Shareholder- Versus Stakeholder-Focused Japanese Companies: Firm Characteristics and Accounting Valuation*

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Abstract

Recent research has found that the value-relevance of accounting variables depends not only on whether a country's accounting rules are code-law oriented or common-law oriented, but also on the reporting incentives created by the legal and business environment in which a firm operates. Therefore, for example, the earnings of firms in some countries with common-law oriented rules but with code-law incentives have more code-law-type characteristics. We further this research by examining whether this is true for firms facing the same accounting regime and institutional environment but different stakeholder-related incentives. We find significant stakeholder-related incentives across 23 Japanese firms listed in the United States and 23 Japanese firms not listed in the United States that are matched by industry and size. Although these firms face the same institutional environment and the same accounting regime, consistent with the differences in stakeholder-related incentives, the earnings and book values of the firms listed in the more shareholder-oriented U.S. markets have significantly more explanatory power for market value than those for firms not cross-listed in the United States. These findings are unaffected by whether the reports are based on consolidated or parent-only accounting or whether they are based on U.S. or Japanese GAAP, emphasizing the potential influence of reporting incentives at all levels on the effect of standardization, conversion, or harmonization of accounting methods globally.

Keywords Consolidated financial reporting; Japanese capital markets; Stakeholder focus; Valuation of accounting data

Condensé

Les auteurs ont pour but de décrire les caractéristiques de sociétés japonaises qui choisissent d'inscrire leurs titres à la cote sur le marché financier des États-Unis (centré sur les actionnaires) par rapport à des sociétés japonaises similaires qui ne choisissent pas l'inscription parallèle aux États-Unis ; ils examinent également les propriétés des mesures comptables en

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relation avec le cours des actions dans les deux groupes. Ils s'attardent plus particulièrement aux variables qui indiquent le point de mire des sociétés de l'échantillon — relations ou propriété — afin de déterminer si les sociétés japonaises qui choisissent l'inscription parallèle aux États-Unis ont une structure globale mieux adaptée au point de mire sur la propriété. Ils se demandent au surplus s'il existe une relation entre le cours des actions, d'une part, et les résultats et les valeurs comptables, d'autre part, plus forte dans ces sociétés que dans celles qui ont les relations pour point de mire.

Dans leurs travaux visant à déterminer l'étendue et la nature de la normalisation, de la convergence ou de l'harmonisation des méthodes comptables qui serviraient le mieux la communauté des investisseurs dans son ensemble, les auteurs jugent important de comprendre l'incidence des stimulants à la communication d'information sur la façon dont les mesures comptables reflètent l'information pertinente au cours des actions et, par conséquent, la mesure dans laquelle cette normalisation, cette convergence ou cette harmonisation aurait les résultats souhaités. Ali et Hwang (2000) montrent que les propriétés des données comptables diffèrent selon qu'elles proviennent de pays de droit codifié (comme le Japon, l'Allemagne et la France) ou de pays de common law (comme les États-Unis, le Royaume-Uni, le Canada et l'Australie), les données comptables des pays de droit codifié étant moins pertinentes à la valeur ou ayant moins de pouvoir explicatif que celles des pays de common law. Ball, Robin et Wu (2000), dont le point de vue est légèrement différent, examinent les propriétés des mesures comptables et du rendement des actions dans quatre pays de l'Est asiatique (Hong Kong, Malaisie, Singapour et Thaïlande). Ils affirment que ces pays sont semblables aux pays de common law pour ce qui est des règles comptables, leur version adaptée des normes comptables internationales (*International Accounting Standards* — IAS) visant à promouvoir la transparence et l'information complète. Toutefois, leurs stimulants à la communication d'information ressemblent davantage à ceux des pays de droit codifié, étant donné que le plus important actionnaire de toute société est susceptible d'être une même famille, que les sociétés comptent beaucoup sur leurs relations avec les banques pour obtenir des fonds, et que les règles comptables sont fixées par les organismes gouvernementaux. Puisque les propriétés des résultats sur lesquelles est centrée leur étude se rapprochent davantage de celles des résultats des pays de droit codifié, Ball, Robin et Wu (2000) concluent que les stimulants à la communication d'information sont des prédicteurs plus puissants des propriétés des données comptables que ne le sont les règles en vigueur dans les pays étudiés.

Dans le présent document, les auteurs appliquent la notion de stimulants dissemblables à la question de la pertinence à la valeur de l'information comptable publiée par les sociétés d'un même pays de droit codifié, le Japon. En s'intéressant aux sociétés japonaises inscrites à la bourse de Tokyo et en comparant celles qui sont aussi inscrites à la cote aux États-Unis à celles qui ne le sont pas, les auteurs se demandent si, à l'intérieur d'un même pays de droit codifié, certains stimulants des sociétés (stimulants à la communication d'information aussi bien que stimulants structurels) sont plus fortement influencés par l'intérêt que présentent ces sociétés pour les investisseurs des États-Unis (sociétés inscrites à la cote aux États-Unis — *USL*), tandis que certains autres stimulants des sociétés proviendraient des réseaux traditionnels japonais des principales banques, des clients, des fournisseurs, des employés et du fisc (sociétés qui ne sont pas inscrites à la cote aux États-Unis — *NUSL*), et si cette dissemblance des stimulants a une incidence sur le contenu en information de leurs résultats et de

leur valeur comptable. Comme Ali et Hwang (2000), 1) les auteurs examinent la mesure dans laquelle les variables comptables expliquent la fluctuation du cours des actions et 2) ils s'intéressent à la conjugaison des résultats et de la valeur comptable, étant donné que cette conjugaison est généralement considérée, tant sur le plan théorique (Ohlson, 1995 ; Feltham et Ihlson, 1995 ; Edwards et Bell, 1961) que sur le plan empirique (Burgstahler, 1998 ; Ely et Waymire, 1999 ; Francis et Schipper, 1999 ; Lev et Zarowin, 1999 ; Pownall et Schipper, 1999) comme étant un résumé sensé de l'information comptable pertinente.

