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Translation and validation of the Graham-Harvey survey for the Brazilian context

Marcos Alencar Abaide Balbinotti
Université de Sherbrooke, Kirkland, Quebec, Canada

Cristiane Benetti
Faculdade de Tecnologia SENAC/RS, Porto Alegre, Brazil, and

Paulo Renato Soares Terra
Universidade Federal do Rio Grande do Sul, Porto Alegre, Brazil

Abstract

Purpose – The purpose of this paper is to report on the systematic translation and content validation method used to produce the Brazilian Portuguese version of the *Duke Special Survey on Corporate Policy* by Graham and Harvey.

Design/methodology/approach – In accordance with the requirements for cross-cultural application of surveys, the paper accounts for obvious differences in language, culture, and the institutional setting and employ well-known techniques from the field of psychology, such as the use of backtranslation, to ensure faithfulness to the original survey. A panel of experts served as judges in evaluating the clarity of language and the practical pertinence and theoretical dimensions of the questionnaire. Coefficients of content validity for each item and for the instrument as a whole are reported.

Findings – The results illustrate how a questionnaire designed for one country should be rigorously translated and validated prior to use in another country.

Research limitations/implications – Although the content validity of the translated version of the *Duke Special Survey on Corporate Policy* for use in Brazil is generally satisfactory, a few items may prove to be a challenge for the Brazilian CFO to answer, particularly those questions concerning features that are uncommon in the Brazilian financial market.

Originality/value – This paper explores the field study method in finance by borrowing from the vast experience of psychology research in the rigorous translation and validation of survey instruments. This study also highlights the similarities and differences in the interpretation of questions between emerging and developed markets.

Keywords Surveys, Translation services, Corporate finances, Emerging markets, Brazil

Paper type Research paper

Over the past 60 years, research in finance has made significant strides in developing ever more complex theories to guide managerial decision making toward the maximization of shareholder wealth. Theoretical advances in the areas of corporate finance, asset pricing, and risk management have been nothing short of impressive. Nevertheless, much remains to be learned about how managers actually make financial decisions. Despite the enormous advances made toward understanding financial management, many aspects of financial decision-making are still not well understood. Hence, the investigation of the practice of finance continues to be an important area of research.

We present a systematic method of translation and content validation for the *Duke Special Survey on Corporate Policy* (Graham and Harvey, 2001), which has been used in North America and Europe, for future administration in Brazil. Our goal is to construct a questionnaire that will effectively measure, as closely as possible, precisely the same aspects as the original instrument but in the Brazilian cultural context. This is of utmost importance given the need for cross-country comparative studies to better understand the financial decision-making process in different environments. To the best of our knowledge, such techniques have not been specifically employed in finance thus far. These methods have dramatic implications for empirical studies in finance and for new financial theory-building. Although other sciences (such as psychology) and even other business disciplines (such as marketing) have long employed these techniques as part of their research toolbox, finance research has yet to incorporate rigorous validation techniques to its field studies. This paper aims to fill this void in the financial literature.

This study follows a recent wave of field studies in finance (e.g. Graham and Harvey, 2001; Brounen *et al.*, 2004; Bancel and Mittoo, 2004; Brav *et al.*, 2005) that aim at narrowing the gap between academics and practitioners. In particular, we focus on the translation and validation of a survey instrument for use in cross-country comparative studies. This is of particular importance given that, in contrast to the literature based on ex-post data, the practice of finance in emerging markets has been largely ignored in the finance literature.

Emerging markets may serve as convenient laboratories for understanding problems in finance relevant to developed markets as well. Volatile economic conditions, less liquid capital markets, highly concentrated firm ownership, a non-negligible share of state-owned firms, inefficient and weak institutions, poor monitoring practices, financing restrictions, and large amounts of information asymmetry are among the many distinct features of such markets. Such imperfections exacerbate issues that are thought to be important for financial decision-making and, as such, highlight the difficulties that may lie in the financial executive's path. Myers (2003) underscores the challenges for building financial theory in such an environment:

> The leading theories of financing all assume that firms have access to reasonably well-functioning capital markets and to modern financial institutions. This assumption is not always true. It may not hold for small, private firms in the USA. It clearly does not hold in many other countries. . . . We are used to thinking of markets and institutions adapting to the financing needs and objectives of corporations. But in many countries adaptation is blocked by severe agency problems or by government restrictions. Nevertheless, public stock markets exist in nearly every country. . . . Most capital structure theory was developed for public USA corporations. Even in that well-structured setting, no general theory emerges. (pp. 246-7)

Rather than producing yet another survey, we seek to make use of the same questionnaire previously administered to North American and European financial executives, in order

to allow for direct comparisons across countries. Such comparisons will allow us to infer how the distinct economic environment of emerging markets helps shape the practice of finance in these countries. In order to achieve such comparability, it is necessary to ensure that the survey questions have the same meaning for respondents despite differences in language, culture, and institutional setting. Graham and Harvey (2001) draw attention to the potential problems inherent in a survey approach: "Surveys measure beliefs and not necessarily actions. Survey analysis faces the risk that the respondents are not representative of the population of firms, or that the survey questions are misunderstood." (p. 189). It is therefore imperative that the survey researcher takes all possible steps to minimize individual subjectivity interference in the translation, administration, and interpretation of the survey.

Administering a questionnaire originally designed for a particular culture in a different cultural context is a particularly delicate task. Therefore, in this paper we borrow and benefit from the vast experience of the field of psychology with the aim of ensuring that the translated instrument indeed measures the same variables as the original. In particular, we followed the methods proposed by Vallerand (1989) and Hernández-Nieto (2002). In this manner, we seek to ensure that when the survey instrument is administered in Brazil, it will have the same meaning as the one that has been employed in research in North America and Europe.

This paper contributes to the literature in several ways. First, it explores the field study method in finance, which to date remains a relatively rare approach in this discipline. Second, it focuses on an emerging market context, which is even rarer in this field. Third, it borrows from the vast experience of psychology research in the rigorous translation and validation of survey instruments; something that, to the best of our knowledge, has never been attempted before in finance. Finally, by employing exactly the same questionnaire used in previous research in North America and Europe, this study highlights the similarities and differences in the interpretation of questions between emerging and developed markets.

The remainder of the paper is presented in three parts. The first section details the research method and procedures used. The second section presents and discusses the results. The last section concludes the paper and highlights the value of this instrument for use in future research.

1. Research design
Ethical, methodological, and statistical procedures are employed to provide an answer to the main research question. These procedures are described next.

1.1. Ethical procedures
The first step taken to translate the *Duke Special Survey on Corporate Policy* from the original English into Portuguese was to obtain the permission of the authors of the North American (Graham and Harvey, 2001) and European (Brounen *et al.*, 2004) studies. We then chose to administer the extended European version in Brazil, because it includes two additional questions on corporate governance.

The research itself relied on the voluntary support of eighteen financial professionals consisting of both academics and practitioners. Participants were assured that all information provided would remain confidential and that it would be used exclusively for scientific purposes in accordance with the guidelines of the

Universidade do Vale dos Sinos's Research Ethics Committee. Moreover, any release of information would be anonymous and in conjunction with other participants' answers. Finally, it was assured that participants would be exempt from any responsibility for the opinions expressed in any publication resulting from this research.

Assuring research participants that their responses will remain anonymous is important for several reasons. First, some financial information may be considered strategic to the firm, and its indiscriminate release may be seen as inappropriate. In such situations, if anonymity is not guaranteed, respondents may refrain from answering certain questions or may answer untruthfully. Second, given that public firms are committed to fair disclosure, their answers to a private questionnaire may be regarded as a disclosure breach. Finally, managers may become legally liable for the disclosure of insider information that might leak into the market.

