



Discussion of Disclosure Practices of Foreign Companies Interacting with U.S. Markets

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1. Introduction

Khanna, Palepu, and Srinivasan (hereafter, KPS) provide an innovative examination of the relations between the use of U.S. disclosure practices by non-U.S. firms and the level of interaction such firms have with U.S. market participants. Prior research focuses on the capital markets, investigating relations between disclosure practices and cross-listing decisions, home bias in equity investment, and properties of analyst forecasts. KPS expand this focus by recognizing that firms also have significant product and labor market interactions that potentially influence disclosure practices. To provide evidence on this question, KPS develop numerous proxies for these interactions and use a new multinational disclosure index. The Standard & Poor's Transparency and Disclosure index (hereafter, S&P index) provides a disclosure rating for 794 firms in 24 countries along three important dimensions: financial information, governance structures, and ownership structures. KPS regress the S&P index on several firm- and country-level proxies for U.S. market interactions and find consistent support for their

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hypotheses that U.S. disclosure practices are associated with the levels of capital, product, and labor market interactions with U.S. market participants.

The evidence in KPS raises several interesting questions that should serve as a guide for future research. In the next section I discuss KPS's motivation for their study and raise three questions. First, are countries' governance and disclosure systems converging to a common (U.S.) model or are individual firms converging voluntarily based on firm-specific interactions? Second, are firms faced with a choice among unique sets of foreign disclosure practices or is there a set of global practices adopted by multinational firms? Third, what are the costs of deviating from an optimal domestic disclosure strategy? In section 3, I review comments and questions related to KPS's hypotheses and proxies. For example, why would U.S. market participants prefer that non-U.S. firms adopt U.S. disclosure practices? Is it the quantity or quality of disclosures, any specific items disclosed, or the format of the disclosures? Also, what is the direction of the causality in the KPS relations? Do U.S. market participants exert influence over, or merely react to, foreign managers' disclosure decisions? Section 4 examines questions related to the new S&P disclosure index used by KPS. What does the new S&P index measure vis-à-vis other disclosure indexes used in prior work? Are there any important selection biases inherent in the index? In section 5, I address two questions related to KPS's method and results. Do the results hold in a country-level analysis, suggesting some systemic convergence? Do the results hold with the use of another disclosure index that was not designed to measure U.S. practices? Section 6 offers conclusions and some potential avenues for future research.

2. *Motivation of the Study*

2.1 IS THERE CONVERGENCE IN GOVERNANCE SYSTEMS OR DO FIRMS CONVERGE VOLUNTARILY?

KPS motivate their study within the debate over convergence in corporate governance systems. They cite two extreme views—competition will force complete convergence and path dependence will prevent complete convergence—but argue that their study provides evidence on a middle view. This functional convergence perspective hypothesizes that domestic institutions are flexible enough to permit partial convergence in governance systems when there is a high degree of cross-national market interactions. This theory highlights the fact that there are two levels of convergence relevant to the study: systemic convergence by countries and voluntary convergence by individual firms. The former would be manifested in mandatory disclosure regimes and the latter in voluntary disclosure practices.

Discussion at the conference first centered on convergence in domestic governance systems. Whether convergence will happen likely depends on what a country is trying to accomplish with its system. For example, the U.S. system tends to favor shareholders first, whereas European systems focus on stakeholders or insiders. Thus, the goal of the system must converge before

the specific practices can converge. In addition, although competition across countries should lead to convergence, competition also leads to innovations. It is not clear whether one global standard could be achieved or would even be desirable. Finally, it should be easier to achieve convergence in disclosure practices than in potentially stickier forms of governance systems such as ownership structures or investor protection rules. Thus, KPS are testing for convergence in the easiest place to get convergence, which could bias toward finding more convergence than exists in a comprehensive sense.¹

KPS are limited in what their results can say about either the desirability or the status of convergence in domestic governance systems because they do not separately examine mandatory disclosure regimes. However, framing the paper within the convergence debate is useful because it highlights the tension between embedded domestic institutions and the need to appeal to foreign markets. If large multinational firms within a country are increasingly modifying their disclosure practices to conform to the preferences of foreign market participants, will these firms eventually apply pressure on other domestic firms and regulators to follow suit? Does convergence in disclosure practices create pressures for convergence in other governance practices? Or are there barriers to convergence that cannot be overcome within a domestic economy? Finally, this discussion motivates the more pertinent tension in KPS's study: the costs and benefits of voluntary convergence. Faced with the information demands of foreign capital, product, and labor markets, individual firms must find ways to tailor their voluntary disclosures to these market participants within the limits of their domestic institutions.