Les auteurs font entrer parmi les sociétés USL les 23 sociétés japonaises qui ont été inscrites ou cotées aux principales bourses des États-Unis au cours de la période d'étude (1988 à 1996) ; les sociétés NUSL, aussi au nombre de 23, sont des sociétés japonaises analogues sur le plan du secteur d'activité et de la taille, et qui n'ont pas été inscrites aux bourses des États-Unis au cours de la même période. Les auteurs comparent ces sociétés sous deux rapports. Premièrement, ils posent (et étayent) l'hypothèse selon laquelle les sociétés japonaises qui ont obtenu et conservé leur inscription à la cote aux États-Unis sont fondamentalement différentes des sociétés japonaises qui n'ont pas fait appel au marché financier des États-Unis, dominé par les épargnants. Les auteurs utilisent la situation des sociétés en ce qui a trait à l'inscription à la cote comme substitut aux caractéristiques indiquant l'appui sur les réseaux de relations traditionnels (associations keiretsu, dominance bancaire, participation bancaire, participation étrangère, inscription à la cote sur les marchés mondiaux, intérêt des analystes, présence multinationale, etc.) et s'attendent à ce que les sociétés aient davantage pour point de mire les actionnaires ou la propriété, dans le cas des sociétés USL, et les parties prenantes ou les relations, dans le cas des sociétés NUSL. Dans cette logique, les auteurs constatent que le choix des sociétés japonaises de s'inscrire à la cote aux États-Unis est associé au fait qu'elles s'appuient moins sur les réseaux de relations japonais traditionnels, les sociétés USL affichant un niveau d'endettement plus faible et recourant moins au financement par emprunt bancaire, mais présentant davantage de participations bancaires qui ne sont pas détenues par des membres d'associations keiretsu, de participations étrangères, d'inscriptions à la cote sur les marchés étrangers, et suscitant davantage l'intérêt des analystes étrangers.

Deuxièmement, les auteurs posent l'hypothèse selon laquelle les résultats et les valeurs comptables des sociétés USL, qui ont davantage pour point de mire les actionnaires ou la propriété, expliquent une plus grande part de la fluctuation du cours des actions que ceux des sociétés NUSL, qui ont davantage pour point de mire les parties prenantes ou les relations. Par tradition, les sociétés japonaises concluent des alliances qui revêtent la forme d'importants regroupements sectoriels appelés keiretsu, et qui reposent sur des liens non contractuels entre les parties prenantes, notamment les administrations de liaison et les modestes participations communes (Lowe, 1990 ; Ide, 1998). Dans ce contexte où la société a pour point de mire les parties prenantes, les rendements collectifs pour certaines de ces parties sont relativement supérieurs aux rendements financiers qui échoient aux actionnaires individuels, de sorte que les rendements financiers, bien qu'ils soient importants, le sont moins, toutes proportions gardées, que dans le contexte où la société a pour point de mire les actionnaires. Les principaux actionnaires, qui sont souvent des clients, des fournisseurs et des institutions financières, sont habituellement intéressés plutôt à promouvoir des relations d'affaires à long terme. Ainsi, les relations entre une société et sa banque principale sont souvent aussi étroites que s'il s'agissait d'un partenariat, l'institution financière

partageant quotidiennement de l'information avec la société cliente, l'aidant à gérer en période difficile et lui offrant une protection contre les prises de contrôle. Les participations croisées sont abondamment utilisées pour établir la confiance réciproque, ce qui fait que les dividendes et les gains en capital découlant de ces participations n'en sont pas l'objectif principal (Ide, 1998). En plus d'évaluer les aspects de l'entreprise qui ne se reflètent peut-être pas dans ses résultats et sa valeur comptable, les parties prenantes empruntent souvent d'autres avenues pour obtenir l'information dont elles ont besoin, de sorte qu'elles n'ont pas à fonder essentiellement leurs décisions sur les rapports comptables (Ide, 1998). C'est pourquoi, aux yeux de bon nombre des actionnaires des sociétés qui ont les parties prenantes pour point de mire, les résultats et la valeur comptable sont moins pertinents à la valeur d'une société, toutes proportions gardées, qu'ils ne le sont aux yeux des actionnaires des sociétés qui ont les actionnaires pour point de mire.

Le pouvoir explicatif des résultats et de la valeur comptable dans une régression relative au prix au cours de la période s'échelonnant de 1988 à 1996 vient confirmer ces attentes. Compte tenu de l'importance plus faible des bénéfices de l'exercice pour les sociétés japonaises qui ont pour point de mire les parties prenantes (Ide, 1998), le pouvoir explicatif de la régression est beaucoup moindre pour les sociétés NUSL que pour les sociétés USL. Des analyses de sensibilité étendues démontrent que les résultats obtenus par les auteurs résistent à la variation de la spécification empirique. Les auteurs observent, en outre, que cette relation persiste pour les mesures tant des données consolidées relatives aux résultats et à la valeur comptable que des données exclusives à la société mère, et que, contrairement aux inquiétudes de nombreux chercheurs, les mesures des données consolidées et des données exclusives à la société mère sont très semblables en ce qui a trait à leur capacité d'expliquer la fluctuation du cours des actions.

Ces résultats portent à croire que, à l'intérieur d'un même régime comptable, les stimulants à la communication d'information ont encore une incidence marquée sur la façon dont les mesures comptables reflètent l'information, et ils laissent supposer que la compréhension de ces stimulants est cruciale au succès des efforts pour normaliser, faire converger ou harmoniser les méthodes comptables. En outre, la constatation des auteurs selon laquelle, dans leur échantillon et leurs tests, la distinction entre les données exclusives à la société mère et celles des sociétés consolidées a peu de conséquences, donne à penser que le fait de circonscrire les échantillons, dans la recherche comptable fondée sur le marché financier mondial, strictement aux sociétés dont les données provenant des états financiers consolidés sont accessibles sur support exploitable est indûment restrictif. Enfin, en ce qui a trait à l'utilisation potentielle, à l'échelle mondiale, des rapports consolidés, il faudra pousser plus loin les recherches et varier les contextes pour démontrer que soit les données consolidées, soit les données exclusives à la société mère dominent suffisamment pour être exigées par la communauté mondiale.