1.2. The instrument
The research instrument is comprised of a list of 17 questions containing a total of 188 sub-items. Among these, 11 questions include open-ended sub-items in which the respondent is given the opportunity to complement his/her answer and the last question addresses the characterization of the company and the respondent and contains 50 sub-items that are not subject to the analyses presented here. Therefore, for the statistical evaluation of content validity only the remaining 126 sub-items are analyzed. The questionnaire is divided across four theoretical dimensions (Capital Budgeting, Cost of Capital, Capital Structure, and Corporate Governance).

1.3. Translation procedures
The translation procedures employed are similar to those used by Vallerand (1989) in his research. According to this author, the cross-cultural use of questionnaires incorporates important methodological aspects of research and the translation of instruments must be carried out in a systematic manner. It must be taken into account that the instrument will be administered in a different setting, which includes differences in language, values, culture, customs, and social context. Therefore, Vallerand (1989) suggests the following alternatives:

- employing the instrument in its original language (English in this case), which may limit the population of respondents;
- developing a new instrument in the alternative language (Portuguese in this case), which may reduce comparability to the original survey; or
- validating the original instrument in the alternative language in the population of interest (in this case, Brazilian), according to its metric properties.

This paper implements the third alternative in three distinct phases so that the translated questionnaire may be used for international comparisons. Figure 1 presents the sequence of steps that must be followed in order to obtain a valid version of the original questionnaire in another language: preparation of the preliminary version, consolidation of the preliminary version, and content validity testing. The first two steps concern the translation of the questionnaire while the last one concerns the statistical validation procedure. Next, we describe how each of these phases is conducted in this study.
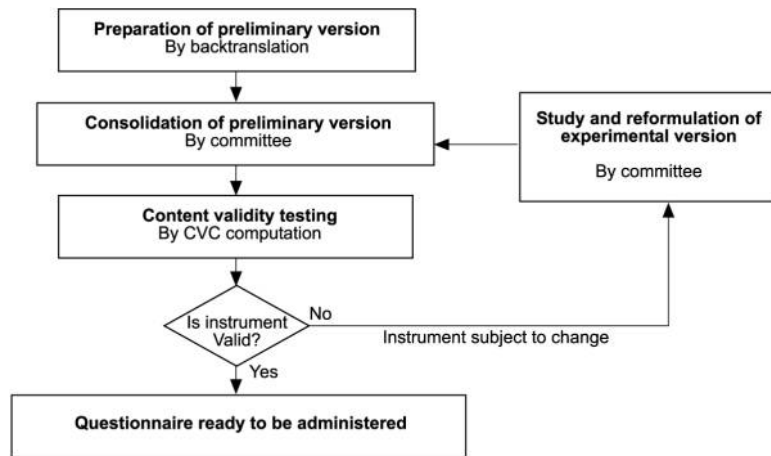
Figure 1.
Translation and validity procedures

Source: Adapted from Vallerand (1989)

1.3.1. Preparation of the preliminary version. In preparing the preliminary version of the questionnaire, three alternative techniques are possible (Vallerand, 1989):

(1) *Traditional translation:* this technique may result in differences in interpretation between the original version and the translated version because of language, psychological, and knowledge biases of the researchers. Even when employing "neutral" certified translators, this technique may result in substantial biases. Despite these shortcomings, this technique is the most frequently employed.

(2) *Committee translation:* this technique offers some safeguards against individual researcher bias, since the translation is discussed in a committee or translation group. However, despite the group discussions, it is possible that biases persist in the instrument. The active participation of the authors of the original questionnaire in the committee discussions is one means of ensuring that the translated version remains faithful to the original. However, group discussions are often lengthy and subjective, and consensus is often hard to achieve.

(3) *Backtranslation:* this technique relies on multiple translators working individually and an independent committee that evaluates their work. The first step is to obtain one or more translations of the original instrument into the language of interest. This task is usually assigned to bilingual individuals familiar with the subject (i.e. the jargon) of the questionnaire. The translated version is then translated back into the original language, and an independent committee evaluates the faithfulness of the backtranslated version to the original instrument, providing any adjustments regarded as necessary. It is imperative that the backtranslators do not have access to the original instrument or even knowledge of it. If the backtranslated version is similar to the original version in wording and meaning, then the translation process has been successful. If differences exist between the backtranslated version and the original, the committee must provide changes in the translated version or even require new translations of the same instrument for comparison and consolidation into a new version. Given the systematic procedure and

controls involved, this technique assures that individual biases are removed from the translated version. Also, it allows for objective comparison between the original and the translated versions of the questionnaire.

In this study we use the third technique, backtranslation. The original English version was independently translated into Portuguese by two bilingual Brazilian finance academics with Ph.D.s from Canadian and British universities. These two translated versions were then combined into a single translated version that was sent to three other bilingual finance faculty who backtranslated the instrument into English. One of the backtranslators is a native English speaker and resident of Brazil while the other two are Brazilians residing in English-speaking countries. All of them hold doctoral degrees from North American universities[1].

1.3.2. Consolidation of the preliminary version. The main goal in this phase is to obtain the most faithful foreign language version of the original instrument. According to Vallerand (1989), an independent committee of three people, none of whom is one of the translators, should be formed. In this phase, the equivalence in wording and meaning between the original and backtranslated questionnaires is verified. This phase is crucial to the achievement of an accurate translation because it results in a working version of the instrument. In order to reduce individual biases, this task is performed by consensus. The presence of one of the original translators as a consultant is desirable in order to clarify any questions the committee may have.

The procedure involves two steps:

(1) Backtranslated versions are compared to each other and to the original instrument. If the questions are identical, i.e. have exactly the same wording, the item is approved and the committee moves on to the next question.

(2) If there are differences in wording, the committee must evaluate whether there are any differences in meaning. If there are differences in meaning, the committee must examine which of the versions is closest to the original instrument, and make adjustments in the translated version. Differences in meaning often result from a literal translation of a term or expression that may then diverge in meaning from the original intent of the questionnaire.

In this study, an independent committee of three people evaluated the three backtranslated versions against the original version of the instrument, and made adjustments to the Portuguese translation where they thought necessary. The committee consisted of two finance faculty members (one of whom has extensive executive experience) and a finance graduate student. One of the original translators stood by in order to clarify any questions of the committee. All perceived differences in wording and meaning were discussed by the committee, which then suggested modifications in the Portuguese version of the questionnaire.

1.4. Content validity procedures

According to Hoppen *et al.* (1997), there are two techniques that can be used to evaluate the content validity of a questionnaire: pre-tests using a sample of subjects or evaluation by a panel of judges. In this step, the clarity of language and practical pertinence of each question is evaluated. Content validity is subjective and

non-quantitative in the strictest sense of the term and verifies whether the instrument indeed measures the content it sets out to measure (Vallerand, 1989).

With the objective of making the instrument as clear as possible, we choose to evaluate content validity of the instrument by employing a panel of 10 judges[2]. Each judge was provided with an evaluation sheet encompassing three criteria:

(1) *Clarity of language:* Evaluates the language used in the questionnaire, keeping in mind the target population of financial executives. As such, the judges were asked: "Do you believe that the questions are clear enough and therefore understandable to this population? To what extent?".

(2) *Practical pertinence:* Evaluates the relevance of the question to the daily activities of the average financial manager. This is particularly important when the population comprises small, unlisted, and family firms. Specifically, the judges were asked: "Do you believe that this item is pertinent to this population? To what extent?".

