frankfurter and Wood, 2003).

Axiom #3 (No academic model of dividends accounts for the evolution of the dividend phenomena). This axiom does not need explanation beyond our contention that we do not

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[4] "A self-evident principle or one that is accepted as true without proof as the basis for argument; a postulate," according to the *American Heritage Talking Dictionary.*

[5] We use the plural of phenomenon, because we are referring, unless otherwise stated, to both dividends and dividend policies.

[6] This would be so, because the simple inspection of the history of dividends and its forms of practice throughout three centuries show a systematic change in firms' dividend behavior.

[7] For a detailed discussion of the history of dividends in America, The Netherlands and Great Britain see Frankfurter and Wood (2003).

know of any such model. And, if there is such a model, we ask forgiveness for our ignorance from the author(s) of such model, and, of course, the reader.

Axiom #4 (Because of its evolution, and because of the cultural influence, the perception of dividends will not be universal). One will necessarily find differences between one economy and another in understanding dividends, because of the evolutionary nature of the phenomena and because of the spatial and temporal circumstances that will exist for a given society (economy).

2.2. Assumptions

Assumption #1 (Honesty). Chief financial officers (CFOs) of corporations will respond honestly to statements that will not pre-judge practices they follow regarding dividends and their understanding of dividends as part of their financial decision making. Moreover, if they are promised strict confidentiality, it seems unreasonable that they would not give honest and complete responses to statements.

Assumption #2 (Preciseness). Responses are not haphazard, but reflect the true individual understanding of the statement.

Assumption #3 (Time independence). Difference in time over a period of a few years will not radically change attitudes and understanding. That is, if a survey instrument is given to CFOs not precisely at the same date in several countries, responses to statements will not materially affect perception. Ergo, differences between cultures are not the result of differences of perception because of change in time.

Assumption # 4 (Understanding). Differences of perception are not the result of differences in understanding a particular statement.

2.3. Prior research

The present study is an outgrowth of a pilot study conducted in Germany during the year 2000 concerning the perception of dividends by CFOs of publicly traded German firms. While the principal investigator of the current study was Visiting Professor of Finance at the University of Hamburg, he and others at the University created a survey instrument consisting of 26 statements aimed at determining the understanding of dividends by CFOs.[8] A detailed description of this study, its results, and suggestions for further research are presented in Frankfurter et al. (2002). For the sake of continuity and in the interest of better understanding of the present study, we repeat here some essential elements of the German study.

The survey instrument of 26 statements was developed to portray the salient elements of existing academic hypotheses/theories/explanations of the dividend phenomena.

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[8] The English version of survey instrument used in Germany, and used as well herein, is included in the appendix to the current paper.

Although the survey form itself is in the appendix of this paper, we include here, for the convenience of the reader, a table listing the statements as well as their categorization and expected consistency with these hypotheses/theories/explanations (Table 1).

A total of 420 usable survey forms were returned, for a response rate of approximately 44 percent. The responses were scored on a scale of 1 (strongly disagree) to 5 (strongly agree), and the origin was shifted to the center by subtracting 3 from each response to each statement. In this way, neutrality became zero, and disagreement with a statement turned negative. Simple statistics on the transformed values were calculated for each of the 26 statements, including a 325 unique element off-diagonal correlation matrix, to verify the consistency and internal logic of the responses.[9]

Factor analysis and hierarchical grouping to obtain two groups regarding the perception of each of the 26 statements dichotomized the survey population of 420.[10] A statistical analysis of the combined responses and the group dichotomies led to the following conclusions. Uniformity of Groups A and B, with respect to:

- No preference for a stock dividend.
- An increase in dividends only if the increase can be maintained for the long term—a serious blow to signaling and a reconfirmation of Lintner (1956).
- The understanding of the dividend effect by institutional investors (professionals know best).
- The adverse effect of a reduction in dividends.
- Continuity of dividends.
- Disagreement with the substitution of a stock dividend for a cash dividend as a sign that the firm is doing poorly.
- Agreement with the irrelevance of the tax effect on dividend policy (perhaps a "signal" for "traditionalists" to stop and think before ratcheting up the complexity of models that would "verify" the rationale of the tax effect).

With all these points of agreement, we found marked differences of perceptions between the two groups. These differences can be construed as a more radical perception of dividends of Group B managers, versus the more "traditionalist" perception of Group A managers.[11] Accordingly, a Group B manager:

- Does not think that stockholders are interested in dividends.
- Does not think that institutional investors prefer a cash dividend to a stock dividend.
- Would like to see a substantial proportion of the shares owned by institutions.
- Thinks that individual investors do know the difference between a cash dividend and a stock dividend.
- Thinks that dividends are not an instrument to keep the stock price within a desired range.
- Thinks that there is only a short-term positive effect from dividend announcements.

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[9] A similar tabulation for all the countries of this study, including Germany, is included in Section 3 of the present paper.

[10] A detailed description of the method of grouping follows in Section 2.

[11] One must note, however, that this difference more often than not lies in the intensity of the perception, and, thus, it may not be categorically the opposite end of the disagreement—agreement spectrum.

Table 1

Hypotheses/theories/models/explanations

Number	STATEMENT	Tax effects	Clientele	Agency theory	Signaling	Social contract	Lintner (1956)	Irrelevance theory	Pecking order hypothesis	Liquidity effect
1	Stockholders like to receive a regular dividend			Agree		Agree	Agree			
2	Some stockholders prefer a stock dividend instead of a cash dividend	Agree	X							X
3	Institutional investors always prefer a cash dividend	X	X	Disagree						
4	Our firm would like to see a large portion of its shares owned by institutions			Agree						X
5	Increasing the number of stockholders in our firm is one of our important objectives			Disagree						X
6	We do not believe our stockholders are interested in dividends		X	Disagree		Disagree	Disagree			
7	When we want to save cash we give a stock dividend								Agree	
8	A dividend gives us favorable free publicity in the financial press				Agree					
9	Dividends help keep the stock price up within a range we think is optimal				Disagree					X
10	Dividends have no effect on the inherent value of our stock							Agree		
11	There is a short-term positive price reaction to the announcement of a dividend				Disagree			Agree		
12	Paying cash dividends creates a costly cash drain for our firm								Agree	
13	Paying cash dividends is necessary, because stockholders expect it					Agree				
14	An increase of dividends is a sign that we are doing well				Agree					
15	Only firms with increasing stock price should pay a dividend						Agree			
16	We increase dividends only if we can maintain it on the long-term				Disagree		Agree			
17	Individual investors have no understanding of the real economic value of dividends									
18	Institutional investors know what effect a dividend will have on the stock price									
19	Any reduction of dividends would adversely affect our stock price				Agree	Agree	Agree			
20	Once a firm starts paying dividends, it must continue to pay dividends				Agree		Agree			
21	Substituting a stock dividend for a cash dividend is a sign that we are doing poorly				Agree					
22	Many investors believe that an increase of dividends is a sign that we do not have anything better to do			Agree	Disagree					
23	Many of our stockholders do not trade the stock		X							X
24	Paying no, or as little dividends as possible is important								Agree	
25	Money talks!				Agree					
26	The forthcoming change in taxation will not affect our dividend policy	Disagree								

X indicates relevance

- Thinks that paying cash dividends is not costly.
- Thinks that there is only a short-term positive effect from dividend announcements.
- Thinks that paying cash dividends is not costly.
- Thinks that stockholders do not expect a cash dividend; therefore, it is not necessary to pay a cash dividend.
- Thinks that an increase in cash dividends is not a sign of well-being.
- Does not think that an increasing stock price is a precondition for paying a dividend.
- Thinks that non-professional investors do not understand the real economic value of dividends.
- Thinks that an increase in cash dividends is a sign that the firm has nothing better to do with cash.
- Thinks that many shareholders do trade much, regardless of whether the price goes up or down (disagreement with the original statement is particularly strong in Group B because Group B stocks are, for the most part, growth stocks and investors in these stocks are concerned with capital gains).
- Believes that paying little cash dividends is a means to convert retained earnings into permanent equity capital (however, the agreement is weak), and
- Thinks that money does not talk; that is, investors do not believe that paying more cash dividends is a signal that the firm is doing well.

When we looked at accounting and market data, we found that Group B firms had a significantly higher (at the 0.10 level of error I) *P/E* ratio than Group A firms. Other than that, Group B firms had higher insider ownership and market-to-book ratios, were younger, and had lower institutional ownership.[12] We also observed that Group B firms were predominantly from the *Neuer Markt*.[13] The contrast between the predominant trading activities of Group A and Group B was also remarkable. In all, 54 percent of Group A firms were traded in the *Amtlicher Handel*, compared with just 13 percent of Group B firms; whereas, 68 percent of Group B firms were traded in the *Neuer Markt*, compared with just 13 percent of Group A firms. In general, it could be concluded that Group B firms were more aggressive and less traditional than Group A firms.

The conclusion from the German study was that we had gained some important insights into the perception of dividends by corporate decision-makers, but that we should forge ahead with a cross-cultural comparative analysis, to explore the intra- and inter-societal differences that may or may not exist among firms in one country and among firms in different countries. These then became the objectives of the present research.

2.4. Caveats

The research method used in this study is the survey described in the previous subsection. In all fairness to the reader, we must state that surveys have been criticized in the literature

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[12] Ownership by institutions includes holding companies and other industrial firms—in addition to investment funds, banks and insurance companies (all of the latter of which are referred to as institutional investors).

[13] It has been reported in the financial press that the *Neuer Markt* will cease to operate as of 1 January 2003.

for their many obvious weaknesses. For instance, Baker and Powell (1999) mention these limitations:

- Having the opinion of just one person.
- Limitation on length.
- Misinterpretation of statements.
- Non-response bias.

We can also add these deficiencies:

- The risk of "loaded" statements.
- Statements that obviate an answer (perhaps ones that are close to the heart and convictions of the researcher).
- Not knowing for sure the identity of the respondent to the survey.

We would be the first to admit that some of these limitations, errors, and biases apply to the current research, but we made a genuine effort to eliminate or at least reduce their effects. We selected each statement with great care, tested the comprehensibility of each statement by financially well-informed and responsible people, "planted" statements that verified the response to other statements, and tried to formulate each statement in a way that it does not directly identify with a known academic hypothesis/position.

With all these caveats noted, and given the precaution to reduce, if not totally mitigate their effects, we are still of the opinion that a survey is the only way to open a new avenue of discussion and seek new directions in dividend research. This is the direction where a preliminary idea is obtained about both the perception of dividends that is "out there," and the motivation for the corporate practice of paying dividends. We also note that this mode of research is in sharp contrast to the conformist approach. The conformist way of dividend research is to create yet another model based on the expected utility maxim of the *homo economicus*, when other previous orthodox ways fail to be consistent with observable facts (e.g., the tax explanation of dividends, signaling, free cash flows, etc.). In the words of T.H. Huxley: "The great tragedy of science—the slaying of a beautiful hypothesis by an ugly fact."

3. Hypotheses and project description

So wonder on, till Truth make all things plain.

(William Shakespeare, *A Midsummer Night's Dream*)

3.1. Hypotheses

Hypothesis #1. There will be differences and similarities regarding the perception of dividends within a culture (market system) by corporate financial decision makers. Accordingly, some aspects of the dividend question can be considered as uniformly applicable within a society, whereas others cannot be considered as such. Therefore, models that will hold

for an economy cannot uniformly reflect the perception of dividends and the consequent decision process. These we call intra-societal differences/similarities.

Hypothesis #2. Differences and similarities in the perception of dividends will exist across cultures (market systems) for reasons given in *Hypothesis #1*. These we call inter-societal differences/similarities.

Hypothesis #3. The closer a culture (market system) comes to what is generally called a market economy, the more similar the differences and the similarities regarding the perception of dividends.

Hypothesis #4. If hypotheses #1–#2 cannot be rejected, partially or totally, then there will be significant inter- and intra-cultural differences in the accounting and market data of the firms.

Hypothesis #5. If hypotheses #1–#4 cannot be rejected, then the development of models based on a single rationality, and universal applicability imitating models of physics, cannot bring us closer to the understanding of the dividend phenomena.