1. Introduction

This paper describes the characteristics of Japanese firms that choose to be listed in the (shareholder-focused) U.S. capital market relative to similar Japanese firms that do not choose to cross-list in the United States, and examines the properties of accounting measurements in relation to stock prices across the two groups. In particular, we examine variables reflecting sample firms' relationship versus ownership

focus to see whether Japanese firms who cross-list in the United States have an overall structure more consistent with an ownership focus. Further, we examine whether there is a stronger relationship between stock prices and both earnings and book values for these firms than for those with more of a relationship focus.

As we work to determine the extent and type of standardization, conversion, or harmonization of accounting methods that would best serve the global investing community, it is important to understand the impact of reporting incentives on the way accounting measures reflect information relevant to stock prices. Ali and Hwang (2000) show that the properties of accounting numbers differ between code-law countries (such as Japan, Germany, and France) and common-law countries (such as the United States, the United Kingdom, Canada, and Australia), with the accounting numbers in code-law countries providing less value-relevance or explanatory power than those of common-law countries. Ball, Robin, and Wu (2000), with a slightly different focus, examine properties of accounting measures and stock returns among four East Asian countries (Hong Kong, Malaysia, Singapore, and Thailand). They assert that these countries are similar to common-law countries in their accounting rules, which are local adaptations of international accounting standards (IAS) meant to promote transparency and full disclosure. However, their reporting incentives are more similar to code-law countries in that the largest shareholder for each firm is likely to be a single family; firms rely heavily on their relationships with banks for financing; and governmental agencies set accounting rules. Because the properties of earnings on which their study focuses are more similar to earnings in code-law countries, they conclude that reporting incentives are more powerful predictors of the properties of accounting numbers than are the rules in force in the countries studied.

In these studies, all firms in a country are treated similarly. Two more recent papers (Leuz 2001; Bartov, Goldberg, and Kim 2002) look for differences across firms within the German capital market. Leuz (2001) finds that IAS and U.S. generally accepted accounting principles (GAAP) have similar impacts on liquidity (emphasizing the importance of institutional differences), while Bartov et al. (2002) find differences in the value-relevance of U.S. GAAP and IAS across German firms, suggesting that these differences may be captured in value-relevance rather than liquidity. In this paper we apply the concept of differing incentives to the question of the value-relevance of accounting information released by Japanese firms, which are and are not listed in the United States as well as on the Tokyo Stock Exchange (TSE). Specifically, we examine whether within a single code-law country, some firms' incentives (both reporting and structural) are more strongly influenced by their appeals to U.S. investors (U.S.-listed (USL) firms) while other firms' incentives come from traditional Japanese networks of main banks, customers, suppliers, employees, and taxing authorities (non-U.S.-listed (NUSL) firms), and whether this difference in incentives affects the informativeness of their earnings and book values. While Bartov et al. (2002) look at differences in the coefficient on earnings, we are more interested in the extent to which accounting variables explain the variation in stock prices, similar to Ali and Hwang 2000. Also like Ali and Hwang, we are interested in the combination of earnings and book value because

this combination is commonly considered both theoretically[1] and empirically[2] to be a reasonable summary of relevant accounting information.

We include as USL firms all 23 Japanese firms that were listed or quoted on major U.S. exchanges during our sample period (1988–96) and the NUSL firms are 23 industry- and size-matched Japanese firms that were not traded on U.S. exchanges during the period. We compare these firms in two ways. First, we hypothesize (and document) that Japanese firms that have secured and maintain U.S. stock exchange listings are fundamentally different from Japanese firms that have not sought capital from the retail investor-dominated U.S. capital market. We use the listing status of the firms as a proxy for characteristics that reflect reliance on traditional relationship networks (such as keiretsu affiliations, bank dominance, bank ownership, foreign ownership, global stock exchange listing, analyst coverage, degree of multinationality, etc.), expecting the USL firms to be more shareholder- or ownership-focused and the NUSL firms to be more stakeholder- or relationship-focused. Consistent with this, we find that Japanese firms' choices to seek U.S. listing are associated with a lower reliance on traditional Japanese relationship networks, with USL firms exhibiting lower leverage and less bank borrowing but more non-keiretsu bank ownership, more foreign ownership, more foreign stock exchange listings, and more foreign analyst coverage.

Second, we hypothesize that the earnings and book values of USL firms, which are more shareholder- or ownership-focused, explain more of the variation in stock prices than those of NUSL firms, which are more stakeholder- or relationship-focused. The stock price of a firm will be a function of both the firm's financial performance and the health of its relationships. In the more ownership-focused U.S. market, the focus is primarily on financial performance under the assumption that the health of the relationships is reflected in that financial performance. In the more relationship-dependent traditional Japanese firm, the Japanese owners of shares, in addition to being shareholders, are likely to have other relationships with the firm as lenders, suppliers, customers, and employees, with these relationships being relatively more important than stock ownership. This situation leads to the health of the relationships being important beyond how they are reflected in financial performance (Ide 1998). Therefore, we expect earnings and book values of USL firms to explain more of the variation in the firm's stock prices than the earnings and book values of NUSL firms.

The explanatory power of earnings and book value in a regression on price over the 1988–96 period supports these expectations. Consistent with lower importance of current profits to stakeholder-focused Japanese firms (Ide 1998), the regression's explanatory power for the NUSL firms is significantly lower than that for the USL firms. Extensive sensitivity analyses demonstrate the robustness of our results to choice of empirical specification. We further find that this relationship exists for both consolidated measures and parent-only measures of earnings and book value, and that, contrary to the concern of many researchers, the consolidated and parent-only measures are very similar in their ability to explain the variation in stock prices.

The rest of this paper is organized as follows. Section 2 contains background information and hypothesis development, describes the samples of USL and

NUSL firms, and documents the structural differences between the two samples. Section 3 compares the explanatory power of earnings and book value for stock prices across the two samples using multiple regression. Section 4 contains diagnostics, and section 5 summarizes our analyses and their implications for accounting standard-setters and global capital markets.