2.2 WHICH SET OF FOREIGN DISCLOSURE PRACTICES SHOULD A FIRM VOLUNTARILY ADOPT?

Conference participants quickly raised the key question underlying voluntary convergence: which set of practices should a firm adopt? KPS argue that the S&P index is designed to measure U.S. disclosure practices; thus, they are testing for convergence to a U.S. model. However, do all of these companies necessarily want to converge to U.S. practices? It was suggested that the authors consider extending the analysis to test whether convergence in disclosure practices is related to the degree of interaction in other countries (of course, this would require measures of best practices in other countries). The more vexing question is: what does a firm with equally significant interactions with the United States and with France do if the disclosure practices sought by market participants in those countries are dramatically different? One possibility is that global firms adopt U.S. disclosure practices or global best practices that are highly correlated with U.S. practices.

¹ Consistent with this idea, the coefficients on *English Legal Origin* are highly significant in explaining the overall transparency score (table 6) but are no longer significant when the financial disclosure score is the dependent variable (table 7). These results suggest that an overarching domestic structure such as legal origin is more of an impediment to convergence of governance and ownership practices than in convergence of financial disclosures.

This discussion also suggests that KPS's results may not be generalizable to market interactions with other countries. The size of the U.S. economy and the influence of the U.S. on global disclosure practices could result in U.S. disclosure practices also being associated with a firm's level of interaction with France, Argentina, or Japan.² More generally, it could be that U.S. disclosure practices simply represent more disclosure rather than a unique combination of practices. An interesting question is whether other countries' best practices include practices that are not generally observed in the United States. In other words, would a checklist of best practices in France, Argentina, and Japan be subsumed by U.S. practices? I attempt to address some of these questions later in the discussion. However, *ex ante*, it is not clear whether firms face a trade-off between optimal disclosure regimes across countries or a universal trade-off between more disclosure and less disclosure.

2.3 WHAT ARE THE COSTS OF DEVIATING FROM DOMESTIC DISCLOSURE PRACTICES?

Assuming a firm knows which set of foreign disclosure practices is optimal for its market interactions, it must then assess the costs of adopting such practices. One potential cost is that adopting U.S. practices that conflict with French practices could cost the firm important relationships with French market participants. More important, the firm has to consider what domestic benefits, if any, are given up when the firm moves to U.S. practices (or any foreign practices). Presumably, domestic disclosure practices have evolved to be optimal within the domestic economic, political, and legal environment. Thus, any movement toward U.S. practices would potentially be a movement away from the optimal domestic disclosure strategy.

The potential costs of deviating from optimal domestic practices could come in many forms, including higher taxation, worsening relationships with domestic product and labor markets, and increased regulatory and investor scrutiny from the home market.³ Obviously, these costs would vary by each country, and country-specific studies may produce more powerful tests. For example, Leuz and Oberholzer-Gee [2003] show that Indonesian companies with close political ties to the Soeharto regime (and the advantages they convey) are less likely to subject themselves to the information demands of raising foreign capital. If there are significant costs, it suggests there is a tipping point when a company would want to move from domestic optimality to U.S. (or global) optimality. In a large cross-national study, proxies for

² One participant raised the example of an Argentine firm wanting to attract workers from the Brazilian labor force possibly using U.S. disclosure practices simply because these practices reflect the most forthcoming disclosure regime available worldwide.

³ Two anecdotal examples of this tension include (1) Daimler Benz having to file a 20-F reconciliation and revealing all of its smoothing adjustments to domestic stakeholders and (2) Belgian authorities having to rely on the Securities and Exchange Commission's EDGAR database as the best source of information in their investigation of Lernout & Hauspie (both examples cited in Ahearne, Grier, and Warnock [2004]).

interactions with domestic market participants, such as the percentage of business in the home market, might yield interesting results.