The purpose of the present study is to formally test Hypothesis #1 through Hypothesis #4. If these hypotheses cannot be rejected, then Hypothesis #5 is a logical conclusion and, therefore, need not be formally tested. It should also be noted that accepting Hypothesis #4 is not tantamount to the notion that the differences that might be present regarding accounting or market data are fully explained by the differences regarding the perception of dividends. There might be other factors, also, that can explain the differences if they are found. However, the existence of differences strengthens the argument expressed in Hypothesis #5.

3.2. Project description

The Dividend Survey instrument was distributed in Hong Kong, Turkey (the English version was translated to Turkish and the accuracy of the translation was verified), the UK, and the USA[14] among top financial executives of publicly traded corporations during the years 2001 and 2002. With the exception of TR, firms were randomly selected from the major stock exchanges of their respective locale. In TR, all firms for which public information was available were picked for the sample. Thus, with the DE sample already collected, the study covers three market type economies (DE, UK, and US), an emerging market type economy (TR), and an economy that is generally referred to as Pacific Basin (HK). The survey form was mailed to the corporation, and was addressed, personally, to the CFO of the firm whenever the name of this person could be ascertained from publicly available data, or to the Comptroller, whenever there was no explicitly named CFO. All possible effort was made to identify the person who could be considered the chief financial

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[14] In the following, we use the internationally accepted two-character code for each country: DE for Germany, HK for Hong Kong, TR for Turkey, UK for the United Kingdom, and US for the USA.

decision maker. The only exception was TR, where the translated survey form was faxed to the corporation and follow-up phone calls were made to ascertain that the appropriately designated person received the survey form.

A second mailing was sent to firms in all countries of the study (except for the UK) when a response was not received after 2 months. The following unnumbered table shows the number of forms distributed with the two mailings, and the total number of usable responses received for each country.

	Total sent	Total received	Usable	Response rate (percent)
DE[a]	954	422	420	44.25
HK	698	177	177	25.36
TR[c]	279	141	137	49.10
UK[b]	912	181	179	19.62
US	1500	293	293	19.53
Total	4343	1214	1206	27.76

[a] Two firms could not be identified.

[b] Two firms had to be discarded because more than 50 percent of the statements were left unmarked.

[c] Two firms had no clear identification numbers, and two had missing pages in the responses.

Because each survey form was individually numbered, it is possible to track responses and collect accounting and market information for each responding firm. Unfortunately, because of this tracking, the study could not be considered totally anonymous. Yet, every assurance was given that the identity of the firm selected for the study would not be revealed. The lack of complete anonymity might have been a reason for some of the lower response rates, but we do not seriously suspect that this was the case.

Another equally important consideration of tracking was to reduce as much as possible the amount of information requested from a firm. All publicly available information was obtained from data sources without having to ask the CFOs for this information. Thus, besides the 26 statements on the survey form itself, the only question we asked was whether the firm wanted the results of our study. Most respondents indicated they wished to receive our findings.

For each country, we calculated basic statistics and a variable we call RATIO—defined as the proportion of AGREE responses to DISAGREE responses for a given statement, adjusted for the number of responses for that statement. RATIO gives an immediate, albeit rough, indication of the diversity of perception regarding a particular statement: RATIO in the vicinity of unity indicates wide diversity, whereas high/low values show uniformity of perception. These statistics are reported for the five counties in Table 2 in Section 3, where the data are discussed in detail.

For each of the five countries, we seek to establish similarities and differences of perception of dividends by top financial decision makers. We use the sample obtained to dichotomize the responses to the 26 statements. To this end, we perform principal

Table 2
Summary statistics

STATEMENT	DISAGREE (percent)	NEUTRAL (percent)	AGREE (percent)	NUMBER	RATIO[a]	z-value[b]	DISAGREE (percent)	NEUTRAL (percent)	AGREE (percent)	NUMBER	RATIO[a]	z-value[b]
			DE						HK			
1	16.86	8.67	74.45	415	4.41	12.26*	3.40	5.60	91.00	177	26.76	11.99*
2	50.64	22.48	26.87	387	0.53	−5.33*	17.50	34.50	48.00	177	2.74	5.02*
3	31.81	25.00	43.18	352	1.36	2.47*	14.30	32.00	53.70	175	3.76	6.32*
4	39.13	27.53	33.33	414	0.85	−1.38	14.50	23.70	61.80	173	4.26	7.12*
5	35.50	18.84	45.65	414	1.28	2.29*	17.30	28.90	53.80	173	3.11	5.69*
6	79.57	5.77	14.66	416	0.18	−13.64*	82.40	10.20	7.40	176	0.09	−10.50*
7	71.76	16.32	11.92	386	0.17	−12.85*	78.70	10.90	10.40	174	0.13	−9.54*
8	31.08	20.48	48.43	415	1.56	3.97*	13.10	44.90	42.00	176	3.21	5.17*
9	41.19	23.57	35.23	403	0.86	−1.4	19.40	36.00	44.60	175	2.30	4.17*
10	29.20	14.11	56.68	404	1.94	5.96*	63.60	13.10	23.30	176	0.37	−5.74*
11	14.99	14.25	70.76	407	4.72	12.14*	16.40	22.60	61.00	177	3.72	6.74*
12	70.94	11.86	17.19	413	0.24	−11.64*	37.50	23.30	39.20	176	1.05	0.26
13	21.39	9.13	69.47	416	3.25	10.12*	10.20	17.50	72.30	177	7.09	9.10*
14	13.94	10.57	75.48	416	5.41	13.28*	11.30	14.70	74.00	177	6.55	9.03*
15	75.24	14.21	10.54	408	0.14	−14.12*	66.90	26.30	6.80	175	0.10	−9.26*
16	14.28	12.07	73.64	406	5.16	12.77*	16.50	18.80	64.70	176	3.92	7.10*
17	57.79	22.04	20.16	372	0.35	−8.26*	42.90	28.20	28.90	177	0.67	−2.20*
18	5.00	8.75	86.25	400	17.25	17.05*	2.80	9.60	87.60	177	31.29	11.87*
19	23.66	15.27	61.07	393	2.58	8.03*	22.50	18.50	59.00	173	2.62	5.32*
20	19.08	9.66	71.25	414	3.73	11.20*	29.40	14.10	56.50	177	1.92	3.89*
21	65.45	23.37	11.17	385	0.17	−12.16*	65.70	26.90	7.40	175	0.11	−9.02*
22	74.39	11.59	14.01	414	0.19	−13.15*	59.10	22.70	18.20	176	0.31	−6.17*
23	64.46	14.70	20.83	408	0.32	−9.55*	39.40	25.70	34.90	175	0.89	−0.69
24	56.39	20.05	23.56	399	0.42	−7.36*	47.40	31.80	20.80	173	0.44	−4.24*
25	39.27	24.39	36.34	410	0.92	−0.68	17.60	25.60	56.80	176	3.23	6.03*
26	40.15	16.46	43.39	401	1.08	0.71	34.30	28.60	37.10	175	1.08	0.44

Table 2 (*Continued*)

	UK						US					
1	8.50	4.50	87.00	177	10.24	10.69*	13.00	21.60	65.40	292	5.03	10.11*
2	26.10	22.70	51.20	176	1.96	3.79*	23.30	23.70	52.90	287	2.27	5.74*
3	13.20	22.40	64.40	174	4.88	7.67*	37.30	32.20	30.40	273	0.81	−1.40
4	14.50	15.60	69.90	179	4.82	8.07*	30.40	23.90	45.70	289	1.50	2.97*
5	29.80	26.40	43.80	178	1.47	2.18*	18.30	19.40	62.30	289	3.40	8.32*
6	87.70	3.40	8.90	179	0.10	−10.73*	55.60	9.00	35.50	288	0.64	−3.58*
7	86.90	10.70	2.40	168	0.03	−11.59*	81.50	15.30	3.20	249	0.04	−13.42*
8	43.80	32.60	23.60	178	0.54	−3.28*	34.70	38.00	27.30	271	0.79	−1.54
9	36.00	22.50	41.50	178	1.15	0.83	40.90	28.60	30.50	269	0.75	−2.02*
10	68.70	7.30	24.00	179	0.35	−6.21*	57.00	12.60	30.30	277	0.53	−4.76*
11	35.20	26.30	38.50	179	1.09	0.51	25.30	32.70	42.00	281	1.66	3.42*
12	44.70	15.10	40.20	179	0.90	−0.65	36.90	17.50	45.60	274	1.24	1.59
13	11.20	8.40	80.40	178	7.18	9.65*	38.10	19.40	42.40	278	1.11	0.80
14	5.00	6.10	88.90	179	17.78	11.58*	14.90	13.80	71.30	275	4.79	10.07*
15	83.20	12.30	4.50	179	0.05	−11.24*	74.40	17.40	8.20	281	0.11	−12.21*
16	5.60	6.10	88.30	179	15.77	11.42*	7.00	13.20	79.80	258	11.4	12.56*
17	54.80	22.00	23.20	177	0.42	−4.76*	55.90	16.70	27.40	281	0.49	−5.23*
18	12.30	20.70	67.00	179	5.45	8.22*	10.60	23.00	66.40	283	6.26	10.70*
19	11.80	14.00	74.20	178	6.29	8.97*	16.40	16.00	67.60	250	4.12	8.83*
20	8.90	4.50	86.60	179	9.73	10.64*	14.70	10.50	74.70	285	5.08	10.71*
21	54.30	24.00	21.70	175	0.40	−4.95*	47.20	24.50	28.40	278	0.60	−3.59*
22	68.70	11.20	20.10	179	0.29	−6.90*	41.50	18.80	39.70	282	0.96	−0.33
23	26.30	10.10	63.60	179	2.42	5.26*	26.10	13.70	60.20	284	2.31	6.19*
24	61.20	17.40	21.40	178	0.35	−5.84*	31.20	26.60	42.20	282	1.35	2.15*
25	26.80	16.80	56.40	179	2.10	4.34*	37.20	25.60	37.20	277	1.00	0.00
26	54.50	23.90	21.60	176	0.40	−5.00*	24.00	25.10	50.90	283	2.12	5.22*

Table 2 (*Continued*)

STATEMENT	DISAGREE (percent)	NEUTRAL (percent)	AGREE (percent)	NUMBER	RATIO[a]	z-value[b]
			TR			
1	2.20	3.70	94.10	135	42.77	10.88*
2	24.40	14.10	61.50	135	2.52	4.65*
3	19.10	25.70	55.20	136	2.89	4.88*
4	33.30	28.10	38.60	135	1.16	0.73
5	22.20	14.10	63.70	135	2.87	5.20*
6	86.00	4.40	9.60	136	0.11	−9.11*
7	60.70	13.30	26.00	135	0.43	−4.33*
8	11.10	12.60	76.30	135	6.87	8.10*
9	27.10	21.10	51.80	133	1.91	3.21*
10	56.30	11.90	31.80	135	0.56	−3.03*
11	12.50	11.00	76.50	136	6.12	7.91*
12	49.60	19.30	31.10	135	0.63	−2.39*
13	19.30	14.10	66.60	135	3.45	5.93*
14	20.40	15.30	64.30	137	3.15	5.58*
15	78.40	14.20	7.40	134	0.09	−8.87*
16	31.60	22.10	46.30	136	1.47	1.94
17	35.00	21.90	43.10	137	1.23	1.07
18	4.40	4.40	91.20	137	20.73	10.39*
19	51.10	19.50	29.40	133	0.58	−2.79*
20	58.50	16.30	25.20	135	0.43	−4.23*
21	85.40	8.00	6.60	137	0.08	−9.61*
22	67.90	16.10	16.00	137	0.24	−6.63*
23	42.50	21.60	35.90	134	0.84	−0.87
24	27.60	22.40	50.00	134	1.81	2.94*
25	29.90	12.40	57.70	137	1.93	3.48*
26	54.20	19.80	26.00	131	0.48	−3.60*

[a] Ratio for each statement is computed as follows: number of agreeing respondents/number of disagreeing respondents.

[b] z-value is the test statistic for the hypothesis that the proportions of agreeing and disagreeing respondents for each statement are equal.