2. Background, hypothesis development, and sample description

Traditionally Japanese companies have been allied through major industrial groupings called keiretsu, which are based on noncontractual stakeholder relationships, including interlocking directorships and small mutual shareholdings (Lowe 1990; Ide 1998). In this stakeholder-focused environment, collective returns to the various stakeholders are relatively more important than financial returns accruing to the shareholders alone, making financial returns, although important, relatively less so than in a shareholder-focused environment. Instead, major shareholders, who are often customers, suppliers, and financial institutions, are typically interested in fostering long-term business relationships. For example, the nature of the relationship between a firm and its main bank is frequently as close as a partnership, with the financial institution sharing day-to-day information, helping manage the firm in times of trouble, and providing take-over protection. Their cross-holdings are largely used to create an environment of mutual trust, so that the dividends and capital gains from these holdings are not the only, and may not be the most important, purpose of owning shares (Ide 1998). In addition to valuing aspects of the company that may not be reflected in its earnings and book value, stakeholders frequently have other avenues of access to information relevant to their needs so that they need not rely as heavily on what is reflected in the accounting reports (Ide 1998). Therefore, in the eyes of many of the shareholders of stakeholder-focused firms, earnings and book value are relatively less relevant to the value of the firm than they are to the shareholders of a shareholder-focused firm. These observations lead us to posit the following hypothesis:

HYPOTHESIS 1. *Earnings and book value explain less of the variation in stock prices for NUSL, stakeholder-focused firms than for USL, shareholder-focused firms.*

The combination of earnings and book value is commonly used to reflect accounting performance because it captures information from both the income statement and the balance sheet. This is particularly valuable in our study as it has been argued that book value is more relevant for bank-oriented firms (such as the NUSL firms) when compared to earnings.[3] By including both, we examine the variation in stock prices explained by the combination regardless of the relative importance of the individual variables.

We chose for the USL sample all 23 of the Japanese firms listed on the Tokyo Stock Exchange that were also listed or quoted in the United States continuously during 1988 through 1996. Fourteen of these firms were quoted on the NASDAQ and the other nine were listed on the New York Stock Exchange (NYSE). We

expect these firms to be more shareholder-focused because they are actively seeking to raise equity capital outside of their traditional keiretsu relationships in an investor market where ownership claims have traditionally been of paramount importance. We assume that the desire to attract capital in the U.S. market reflects an underlying economic structure that relies less on stakeholder relationships and more on ownership than that of the Japanese firms not listed in the United States. Our NUSL sample includes Japanese firms not listed or quoted in the United States that we assume to be more stakeholder-focused. To avoid differences in the results because of differing industry composition, we chose the 23 NUSL firms by matching them with the USL firms first on industry and then on 1994 fiscal-year revenues within the industry, because revenues are largely unaffected by the choice of debt rather than equity capital.

We matched firms on industry using the minor industry classification reported by the TSE.[4] Five USL and five NUSL firms are in the diversified electronics industry, and three in each sample are in the diversified auto manufacturers industry. The other 15 firms in each sample are in different industries. The industry composition of the two samples is identical except for one USL and one NUSL firm. The USL firm (Makita) is matched by major industry because we could not match it by minor industry.[5] As might be expected, even after size matching within industries, the USL firms' mean and median market values (1,460 and 1,268 billion yen, respectively) are significantly larger than the mean and median for the NUSL firms (722 and 437 billion yen). The *t*-statistic (*Z*-statistic) comparing the means (medians) is 2.5 (3.1). However, there is still considerable overlap in size as the interquartile range is 675 to 1,537 billion yen for the USL firms and 271 to 1,106 billion yen for the NUSL firms.[6]

Table 1 provides descriptive statistics for the two samples on earnings and book values deflated by market value at year-end (E/MV and B/MV respectively). Because Japanese firms disclose both consolidated and parent-only figures, we report statistics for the median E/MV (B/MV), the year-to-year changes, and the standard deviation of the year-to-year changes under both reporting regimes.

Table 1 shows that, although the median parent-only B/MV does not differ significantly across samples, the median consolidated B/MV is significantly larger for the USL sample ($p = 0.0173$), consistent with the USL firms having more profitable subsidiaries and the subsidiaries using accounting techniques based on the cost method in Japanese parent-only reports. In addition, the median E/MV is significantly greater for the USL sample under both parent-only and consolidated reporting regimes. This result may occur because the USL firms as a group are more successful (that success possibly having led them to expand beyond their traditional keiretsu relationships). However, this finding is also consistent with the greater shareholder focus of the USL firms leading to a greater emphasis on profit as a value driver.

Tables 2 and 3 show that listing in the United States identifies firms that are more shareholder-focused by examining variables reflecting the way the firm raises capital and interacts with its affiliates. Table 2 provides definitions and sources of the variables, and Table 3 provides descriptive statistics. Firms with a greater shareholder focus are likely to have a lower reliance on connections based on relationships

TABLE 1
Median values for the 1988–96 period

	Consolidated reporting			Parent-only reporting		
	*USL** (201)	*NUSL*† (195)	*Wilcoxon Z* (*p*-value)	*USL** (201)	*NUSL*† (195)	*Wilcoxon Z* (*p*-value)
E/MV‡						
Level	0.027	0.018	5.13 (0.0001)	0.021	0.017	3.36 (0.0008)
Year-to-year change	0.000	0.001	−0.11 (0.9104)	0.000	0.002	−0.95 (0.3410)
Standard deviation of year-to-year change	0.016	0.017	−0.42 (0.6764)	0.010	0.011	−1.23 (0.2186)
B/MV‡						
Level	0.522	0.476	2.38 (0.0173)	0.445	0.417	1.52 (0.1298)
Year-to-year change	0.032	0.040	−0.70 (0.4812)	0.026	0.039	−1.15 (0.2485)
Standard deviation of year-to-year change	0.163	0.163	0.11 (0.9125)	0.157	0.146	0.13 (0.8951)

Notes:

* USL denotes firms listed in both the United States and Japan.

† NUSL denotes firms listed in Japan but not in the United States.

‡ *E/MV* (*B/MV*) denotes annual earnings (book value) divided by market value as of the end of the third month after the fiscal year-end.

and a higher reliance on connections based on ownership, while the reverse is true for firms with a greater stakeholder focus. A firm's reliance on relationship arrangements begins with its membership in a keiretsu.[7] The ties among keiretsu members are driven more by cross-holdings of usually less than 5 percent, dependence on bank borrowings, interlocking directorships, supplier relationships, and other informal relationships than by ownership percentage (Dodwell Marketing Consultants 1986). Of the two samples, the NUSL sample has more keiretsu members (NUSL, 69.6 percent, and USL, 56.5 percent).