(3) *Theoretical dimension:* Evaluates the relevance of the question to one of the four subject matter areas that the questionnaire addresses (Capital Budgeting, Cost of Capital, Capital Structure, or Corporate Governance). The judges were asked: "Which theoretical dimension do you think this question belongs to? Please mark only the one that BEST describes the item".

Instructions to the judges included a five point Likert scale[3] for rating clarity of language and practical pertinence and a coded letter system (A, B, C, and D) for classifying the four theoretical dimensions (see Table I). The questionnaire also allowed the judges to provide additional comments on any specific question. An English translation of the evaluation sheet is presented in Appendix 1 (Figure A1).

The evaluation sheet was sent to each judge along with a cover letter stating the purpose of the research, the confidentiality policy, and the return address. The judges consisted of five academics and five Chief Financial Officers (CFOs), none of whom had participated in the previous parts of the process.

The selection criteria for these judges were experience in academic or executive positions, and diversity in terms of educational background and industry experience. We selected five academics with geographically diverse doctoral education backgrounds: one is a graduate from a Brazilian university, one is a graduate from a United States (US) university, one graduated from a university in France, and two are graduates of joint programs between Brazilian universities and, respectively, a US university and a British one. All of them have been actively publishing in the areas of

Clarity of language	Practical pertinence	Theoretical dimension
1 – Very little clear	1 – Very little pertinent	A – Capital budgeting
2 – A little clear	2 – A little pertinent	B – Cost of capital
3 – Fairly clear	3 – Fairly pertinent	C – Capital structure
4 – Mostly clear	4 – Mostly pertinent	D – Corporate governance
5 – Very much clear	5 – Very much pertinent	
IMPORTANT: mark only ONE alternative for each category.		

Table I.
Instructions to judges

corporate finance and capital markets for the past 10 years. We also selected five CFOs from different types of companies: one was from a large state-owned bank, one was from a large industrial Brazilian-owned Multinational Enterprise (MNE), one was from a Brazilian subsidiary of a foreign-owned industrial MNE, and two were from privately-owned, domestic-market-only industrial Brazilian firms. All CFOs have more than 10 years of experience as financial executives.

A detailed account of the response rate and usability of these evaluations is presented in Table II. Two CFOs and one academic did not return their evaluation sheets despite several reminders from the research team. All of the remaining seven returned sheets had some incomplete items, and it was decided that only the five most complete evaluation sheets should be utilized for the analysis that follows. Of these five, three evaluations were from academics and two were from CFOs. In addition to the content validity analysis, these evaluations highlighted many aspects of the translation that were unclear to the CFOs, allowing for improvement in the wording of the questionnaire.

In order to evaluate the content validity of clarity of language and practical pertinence, we employed the Content Validity Coefficient (CVC) proposed by Hernández-Nieto (2002). This coefficient measures the degree of concordance among the judges regarding each question, as well as for the survey instrument as a whole. This coefficient also evaluates the validity of content that is lacking in other methods such as Cohen's Kappa[4]. Hernández-Nieto (2002) recommends a minimum of three and a maximum of five judges, and use of a five point Likert scale[5]. If a given question is deemed unsatisfactory in terms of clarity of language, it must be adjusted before the questionnaire is administered to the population. If a given question is deemed unsatisfactory in terms of practical pertinence, it must be disregarded in the analysis of the results of the survey.

Following Hernández-Nieto, the CVC is computed as follows:Given the judges scores, the average score of each item is computed (M_x):

$$M_x = \frac{\sum_{i=1}^{J} x_i}{J} \tag{1}$$

where $\sum x_i$ is the sum of the judges' scores for a given item and J is the number of judges that evaluated it.

Based on the average score, the individual CVC is computed to each item (CVC_i):

$$CVC_i = \frac{M_x}{V_{máx}} \tag{2}$$

where $V_{máx}$ represents the maximum score that the item could achieve.

	Evaluations sent	Evaluations returned	Evaluations discarded as incomplete	Evaluations utilized
Academics	5	4	1	3
CFOs	5	3	1	2
Total	10	7	2	5

Table II.
Distribution and return of evaluation sheets

The error (Pe_i) is calculated for each item in order to account for any possible bias of the judges as:

$$Pe_i = \left(\frac{1}{J}\right)^J \tag{3}$$

Given the above, the final CVC for each item (CVC_c) is:

$$CVC_c = CVC_i - Pe_i \tag{4}$$

The overall CVC for the whole instrument (CVC_t) for both evaluated aspects (clarity of language and practical pertinence) is calculated as:

$$CVC_t = Mcvc_i - Mpe_i \tag{5}$$

where $Mcvc_i$ stands for the average of the content validity coefficients of the items in the questionnaire (CVC_t) and Mpe_i is the average of the items' errors (Pe_i).

Hernández-Nieto (2002) recommends that only questions whose CVC_c exceeds 0.8 are acceptable. However, given the judges differences in background (academics versus executives), we use a critical value of 0.7 following Balbinotti (2004). Thus, any item whose CVC_c falls short of 0.7 is deemed unsatisfactory while items between 0.7 and 0.8 are considered borderline.

The adherence of the questions to a given theoretical dimension is evaluated by inspecting the concordance of the judges. In the case of a tie, the item is classified as ambiguous. Finally, the adjusted questionnaire must be formatted in a similar fashion to the original one, as substantially different formats may yield different survey results (Vallerand, 1989).

2. Results

The scores obtained from the judges for the translated version of the *Duke Special Survey on Corporate Policy* are analyzed according to the psychometrics literature (Balbinotti, 2004; Hernández-Nieto, 2002; Vallerand, 1989). As mentioned above, these judges were selected among experienced faculty members in the area of finance and CFO's of large Brazil-based corporations.

We present the results of the analysis in Table III for the three aspects evaluated, clarity of language (CL), practical pertinence (PP), and theoretical dimension (TD), as well as the CVC for the questionnaire as a whole. A detailed table transcribing the original English and Portuguese translation of the instrument, as well as the coefficients of content validity is presented in Appendix 2 (Table AI).

2.1. Clarity of language

Among the items examined for clarity of language, 17 out of 126 (13.5 percent) questions and sub-items could not be assessed because they were not evaluated by a minimum of three of the five judges (Hernández-Nieto, 2002). Sub-items of question 12 ("What factors affect how you choose the appropriate amount of debt for your firm?") stand out in this respect, containing almost a quarter of the unusable sub-items. As will be discussed shortly, this might be due to the wording of the statement itself or, more likely, to the particular characteristics of the Brazilian financial market.