* Significant at least at 0.05.

component factor analysis on the calculated correlation matrix with VARIMAX rotation. We find that just about 11 factors out of the possible 26 explain roughly 70 percent of the variation in the responses, across countries. The reason for applying factor analysis is to "purify" the data from any possible cross effects, and the resulting potential double counting of such effects if present. We then apply hierarchical clustering to the factor scores using the minimum squared euclidian distance (MSED) method and Ward's algorithm to obtain just two groups.

For each of the five countries, the MSED creates two groups that can be considered dichotomies with regard to the perceptions expressed in the responses to the 26 statements. We arbitrarily label these two groups A and B. It just happens that in every country Group B includes a smaller number of firms than Group A. At this stage of the study, we refrain from ascribing any other characteristics to these two groups. Group results are presented in Table 3, also in Section 3.

4. Statistics

For every complex question, there is a simple answer—and it's wrong.

(H.L. Mencken)

As we state in Section 3.2, Table 2 presents basic statistics by country for each of the 26 statements, including in this a variable we call RATIO (the ratio of AGREEMENT divided by DISAGREEMENT for a given statement). Although a quick look at RATIO gives a good first indication of the extent to which there is uniformity of responses given the statement, a more accurate indicator of the extent to which there is uniformity of opinion is a z-score of the hypothesis that the percent agreeing equals the percent disagreeing with the statement. z-scores are also shown in the table, and those that are significant at the 0.05 level of error type I are "tagged" with an asterisk.[15]

Finally, the table includes a column for neutrality that indicates the extent to which CFOs are indifferent about the statement. Also, subtracting the number responding to a statement from the total number of useable survey forms[16] gives an indication about the relevance of the statement for that country.

The first remarkable observation one gleans from the table is that the US has the largest number of equal agreement to and disagreement with a statement, meaning high diversity of perception. TR and DE are next in line, each with four. HK and the UK have, each, just three such statements. Second, the most common dispersion of perception is STATEMENT 12, the cash drain of dividend payment. This we find in the HK, UK and US.

Equally interesting is the response to STATEMENT 26, the irrelevance of tax reform. The dispersion is for DE and HK, where there is only about a 3 percent difference between those agreeing with and those disagreeing with the statement. In contrast, for TR and the UK, about 54 percent disagree with the statement, and in the US, about 50 percent (almost the same proportion) *agree* with the statement. When one adds the percent of neutrality to

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[15] In the interest of uniform presentation we "stick" to 0.05 significance throughout the paper. The reader should note, however, that, a z-value, roughly, 2.86 or greater implies significance at the 0.01 error type I level.

[16] See the total number of usable responses in Section 2.

Table 3
Significant intra-country group differences

STATEMENT			1	2	3	4	5	6	7	8	9	10	11	12	13
Disagree															
DE	Difference		−54.30	10.20	−17.30	29.70	14.80	71.70	29.60	−20.60	−39.50	18.40	15.00	27.20	−68.40
	z-value		−9.90		−2.53	4.14	2.10	12.12	4.48	−3.03	−5.47	2.75	2.86	4.08	−11.36
HK	Difference		2.10	5.70	−1.60	6.60	−1.50	−14.10	−18.60	10.30	2.00	−4.30	−4.00	5.90	3.50
	z-value							−2.24	−2.76						
TR	Difference		−1.00	11.60	−28.10	5.60	−16.00	13.50	−27.90	2.70	15.80	−20.40	16.50	17.50	−2.60
	z-value				−3.57				−2.86			−2.06	2.49		
UK	Difference		−13.50	19.40	−5.50	−19.00	14.00	−0.20	−0.70	−16.30	−18.00	−2.70	−9.10	−27.50	−13.10
	z-value		−3.19	2.90		−3.55	2.02			−2.16	−2.47			−3.64	−2.74
US	Difference		−17.10	−4.50	−0.10	28.10	−6.70	54.30	21.60	−5.60	−22.00	30.10	23.10	35.50	−51.20
	z-value		−4.34			5.22		9.33	4.68		−3.81	5.18	4.56	6.32	−8.95
Neutral															
DE	Difference		−13.90	−10.10	−5.50	−7.40	−4.30	−17.20	−4.20	10.50	11.90	1.00	3.40	−3.70	−4.70
	z-value		−3.36					−5.02							
HK	Difference		−0.20	−0.20	−1.00	8.60	3.30	11.80	9.70	−7.30	−11.20	10.10	−8.80	−5.90	3.00
	z-value							2.36							
TR	Difference		0.90	−10.20	5.00	11.40	2.10	−2.20	13.70	0.60	3.80	−0.80	6.50	5.40	−1.50
	z-value								2.01						
UK	Difference		3.10	6.60	−20.30	−3.30	−5.70	−3.50	1.40	1.80	3.30	3.20	1.00	−1.90	2.80
	z-value				−3.21										
US	Difference		−16.40	−1.00	3.90	16.00	−3.40	−7.00	−17.50	0.20	1.80	−3.80	−9.20	−0.20	−3.00
	z-value		−3.40			3.21		−2.08	−4.09						
Agree															
DE	Difference		68.20	−0.20	22.80	−22.30	−10.40	−54.50	−25.30	10.10	27.60	−19.50	−18.40	−23.50	73.10
	z-value		10.66		3.13	−3.22		−10.51	−5.32		3.93	−2.68	−2.75	−4.24	10.81
HK	Difference		−1.90	−5.50	2.60	−15.20	−1.80	2.30	8.90	−3.00	9.20	−5.80	12.80	0.00	−6.50
	z-value														
TR	Difference		0.10	−1.40	23.10	−17.00	13.90	−11.30	14.20	−3.30	−19.60	21.20	−23.00	−22.90	4.10
	z-value				2.32						−1.96	2.28	−2.71	−2.48	
UK	Difference		10.40	−26.00	25.80	22.30	−8.30	3.70	−0.70	14.50	14.70	−0.50	8.10	29.40	10.30
	z-value		2.04	−3.43	3.55	3.20				2.25	1.97			3.95	
US	Difference		33.50	5.40	−3.90	−44.30	10.10	−47.40	−4.20	5.40	20.20	−26.30	−13.90	−35.30	54.20
	z-value		6.01			−7.59		−8.46	−1.99		3.77	−4.86	−2.40	−6.04	9.40

Table 3 (*Continued*)

STATEMENT		14	15	16	17	18	19	20	21	22	23	24	25	26
Disagree														
DE	Difference	−35.90	21.40	−1.60	28.10	5.80	−14.30	−6.20	4.00	39.90	−19.10	25.60	−40.90	10.00
	z-value	−7.06	3.38		3.87		−2.28			6.23	−2.71	3.51	−5.70	
HK	Difference	−5.80	−15.60	17.70	−45.40	4.00	8.70	8.90	−3.20	−17.20	4.20	−29.60	−15.90	−19.20
	z-value		−2.01	2.90	−5.56					−2.12		−3.59	−2.53	−2.45
TR	Difference	6.90	−16.60	17.70	30.20	5.80	−4.50	13.30	4.70	−14.40	10.70	16.50	3.50	15.80
	z-value		−2.02		3.17									
UK	Difference	−7.60	−10.20	−8.90	−13.00	−6.70	−17.10	−12.40	−15.00	−11.90	1.00	−28.60	4.30	−10.10
	z-value	−2.29		−2.55			−3.48	−2.87	−1.98			−3.87		
US	Difference	−10.50	19.30	2.10	9.30	−11.70	−14.30	−2.70	−5.20	12.70	−21.90	24.80	−15.20	21.00
	z-value	−2.50	3.76			−3.24	−3.22			2.20	−4.25	4.59	−2.68	4.21
Neutral														
DE	Difference	−16.00	−1.00	4.90	6.10	1.40	6.90	2.50	−3.00	−8.40	10.40	−4.50	14.80	1.00
	z-value	−3.55									1.99		2.34	
HK	Difference	−3.70	17.20	1.60	7.30	2.70	8.80	0.90	−4.40	2.20	3.70	12.30	−7.40	0.80
	z-value		2.37											
TR	Difference	4.20	10.70	1.10	−7.10	1.80	−6.20	−6.50	−1.40	1.10	7.90	−6.50	−11.60	2.20
	z-value													
UK	Difference	−1.10	2.50	1.30	11.40	−13.20	0.60	5.30	6.00	7.50	5.60	3.90	−8.30	9.30
	z-value					−2.15								
US	Difference	−5.10	−12.70	−13.20	−12.30	−5.90	−11.70	1.00	−8.20	−9.40	−4.70	7.90	−4.70	0.20
	z-value		−2.85	−3.25	−2.81		−2.68			−2.05				
Agree														
DE	Difference	51.90	−20.40	−3.30	−34.20	−7.20	7.30	3.80	−1.00	−31.60	8.70	−21.10	26.20	−11.00
	z-value	8.22	−4.53		−5.81					−6.22		−3.38	3.71	
HK	Difference	9.50	−1.60	−19.30	38.10	−6.70	−17.50	−9.80	7.60	15.00	−7.90	17.30	23.30	18.40
	z-value			−2.45	5.10		−2.16			2.36		2.60	2.85	2.31
TR	Difference	−11.10	5.90	−18.80	−23.10	−7.60	10.70	−6.80	−3.30	13.30	−18.60	−10.00	8.10	−18.00
	z-value				−2.33									−2.06
UK	Difference	8.70	7.70	7.60	1.60	19.90	16.50	7.10	9.00	4.40	−6.60	24.70	4.00	0.80
	z-value		2.44			2.79	2.48					3.98		
US	Difference	15.60	−6.60	11.00	2.90	17.60	26.00	1.60	13.50	−3.40	26.50	−32.70	20.10	−21.20
	z-value	2.93	−2.05	2.31		3.18	4.68		2.56		4.62	−5.64	3.56	−3.62

either of the majority disagreeing with/agreeing with the statement, respectively, we have an overwhelming one-way majority of opposing perceptions.

Taxes, as we mentioned in the introduction to this paper, were one of the most popular rational explanations of dividends. Unfortunately, the tax rationale could not be verified by empiricism, however, sophisticated that empiricism might have been (Kalay and Michaely, 2000). What we find here is a good indication why it has been so. Unless one assumes that CFOs are habitual liars, one does not have to verify with a theoretical model that there is a tax rationale, if the financial decision maker says there is, or there is none. The tax issue is a fascinating one when one also considers the divergence of tax laws concerning dividends in these countries. We will discuss in more detail these institutional/structural dissimilarities and juxtapose them with prevailing perceptions later in the paper.

A few words must also be said about neutrality. If one accepts an arbitrary figure, say, 25 percent and above for which neutrality is meaningful, then we find responses in HK exceeding this mark for 12 statements (2, 3, 5, 8, 9, 15, 17, 21, 23–26). Next in line is the US with seven such statements, then the UK with three, and, finally, DE and TR, with two each. The most common statement of high neutrality is 3 (DE, HK, TR, US) concerning institutional preferences. Other common neutralities are statement 4, also concerning institutional ownership (DE and TR), 8, publicity (UK and US), and 24–26, the effect of dividends on the balance sheet, the "money talks!" argument, and the importance of tax reform (HK and US). Formal tests of country differences follow in Section 4.

Because our aim is to study intra-country differences in perceptions as well, we separate in each country the responses by MSED we describe in Section 2. We obtain two groups which we call, arbitrarily, Group A and Group B. We report intra-country differences in Table 3.

The table is organized in three major blocks of five rows each, corresponding to DIS-AGREEMENT, NEUTRALITY, and AGREEMENT for each of the five countries. Each row shows the difference, given the country, between Group A and Group B firms regarding disagreement, neutrality, and agreement. Thus, a negative number means that the percent found for Group B is higher than that of Group A. We also show in the bottom part of a row the z-statistic that is significant at the 0.05 level.[17] The columns in the table correspond to the 26 statements. The z-statistics is defined as:[18]

$$z = \frac{p_1 - p_2}{\sqrt{((p_C(1 - p_C))/n_1) + ((p_C(1 - p_C))/n_2)}}$$

where p_1 is the proportions of disagree, neutral and agree, respectively, from Group A, p_2 the proportions of disagree, neutral and agree, respectively, from Group B, n_1 the number of Group A responses, n_2 the number of Group B responses, and p_C the $(x_1 + x_2)/(n_1 + n_2)$, where x_1 and x_2 are the number of disagree, neutral and agree from Groups A and B, respectively.