However, firms can retain membership in a keiretsu while becoming involved in more ownership-oriented arrangements, so we compare USL and NUSL firms on four other affiliation variables. The first is the percentage ownership (greater than 1 percent) of a firm's keiretsu members, which Lowe (1990) asserts strengthens the affiliation. Table 3 shows that this cross-holding is significantly less for USL firms (mean of 5 percent versus 15.7 percent). The second through fourth affiliation variables reflect sample firms' ties to banks (Ide 1998). Table 3 indicates a significantly lower dependence on unconsolidated bank borrowings as a percentage of total assets for USL firms (mean of 7.9 percent versus 15.5 percent),[8] and that bank ownership and specifically nonkeiretsu bank ownership is higher for USL firms, suggesting more ownership orientation.[9] Keiretsu-bank ownership (not shown) does not differ significantly between USL and NUSL firms.

The next five variables in Table 3 compare USL and NUSL firms across ownership-related variables. The first is the percentage of a firm's subsidiaries that are foreign. Foreign subsidiaries are not part of the keiretsu, so their affiliation with the parent is likely to be ownership-based. Although USL firms have a higher percentage of foreign subsidiaries (mean of 84.3 percent versus 73.9 percent), the difference is not significant. Ownership orientation may also be indicated by foreign interest because foreign investors do not gain directly from the stakeholder focus of the keiretsu but are likely to gain from current profits and share appreciation. Table 3 shows that USL firms have a significantly higher percentage of their shares owned by foreign investors (mean of 12.5 percent versus 9.2 percent),[10] are followed by significantly more analysts in non-Japanese offices (mean of 2.3 versus 0.7), and are listed on significantly more foreign exchanges (mean of 4.0 versus 1.6), particularly the shareholder-oriented Anglo-American exchanges.[11] In addition, the lower unconsolidated leverage for USL firms (mean of 0.51 versus 0.67) reflects greater dependence on equity financing and, therefore, shareholders.[12] The combination of lower keiretsu-based ownership and higher foreign ownership for USL firms suggests a greater dependence on shareholders who gain more from a shareholder- than a stakeholder-oriented focus.

The last column of Table 3 gives the Pearson correlation coefficient between the affiliation variable and listing status where USL is denoted as one and NUSL is denoted as zero. The correlations are consistent with the mean and median comparisons, showing a significant relation for all variables except the percentage of foreign subsidiaries.[13] In summary, the evidence in Table 2 is consistent with the USL/NUSL designation successfully separating firms on the basis of their shareholder/stakeholder orientation.[14]

TABLE 2
Variable descriptions and data sources

Variable	Description	Source
Keiretsu membership	The major industrial grouping to which the firm belongs	*Industrial Groupings in Japan* (Dodwell Marketing Consultants 1986)
Major keiretsu ownership	The mean percentage over the period of a firm's common shares held by keiretsu members that are major holders (own at least 1 percent)	*Japan Company Handbook* (Tokyo Keizai Shimpo Sha 1989–96)
Bank borrowings	The firm mean over the period of parent-only bank borrowings divided by parent-only total assets	*Japan Company Handbook*
Major bank ownership	The mean percentage over the period of a firm's common shares held by banks that are major holders (own at least 1 person)	*Japan Company Handbook*
Percentage of foreign subsidiaries	The number of a firm's non-Japanese subsidiaries divided by the total number of subsidiaries as of December 1992	*Directory of Corporate Affiliations* (1993, vol. 4)
Foreign ownership	The mean percentage of a firm's common shares identified as foreign owned	*Japan Company Handbook*
Analysts in foreign offices	The number of analysts identified as being in non-Japanese offices as of December 1992	*Nelson's Directory* (1992, 7th ed.)
Foreign exchanges	The number of non-Japanese exchanges that the firm is listed on as of December 1992	*Japan Company Handbook*
Unconsolidated leverage	Unconsolidated total liabilities/unconsolidated total assets as of December 1992	*Japan Company Handbook*

(The table is continued on the next page.)

TABLE 2 (Continued)

Size	Market value of the firm as of December 31, 1992 as measured by price in yen times the number of outstanding common shares	*Tradeline*
Type of GAAP	U.S. or Japanese depending on whether the firm was identified as using U.S. GAAP or Japanese GAAP during the period	*Corporate Information on the World's Leading Companies* (Worldscope Global 1996)

TABLE 3
Descriptive statistics

	USL*	NUSL†	Differences (USL-NUSL) *t*-statistic	Differences (USL-NUSL) *Z*-statistic	Correlation coefficient (*p*-value)
Major keiretsu ownership‡					−0.36 (0.01)
Mean	5.0%	15.7%	−2.6		
Median	1.1%	10.5%		−1.9	
Bank borrowings					−0.28 (0.03)
Mean	7.9%	15.5%	−1.9		
Median	2.5%	10.2%		−2.3	
Major bank ownership					
Total					0.28 (0.03)
Mean	9.8%	6.9%	1.9		
Median	8.2%	5.8%		1.8	
Non-keiretsu					0.27 (0.03)
Mean	8.4%	5.5%	1.9		
Median	7.1%	4.9%		1.6	
Percentage of foreign subsidiaries					0.17 (0.13)
Mean	84.3%	73.9%	1.1		
Median	100%	100%		1.0	
Foreign ownership					0.19 (0.09)
Mean	12.5%	9.2%	1.3		
Median	12.4%	6.6%		1.8	
Analysts in foreign offices					0.42 (0.00)
Mean	2.3	0.7	3.1		
Median	2.0	0.0		2.8	
Foreign exchanges–mean (median)					
All	4.0 (3.0)	1.6 (0.0)	2.9	3.3	0.40 (0.01)
Anglo-American	1.3 (1.0)	0.3 (0.0)	7.6	5.2	
Non-Anglo-American	3.5 (2.0)	1.6 (0.0)	1.7	1.8	
Unconsolidated leverage					−0.31 (0.04)
Mean	0.51	0.67	2.38		
Median	0.49	0.70		2.10	

Notes:

* USL denotes firms listed in both the United States and Japan.