Q	CL	CLPe	PP	PPPe	TD
Q1	0.91	0.037	0.90	0.004	A
Q1A	0.92	0.004	0.96	0.000	A
Q1B	0.92	0.004	0.96	0.000	A
Q1C	0.76	0.004	0.85	0.004	A
Q1D	0.68	0.004	0.68	0.000	A
Q1E			0.68	0.000	A
Q1F	0.92	0.004	0.84	0.000	A
Q1G	0.84	0.004	0.84	0.000	A
Q1H	0.84	0.004	0.88	0.000	A
Q1I			0.80	0.004	A
Q1J	0.76	0.004	0.88	0.000	A
Q1K	0.71	0.037	0.90	0.004	A
Q1L			0.88	0.000	A
Q2					A
Q2A	0.76	0.004	0.92	0.000	A
Q2B	0.72	0.004	0.92	0.000	A
Q2C	0.76	0.004	0.96	0.000	A
Q2D	0.72	0.004	0.96	0.000	A
Q2E	0.72	0.004			A
Q3	0.91	0.037	0.95	0.004	B
Q3A	0.72	0.004	0.76	0.000	B
Q3B	0.92	0.004	0.92	0.000	B
Q3C	0.92	0.004	0.92	0.000	B
Q3D	0.96	0.004	0.76	0.000	B
Q3E	0.92	0.004	0.84	0.000	B
Q3F	0.80	0.004	0.80	0.000	B
Q4					A
Q4A	0.88	0.004	0.92	0.000	A
Q4B	0.92	0.004	0.92	0.000	B
Q4C	0.88	0.004	0.88	0.000	B
Q4D	0.92	0.004	0.88	0.000	B
Q4E	0.88	0.004	0.88	0.000	B
Q4F	0.88	0.004	0.92	0.000	B
Q4G	0.80	0.004	0.80	0.000	B
Q4H	0.80	0.004	0.76	0.000	B
Q4I	0.76	0.004	0.72	0.000	AB
Q4J	0.68	0.004	0.68	0.000	AB
Q5	0.91	0.037	0.90	0.037	C
Q5A	0.96	0.004	0.80	0.000	C
Q5B	0.84	0.004	0.96	0.000	C
Q5C	0.88	0.004	0.72	0.000	C
Q5D					C
Q5E	0.72	0.004			C
Q5F	0.68	0.004	0.72	0.000	C
Q5G	0.80	0.004	0.80	0.000	C
Q6	0.96	0.004	0.84	0.000	B
Q7	0.96	0.004	0.88	0.000	B
Q8	0.96	0.004	0.88	0.000	C
Q8A	0.96	0.004	0.84	0.000	B
Q8B	0.92	0.004	0.92	0.000	AC

(*continued*)

Table III.
Content validity
coefficients (CVC$_c$) and
theoretical dimension
evaluation

Q	CL	CLPe	PP	PPPe	TD
Q8C	0.88	0.004	0.84	0.000	C
Q8D					C
Q8E	0.96	0.004	0.92	0.000	B
Q9	0.88	0.004	0.92	0.000	C
Q9A	0.72	0.004	0.76	0.000	C
Q9B			*0.64*	0.000	CD
Q9C	0.92	0.004	0.80	0.004	B
Q9D	0.96	0.004	0.76	0.000	C
Q9E	0.88	0.004	0.72	0.000	C
Q9F	0.96	0.004	0.72	0.000	C
Q9G	0.84	0.004	0.76	0.000	C
Q9H	0.76	0.004	*0.68*	0.000	C
Q10	0.95	0.004	0.95	0.004	C
Q10A	0.96	0.004	0.76	0.000	C
Q10B	0.80	0.004			C
Q10C	0.88	0.004	*0.68*	0.000	CD
Q10D	0.80	0.004	*0.68*	0.000	BC
Q10E	0.92	0.004	0.80	0.000	C
Q10F	0.80	0.004	*0.68*	0.000	C
Q10G	0.72	0.004			C
Q10H	0.76	0.004	*0.68*	0.000	C
Q10I	0.80	0.004	0.76	0.000	C
Q10J	0.72	0.004	*0.68*	0.000	D
Q10K	0.84	0.004	0.72	0.000	C
Q10L	0.92	0.004			C
Q10M	0.92	0.004			C
Q11	0.91	0.037	0.90	0.004	C
Q11A	0.91	0.037	0.95	0.004	C
Q11B	0.91	0.037	0.95	0.004	C
Q11C	0.91	0.037	0.95	0.004	C
Q11D			0.90	0.037	C
Q12	0.91	0.037	0.90	0.004	C
Q12A	0.88	0.004	0.76	0.000	C
Q12B	0.80	0.004	0.72	0.000	C
Q12C	0.96	0.004	0.80	0.000	C
Q12D	0.96	0.004	0.80	0.000	C
Q12E	0.92	0.004	0.72	0.000	C
Q12F	0.88	0.004			C
Q12G	0.88	0.004			C
Q12H	0.96	0.004	0.76	0.000	C
Q12I	0.88	0.004			C
Q12J	0.84	0.004			C
Q12K					C
Q12L					C
Q12M					C
Q12N					C
Q13	0.91	0.037			C
Q13A	0.96	0.004	0.92	0.000	C
Q13B	0.80	0.004	0.76	0.000	C
Q13C	0.96	0.004	0.76	0.000	B

Table III.

(*continued*)

Q	CL	CLPe	PP	PPPe	TD
Q13D	0.92	0.004	0.72	0.000	C
Q13E	0.84	0.004	0.72	0.000	B
Q13F			*0.68*	0.000	B
Q13G	0.80	0.004	*0.68*	0.000	BC
Q13H	0.76	0.004			C
Q14	0.96	0.004	0.88	0.000	C
Q15					D
Q15A	0.90	0.037	0.90	0.037	D
Q15B	0.90	0.004	0.85	0.004	D
Q15C			0.90	0.004	D
Q15D	0.90	0.004	0.90	0.004	D
Q15E	0.85	0.004	0.90	0.004	D
Q15F	0.70	0.004	0.90	0.037	D
Q15G	0.90	0.004	0.80	0.004	D
Q15H	0.85	0.004	0.90	0.004	D
Q15I	0.80	0.004	0.90	0.004	D
Q15J	0.70	0.004	0.85	0.004	D
Q15K	0.90	0.004	0.80	0.004	D
Q15L	0.85	0.004	0.80	0.004	D
Q16					D
Q16A	0.95	0.004	0.85	0.004	D
Q16B	0.95	0.004	0.85	0.004	D
Q16C	0.95	0.004	0.85	0.004	D
Q16D	0.95	0.004	0.85	0.004	D
Q16E	0.95	0.004	0.75	0.004	D
Q16F	0.95	0.004	0.80	0.004	D
Q16G	0.95	0.004	0.85	0.004	D
CVC_t	0.86	0.82			

Notes: (Q) Number of Analyzed Question or Sub-Item; (CL) Clarity of Language; (CLPe) Clarity of Language Error; (PP) Practical Pertinence; (PPPe) Practical Pertinence Error; (TD) Theoretical Dimension: A = Capital Budgeting; B = Cost of Capital; C = Capital Structure; D = Corporate Governance; Blank: not enough scores to compute; italics: CVC_c below critical value (<0.7)

Table III.

Among the evaluated questions, only 3 (2.4 percent) failed to reach the critical value of 0.7, and are therefore considered unsatisfactory (sub-items 1D, 4J and 5F). For the most part the judges concurred in their evaluation of the wording of the questionnaire. Moreover, 87 (69.0 percent) of the clarity of language scores are above the 0.8 threshold. In order to verify the instrument's overall content validity in terms of clarity of language, we computed the total CVC_t. Its value of 0.86 suggests that, on the whole, the questionnaire is clear enough to be administered to Brazilian CFOs.

2.2. Practical pertinence

Table III shows that the judges did not evaluate 22 out of 126 (17.5 percent) of the questions and sub-items for practical pertinence. Again, question 12 stands out, accounting for almost two fifths of the missing scores.

For those items with a sufficient number of responses to compute the CVC_c, 12 (9.5 percent) fail to reach the critical value of 0.7. Two questions stand out in this respect

because many sub-items revealed unsatisfactory scores: question 10 ("Has your firm seriously considered issuing common stock?"), and the evaluated parts of question 12. An additional 23 sub-items (18.3 percent) received borderline scores (between 0.7 and 0.8).