We may start interpreting the table with NEUTRALITY because the differences between the two groups in every country are the least significant with respect to NEUTRALITY. Again, the US leads with nine statements (1, 4, 6, 7, 15–17, 19, and 22). Next are DE with

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[17] z-statistics that are not significant at 0.05 are not shown. We omit these for the sake of better visual presentation, a compromise to save extra table space.

[18] Mason et al. (1999), pp. 329–330).

five (1, 6, 14, 23, 25), HK and the UK with two each (6, and 15, and 3 and 18, respectively), and TR with just one (7). One must keep in mind, however, that in this case significance means *separation*, something we expect from the grouping algorithm to generate.

When we come to DISAGREEMENT and AGREEMENT, the picture we get is generally (but not exclusively) mirror image.[19] That is, when DISAGREEMENT group differences, given the statement and the country, are significant, AGREEMENT group differences are significant as well. The most marked separation is with the three market economies where DISAGREEMENT (AGREEMENT) is for DE 20 (16), US 18 (19), and the UK 14 (11) out of the possible 26 statements. A first guess at this stage of the analysis might be the influence of business schools in these countries where the education of management cadres started before, in the less developed countries, enough time was given to graduates of these schools to bubble up to the top.

One must pay attention to the sign of the group difference, too. A negative sign in either case of DISAGREEMENT/AGREEMENT means that Group B firms disagree more with/agree more to the statement. For instance, for statement 1, stockholders' love of dividends, a statement that gets a high percent disagreement in *all* of the five countries, and equivalently, statement 6 which is basically the opposite of statement 1 (checking for consistency of responses), Group B firms markedly differ from Group A firms which express the more traditional view.

Our purpose is to test, formally, with a single statistical model the hypotheses we state in Section 2. The description of the method of analysis, results, and the interpretation of the results are the subject of Section 5.

5. Tests, results, and interpretations

When you know what you are looking for you find no more than what you know. (Unknown)

5.1. Tests

Consider the following linear model:

$$y_{ijk} = \mu + \gamma_i + \delta_j + \gamma_i \delta_j + e_{ijk} \tag{1}$$

where y_{ijk} is the kth observation $k = 1, 2, 1206$, in the jth group, $j = 1, 2$, in the ith country $i = 1, 2, \ldots, 5$, μ the intercept, γ_i the country effect, δ_j the group effect, $\gamma_i \delta_j$ the interaction between country and group, and e_{ij} the random disturbance.

The model in Eq. (1) is an analysis of variance (ANOVA), factorial design, with unequal observations/cell, and heteroskedastic variances. Factor one is COUNTRY with five levels, factor two is GROUP with two levels, and the random disturbance is assumed to be distributed with an expected value of zero and unequal variances. We select this model because of its relative simplicity and because we are studying a numerical dependent variable

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[19] The most eye-catching exceptions are HK and TR. For both countries, the group separation is very weak for reasons that are not entirely clear.

(the transformed scores) that, we surmise, is a function of two categorical (qualitative), independent variables. We fully recognize that the normality assumption of ANOVA might be violated, yet any other formal parametric model would be subject to the same violation and would require more assumptions, which also might be invalid. Thus, applying Occam's razor, we conclude that this is the optimal model, considering other alternatives.

We fit the model of Eq. (1) to each of the 26 survey statements. The ANOVA enables us to infer, for each statement, the significance of each factor, separately, and the interaction between the two factors (that is, the specific combination of country and grouping). The 26 ANOVAs yield significant results with few exceptions.[20] Although the F statistic for the model in Eq. (1) is significant for each statement at the 0.05 or higher level, the group effect is not significant for statements 2, 5, 7, 15–18, 20, 22, and 23. The interaction effect is not significant at the 0.05 level for statements 2, 8, 20, and 21.[21]

Significance of the F-test verifies only that at least one effect at one level explains part of the relationship. To learn more about the specific relationships, we turn to Scheffé (1999) contrasts. The contrasts test pair-wise differences for all levels of the independent variables. Accordingly, one can study for what specific level of the categorical variables the relationship is functionally significant. We first show in Table 4 these contrasts for COUNTRY, holding the other independent variable constant.

The table is organized in two panels. Panel A is the 10 possible pairings of the five countries. Panel B is just a cutout of panel A for an easier comparison of the three market economies. The column headings are the statement numbers (with the exception of row labels), and the values are mean pair-wise differences. We tag with an asterisk all differences that are significant at the 0.05 level or higher.

A perfunctory review of the table shows that there is not a single statement for which there was not at least one pair-wise difference. The fewest differences (3) we find for statements 5 (diffusion of ownership) and 14 (signal well being with dividends). The highest number of country differences is for statements 8 (publicity), 18 (the institutional investors' knowledge of the effect of dividends on the stock price), and 23 (stockholders' trading habits). The most frequent number of differences is six out of the possible ten country pairings, which makes country/culture quite a strong separator of perception.

But when we look at the three countries of Panel B that, according to all logic, should be quite similar in perception for several reasons (common language in two, intertwined economic history and evolution, inter-country shareholdings, etc.), we find insignificant differences for only four statements: 7 (stock dividend as an alternative—shareholders' sophistication), 16 (long-term maintenance of a dividend increase—"anti-signaling" with dividends), 19 and 20 (dividend continuity—Lintner, 1956).

The model of Eq. (1) is also attractive because applying Scheffé's contrasts to intra-country differences makes the tests of Hypotheses 2 and 3 possible. We show these contrasts in Table 5.

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[20] Detailed results are not presented here, because of their immense volume and because there are only a few exceptions to report about these in general, which we do in the text. The authors of the study will share, on request, all the outputs of these ANOVAs.

[21] Statement 2 (stockholders' preference for stock dividends) would be significant at the 0.10 for both group and interaction, however.

Table 4
Scheffe's contrasts—inter country mean differences

STATEMENT		1	2	3	4	5	6	7	8	9	10	11	12	13
Panel A: comparison of all five countries														
DE	HK	−0.04	−0.66*	−0.29	−0.63*	−0.24	−0.37*	−0.43*	−0.04	−0.29*	0.74*	0.44*	−0.96*	0.02
	TR	−0.30*	−0.79*	−0.27	−0.19	−0.40*	−0.18	−0.67*	−0.53*	−0.37*	0.71*	0.19	−0.69*	0.13
	UK	0.05	−0.63*	−0.38*	−0.71*	−0.06	−0.22	0.01	0.43*	−0.12*	0.83*	0.84*	−0.84*	−0.01
	US	0.36*	−0.69*	0.23	−0.24	−0.45*	−0.83*	0.14	0.40*	0.05	0.82*	0.72*	−1.08*	0.73*
HK	TR	−0.26	−0.13	0.02	0.44*	−0.17	0.19	−0.24	−0.49*	−0.08	−0.04	−0.25	0.27	0.11
	UK	0.09	0.04	−0.08	−0.08	0.18	0.15	0.44*	0.47*	0.17	0.08	0.40*	0.12	−0.03
	US	0.40*	−0.03	0.53*	0.39*	−0.21	−0.46*	0.57*	0.44*	0.34*	0.07	0.27	−0.12	0.71*
TR	UK	0.36*	0.17	−0.10	−0.52*	0.35	−0.04	0.68*	0.97*	0.24	0.12	0.65*	−0.16	−0.14
	US	0.66*	0.10	0.51*	−0.06	−0.04	−0.65*	0.81*	0.93*	0.42*	0.11	0.53*	−0.39*	0.60*
UK	US	0.31*	−0.07	0.61*	0.47*	−0.39*	−0.61*	0.13	−0.03	0.17	−0.01	−0.12	−0.23	0.74*
Panel B: comparison of three market economies														
DE	UK	0.05	−0.63*	−0.38*	−0.71*	−0.06	−0.22	0.01	0.43*	−0.12*	0.83*	0.84*	−0.84*	−0.01
	US	0.36*	−0.69*	0.23	−0.24	−0.45*	−0.83*	0.14	0.40*	0.05	0.82*	0.72*	−1.08*	0.73*
UK	US	0.31*	−0.07	0.61*	0.47*	−0.39*	−0.61*	0.13	−0.03	0.17	−0.01	−0.12	−0.23	0.74*

		14	15	16	17	18	19	20	21	22	23	24	25	26
Panel A: comparison of all five countries														
DE	HK	0.30*	−0.60*	0.41*	−0.55*	0.38*	0.16	0.42*	−0.37*	−0.74*	−0.77*	−0.36*	−0.55*	−0.04
	TR	0.49*	−0.28*	0.80*	−0.71*	0.32*	0.77*	1.15*	0.08	−0.49*	−0.71*	−0.80*	−0.48*	0.42*
	UK	0.18	−0.36*	0.00	−0.32*	0.78*	−0.21	−0.02	−0.64*	−0.66*	−1.17*	−0.22	−0.40*	0.30
	US	0.34*	−0.26*	0.01	−0.27*	0.67*	−0.11	0.06	−0.60*	−1.04*	−1.18*	−0.71*	−0.12	−0.27
HK	TR	0.19	0.32*	0.39*	−0.16	−0.06	0.61*	0.73*	0.44*	0.25	0.06	−0.43*	0.07	0.46*
	UK	−0.13	0.24	−0.40*	0.23	0.40*	−0.37*	−0.44*	−0.28	0.08	−0.40*	0.14	0.15	0.34
	US	0.04	0.34*	−0.40*	0.28	0.30*	−0.27	−0.36*	−0.24	−0.30*	−0.41*	−0.35*	0.43*	−0.22
TR	UK	−0.32	−0.08	−0.79*	0.38*	0.46*	−0.98*	−1.16*	−0.72*	−0.17	0.46*	0.58*	0.07	−0.12
	US	−0.15	0.03	−0.79*	0.44*	0.36*	−0.88*	−1.08*	−0.68*	−0.55*	−0.47*	0.09	0.35*	−0.68*
UK	US	0.17	0.10	0.01	0.05	−0.11	0.10	0.08	0.04	−0.38*	−0.01	−0.49*	0.28	−0.57*
Panel B: comparison of three market economies														
DE	UK	0.18	−0.36*	0.00	−0.32*	0.78*	−0.21	−0.02	−0.64*	−0.66*	−1.17*	−0.22	−0.40*	0.30
	US	0.34*	−0.26*	0.01	−0.27*	0.67*	−0.11	0.06	−0.60*	−1.04*	−1.18*	−0.71*	−0.12	−0.27
UK	US	0.17	0.10	0.01	0.05	−0.11	0.10	0.08	0.04	−0.38*	−0.01	−0.49*	0.28	−0.57*

* Significant at least at 0.05.