† NUSL denotes firms listed in Japan but not in the United States.

‡ See Table 2 for the definitions of the variables.

Finally, 70 percent of the USL (17.4 percent of the NUSL) firms use U.S. GAAP for consolidated reporting.[15] Consolidated reports are only for the benefit of shareholders, and parent-only reports are used for other contracting purposes such as tax reporting. Therefore, a firm's choice to use U.S. GAAP is endogenous to the incremental value-relevance of its accounting reports. Sensitivity analyses discussed later explore the impact of the Japanese/U.S. GAAP choice on our results.

3. Price regressions

To test the hypothesis that the earnings and book values of stakeholder-focused firms explain less of the variation than those of shareholder-focused firms, we examine whether these variables explain more of the variation in equity value for the USL sample than for the NUSL sample.[16] We use a Z-statistic derived from Cramer 1987 that is similar to the one used in Harris, Lang, and Möller 1994 to test whether the adjusted R^2 from a regression of stock price on book values and earnings is significantly greater for the USL sample than for the NUSL sample. We estimate two sets of regressions: one with consolidated earnings and book values and one with parent-only earnings and book values. Japanese firms disclose both and, although U.S. investors are used to consolidated values, Lowe (1990) asserts that Japanese investors use parent-only data. Therefore, we perform our tests on both. The stock price (P) is measured as of the end of the third month after the fiscal year-end and both book values and earnings are deflated by the number of shares outstanding as of the price date (EPS and BVS).

$$P_{it} = a + bEPS_{it} + cBVS_{it} + e_{it} \qquad (1).$$

Table 4 presents the estimation of (1) for the USL and NUSL firms separately. The first pair of estimates gives the explanatory power of the consolidated values for both USL and NUSL samples, and the second pair gives the explanatory power for the parent-only values. In all cases EPS and BVS have significant explanatory power and there is little difference between the adjusted R^2 for the consolidated regressions relative to the parent-only regressions.[17] In both cases, consistent with our hypothesis, the Z-statistic shows that the adjusted R^2 is significantly lower for the NUSL firms than for the USL firms (0.74 versus 0.53, Z = 3.55 and 0.75 versus 0.49, Z = 4.43). In addition, the intercept term is substantially larger for the NUSL firms than for the USL firms, suggesting that less of the magnitude of stock price is explained by EPS and BVS for the NUSL firms. Therefore, our results support Ide 1998's contention that the shareholders of the more stakeholder-focused firms place less weight on current profits and book values when assessing value. In the next section we report various diagnostics to test the robustness of these results.

4. Diagnostics

We performed several sets of robustness checks on the valuation regressions. The first set assessed the sensitivity of our results to autocorrelation in the regression residuals, which would lead to understating the standard errors of the coefficients

in Table 4 and overstating statistical significance. Table 5, panel A presents regressions for the USL and NUSL firms of price on consolidated and parent-only *EPS* and *BVS*, estimated using observations pooled across the nine years 1988 through 1996, including fixed effects (not reported) for each year. Panel B reports the adjusted R^2s on a yearly basis to indicate sensitivity to autocorrelation.

The results reported in both panels A and B are consistent with the hypothesis and our primary results.[18] For both consolidated and parent-only reporting, *EPS* and *BVS* have significantly greater explanatory power in the pooled regressions for the USL firms than for the NUSL firms. The yearly regressions are consistent with the pooled regressions, showing greater explanatory power for the USL firms; however, the small sample sizes make significance tests unreliable (Cramer 1987).[19]

Another set of robustness checks examines whether our results are influenced by including only current profits, particularly for the NUSL firms. In a stakeholder-focused environment, customers, suppliers, banks, and employees (all of whom typically hold shares as well) may be privately provided with more timely, forward-looking information so that price is less a function of current profits and more a

TABLE 4
Primary price regressions

Model: $P_{it} = a + bEPS_{it} + cBVS_{it} + e_{it}$*

	a	b	c	Adjusted R^2	Z-statistic†
Consolidated (C)					
USL‡ ($n = 201$)					
(t-statistic/F-statistic)	0.265	4.048	1.538	0.7447	
	(2.33)	(4.78)	(16.70)	(292.72)	
NUSL§ ($n = 195$)	0.440	8.558	1.126	0.5258	3.55
	(6.25)	(7.26)	(9.16)	(108.55)	
Unconsolidated (U)					
USL‡ ($n = 201$)	0.266	12.862	1.384	0.7581	
	(2.43)	(6.89)	(11.55)	(314.40)	
NUSL§ ($n = 195$):	0.394	9.010	1.298	0.4851	4.43
	(5.20)	(5.97)	(9.02)	(92.40)	

Notes:

* P_{it} = the stock price three months after the fiscal year end. EPS_{it} = net income per share at end of year t for firm i, calculated as either unconsolidated or consolidated. BVS_{it} = common shareholders' equity per share at the end of year t for firm i.

† The Z-statistic compares the adjusted R^2s of the USL and NUSL samples.

‡ USL denotes firms listed in both the United States and Japan.

§ NUSL denotes firms listed in Japan but not in the United States.

TABLE 5
Diagnostic price regressions*

Model: $P_{it} = \Sigma a_{Tt} + b*EPS_{it} + c*BVS_{it} + e_{it}$

Panel A: Pooled cross-sectional/times-series regressions

	b	*c*	Adjusted R^2	*Z*-statistic†
Consolidated values				
USL‡	7.570	1.318	0.8328	
(*t*-statistic/*F*-statistic)	(5.72)	(11.97)	(95.13)	
NUSL§	5.493	1.270	0.6975	2.66
	(5.47)	(13.26)	(44.81)	
Parent-only values				
USL‡	6.082	1.799	0.8510	
	(3.45)	(16.38)	(108.97)	
NUSL§	5.325	1.469	0.6708	3.54
	(4.16)	(13.02)	(39.72)	

Panel B: Regressions by year

	Consolidated		Parent-only	
Year	Adjusted R^2 USL‡	Adjusted R^2 NUSL§	Adjusted R^2 USL‡	Adjusted R^2 NUSL§
1988	0.7613	0.6912	0.7820	0.7281
1989	0.7752	0.7189	0.8481	0.7183
1990	0.8001	0.4438	0.8912	0.4511
1991	0.8641	0.5851	0.9205	0.6228
1992	0.7636	0.5770	0.8350	0.5709
1993	0.8862	0.6386	0.9115	0.5685
1994	0.8635	0.5963	0.8949	0.5763
1995	0.8958	0.6596	0.9245	0.6592
1996	0.9354	0.8826	0.9353	0.8462

Notes:

* In the model, P is the price for the third month after fiscal year-end and *EPS (BVS)* is annual earnings (common shareholders' equity) divided by common shares outstanding on the price date. a_{1988} equals 1 for all *t*, and for $T = 1989–96$, a_T equals one when $t = T$ and zero otherwise.