We believe that to properly interpret these results the structural characteristics of the Brazilian financial market must be taken into consideration. First, given the financial restrictions that most firms are faced with in Brazil, the "choice" of issuing public debt and equity instruments is not available to most companies. In Brazil, bank credit accounts for most of the corporate financing, and bond markets are thin and illiquid. The central and state governments' chronic deficits crowd out the private sector in the public credit market. High real interest rate spreads discourage most firms from issuing debt, thus inhibiting corporate investment. Legal protection of creditors and minority stockholders is weak. Finally, the stock market is underdeveloped and small, with the most frequently traded securities in the stock market consisting of non-voting preferred stocks; common stocks are generally illiquid and closely held by the controlling shareholders. In such a setting, questions 10 and 12 do not accurately describe the reality of the average Brazilian CFO. This constitutes an important consideration in applying the *Duke Special Survey on Corporate Policy* to emerging economies where the financial markets lack the development, liquidity, and depth found in more developed economies.

In order to assess how pertinent the questionnaire is overall, we compute the average CVC_t for the practical pertinence aspect. The value of 0.82 indicates that the judges' scores do not diverge by a large margin, suggesting that the overall instrument is pertinent. Again, caution must be used in interpreting any results for those items whose CVC_c scores are below 0.7.

2.3. Theoretical dimension

Theoretical adherence of the questions to the four main concepts explored in the instrument (Capital Budgeting, Cost of Capital, Capital Structure, and Corporate Governance) is assessed by asking the judges to classify each item in the instrument into one of these dimensions. Not surprisingly, the results are extremely consistent. Only 7 (5.6 percent) of the items were ambiguously classified. Even in those cases, each item dealt with no more than two theoretical concepts. For instance, sub-item 9B ("Protecting bondholders against unfavorable actions by managers or stockholders") addresses both the concepts of Capital Structure and Corporate Governance.

It is interesting that the judges felt comfortable classifying the questions according to theory, but refrained from grading the very same items in terms of practical pertinence to their daily activities. While a more conclusive interpretation would necessitate further investigation, we speculate that such behavior from our judges may serve as an indication of the gap between theory and practice of finance in Brazil.

2.4. Discussion

According to the judges' evaluations, the translated survey instrument is for the most part clear, pertinent, and well-aligned in terms of theory. It may be of interest to look at those items that the judges did not rate, and those whose CVC_c are below the critical value of 0.7.

Inspecting Table III and Appendix 2 (Table AI) in detail, it can be observed that most items left blank by the judges are related to financial tools and concerns that are common in developed markets but not so common in emerging markets. For instance, unrated items are associated with the following terms: "adjusted present value", "real

options", "credit ratings", "bondholder protection", "earnings per share dilution", "investor personal taxation", "retiring debt", and "sustainable growth". Items that failed to reach the critical level of CVC_c are also associated with more advanced terms such as: "earnings multiples", "momentum", "borrowing and riskiness", "investor attraction", and "employee stock options".

It is interesting to note that such terms are often used in large, liquid, and sophisticated financial markets, where corporate governance concerns are at the top of the financial manager's priorities – but this is hardly the case in an emerging market. These findings suggest that the lesser developed institutional environment of the Brazilian financial market affects managers' financial decisions. A better understanding of such market imperfections is important for the interpretation of the survey's results, as well as for the development of new financial theories.

In summary, the content validity of the translated version of the *Duke Special Survey on Corporate Policy* for use in Brazil is generally satisfactory. However, it is clear from our analysis that a few items may prove to be a challenge for the Brazilian CFO to answer, particularly those questions concerning features that are uncommon in the Brazilian financial market. In administering this survey, these items should either be suppressed or, if asked, the answers should be interpreted with extreme caution since they do not reflect the average Brazilian CFO's reality.

3. Summary and concluding remarks

This study demonstrates a procedure for scientific translation and content validation of a questionnaire originally designed for a survey in North America in order to produce an instrument suitable for administration in Brazil. We followed the psychometrics literature in our method. The translation of the survey instrument was performed by the technique of backtranslation, as a means to assure the faithfulness of the wording to the original survey. Next, a panel of experts served as judges to evaluate the clarity of language, the practical pertinence, and the theoretical dimensions of the questionnaire. The coefficients of content validity for each survey item and for the instrument as a whole were computed and it was found that, with only a few exceptions, the instrument is ready to be administered to Brazilian CFOs.

The use of formal techniques in the translation and validation of questionnaires constitutes a distinct contribution to the discipline of finance. Field research in corporate finance enables a better understanding of the decision-making process of financial managers. Cross-cultural field research may help highlight the role of the legal, institutional, and macroeconomic frameworks in the financial manager's decisions. Therefore, cross-country comparative field studies are necessary. However, in order for such studies to allow for meaningful cross-cultural comparisons, researchers must ensure that they are asking the same questions in different cultural contexts. The techniques exemplified in this study are an important way of meeting this challenge[6].

Notes

1. We have relied mostly on academics throughout this research. We aggressively tried to obtain the cooperation of financial executives in the implementation of this research, but we were not as successful as we would have liked. One reason is that academics are more likely to comprehend the importance of academic research. We realize that this may induce a bias in the analyses that follow. In order to minimize this bias, we engaged several academics whose previous professional experience included executive and consulting positions.

2. Despite our preference for a panel of judges, we also pre-tested the questionnaire on a small sample of finance MBA students along the lines of Graham and Harvey (2001) and Brounen *et al.* (2004). The results are qualitatively similar to those obtained from the panel of judges.

3. A scale commonly used in psychometric questionnaires, the Likert (1932) scale measures the respondent's degree of agreement with a given statement. The relationship between the elements of the scale is ordinal and not necessarily cardinal. Traditionally, a five point scale is the most widely used in survey research, although seven and nine point scales are also found in the literature.

4. Cohen's Kappa is a statistical measure of reliability between two judges that takes into account the agreement occurring by chance (Cohen, 1960). A multiple judge agreement measure is Fleiss's Kappa (Fleiss, 1971).

5. While the CVC indicates the equivalence of content, it does not provide the metric properties of the translated version (Vallerand, 1989, Hernández-Nieto, 2002). The metric properties of a survey concerns characteristics such as its validity, reliability, and consistency.

6. The translated and validated survey is currently being administered to Brazilian CFOs. The results will be reported in the future in a follow-up paper.

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Items for Evaluation	CLARITY OF LANGUAGE (A Little - A Lot)					PRACTICAL PERTINENCE (A Little - A Lot)					THEORETICAL DIMENSION (See Scale)				REMARKS
Questions	1	2	3	4	5	1	2	3	4	5	A	B	C	D	
1. How frequently does your firm use the following techniques when deciding which projects or acquisitions to pursue?															
a. Net Present Value (NPV)															
b. Internal Rate of Return (IRR)															
c. Hurdle Rate															
d. Earnings multiple approach															
e. Adjusted Present Value (APV)															
f. Payback Period															
g. Discounted payback period															
h. Profitability index															
i. Accounting Rate of Return (or Book rate of return on assets)															
j. Sensitivity analysis (e.g.: "good" vs. "fair" vs. "bad")															
k. Value at risk (VaR) or other simulation analysis															
l. We incorporate the "real options" of a project when evaluating it															
2. How frequently would your company use the following discount rates when evaluating a new project in an overseas market? To evaluate this project we would use...															
a. The discount rate for our entire company															
b. The discount rate for the overseas market (country discount rate)															
c. A divisional discount rate (if the project line of business matches a domestic division)															
d. A risk-matched discount rate for this particular project (considering both country and industry)															
e. A different discount rate for each component cashflow that has a different risk characteristic (e.g.: depreciation vs. operating cash flows)															