Table 5
Scheffe's contrasts for all possible country*group combinations—26 statements

Group	STATEMENT #1				STATEMENT #2				STATEMENT #3				STATEMENT #4				STATEMENT #5			
	HK	TR	UK	US	HK	TR	UK	US	HK	TR	UK	US	HK	TR	UK	US	HK	TR	UK	US
DE-A	0.24	−0.03	0.18	0.28	−0.65*	−0.77*	−0.47	−0.78*	−0.21	−0.32	−0.45	0.37	−0.68*	−0.18	−1.00*	0.07	−0.29	−0.56*	−0.02	−0.60*
DE-B	−1.89†	−2.14†	−1.56†	−1 04†	−0 61	−0 81	−0.73	−0.48	−0 87	−0 43	−0 74	−0.42	−0.04	0.17	0 29	0 00	0 15	0.30	0.22	0 07
HK-A		−0.27	−0.06	0 04		−0 12	0.18	−0.13		−0 11	−0 24	0.58†		0.49	−0.33	0 75†		−0.27	0.27	−0 31
HK-B		−0.25	−0.33	−0.85*		−0.20	−0 12	0.12		0.44	0.13	0.45		0.21	0.33	0.04		0.16	0 07	−0 07
TR-A			0.21	0 31			0.29	−0.01			−0 13	0.69†			−0 82†	0 25			0.54	−0 04
TR-B			0.58	1.10*			0.08	0.32			−0.31	0.01			0.12	−0.17			−0.08	−0.23
UK-A				0 10				−0.30				0.82†				1 07†				−0 58
UK-B				0 52				0.24				0.32				−0 29				−0 15

Group	STATEMENT #6				STATEMENT #7				STATEMENT #8				STATEMENT #9				STATEMENT #10			
	HK	TR	UK	US	HK	TR	UK	US	HK	TR	UK	US	HK	TR	UK	US	HK	TR	UK	US
DE-A	−0.75*	−0.40	−0.54*	−0.40*	−0.62*	−0.94*	−0.06	0.24	0.06	−0.47	0.40	0.42*	−0.18	−0.17	−0.11	−0.03	0.67*	0.55*	0.76*	1.11*
DE-B	1.86†	1.59†	1.85†	0 36	0 51	0 56	0.70	0.60	−0 55	−0.97†	0 13	0.02	−1.12†	−1.46†	−0 84†	−0 55	1 27†	1.50†	1.36†	0 89†
HK-A		0.35	0.21	0 35		−0 31	0.56*	0.86*		−0 53	0 35	0.36		0.01	0 07	0 15		−0.12	0.09	0 44
HK-B		−0.27	−0.01	−1.50*		0.05	0.19	0.09		−0.42	0.68	0.57		−0.34	0.28	0.57		0.23	0.08	−0.38
TR-A			−0.14	0 00			0.87†	1.17†			0 87†	0.89†			0 06	0 13			0.21	0 56
TR-B			0.26	−1.24*			0.14	0.04			1.10*	0.99*			0.62	0.91*			−0.15	−0.61
UK-A				0 14				0.30				0.30				0 08				0 35
UK-B				−1 49†				−0.10				−0.10				−0.11				−0 46

Group	STATEMENT #11				STATEMENT #12				STATEMENT #13				STATEMENT #14				STATEMENT #15			
	HK	TR	UK	US	HK	TR	UK	US	HK	TR	UK	US	HK	TR	UK	US	HK	TR	UK	US
DE-A	0.29	0.22	0.69*	0.82*	−1.08*	−0.67*	−1.22*	−0.79*	0.36	0.44	0.16	0.40*	0.48*	0.72*	0.30	0.37*	−0.70*	−0.44*	−0.53*	−0.12
DE-B	1.19†	0.42	1.54†	1 09†	−0 20	−0 33	0.27	−0.86†	−2 10†	−1 94†	−1 85†	−0.49	−1.02†	−0.98†	−1 08†	−0 81†	−0 05	0.46	0.26	−0 02
HK-A		−0.07	0.39	0.53*		0.41	−0.14	0.29		0.08	−0.20	0.04		0.24	−0.19	−0.11		0.26	0.17	0.57*
HK-B		−0.77	0.35	−0.10		−0.13	0.47	−0.66		0.16	0.25	1.61*		0.05	−0.06	0.21		0.52	0.32	0.04
TR-A			0.47	0 60†			−0.55	−0.12			−0 28	−0.04			−0 43	−0 35			−0.09	0 32
TR-B			1.12*	0.67			0.60	−0.53			0.08	1.45*			−0.11	0.17			−0.20	−0.48
UK-A				0 13				0.43				0.24				0 08				0 40
UK-B				−0.45				−1.13*				1.36*				0.27				−0.28

Table 5 (*Continued*)

Group	STATEMENT #16				STATEMENT #17				STATEMENT #18				STATEMENT #19				STATEMENT #20			
	HK	TR	UK	US	HK	TR	UK	US	HK	TR	UK	US	HK	TR	UK	US	HK	TR	UK	US
DE-A	0.51*	0.88*	−0.07	−0.11	−0.92*	−0.67*	−0.50*	−0.33	0.37*	0.32	0.62*	0.47*	0.27	0.79*	−0.34	−0.32	0.44*	1.19*	−0.12	0.03
DE-B	0.16	0.56	0.13	0.21	0.84*	−0.42	0.53	0.43	0.60	0.48	1.26*	1.17*	−0.33	0.53	−0.29	−0.05	0.30	0.94*	0.06	0.03
HK-A		0.36	−0.59*	−0.63*		0.26	0.42	0.59*		−0.05	0.25	0.11		0.51	−0.61*	−0.60*		0.75*	−0.56*	−0.41
HK-B		0.40	−0.03	0.05		−1.26*	−0.31	−0.41		−0.12	0.66*	0.57*		0.86	0.04	0.28		0.64	−0.25	−0.28
TR-A			−0.95*	−0.99*			0.16	0.33			0.30	0.16			−1.12*	−1.11*			−1.32*	−1.17*
TR-B			−0.43	−0.35			0.96*	0.86*			0.78*	0.69*			−0.82	−0.58			−0.88*	−0.91*
UK-A				−0.04				0.17				−0.15				0.01				0.15
UK-B				0.08				−0.10				−0.09				0.24				−0.03

Group	STATEMENT #21				STATEMENT #22				STATEMENT #23				STATEMENT #24				STATEMENT #25			
	HK	TR	UK	US	HK	TR	UK	US	HK	TR	UK	US	HK	TR	UK	US	HK	TR	UK	US
DE-A	−0.39	0.09	−0.70*	−0.64*	−1.01*	−0.73*	−0.88*	−1.09*	−0.65*	−0.53*	−1.04*	−1.35*	−0.58*	−0.81*	−0.52*	−0.45*	−0.51*	−0.34	−0.30	−0.17
DE-B	−0.39	−0.05	−0.66	−0.67*	0.62	0.85	0.50	−0.11	−1.38*	−1.54*	−1.75*	−1.39*	0.56	−0.43	0.68	−0.55	−1.30*	−1.44*	−1.35*	−0.88*
HK-A		0.48	−0.31	−0.25		0.28	0.13	−0.07		0.12	−0.39	−0.70*		−0.23	0.06	0.13		0.17	0.21	0.34
HK-B		0.34	−0.27	−0.28		0.24	−0.12	−0.73*		−0.16	−0.37	−0.02		−0.99*	0.12	−1.11*		−0.15	−0.05	0.42
TR-A			−0.80*	−0.73*			−0.15	−0.36			−0.51	−0.82*			0.29	0.36			0.04	0.17
TR-B			−0.61	−0.62			−0.35	−0.96*			−0.22	0.14			1.11*	−0.12			0.10	0.57
UK-A				0.06				−0.21				−0.31				0.07				0.13
UK-B				−0.01				−0.61*				0.36				−1.23*				0.47

Group	STATEMENT #26			
	HK	TR	UK	US
DE-A	−0.21	0.45	0.19	−0.07
DE-B	0.60	0.52	0.75	−0.20
HK-A		0.66*	0.40	0.14
HK-B		−0.08	0.15	−0.80*
TR-A			−0.26	−0.52
TR-B			0.23	−0.72
UK-A				−0.26
UK-B				−0.95*

* Marks significance at the 0.05 level of Error Type I.

The table is constructed of six blocks, each block containing Scheffé's contrasts for five statements (with the exception of the last block that contains the contrasts for one statement only), to show all 26 statements of the survey. For each statement, the column headings correspond to four countries: HK, TR, UK, and US. In each block, there are eight rows, corresponding to Group A and Group B, respectively, for four countries: DE, HK, TR, and UK. The figures in the table are contrasts calculated for the difference between the same group A or B in every possible country pairing. Contrasts that are significant at the 0.05 level are tagged with asterisks.

For instance, for statement 1, DE's Group A is not different than any other country's Group A. In disparity, DE's Group B is significantly different than any other Group B for the very same statement.

To find the contrasts for another country, say TR, in the same statement, one goes down the column labeled TR to reach the rows marked TR, and turn east (considering the top as north). For improved visualization, we slightly shaded all A rows in all blocks. Accordingly, we see that TR's Group A as not different than any other country's Group A. But TR's Group B is different than Group B for DE and the US.

5.2. Results

It seems that Hypotheses #1 and #2 cannot be rejected, but that Hypothesis #3 can be rejected. Still, we would be remiss not to discuss in some detail what the acceptances and the rejection mean in light of the relative (economic) significance of a specific statement. Although all statements reflect on perception and understanding of dividends by executives, not every statement is equally important in determining the dividend policy of the firm. For example, STATEMENT 1 is far more important as policy making goes than, say, statement 3, which reflects what executives think about the understanding of the professional investor, or statement 23, which concerns the trading habits of the firm's shareholders.

Consequently, one would be interested to know the degree of separation between the two groups and what differences of perception exist with regard to what statements. The discussion of the results in this subsection, therefore, is about two separate issues. One is homogeneity, which deals with how well the groups *separate* across countries/culture (that is, how distinctive Group A's or Group B's are in different countries—separation/no separation). The other issue is what we call similarity/dissimilarity, which deals with differences of perception within countries, regardless of whether the categorizations into two separate groups were statistically significant.

5.2.1. Separation/no separation

There are quite a few instances where the groups do not separate across countries. That is, we find no significance in the groupings into either Group A or Group B. Nevertheless, there are significantly more separate perceptions by the two groups, given the country, meaning that either Group A or Group B is consistently separate from the other group. In Table 6, we mark with an X, by group, the statements where Scheffé's contrasts are either not significant, or just one time are significant for either Group A or Group B. For the convenience of the reader and in the interest of easy tracking, we organize the statements

Table 6
Separation/no separation

STATEMENT		Group A	Group B
1	Stockholders like to receive a regular dividend	X	
9	Dividends keep the stock price in an optimal range	X	
13	Paying dividend is necessary because of expectations	X	
25	Money talks!	X	
3	Institutions always want a cash dividend	X	X
26	Tax reform has no effect on dividend policy	X	X
2	Some stockholders prefer a stock dividend		X
4	We want a large institutional ownership		X
5	Diffused ownership is an important objective		X
7	We save cash with stock dividends		X
10	Dividends have no effect on intrinsic value of the stock		X
12	Cash dividends is a costly cash drain		X
14	Increasing cash dividends is sign of well doing		X
15	Only with increasing stock price should dividends be paid		X
16	Increase of dividends only if can be maintained		X
19	Reduction of dividends has adverse effect on stock price		X
21	Substituting a stock dividends is a bad sign		X
22	An increase of cash dividends is a bad sign		X
23	Our stockholders do not trade the stock		X
6	We do not believe stockholders want dividends		
8	Dividends are free favorable publicity		
11	Only short-term positive price reaction to dividends		
17	Private investors do not understand the economics of dividends		
18	Professionals know the effect of dividends on the stock price		
20	Once dividends started they must be continued		
24	Little or no dividends help to convert retained earnings to equity		

by group separation (Group A, Group B, and no separation), and also include a brief, edited version of the statements.

For instance, from the table, one can quickly learn that Group A firms have the same perception regarding STATEMENT 1 (stockholders like to receive a regular dividend), STATEMENT 3 (the preference for cash dividends by institutional investors—with the US being the only exception), STATEMENT 9 (dividends keep the stock price within an optimal range), STATEMENT 13 (paying cash dividends is necessary because stockholders expect it—consistent with STATEMENT 1; again, with the US being the only exception), STATEMENT 25 (money talks!—with DE being the only exception), and STATEMENT 26 (the effect of taxes—with Turkey being the only exception).

Group B firms show much more separation (from Group A) across cultures. There are no exceptions for STATEMENT 2 (preference for a stock dividend instead of a cash dividend), STATEMENT 3 (see above), STATEMENT 4 (preference for institutional ownership), STATEMENT 5 (more diffused ownership), STATEMENT 7 (stock dividend as substitute for cash dividend), STATEMENT 15 (increasing dividends as a function of increasing stock price), STATEMENT 16 (increase dividends only if it can be maintained for the long-term), and STATEMENT 19 (the adverse effect on the stock price of a reduction of cash dividends).