† The *Z*-statistic compares the adjusted R^2s of the USL and NUSL samples.

‡ USL denotes firms listed in both the United States and Japan.

§ NUSL denotes firms listed in Japan but not in the United States.

function of expected future profits. For example, Ali and Hwang (2000) provide evidence that stock returns are related to the next year's unexpected earnings in stakeholder-oriented firms. If so, the results in Tables 4 and 5 may be biased if the shareholders of NUSL firms rely more heavily on expected future profits. Therefore, we reestimated the Table 5 fixed effects and annual models using two additional specifications. The first includes forecasts of the relevant next year's earnings in each of the regressions. The second assumes perfect foresight and includes the next year's actual earnings and book values in the regressions. The results of these specifications, not tabulated, are similar to those in Table 5, with the regression's explanatory power for the USL firms substantially larger than that of the NUSL firms.

The third set of robustness checks assesses the sensitivity of our results to using the listing classification to identify stakeholder versus shareholder orientation of the sample firms. We reestimated the pooled fixed effects models, categorizing firms based on the affiliation variables reported in Table 2. For each affiliation variable, a firm was placed into either the high or low category depending on whether its value for that variable fell above or below the median value for all 46 firms. The results for regressions sorted on each affiliation variable as a proxy for shareholder versus stakeholder focus are similar to the results in Table 5 using U.S. listing as a proxy for shareholder versus stakeholder focus. Separation into high and low groupings significantly improves the regression estimations when based on five of the variables: keiretsu ownership, bank borrowings, percentage of foreign subsidiaries, foreign ownership, and analysts in foreign offices. For these five partitions, the explanatory power for the more shareholder- and less stakeholder-oriented group is substantially greater (0.84 to 0.86 versus 0.48 to 0.69).

The last set of analyses examined the robustness of the tests to the choice of consolidated or parent-only measures. There are two reasons we might expect to find differences in the comparison of USL and NUSL samples across reporting regimes. The first is the use of U.S. GAAP by 70 percent of the USL firms but only 17.4 percent of the NUSL firms. Japanese firms may choose either U.S. or Japanese GAAP in their consolidated reports, but must use Japanese GAAP in their parent-only reports. If the value-relevance of U.S. GAAP differs from that of Japanese GAAP, the USL/NUSL comparison will be affected, given the much heavier use of U.S. GAAP in the USL sample.

The second reason to expect a difference is that the consolidated entity may be more meaningful for the USL sample than the NUSL sample. The relevant business alliances for a traditional Japanese firm are forged through the keiretsu stakeholder relationships rather than the shareholder relationships. Shareholdings among keiretsu members are low (usually substantially less than 20 percent, frequently less than 5 percent) so that consolidated statements do not reflect these alliances, although Lowe (1990) considers them to be similar to the ownership-based subsidiary alliances of U.S. firms. Thus, for a traditional Japanese firm, Lowe asserts that the percentage ownership consolidation criterion does not reflect the underlying structure of Japanese corporate networks, resulting in consolidated reports that do not provide shareholders with information that is incrementally useful given parent-

only reports. However, because the USL firms' structures are less traditional and more shareholder-oriented, the consolidated reports may provide a more relevant picture than those of the parent-only reports for these firms.

We find no significant evidence of such differences between the consolidated and parent-only measures. The evidence in Tables 4 and 5 is essentially the same for the consolidated and parent-only regressions. Further, within each sample, we used a Vuong statistic to test whether one regime provides significantly more explanatory power for stock prices than the other. We found no significant difference for the USL firms (R^2(consolidated) = 0.7447, R^2(parent-only) = 0.7581, Vuong statistic = −0.45) and marginal significance that the consolidated measures explain more variation for the NUSL firms (R^2(consolidated) = 0.5258, R^2(parent-only) = 0.4851, Vuong statistic = 1.65). Note that this latter is contrary to what we would expect because Lowe's 1990 argument suggests that the consolidated and parent-only accounting measures are virtually the same for the more stakeholder-oriented NUSL firms. We interpret these results to indicate that the concerns of many researchers, which lead them to exclude Japanese firms without consolidated accounting measures available in machine-readable form under the assumption that parent-only measures have little value relevance, are unfounded in our samples.[20] If this generalizes to a larger group of Japanese firms, it would substantially increase the degrees of freedom in many studies of this type as well as allow examination of a broader cross-section of Japanese firms.

5. Summary and conclusions

In this paper we (1) describe the characteristics of Japanese firms that list in the U.S. capital markets relative to those who do not choose to list in the United States, and (2) compare the relationship between their stock prices and accounting earnings and book values. We find the structure of Japanese firms that list in the United States is more shareholder focused with lower leverage and bank borrowing and higher bank ownership, more foreign ownership, more foreign stock exchange listings, and more foreign analysts. We also find that the earnings and book values of these firms explain more of the variation in stock prices than those of Japanese firms with a more traditional stakeholder focus.

These results suggest that even within the same accounting regime, reporting incentives have a substantial impact on the way accounting measures reflect information, and they imply that understanding these incentives is critical to ensure that attempts to standardize, converge, or harmonize accounting methods result in the impact intended. We further find that, in our sample and for our tests, the distinction between parent-only and consolidated values has little effect, suggesting that limiting samples in global-capital-market-based accounting research to firms for which consolidated financial statement data are available in machine-readable form is unduly restrictive. Further, more research is necessary in different contexts to demonstrate whether either the consolidated or the parent-only disclosure model dominates the other sufficiently to require compliance with a single disclosure standard by the global community.