Figure A1.
Sample evaluation sheet
for judges

Appendix 2. Original English and Portuguese version of the questionnaire including content validity coefficients

English original	Portuguese version	CL	PP	TD
1. How frequently does your firm use the following techniques when deciding which projects or acquisitions to pursue?	1. Quão freqüentemente a sua empresa utiliza as seguintes técnicas quando decidindo quais projetos ou aquisições realizar?	0.91	0.90	A
a. Net Present Value (NPV)	A. Valor Presente Líquido (VPL)	0.92	0.96	A
b. Internal Rate of Return (IRR)	B. Taxa Interna de Retorno (TIR)	0.92	0.96	A
c. Hurdle Rate	C. Taxa Mínima de Atratividade	0.76	0.85	A
d. Earnings multiple approach	D. Abordagem de Múltiplos de Lucros	*0.68*	*0.68*	A
e. Adjusted Present Value (APV)	E. Valor Presente Ajustado (VPA)		*0.68*	A
f. Payback Period	F. Período de Recuperação do Capital ("Payback")	0.92	0.84	A
g. Discounted payback period	G. Período de Recuperação do Capital Descontado ("Payback" Descontado)	0.84	0.84	A
h. Profitability index	H. Índice de Lucratividade	0.84	0.88	A
i. Accounting Rate of Return (or Book rate of return on assets)	I. Taxa de Retorno Contábil (ou Taxa de Retorno Contábil sobre os Ativos)		0.80	A
j. Sensitivity analysis (e.g.: "good" vs "fair" vs "bad")	J. Análise de Sensibilidade (por ex.: "Otimista" vs "Provável" vs "Pessimista")	0.76	0.88	A
k. Value at risk (VaR) or other simulation analysis	K. Valor em Risco (VaR) ou outra Análise de Simulação	0.71	0.90	A
l. We incorporate the "real options" of a project when evaluating it	L. Nós incorporamos a abordagem de "Opções Reais" de um projeto ao avaliá-lo.		0.88	A
2. How frequently would your company use the following discount rates when evaluating a new project in an overseas market? To evaluate this project we would use …	2. Quão freqüentemente sua empresa utilizaria as seguintes taxas de desconto ao avaliar um projeto novo em um mercado internacional? Para avaliar esse projeto, nós utilizaríamos …			A
a. The discount rate for our entire company	A. A taxa de desconto para toda a nossa empresa	0.76	0.92	A
b. The discount rate for the overseas market (country discount rate)	B. A taxa de desconto para o mercado internacional (taxa de desconto do país)	0.72	0.92	A
c. A divisional discount rate (if the project line of business matches a domestic division)	C. A taxa de desconto da divisão (se a linha de negócio do projeto casa com uma divisão doméstica)	0.76	0.96	A
d. A risk-matched discount rate for this particular project (considering both country and industry)	D. Uma taxa de desconto compatível ao risco para esse projeto em particular (considerando ambos, país e setor)	0.72	0.96	A
e. A different discount rate for each component cashflow that has a different risk characteristic (e.g.: depreciation vs. operating cash flows)	E. Uma taxa de desconto diferente para cada componente do fluxo de caixa que tenha uma característica de risco diferente (por ex.: depreciação vs fluxos de caixa operacionais)	0.72		A
3. Does your firm estimate the cost of equity capital? Yes No (if "no", please skip to number 4) If "yes", how do you determine your firm's cost of equity capital?	3. Sua empresa estima o custo do capital próprio? Sim/Não (se "Não", por favor, pule para a questão 4). Se "Sim", como você determina o custo do capital próprio para sua empresa?	0.91	0.95	B

(*continued*)

English original	Portuguese version	CL	PP	TD
a. With average historical returns on common stock	A. Com a média histórica dos retornos das ações ordinaries	0.72	0.76	B
b. Using the Capital Asset Pricing Model (CAPM, the beta approach)	B. Usando o "Capital Asset Pricing Model" (CAPM, abordagem do "beta")	0.92	0.92	B
c. Using the CAPM but including some extra "risk factors"	C. Usando o CAPM, mas incluindo alguns "fatores de risco" adicionais	0.92	0.92	B
d. Whatever our investors tell us they require	D. Aquele que nossos investidores nos dizem que requerem	0.96	0.76	B
e. By regulatory decisions	E. Por decisões regulatórias	0.92	0.84	B
f. Back out from discounted dividend/earnings model, e.g.: price = dividend/(cost of capital growth)	F. Retroagindo do modelo de dividendos e/ou lucros descontados, por ex.: Preço = Dividendos/(Custo de Capital – Taxa de Crescimento)	0.80	0.80	B
4. When valuing a project, do you adjust either the discount rate or cash flows for the following risk factors? (4 options: discount rate; cash flow; both; neither)	4. Quando avaliando um projeto, você ajusta a taxa de desconto ou os fluxos de caixa para os seguintes fatores de risco? (4 Opções: Taxa de Desconto; Fluxo de Caixa; Ambos; Nenhum)			A
a. Risk of unexpected inflation	A. Risco de inflação inesperada	0.88	0.92	A
b. Interest rate risk (change in general level of interest rates)	B. Risco da taxa de juros (mudança no nível geral das taxas de juros)	0.92	0.92	B
c. Term structure risk (change in the long-term vs. short term interest rate)	C. Risco da estrutura a termo (mudança nas taxas de juros de longo prazo vs curto prazo)	0.88	0.88	B
d. GDP or business cycle risk	D. Risco do PIB ou ciclo econômico	0.92	0.88	B
e. Commodity price risk	E. Risco do preço de "commodities"	0.88	0.88	B
f. Foreign exchange risk	F. Risco da taxa de câmbio	0.88	0.92	B
g. Distress risk (probability of bankruptcy)	G. Risco de insolvência (probabilidade de falência)	0.80	0.80	B
h. Size (small firms being riskier)	H. Porte (empresas pequenas sendo mais arriscadas)	0.80	0.76	B
i. "Market-to-book" ratio (ratio of market value of firm to book value assets)	I. Índice Valor de Mercado/Valor Patrimonial (quociente do valor de mercado da empresa para o valor contábil dos ativos)	0.76	0.72	AB
j. Momentum (recent stock price performance)	J. "Momentum" (desempenho recente do preço das ações)	*0.68*	*0.68*	AB
5. What factors affect your firm's choice between short-and long-term debt?	5. Que fatores afetam a escolha da sua empresa entre dívida de curto e longo prazos?	0.91	0.90	C
a. We issue short term when short term interest rates are low compared to long term rates	A. Nós tomamos dívida de curto prazo quando as taxas de juros de curto prazo estão baixas comparadas às taxas de longo prazo	0.96	0.80	C
b. Matching the maturity of our debt with the life of our assets	B. Casando o prazo da nossa dívida com a vida dos nossos ativos	0.84	0.96	C
c. We issue short-term when we are waiting for long-term market interest rates so decline	C. Nós tomamos dívida de curto prazo enquanto esperamos as taxas de mercado de longo prazo declinarem	0.88	0.72	C

(continued)

Table AI.