For Group B firms, there is just one exception for STATEMENT 10 (dividends and intrinsic value—DE being the exception), STATEMENT 12 (paying cash dividend is a costly drain—the US being the exception), STATEMENT 14 (increasing dividends is a good sign—DE being the exception), STATEMENT 21 (substitution of a stock dividend for a cash dividend—the US being the exception), STATEMENT 22 (increasing cash dividends as a sign that the firm has nothing better to do—the US being the exception), STATEMENT 23 (stockholders trading habit—DE being the exception), STATEMENT 25 (money talks!—DE being the exception), and STATEMENT 26 (see above). In all these cases, the exception is either DE or the US. All in all, Group B firms separate in perceptions for 15 of the possible 26 statements. This is a remarkable showing of the grouping algorithm that has no "prior knowledge" of who it is grouping. But perhaps we can learn more about the characteristics of Group B by creating a "profile" from their responses to these 15 statements, vis-à-vis Group A firms.

Looking at group results for Group B firms where these firms' contrasts were not statistically significantly different than zero, i.e. there is more separation of perception than for Group A firms, it seems that Group B firms tend to agree more with (less disagree with) the statements that some stockholders would like to receive a stock dividend, would like to see a higher level of institutional ownership, and feel that an increase in dividends should be maintained for the long-term. Group B firms tend to disagree with statements that a stock dividend should be substituted for a cash dividend, that dividends should be increased only with an increase in stock price, that an increase in cash dividends is a bad sign, and, consistently, that it would mean that the firm has nothing better to do with cash. With respect to the other statements for which we found no separation, the agreement/disagreement is mixed, meaning that there is no clear majority of perceptions.

5.2.2. Similarity/dissimilarity

It would be equally interesting, and perhaps more informative, to look at the similarities and dissimilarities between the two groups across cultures. Although one may find that neither of the two groups separates well, the perception in both, nevertheless, can be said, on average, to be either similar or dissimilar.

In Table 7, we present weighted group averages of DISAGREE (D), NEUTRAL (N), and AGREE (A) for each statement. Again, for easy visual comparison, the statements are grouped as they were in Table 6. Table 8 is a 2 × 2 table that supplements Tables 6 and 7. It categorizes the 26 statements by statement number in terms of separation/no separation and similarity/dissimilarity. We consider similarity categorization if, from Table 3, not more than one country pair's difference in disagreement/agreement is found at the 0.05 level of significance. The row and column totals in Table 8, naturally, add up to 26.

The strongest case of universality is found in the No Separation/Similarity quadrant of the table. That is, the universal belief is that professionals know the effect of dividends on the stock price (18—more than 70 percent), and that once dividends started they must be continued (20—about 67 percent). Also, not as strong, but still homogeneous, is the belief that dividends are free publicity (8).

The juxtaposition to this category is the Separation/Dissimilarity quadrant. Cross-checking percentages from Table 7, we find that Group A executives believe more strongly than Group B executives do that stockholders love dividends (1–86.10 percent versus 60.70 percent),

Table 7
Group Averages

Group	STATEMENT #1			STATEMENT #9			STATEMENT #13			STATEMENT #25			STATEMENT #3			STATEMENT #26			STATEMENT #2		
	D	N	A	D	N	A	D	N	A	D	N	A	D	N	A	D	N	A	D	N	A
A	6.40	7.50	86.10	31.20	26.50	42.30	12.80	12.50	74.70	29.20	21.70	49.10	23.90	26.30	49.80	41.20	21.80	37.00	35.90	22.90	41.10
B	22.50	16.80	60.70	46.20	25.20	28.60	44.80	15.20	40.00	41.10	23.90	35.00	30.90	30.60	38.50	33.90	21.90	44.10	22.80	25.40	51.80

Group	STATEMENT #4			STATEMENT #5			STATEMENT #7			STATEMENT #10			STATEMENT #12			STATEMENT #14			STATEMENT #15		
	D	N	A	D	N	A	D	N	A	D	N	A	D	N	A	D	N	A	D	N	A
A	33.70	26.40	39.90	27.80	20.10	52.10	76.50	13.60	9.90	50.30	12.90	36.80	57.60	15.50	26.90	10.20	10.40	79.30	76.30	16.40	7.30
B	17.60	19.40	63.00	22.60	23.20	54.10	74.60	15.10	10.30	49.70	10.80	39.50	36.10	18.20	45.80	20.80	15.40	63.90	73.00	16.60	10.40

Group	STATEMENT #16			STATEMENT #19			STATEMENT #21			STATEMENT #22			STATEMENT #23			STATEMENT #6			STATEMENT #8		
	D	N	A	D	N	A	D	N	A	D	N	A	D	N	A	D	N	A	D	N	A
A	15.20	13.20	71.60	21.60	15.90	62.40	62.20	21.50	16.30	66.00	14.30	19.60	43.90	17.30	38.80	85.60	5.30	9.10	26.40	28.20	45.40
B	9.60	14.60	75.80	27.80	17.10	55.20	60.60	24.80	14.50	54.30	18.10	27.60	41.50	13.50	45.00	52.80	10.10	37.10	35.20	31.50	33.30

Group	STATEMENT #11			STATEMENT #17			STATEMENT #18			STATEMENT #20			STATEMENT #24		
	D	N	A	D	N	A	D	N	A	D	N	A	D	N	A
A	21.90	19.30	58.90	52.30	21.90	25.80	5.90	11.50	82.60	22.90	11.00	66.20	48.70	23.90	27.40
B	16.80	26.50	56.60	50.80	21.00	28.20	9.90	18.70	71.30	21.60	9.40	69.00	40.60	21.50	37.90

Table 8
Statements by group separation and significant differences

	Group differences		Total
	Similarity	Dissimilarity	
Group separation			
Seperation	2, 5, 21, 23	1, 3, 4, 7, 9, 10,12, 13, 14, 15, 16, 19, 22, 25, 26	19
No seperation	8, 18, 20	6, 11, 17, 24	7
Total	7	19	26

that institutions always prefer a cash dividend (3–49.80 percent versus 38.50 percent), that dividends support the stock price (9–42.30 percent versus 28.60 percent), that paying cash dividends is necessary because stockholders expect it (13–74.70 percent versus 40.00 percent), that an increase of dividends is a good sign (14–79.30 percent versus 63.90 percent), that any reduction of cash dividends would adversely affect the stock price (19–62.40 percent versus 55.20 percent), and that money talks! (25–49.10 percent versus 35.00 percent).

Group A firms disagree more than Group B firms with statements that they want a large institutional ownership (4–3.70 percent versus 17.60 percent), that a stock dividend is a means to save cash (7–76.50 percent versus 74.60 percent), that dividends have no effect on intrinsic value (10–50.30 percent versus 49.70 percent), that a cash dividend is a costly cash drain (12–57.60 percent versus 36.10 percent), that only with increasing stock price should dividends be paid (15–76.30 percent versus 73.00 percent), that dividends should be increased only if they can be maintained on the long-term (16–15.20 percent versus 9.60 percent), that an increase of cash dividend is a bad sign (22–66.00 percent versus 54.30 percent), and that a tax reform would affect dividend policy (26–41.20 percent versus 33.90 percent).

The results are "fuzzy" with regard to eight statements that fall in the separation/similarity quadrant (four statements), and no separation/dissimilarity quadrant (four statements). This is so, because either we do not have group separation, or, if we do have, we do not have a difference in perception. The most peculiar of these statements is 6, the reverse of STATE-MENT 1, and it should have fallen in the Separation/Dissimilarity quadrant. We discuss this oddity a bit later.

We remind the reader that, although some of the percentages for the two groups quoted above seem not that far apart, the figures are averages, and pair-wise group differences are subject to the z-test described in the previous section. Thus, they may or may not show significance according to the test's criteria.

We may also conclude that, *ceteris paribus*, Group A firms are more determined to pay dividends, come hell or high water, than Group B firms, and that Group A firms consider dividends more value-enhancing than do their counterpart B firms.

5.3. Taxes: a puzzle within the puzzle

As mentioned earlier in this paper, the tax explanation is one of the primary rationalizations for the dividend and its empirical research objective. In light of the results we find for

STATEMENT 26, it would be useful to take a closer look at the taxation of dividends in the five countries cited in this paper and point out certain economic rationalities (or the lack thereof). We will start with a synopsis of tax laws in each country and proceed from there to a discussion of what the survey results show.

DE: The German tax reform that became partially effective on 1 January 2001, brought substantial changes in the taxation of dividends. The corporate tax rate has been reduced from 40 percent on retained earnings and from 30 percent for distributed dividends to a uniform 25 percent for both categories. The other major change that affects dividend taxation was replacement of the *Anrechnungsverfahren* with the *Halbeinkünfteverfahren*. Under the *Anrechnungsverfahren*, enacted in 1977, the corporate tax on dividends accounted for the income tax. This was the way to avoid double-taxation of the firm's dividends at the company's level and the investor's level. If a firm paid dividends, the dividends were taxed at the rate of 30 percent at the firm. The recipient of the dividend declared on his/her annual tax return the gross dividend as income and claimed as a tax credit the tax paid on dividends by the firm. So, the dividend was taxed, one time, with the personal income tax of the investor. Capital gains were not taxed, if the stock was held for a period exceeding one year. Under the new law, *Halbeinkünfteverfahren*, dividends are subject to a flat rate of 25 percent at the firm. There is no tax credit. The total tax burden is the corporate tax on the gross dividend, plus the investor's income tax on the half of the residual paid to the shareholder. This means, *de facto*, that the shareholder subject to a personal income tax of 40 percent has the same tax burden under both regimes.[22] Shareholders with an income tax rate above 40 percent, however, pay less tax on dividends than under the old regime, and shareholders with an income tax rate below 40 percent pay more.[23] Under the old regime, there was a tax incentive to pay dividends for companies with clientele in the lower tax bracket. Under the new regime, however, these companies may consider retaining their earnings and repurchasing their shares.[24]

HK: There is no personal income tax liability on dividends and no capital gains tax on sale of shares. Firms pay dividends from after tax income.

TR: At the time of the writing of this paper, Turkish tax laws require a 30 percent tax on corporate income with an additional 10 percent levy of taxes that effectively make the flat corporate tax rate 33 percent. Dividend payments are from after-tax income. The firm is also liable to withhold 10 percent from the distributed amount of dividends. Dividends, as much as interest and rent, are subject to a personal income tax as ordinary income.

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[22] Before tax reform, the personal income tax rate ranged from 22.9 to 51 percent; after reform, from 19.9 to 48.5 percent. For the sake of simplicity, the income tax surcharge and the local business income tax are disregarded.

[23] Von Rosen (1999), p. 655. The first DM 3,000 (DM 6,000 for married couples) of dividend, interest, and related income is tax-exempt.

[24] Under the new law, the dividend is not taxed at the corporate level if the recipient is a corporation. Before tax reform, a corporation obtained a tax credit. If it paid the dividend through a shareholder, the tax and the tax credit canceled each other. If the dividend was retained, the higher tax rate on retained earnings resulted in taxes higher than the tax credit. The major difference between the two systems is the treatment of capital gains. Before the new tax law, capital gains of firms were taxed. In case a capital gain reflected retained earnings of the firm whose shares were sold, this implied double taxation. In this sense, it was more favorable for a firm to receive dividends than to realize capital gains by selling the shares. Under the new law, capital gains of firms are tax-free. Thus, the firm is indifferent with regard to dividends or capital gains.

The personal income tax rate is progressive, starting with 15 percent and increasing to 40 percent. The 40 percent ceiling is reached with incomes above TL50 billion (about US$ 32,500 at present). There is a tax credit, however, for the 10 percent withheld by the firm at the time of distribution. Individual recipients of dividends add an additional 20 percent to their dividend income to calculate their income tax liability. If total taxable income exceeds TL4.9 billion (about US$ 3200 at present), the individual pays taxes in excess of the tax refund. This is quite complicated, and the language, even for a fluent Turkish conversant, is quite difficult to understand. A numerical example might be useful here. Suppose that TL1000 are to be distributed to a shareholder. The firm withholds TL100, then the individual adds 20 percent to that, making the taxable amount TL1080. The tax then is calculated on the margin. If the tax liability of the taxpayer is for more than TL4.9 billion, tax is due in excess of the 10 percent deducted at the source of distribution. Most salaried workers do not file an individual tax return, because their employers deduct taxes for them. Capital gains from the sale of shares are not taxed if the shares were held for more than 3 months.