Endnotes

1. See Ohlson 1995, Feltham and Ohlson 1995, and Edwards and Bell 1961.
2. See e.g., Burgstahler 1998, Ely and Waymire 1999, Francis and Schipper 1999, and Lev and Zarowin 1999 for empirical analyses using U.S. data, and the papers referenced in Pownall and Schipper 1999 — especially Joos 1998 and Dumontier and Labelle 1998 — for empirical analyses using non-U.S. data.
3. See, for example, Ali and Hwang 2000; Gray, Campbell, and Shaw 1984; and Joos and Lang 1994.
4. The industry classification is not directly comparable to the Standard Industrial Classification (SIC) codes assigned to U.S. companies. However, on the basis of a comparison of the SIC codes assigned to the Japanese U.S.-listed firms with their major and minor industry classifications, the major industry classification appears comparable to a two-digit SIC code and the minor industry classification appears comparable to a three-digit SIC code. For example, the 15 firms with the same one-digit SIC codes are classified into four major industries. Of these, the firms with the same two-digit SIC code have the same major industry classifications (although not all firms with the same major industry classification have the same two-digit SIC code). Also, the three automotive firms with the same minor industry classification have the same three-digit SIC code but not the same four-digit SIC code. For example, the four-digit categories of "motor vehicles and car bodies" and "truck and bus bodies" are included in the same minor category called "diversified automotive manufacturers".
5. Makita is in the minor industry classification portable tools. It is matched to Hitachi Koki, which has the same primary SIC code and major industry, but is listed in the machine tools minor industry by the TSE.
6. Note that one would not expect the same monotonic relationship between size and information environment in Japan that is found in the United States. Because many shareholders in Japan are also stakeholders, they have other means of accessing information. Thus, although the NUSL firms are slightly smaller as a group, being more relationship-oriented (as documented below) their shareholders will not necessarily have less information about the firms than those of the slightly larger, ownership-oriented USL firms.
7. There are both horizontal and vertical keiretsu. The six major industrial groupings in Japan are structured as horizontal keiretsu. These keiretsu are made up of companies in various industries, typically with supplier/customer relationships among the companies, dependence on the keiretsu's bank, and cross-shareholdings but no obvious "parent". Vertical keiretsu are typically made up of parents and their subsidiaries and affiliates within an industry. Some vertical keiretsu also have ties to particular banks while others deliberately spread their borrowings among banks (Dodwell Marketing Consultants 1986). In our sample, 43.5 percent (39.2 percent) of the USL (NUSL) sample are horizontal keiretsu members and 13.0 percent (30.4 percent) of the USL (NUSL) sample are vertical keiretsu members.
8. The results are quite similar when percentage of bank borrowings is measured on a consolidated basis.
9. The results are similar when we examine the combined ownership of bank and trust companies that hold major ownership positions.

10. Some of the foreign investors hold very large stakes. For example, Ford, Chrysler, and General Motors have substantial holdings in three non-U.S.-listed Japanese auto manufacturers. It is possible that their ownership is less profit-oriented than relationship-based. Therefore, we also looked at foreign ownership excluding that of major foreign holders (e.g., those holding greater than 1 percent). The substance of the results does not change.
11. The United States, the United Kingdom, Canada, Australia, and New Zealand make up the Anglo-American exchanges.
12. The comparison for consolidated leverage is similar but slightly weaker.
13. Spearman correlations are similar. In addition, we estimated probit analyses with listing as the dependent variable (USL firms as 1 and NUSL firms as 0) and combinations of the nine affiliation variables as independent variables. These analyses indicate that the probability of listing in the United States is significantly decreasing in bank borrowings and leverage and increasing in non-keiretsu-bank ownership, the number of analysts in foreign offices, and the number of foreign exchanges. Moreover, the probability of U.S. listing is significantly increasing in the percentage of foreign subsidiaries. A logit analysis provides the same results. When size is included, bank borrowing loses significance in both the probit and logit analyses.
14. Despite the evidence in section 2, using U.S. listing to identify shareholder- versus stakeholder-oriented firms will not be perfect. For example, some of the NUSL firms are listed on other Anglo exchanges that are also typically considered shareholder-oriented. This would bias against finding the hypothesized differences. In section 4, we test the robustness of our results to the use of U.S. listing.
15. As part of the Japanese Ministry of Finance's efforts to create more consistency between Japanese reporting practices and those of other countries, it allowed Japanese firms to use either Japanese or U.S. GAAP in their consolidated reports. All Japanese firms use Japanese GAAP for parent-only reports, which corresponds closely to Japanese tax rules.
16. Ali and Hwang (2000) find similar results using both a price and a return specification. We use the price specification for two reasons. (1) It is less sensitive to when information is received. (2) It is not sensitive to a specification for expected and unexpected earnings. How well past earnings or a management forecast reflects the earnings expectations of the shareholders may well be endogenous to the ownership/relationship focus. Therefore, it is difficult to predict the relative meaning of unexpected earnings across these two groups.
17. Robustness checks eliminating influential observations (using the Belsley, Kuh, and Welsch 1980 identifying method) and extreme observations (as defined by the 1 percent with the most extreme absolute distances from the median) result in the same inferences.
18. We delete as outliers firms whose *R*-student score is greater than three (Belsley, Kuh, and Welsch 1980). This resulted in deleting 16 observations out of 412, leaving 396 (12 deleted from the USL sample and 4 from the NUSL sample). The results are qualitatively similar without the deletions. We do not report White's s because tests for heteroscedasticity show no evidence of significant heteroscedasticity.
19. Because our sample period includes both boom and bust times in the Japanese market, we explored the effect of losses on our results. Over the entire period, 10 percent (14

percent) of the USL (NUSL) observations include losses. The most losses occur in both samples during the 1992–95 period (8 percent for USL and 11 percent for NUSL). Results when losses are excluded are essentially the same, leading to all the same inferences.

20. Although all firms are required to provide annual consolidated reports to the Japanese Ministry of Finance, during our period, semi-annual consolidated reports were optional. Also, the disclosures in the press that are readily available to investors and researchers are frequently less timely or absent for the consolidated numbers.

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