English original	Portuguese version	CL	PP	TD
d. We borrow short-term so that returns from new projects can be captured more fully by shareholders, rather than committing to pay long-term profits as interest to debtholders	D. Nós tomamos dívida de curto prazo para que os retornos dos novos projetos possam ser capturados mais integralmente pelos acionistas, ao invés de nos comprometermos com o pagamento de lucros de longo prazo sob a forma de juros para os credores			C
e. We expect our credit rating to improve, so we borrow short-term until it does	E. Nós esperamos que a nossa classificação de crédito ("*rating*") irá melhorar; assim nós tomamos dívida de curto prazo até que isso aconteça	0.72		C
f. Borrowing short-term reduces the chance that our firm will want to take on risky projects	F. Tomar dívida de curto prazo reduz a chance de que nossa empresa deseje implementar projetos arriscados	*0.68*	0.72	C
g. We issue long-term debt to minimize the risk of having to refinance in "bad times"	G. Nós tomamos dívida de longo prazo para minimizar o risco de ter que refinanciar em "períodos ruins"	0.80	0.80	C
6. What was your firm's approximate (trailing) Price/Earnings ratio over the past 3 years? ... (e.g. 18)	6. Qual foi, aproximadamente, o seu P/L (quociente Preço/Lucro por Ação) de sua empresa nos últimos 3 anos? ... (média – por ex.: 18)	0.96	0.84	B
7. What is the credit rating for your firm's debt? Write NONE if debt not rated ... (e.g. AA-, B +)	7. Qual a classificação de risco ("*rating*") da dívida da sua empresa? Escreva NENHUMA se a empresa não é classificada ... (por ex.: AA-, B +)	0.96	0.88	B
8. Has your firm seriously considered issuing debt in foreign countries? Yes/No (If "no", please skip to #9) If "yes", what factors affect your firm's decisions about issuing foreign debt?	8. Sua empresa considerou seriamente tomar dívida em países estrangeiros? Sim/Não (se "Não", por favor, pule para questão 9). Se "Sim", que fatores afetam a decisão da sua empresa sobre o endividamento no exterior?	0.96	0.88	C
a. Favorable tax treatment relative to the U.K. (e.g.: different corporate tax rates)	A. Tratamento tributário favorável relativamente ao Brasil (por ex.: alíquotas diferentes para pessoas jurídicas)	0.96	0.84	B
b. Keeping the "source of funds" close to the "use of funds"	B. Manter as "Origens de Fundos" próximas das "Aplicações de Fundos" (na mesma moeda)	0.92	0.92	AC
c. Providing a "natural hedge" (e.g.: if the foreign currency devalues, we are not obligated to pay interest in British pounds)	C. Propiciar um "*hedge*" natural (por ex.: se a moeda estrangeira desvaloriza, não somos obrigados a pagar juros em reais)	0.88	0.84	C
d. Foreign regulations require us to issue debt abroad	D. A regulamentação estrangeira nos obriga a tomar dívida no exterior			C
e. Foreign interest rates may be lower than domestic interest rates	E. Taxas de juro estrangeiras podem estar mais baixas que as taxas de juro domésticas	0.96	0.92	B
9. Has your firm seriously considered issuing convertible debt? Yes / No (If "no", please skip to #10) If "yes", what factors affect your firm's decisions about issuing convertible debt?	9. Sua empresa considerou seriamente emitir dívida conversível? Sim / Não (se "Não", por favor, pule para questão número 10). Se "Sim", que fatores afetam a decisão da sua empresa sobre a emissão de títulos de dívida conversíveis?	0.88	0.92	C

Table AI.

English original	Portuguese version	CL	PP	TD
a. Convertibles are an inexpensive way to issue "delayed" common stock	A. Títulos de dívida conversíveis são uma forma barata para retardar a emissão de ações	0.72	0.76	C
b. Protecting bondholders against unfavorable actions by managers or stockholders	B. Proteger os detentores de títulos de dívida conversíveis contra atitudes desfavoráveis por parte dos administradores ou acionistas.		**0.64**	CD
c. Convertibles are less expensive than straight debt	C. Títulos de dívida conversível são menos onerosos do que dívidas comuns	0.92	0.80	B
d. Other firms in our industry successfully use convertibles	D. Outras empresas em nosso setor utilizam títulos de dívida conversíveis com sucesso	0.96	0.76	C
e. Avoiding short-term equity dilution	E. Evitar diluição patrimonial no curto prazo	0.88	0.72	C
f. Our stock is currently undervalued	F. Nossas ações estão, atualmente, subavaliadas	0.96	0.72	C
g. Ability to "call" or force conversion of convertible debt if/when we need to	G. Capacidade para resgatar ou forçar a conversão de títulos de dívida conversíveis se/quando nós precisarmos	0.84	0.76	C
h. To attract investors unsure about the riskiness of our company	H. Atrair investidores inseguros sobre o risco da nossa empresa	0.76	*0.68*	C
10. Has your firm seriously considered issuing common stock? Yes / No (if "no", please skip to number 11) If "yes", what factors affect your firm's decisions about issuing common stock?	10. Sua empresa considerou seriamente emitir ações ordinárias? Sim / Não (se "Não", por favor, pule para a questão número 11). Se "Sim", que fatores afetam a decisão da sua empresa sobre a emissão de ações?	0.95	0.95	C
a. If our stock price has recently risen, the price at which we can issue is "high"	A. Se o preço de nossas ações aumentou recentemente, o preço no qual podemos emiti-las é "alto"	0.96	0.76	C
b. Stock is our "least risky" source of funds	B. Ações são a nossa fonte de fundos "menos arriscada"	0.80		C
c. Providing shares to employee bonus/stock option plans	C. Prover ações para bônus/planos de opções de ações ("*Stock Options*") para empregados	0.88	*0.68*	CD
d. Common stock is our cheapest source of funds	D. Ações ordinárias são nossa fonte de fundos mais barata	0.80	*0.68*	BC
e. Maintaining target debt-to-equity ratio	E. Manter um índice-alvo Exigível/Patrimônio Líquido	0.92	0.80	C
f. Using a similar amount of equity as is used by other firms in our industry	F. Utilizar um montante de capital próprio similar a outras empresas em nosso setor	0.80	*0.68*	C
g. Whether our recent profits have been sufficient to fund our activities	G. Se nossos lucros recentes foram suficientes para financiar nossas atividades	0.72		C
h. Issuing stock gives investors a better impression of our firm's prospects than using debt	H. Emitir ações dá aos investidores uma impressão melhor das perspectivas da nossa empresa do que tomar dívida	0.76	*0.68*	C
i. The capital gains tax rates faced by our investors (relative to tax rates on dividends)	I. As alíquotas de imposto sobre ganhos de capital dos investidores (em relação às alíquotas de imposto sobre dividendos)	0.80	0.76	C

Table AI.