UK: The Finance Act 1997 (FA97) marked the beginning of the end of the imputation system that had been in operation in the UK since 1973. Before the enactment of FA97, which effectively increased tax revenues by removing certain tax rebates that had up to that time been payable in respect of dividend income, the effective tax on net dividend income was zero for basic and lower tax rate individuals (25 and 20 percent marginal tax rate, respectively), and 25 percent for higher rate individuals (Bell and Jenkinson, 2002) 40 percent marginal tax rate (Bell and Jenkinson, 2002). Non-UK investors paid either no tax on dividends, or got a 6–7 percent refund, depending on whether their respective countries had a tax treaty with the UK. Certain institutional investors, such as pension funds and pension equity plans enjoyed a 25 percent rebate that made the value of each UK£ 1.00 paid as dividends UK£ 1.25. After 7/2/1997 when FA97 became the law the immediate effect was on pension funds that lost the 25 percent rebate on dividend income. Other investors were affected by the act to no or lesser degree, or the impact of FA97 was delayed until 4 September 1999 when some of the tax credits on dividends were cut from 20 to 10 percent. Most of the tax credits to foreign investors were cut as well, but the effect of the cut was dependent on the taxation of dividend income in their respective countries (ibid, p. 1326). Bell and Jenkinson (2002) also reproduce British Central Statistical Office figures of equity ownership structure showing that only 16.5 percent of equity was held by individual British subjects, 24 percent by the rest of the world (individuals or institutions), and the rest by British institutions of one type or another. Bell and Jenkinson also show that if capital gains were taxed at statutory rates (instead of an effective rate of 0 percent which often applies because of various allowances) then most investor classes, especially individuals, would have a strong preference for cash distributions instead of a realized capital gain.

US: Firms pay dividends from after-tax income. The corporate income tax rate is progressive, going from 15 to 38 percent, but declining again to 35 percent on marginal taxable income over US$ 18,333,000. Because of all kinds of loopholes and firm-specific exemptions, however, corporate taxes, on average, are below 15 percent. Dividend income received from another corporation is 85 percent tax-exempt. Sections 531–532 of the Internal Revenue Code, improper accumulation, are designed to force corporations to pay dividends. The code is designed to force family-held firms eventually to pay dividends. The code is rarely enforced, however, in the case of widely held corporations. Individuals are taxed at

their marginal income tax rate for dividends as ordinary income. Marginal tax rates are progressive from 15 percent taxable income up to 39.6 percent (for taxable income above US$ 271,050). The real marginal tax for lower incomes is higher than the nominal rate because taxable income for FICA[25] taxes is capped at US$ 85,000. A capital gains tax is levied on realized gains from sale of financial instruments, at the rate that is effectively equal to the marginal income tax rate of the individual.[26]

A close look at these tax laws reveals that the two extremes are HK (no taxes on dividends) and the US, where marginal income tax rates apply to dividends. The other three countries fall between the tax dichotomy, with almost no effective tax for individuals, and rebates for institutions. Yet, looking at the percentages for STATEMENT 26 in Table 2, we see that there is practically the same agreement and disagreement with the statement in DE and HK, significantly higher disagreement than agreement with the statement in TR and the UK (implying that tax reform will affect dividend policy), and significantly higher agreement with the statement in the US. In fact, if we count neutral responses (indifference) on the side of the majority, then an overwhelming 76 percent in the US argue that tax reform of dividends (a major objective of conservatives in the Senate and the House, and an important building block of President Bush's 2003 "job and growth initiative" making dividends tax exempt for the recipient) will have no effect on the firm's dividend policy.

Pondering these responses, we reach these conclusions:

- A study, deeper than what we can afford so far, of the tax issue is needed. Such a study should be centered on, but not limited to, field interviews with the responding firms.
- Serious consideration must be given to the marginal value of market data and the complexity of models applied to these data before one attempts to verify, yet again, the economically rational, but empirically just not present, tax aspect of dividends, and
- More research is needed to ascertain the meaning of the cultural differences one finds concerning the impact of taxes on firms' dividend policies.

One may ponder the response in HK, where neither dividends nor capital gains are taxed. Yet, 34.30 percent of the respondents disagree with the statement and about the same proportion (37.10 percent) agree with the statement. About the only logical explanation is that in HK some respondents anticipate a tax reform that will *adversely* affect dividend recipients. This is another case where field interviews would shed light on at least some of the dividend mystery.

5.4. More peculiarities

An interesting aberration is the response to STATEMENT 6. This statement is a "check" on the response to STATEMENT 1, one being, de facto, the opposite of the other. The

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[25] Federal Insurance Contributions Act. The tax is 6.2 percent of the top of taxable income up to US$ 85,000. Taxable income above US$ 85,000 is exempt from FICA tax. This makes the current US income tax law, *de facto,* regressive.

[26] The new tax laws passed in 2003 fixed both capital gains and dividend income at 15% rate.

only difference might be the wording of STATEMENT 6, which is negative ("We do not believe ...," etc.). The response of Group A to STATEMENT 1 is homogeneous and overwhelmingly in agreement (the lowest in the US–80.90 percent; the highest in TR–94.10 percent), with very low neutrality or disagreement. Group B firms cannot be considered homogeneous because of the very low level of agreement with the statement in DE (15.00 percent) and the US (47.00 percent), and the high level of neutrality in these two countries (20.80 and 30.40 percent, respectively).

With regard to STATEMENT 6, however, neither of the groups is homogeneous. The major outliers, again, are DE and the US. The specific numbers for STATEMENT 6, however, are also quite different from those for STATEMENT 1. Here, we are looking for disagreement to be consistent with the response. The highest level of disagreement is TR (89.30 percent), followed by DE (88.60 percent). The lowest level of agreement is the US and UK (13.50 percent, and 10.50 percent, respectively). For Group B firms, an astonishingly high proportion of the responses falls in the agreement category for DE and the US (62.20 percent, and 60.90 percent, respectively). Neutrality, however, is quite low across the board.[27]

It would be both intriguing and informative to examine this peculiarity more closely. Unfortunately, this examination cannot be done within the framework of the present study, and without substantial expense. The way to get to the bottom of the discrepancy is to conduct personal, follow-up interviews with a subsample of respondents whose understanding of the statement has been the major cause of the aberration. Accomplishing this objective requires substantial research funding. Admittedly, the type of research we are proposing is markedly more expensive than "spinning the tapes" of market and accounting data. Yet, the latter does not seem to solve the puzzle. Perhaps, this has been the objective all along?

It is safe to argue that our work has done more to discover what we do not know (or put to question some accepted research topics as being worthwhile) than it has to reinforce existing knowledge about the dividend puzzle. Winston Churchill used to refer to Russia as paradox wrapped in mystery inside a puzzle. We used to refer to the dividend puzzle in the same manner. Now, we are willing to concede that Churchill's aphorism may not be an apt description of the dividend puzzle. Rather, it seems that dividends are not a puzzle at all, but a *matrioshka*.[28] Every "doll" we remove has another "doll" (in more interesting garb) inside it.

5.5. Verification

To verify the results so far, we compare some accounting, market, and other data across the five countries by the two groups. There are several problems with such comparisons, the most acute of which is uniform availability. There is a scarcity of data for which meaningful

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[27] The percentages quoted here are not included in the tables we show in this paper. A complete tabulation is available on request.

[28] The *matrioshka* is a Russian children's toy, usually a series of wooden dolls, one inside of the other, in typical Russian garb, representing different regions of the country. In more recent years, the dolls are a series of Russian *apparatchiks*, implying who is hidden inside whom.

Table 9
Univariate tests of group mean equality

Variable	Market/accounting data						
	Group	N	Mean	Standard deviation	F^a value	t^b value	t^c value
Total assets $ millions	A	788	5,350.02	36,628.59	1.04	0.66	0.64
	B	321	3,711.83	39,772.51	*0.31*	*0.51*	*0.53*
Insider ownership	A	764	0.18	0.24	0.11	−3.71	−3.70
	B	300	0.24	0.24	*0.75*	*0.00*	*0.00*
Institutional ownership	A	761	0.36	0.32	10.62	0.52	0.55
	B	291	0.35	0.28	*0.00*	*0.60*	*0.59*
Age	A	784	37.48	44.72	168.43	8.26	11.34
	B	318	16.12	17.84	*0.00*	*0.00*	*0.00*
Market to book ratio	A	707	3.84	9.24	10.11	−1.78	−1.26
	B	290	5.92	27.48	*0.00*	*0.07*	*0.21*
Market value of equity $ millions	A	786	1,553.08	6,101.17	3.56	−1.00	−0.79
	B	318	2,084.63	11,350.24	*0.06*	*0.32*	*0.43*
Price to earnings ratio	A	588	51.63	219.02	1.49	0.63	0.87
	B	197	41.38	107.46	*0.22*	*0.53*	*0.39*

Data Sources: HK—DATASTREAM was the major source of both accounting and market data. Market data was cross-checked with the official publication of the HKEx.
TR—Istanbul Stock Exchange (ISE) web page (www.ise.org), and websites www.yfas.com.tr; www.finansinvest.com; www.verikom.com; www.analiz.com.
UK—Corporate Register. March 1999 & December 2001. London: UK. HS Financial Publishing Ltd. And Datastream (online database). Thomson Financial. London: UK.
US—CRSP, COMPUSTAT, BASELINE & YAHOO.

[a] Levene's test for equality of group variances (p-values in italics).
[b] t statistic for equality of group means assuming equal variances (p-values in italics).
[c] t statistic for equality of group means assuming unequal variances (p-values in italics).

evaluations are possible because of dissimilarities in definitions, accounting procedures, and comprehension. Nevertheless, we make an earnest effort to contrast these data with the findings we report thus far in the interest of possible independent verification of group characteristics. Our analysis is confined to the seven variables considered in the pilot study by Frankfurter et al. (2002), extended to and inclusive of the remaining four countries. We present these findings in Table 9.

The table shows simple statistics and the results of t-tests of the null hypothesis of significant differences between the two group means (as in the German study) for seven variables: total assets, insider ownership, institutional ownership, age, market-to-book ratio, market value, and price-to-earning ratio for the pooled data. The t-tests are carried out under the assumption of both equal and unequal group variances, which is tested by Levene's[29] test. Also shown are the F-value and the probability of error type I (the probability of rejecting the null of equal variances when it is true).

The last two columns of the table are the t-values, associated with equal and unequal variances, respectively, and the probability of error type I, under the null hypothesis of

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[29] See Neter et al. (1996).

different group means. The assumption concerning the variances is meaningful in two instances only. In the first case, Insider Ownership, variances cannot be said different at the 0.05 level, in which case group means are significantly different under equal variances, but not under unequal variances. In the second case, market-to-book ratio, though variances cannot be said unequal, yet the probability of error type I is 0.07 for equal variances, but 0.21 for unequal variances. Strict application of 0.05 probability of error type I would reject the null of different group means. Statisticians struggled for many decades, however, with the question of what level of significance serves what purpose. This question is still unanswered; thus, judgment is left to common sense concerning knowledge one can glean from empirical results.

The third case where group differences are statistically significant shows the same result under either of the assumptions regarding group variances. For the remaining four variables, the two group means cannot be said to be different at any reasonable level of error type I.

Although one may conclude differently, we argue that the two groups separate rather well across cultures (countries) with regard to age, insider ownership, and even market-to-book ratio. Accordingly, looking at the means in Table 9, we see that Group B firms are younger, have less separation of ownership from control, and have higher market values than their book value. Herein may anchor their less orthodox perception of the role of dividends in the firm.

The market-to-book ratio is especially intriguing. According to Fama and French (1992), and many others who followed their lead, this ratio is a better predictor of risk in the risk-return relationship than the renowned beta of the CAPM. In our opinion, and in light of the implosion of the stock markets in 2000, this ratio is just a gauge of the "irrational exuberance" of investors who tend to over-value firms with perceived (justified or unjustified) growth potential. It is a pity that data are always several steps ahead of a logically appealing hypothesis and its empirical tests. To be fair on that point, however (and on many others we make in this paper), we leave final judgment to the reader. Our conclusions and suggestions for further research are presented in the final section of this paper.

6. Conclusions and suggestions for further research

The human understanding when it has once adopted an opinion draws all things else to support and agree with it. And though there be a greater number and weight of instances to be found on the other side, yet these it either neglects and despises, or else by some distinction sets aside and rejects, in order that by this great and pernicious predetermination the authority of its former conclusion may remain inviolate.

(Francis Bacon, *The New Organon*, p. 1620)

We embarked on testing four hypotheses concerning the perception of dividends by corporate financial decision makers. We found that in five market structures, out of which three could be termed "market economies," some miens of perception are similar, yet many more others are non-uniform. Accordingly, one cannot posit theories/hypotheses and explanations of why corporations pay dividends that would consistently apply to every

country, or even just one country. The least differences in perception exist in HK, but, even in that country, some dissimilarities are so substantial that it could be included in the generalization, as well.

To make matters worse, many differences and some similarities are prevalent across countries as well. Thus, intra-cultural differences will not be uniformly the same inter-culturally. In fact, even the three market-economy countries differ from each other so much as to conclude that common economic institutions and values have no strong influence on the making of the dividend decision.

Our analysis of some market/accounting data could not show categorical and decisive differences between the two groups we identified. Yet, in spite of the limitations and problems associated with comparisons of variables, which, albeit defined comparably, mean different things in different cultures, we were able to show that with respect to age, insider ownership, and to some extent market-to-book ratio, Group B firms are what one would expect from new, upcoming firms with growth potential. But like the rose, empiricism is empiricism, is empiricism, and who is to be the wiser?

Still, taking the findings reported here in earnest must mean that dividend research aimed at the development, and the subsequent empirical testing, of models championed on the axioms and assumptions of the *homo economicus* might produce some times results that are consistent with the psychological makeup of this fictitious person. Yet, more often than not, empirical evidence, if such models could be testable at all, would lack reliable validation. The most thought-provoking case of this contention is the various tax explanations that seemed to be not just a favorite topic of dividend research, but logically, perhaps, the most appealing to the (metaphorical) taste of the *homo economicus*. As a consequence, Kalay and Michaely's (2000) insinuation that increasing the complexity when empirically testing the tax effects of dividends might show results one wants to find (i.e. the verification of the economic rationale).[30] Yet, based on the evidence we present here, the approach of fighting lack of empirical verification with ratcheting up the complexity should be seriously questioned, and, perhaps as a research program to follow, the idea should be abandoned.

Are we to suggest, therefore, a drastic change of course, what is usually called in the natural sciences a paradigm shift? An appropriate definition of paradigm shift is by Colin Bruce (1999).

> Science is generally supposed to proceed in patient incremental steps. But just a few times in the history of science an experiment has produced a result so paradoxical, so difficult to explain in terms of the expected order, that the whole framework of current assumptions about the world has to be abandoned in favor of a new more subtle picture (ibid.).

We do not claim that what we report here should be considered as an "experiment that has produced results so paradoxical" that it will totally change the course of financial economics. Yet, if finance is to be construed as science, and if the role of science is discovery, then as far

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[30] After all, who is to guess what complex econometric models are to be imported to financial economics, and how the judicious use of these future models, perhaps decades to come, will show what one wants to show (Kalay and Michaely, 2000).

as the dividend phenomena go the field should think very carefully about both its ontology and epistemology. That is, the "what is to be known" and "how is the what is to be known to be known" must be reassessed.

We are also far from arguing that the study and its results are the final word. We claim precisely the opposite. What we present here is just a modest start. Considering the caveats we count in Section 1, additional work both to verify our claims and to dig deeper into the puzzle is needed. The obvious route to follow would be field interviews with respondents whose answers were found to be the most non-conformist with respect to prevailing perceptions. Fortunately, we have the administrative means to identify these individuals. Unfortunately, however, we do not have the financial means to carry out the task. Nevertheless, the obvious question begs to be asked: should research be done for the sake of research and for the glory of publication, or for the sake of discovery? Although many claim that neoclassical economics, and financial economics as the most orthodox of this branch of economics, is for the sake of publishing, we trust that most decent persons would acquiesce that research for research's sake is neither the noble way to go, nor is it true science.

Sir Francis' observation about human understanding that we quote at the head of this section is apropos. Nothing personifies better the state of affairs Bacon describes than Ping, Pang and Pong in Puccini's *Turandot*. Those three are the archetypical government clerks, three in one, and one in three, who constantly ruminate and equivocate, yet always end up on the side of authority, following blindly dictum; total disregard for morality or values, cynical, yet humane, but never, ever lining up on the side of what is right, nor what their conscience (if there is such a thing) dictates, but what their masters demand.

The academic Pings, Pangs and Pongs make the existence, and long-term survival of unsupportable or even downright false theories possible. This has been the fate of dividend research for more than four decades. In the research project described in this paper, we may have shown a way out of the maze that leads nowhere. And although the academic Pings, Pangs and Pongs are not the comic relief that the operatic counterparts supposed to supply to an otherwise stark story, perhaps the ending may be just as happy as it is of *Turandot*. After all, love conquers all.

FOREWORDS

It is a bit unusual that a research paper in finance would have so many authors, but this project and the paper that follows is a bit different than just another research project. It is the first report of an effort that has been going on in five countries, in three continents, and for a lack of a better metaphor I would add, on a shoestring budget. I say, for a lack of better metaphor, because in fact we didn't have a budget to speak of at all. What we had was a great deal of enthusiasm of the finance faculty that got involved with this research idea, their absolute dedication, and the financial help to cover their necessary costs by their respective institutions.

The project evolved over a three-year time-span, getting its start at the University of Hamburg in Germany, and spreading in quick succession to the US, Turkey and Hong Kong. Finally, we found the interested parties in the UK to bring up the rear. This way, we could get a cross-sectional picture of three market type (albeit different) economies,

an emerging market economy, and a Pacific Basin economy. This enables us, hopefully, to generalize both inter- and intra-perception differences in these economies, to draw some useful conclusions and gain insight to a problem that perplexed financial academics for five decades.

At the conclusion of the first phase (more about the anticipated continuation of the project in the concluding remarks of the paper) we are left with a unique and rich dataset: more than 1200 useable responses to a survey instrument and accounting data pertaining to the firms that participated in our original sample. I would be the first to admit that the analysis presented here is just the beginning, and there are several intriguing avenues to explore and discover additional information and knowledge hidden in the data.

Acknowledgements

Appendix A. Dividend survey

Please indicate the extent to which you agree or disagree with each of the following statements by placing an "X" on the scale provided. The scale should be treated as a continuous range from "strongly disagree" to "strongly agree." If you have no opinion about a statement, or if that statement does not pertain to your situation, leave that scale blank. Placing an "X" in the middle, on "Neutral," indicates that your opinion is balanced, neither agreeing nor disagreeing with the statement.

1. **Stockholders like to receive a regular dividend.**

   |_____|_____|_____|_____|
   Strongly Disagree   Disagree   Neutral   Agree   Strongly Agree

2. **Some stockholders prefer a stock dividend instead of a cash dividend.**

   |_____|_____|_____|_____|
   Strongly Disagree   Disagree   Neutral   Agree   Strongly Agree

3. **Institutional investors always prefer a cash dividend instead of a stock dividend.**

   |_____|_____|_____|_____|
   Strongly Disagree   Disagree   Neutral   Agree   Strongly Agree

4. **Our firm would like to see a large portion of its shares owned by institutions.**

   |_____|_____|_____|_____|
   Strongly Disagree   Disagree   Neutral   Agree   Strongly Agree

5. **Increasing the number of stockholders in our firm is one of our important objectives.**

   |_____|_____|_____|_____|
   Strongly Disagree   Disagree   Neutral   Agree   Strongly Agree

6. **We don't believe our stockholders are interested in dividends.**

   |_____|_____|_____|_____|
   Strongly Disagree   Disagree   Neutral   Agree   Strongly Agree

7. **When we want to save cash we give a stock dividend, because stockholders don't know the difference.**

   |_____|_____|_____|_____|
   Strongly Disagree   Disagree   Neutral   Agree   Strongly Agree

8. **A dividend gives us favorable free publicity in the financial press.**

   |_____|_____|_____|_____|
   Strongly Disagree   Disagree   Neutral   Agree   Strongly Agree

9.   **Dividends help keep the stock price up within a range we think is optimal.**

|_____|_____|_____|_____|_____|
Strongly Disagree   Disagree   Neutral   Agree   Strongly Agree

10.   **Dividends have no effect on the inherent value of our stock.**

|_____|_____|_____|_____|_____|
Strongly Disagree   Disagree   Neutral   Agree   Strongly Agree

11.   **There is only a short-term positive price reaction to the announcement of a cash dividend.**

|_____|_____|_____|_____|_____|
Strongly Disagree   Disagree   Neutral   Agree   Strongly Agree

12.   **Paying cash dividends creates a costly cash drain for our firm.**

|_____|_____|_____|_____|_____|
Strongly Disagree   Disagree   Neutral   Agree   Strongly Agree

13.   **Paying cash dividends is necessary because stockholders expect it.**

|_____|_____|_____|_____|_____|
Strongly Disagree   Disagree   Neutral   Agree   Strongly Agree

14.   **An increase of cash dividends is a sign that we are doing well.**

|_____|_____|_____|_____|_____|
Strongly Disagree   Disagree   Neutral   Agree   Strongly Agree

15.   **Only firms with increasing stock price should increase a cash dividend.**

|_____|_____|_____|_____|_____|
Strongly Disagree   Disagree   Neutral   Agree   Strongly Agree

16.   **We increase cash dividends only if we can maintain it on the long-term.**

|_____|_____|_____|_____|_____|
Strongly Disagree   Disagree   Neutral   Agree   Strongly Agree

17.   **Individual investors have no understanding of the real economic value of cash dividends.**

|_____|_____|_____|_____|_____|
Strongly Disagree   Disagree   Neutral   Agree   Strongly Agree

18. **Institutional investors know what effect a dividend will have on the stock price.**

|_____|_____|_____|_____|_____|
Strongly Disagree   Disagree   Neutral   Agree   Strongly Agree

19. **Any reduction of cash dividends would adversely affect our stock price because we have a policy of dividend continuity.**

|_____|_____|_____|_____|_____|
Strongly Disagree   Disagree   Neutral   Agree   Strongly Agree

20. **Once a firm starts paying dividends, it must continue to pay dividends, because otherwise the stockholders will think that something is wrong with the firm.**

|_____|_____|_____|_____|_____|
Strongly Disagree   Disagree   Neutral   Agree   Strongly Agree

21. **Substituting a stock dividend for a cash dividend is a sign that we are doing poorly.**

|_____|_____|_____|_____|_____|
Strongly Disagree   Disagree   Neutral   Agree   Strongly Agree

22. **Many investors believe that an increase of cash dividends is a sign that we don t have anything better to do with our capital.**

|_____|_____|_____|_____|_____|
Strongly Disagree   Disagree   Neutral   Agree   Strongly Agree

23. **Many of our stockholders do not trade the stock at all whether the price is going up or down.**

|_____|_____|_____|_____|_____|
Strongly Disagree   Disagree   Neutral   Agree   Strongly Agree

24. **Paying no or as little cash dividends as possible is important because it allows us to convert retained earnings into permanent equity capital.**

|_____|_____|_____|_____|_____|
Strongly Disagree   Disagree   Neutral   Agree   Strongly Agree

25.   **Money talks! The more cash dividends we pay the more investors believe that we are doing well.**

| | | | |
| Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree |
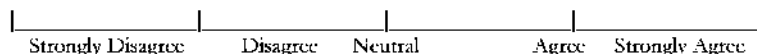
26.   **Tax reform will not affect the dividend policy of our firm.**

| | | | |
| Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree |
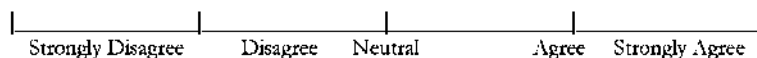
SEND US RESULTS   YES☐   NO☐

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