English original	Portuguese version	CL	PP	TD
j. Diluting the holdings of certain shareholders	J. Diluir a participação acionária de certos acionistas	0.72	*0.68*	D
k. The amount by which our stock is undervalued or overvalued by the market	K. O montante pelo qual as nossas ações estão subavaliadas ou superavaliadas pelo mercado	0.84	0.72	C
l. Inability to obtain funds using debt, convertibles, or other sources	L. Inabilidade de se obter fundos utilizando dívida, títulos de dívida conversíveis ou outras fontes	0.92		C
m. Earnings per share dilution	M. Diluição dos Lucros por Ação	0.92		C
11. Does your firm have a target range for your debt ratio?	11. Sua empresa tem uma faixa-alvo para o índice de endividamento?	0.91	0.90	C
– No target range	Nenhuma faixa-alvo	0.91	0.95	C
– Flexible target range	Faixa-alvo flexível	0.91	0.95	C
– Somewhat tight target range	Faixa-alvo um tanto rígida	0.91	0.95	C
– Strict target range	Faixa-alvo rígida		0.90	C
12. What factors affect how you choose the appropriate amount of debt for your firm?	12. Que fatores afetam como você escolhe o montante apropriado de endividamento para sua empresa?	0.91	0.90	C
a. The tax advantage of interest deductibility	A. A vantagem tributária da dedutibilidade dos juros	0.88	0.76	C
b. The potential costs of bankruptcy, near-bankruptcy, or financial distress	B. Os custos potenciais de falência, concordata ou dificuldades financeiras	0.80	0.72	C
c. The debt levels of other firms in our industry	C. Os níveis de endividamento de outras empresas em nosso setor	0.96	0.80	C
d. Our credit rating (as assigned by rating agencies)	D. Nossa classificação de crédito ("*rating*", conforme atribuído pelas agências de classificação de risco)	0.96	0.80	C
e. The transactions costs and fees for issuing debt	E. Os custos de transação e as comissões de colocação da dívida	0.92	0.72	C
f. The personal tax cost our investors face when they receive interest income	F. A tributação na pessoa física dos investidores ao receberem renda de juros	0.88		C
g. Financial flexibility (we restrict debt so we have enough internal funds available to pursue new projects when they come along)	G. Flexibilidade financeira (nós restringimos o endividamento; assim nós temos fundos internos disponíveis para implementar novos projetos quando eles surgem)	0.88		C
h. The volatility of our earnings and cash flows	H. A volatilidade dos nossos lucros e fluxos de caixa	0.96	0.76	C
i. We limit debt so our customers/suppliers are not worried about our firm going out of business	I. Nós limitamos o endividamento; assim, nossos clientes/fornecedores não se preocupam com a possibilidade da nossa empresa falir	0.88		C
j. We try to have enough debt that we are not an attractive takeover target	J. Nós tentamos ter um endividamento suficiente para que não sejamos um alvo atraente para uma aquisição ("*takeover*")	0.84		C
k. If we issue debt our competitors know that we are very unlikely to reduce our output/sales	K. Se nós nos endividarmos, nossos competidores saberão que será muito improvável que iremos reduzir nossa produção e/ou vendas			C

Table AI.

(*continued*)

English original	Portuguese version	CL	PP	TD
l. A high debt ratio helps us bargain for concessions from our employees	L. Um índice de endividamento alto nos ajuda a barganhar concessões de nossos empregados			C
m. To ensure that upper management works hard and efficiently, we issue sufficient debt to make sure that a large portion of our cash flow is committed to interest payments	M. Para assegurar que a administração superior trabalhe duro e eficientemente, nós nos endividamos o suficiente para garantir que uma grande porção do nosso fluxo de caixa seja comprometida com o pagamento de juros			C
n. We restrict our borrowing so that profits from new/future projects can be captured fully by shareholders and do not have to be paid out as interest to debtholders	N. Nós restringimos nosso endividamento de forma que os lucros de novos/futuros projetos seja completamente capturado pelos acionistas e não tenham que ser pagos sob a forma de juros para os credores			C
13. What other factors affect your firm's debt policy?	13. Que outros fatores afetam a política de endividamento da sua empresa?	0.91		C
a. We issue debt when our recent profits (internal funds) are not sufficient to fund our activities	A. Nós nos endividamos quando nossos lucros recentes (fundos internos) não são suficientes para financiar nossas atividades	0.96	0.92	C
b. Using debt gives investors a better impression of our firm's prospects than issuing stock	B. Utilizar endividamento dá aos investidores uma impressão melhor das perspectivas da nossa empresa do que emitir ações	0.80	0.76	C
c. We issue debt when interest rates are particularly low	C. Nós nos endividamos quando as taxas de juro estão particularmente baixas	0.96	0.76	B
d. We use debt when our equity is undervalued by the market	D. Nós utilizamos endividamento quando nossas ações estão subavaliadas pelo mercado	0.92	0.72	C
e. We delay issuing debt because of transactions costs and fees	E. Nós retardamos o uso de endividamento devido aos custos de transação e comissão de colocação da dívida	0.84	0.72	B
f. We delay retiring debt because of recapitalization costs and fees	F. Nós retardamos o resgate da dívida devido aos custos e comissões para recapitalização		*0.68*	B
g. Changes in the price of our common stock	G. Mudanças no preço de nossas ações ordinárias.	0.80	**0.68**	BC
h. We issue debt when we have accumulated substantial profits	H. Nós nos endividamos quando temos lucros acumulados substanciais.	0.76		C
14. What is your firm's approximate long-term debt/total assets ratio? … % (e.g. 40%)	14. Qual é, aproximadamente, o quociente de dívidas de longo prazo em relação ao ativo total da sua empresa? … % (por ex.: 40%)	0.96	0.88	C
15. Which goals are important for your firm?	15. Quais metas são importantes para sua empresa?			D
a. Maximize profits (e.g. ROA, ROE or EPS)	A. Maximizar lucros (por ex.: Retorno sobre os Ativos "ROA", Retorno sobre o Patrimônio Líquido "ROE" ou Lucros por Ação)	0.90	0.90	D

(*continued*)

Table AI.

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English original	Portuguese version	CL	PP	TD
b. Maximize dividends	B. Maximizar dividendos	0.90	0.85	D
c. Maximize sustainable growth (book value, sales)	C. Maximizar crescimento sustentável (valores contábeis, vendas)		0.90	D
d. Market position, service, quality	D. Posição de mercado, serviço, qualidade	0.90	0.90	D
e. Cost control, productivity, efficiency	E. Controle de custos, produtividade, eficiência	0.85	0.90	D
f. Knowledge	F. Conhecimento	0.70	0.90	D
g. Optimize solvability	G. Otimizar capacidade de solvência	0.90	0.80	D
h. Maximize shareholder wealth	H. Maximizar a riqueza dos acionistas	0.85	0.90	D
i. Continuity	I. Continuidade	0.80	0.90	D
j. Independence and self-sufficiency	J. Independência e auto-suficiência	0.70	0.85	D
k. Optimize working environment	K. Otimizar o ambiente de trabalho	0.90	0.80	D
l. Social responsibility/environment	L. Responsabilidade social/meio ambiente	0.85	0.80	D
16. Which stakeholders are important for your firm?	16. Quais partes interessadas ("*stakeholders*") são importantes para sua empresa?			D
a. Customers	A. Clientes	0.95	0.85	D
b. Suppliers of goods/services	B. Fornecedores de mercadorias/serviços	0.95	0.85	D
c. Employees	C. Empregados	0.95	0.85	D
d. Management	D. Administração	0.95	0.85	D
e. The general public	E. O público em geral	0.95	0.75	D
f. Shareholders	F. Acionistas	0.95	0.80	D
g. Suppliers of debt	G. Fornecedores de recursos via financiamento	0.95	0.85	D
CVC$_t$		0.86	0.82	

Notes: (CL) Clarity of language; (PP) Practical pertinence; (TD) Theoretical dimension: A = Capital budgeting; B = Cost of capital; C = Capital structure; D = Corporate governance; Blank: not enough scores to compute; italics: CVC_c below critical value (<0.7)

Table AI.

Corresponding author
Marcos Alencar Abaide Balbinotti can be contacted at: mbalbinotti@terra.com.br

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2. Karyn L. Neuhauser. 2007. Survey research in finance. *International Journal of Managerial Finance* **3**:1, 5-10. [Abstract] [Full Text] [PDF]