In one sense, the KPS paper is like any other voluntary disclosure paper examining U.S. data only. The firm must weigh the benefits of improved disclosure (cost of capital, liquidity, attraction of market participants) with the costs of greater disclosure (proprietary and litigation costs, loss of private control benefits). Thus, KPS should find that the level of voluntary disclosure is associated with proxies for the benefits and costs in the capital, product, and labor markets.⁴ Where the KPS study differs is that (1) the definition of “improved” disclosure is not as obvious in a global marketplace *if* there are trade-offs in different disclosure regimes and (2) the costs of disclosure must be expanded to incorporate costs emanating from differences in economic, political, and legal institutions across the set of countries in which a firm operates. KPS highlight some of the challenges in examining the disclosure and governance practices of multinational firms that are generally ignored in studies of U.S. firms only.

3. Hypotheses and Proxies

3.1 WHY DO U.S. PRACTICES MATTER TO U.S. MARKET PARTICIPANTS?

One of KPS’s main contributions is to expand beyond the traditional international capital market effects of disclosure to consider cross-national product and labor markets. There is a fairly extensive literature on home bias in equity investing and its relation to informational issues (e.g., see Kang and Stulz [1997], Ahearne, Grierer, and Warnock [2004], Bradshaw, Bushee, and Miller [2003]). However, in expanding their investigation to product and labor market interactions, the authors must introduce solid economic predictions for why and how these interactions should matter.

One conference participant questioned whether the authors had any economic theory to support the hypotheses. This person characterized the theory as “likes attract” and wondered whether firms were just copying each other instead of engaging in optimal economic behavior. Certainly, there could be a component of isomorphism in the cross-national diffusion of disclosure practices, and the sociology literature provides much theory and evidence on this question (e.g., see Guler, Guillen, and MacPherson [2002] for one example). However, KPS do attempt to build economic justifications for their predictions. Ultimately, the economic arguments all boil down to the fact that disclosure practices inconsistent with U.S. practices are somehow costly to U.S. market participants. What is unclear is whether the costs of deviations from U.S. practices stem from less information being disclosed or

⁴ Examples of such studies in the U.S. market include Healy, Hutton, and Palepu [1999] and Bushee and Noe [2000] for capital market interactions, Bhojraj, Blacconiere, and D’Souza [2000] and Guo, Lev, and Zhou [2004] for product market incentives, and Miller and Piotroski [2000] for interactions with employees.

from information being disclosed in a format unfamiliar to U.S. investors.⁵ The authors' theory draws on both amount and format arguments. Thus, an important area of further investigation is whether preferences for U.S. disclosure practices are driven by quantity of disclosure, quality of disclosure, or format of disclosure.

3.2 WHAT ARE POTENTIAL PROBLEMS WITH THE PROXIES?

In providing one of the first studies of the effect of international product and labor market interactions on disclosure practices, KPS face the challenging task of finding good proxies for these interactions. For example, comments at the conference questioned whether disclosures to meet demands of the product and labor markets necessarily come through public annual report disclosures. Why couldn't a firm credibly communicate privately with employees it is trying to recruit? In addition to private communications, there are different information services (e.g., Hoover's and Dun & Bradstreet) that product and labor market participants could use to get information on the company, some of which is nonpublic, such as payment histories and credit reports. It is not clear that a U.S. supplier dealing with a U.S. subsidiary of a foreign firm would be more concerned about the quality of the subsidiaries' parent's annual report than with the credit history of the U.S. subsidiary.

Participants also questioned whether some of the proxies for one market interaction might also pick up other market interactions. For example, U.S. foreign direct investment (FDI), which the authors use as a proxy for financial market interactions, could also proxy for a product market effect if FDI and product market interactions are substitute ways for getting into a foreign market. Similarly, the link between disclosure and the labor market could ultimately derive from capital market interactions because of employee stock options.

KPS deserve credit for identifying the potential role of international product and labor market interactions in disclosure decisions and for attempting to find the best available proxies. Future work should attempt to classify product or labor market interactions based on requirements for public versus private information and to separate quality and quantity effects from format effects. Also, the identification of additional proxies for labor market interactions would build on KPS's use of a single country-level proxy. Firm-specific proxies such as the background of the senior management team or the geographic distribution of employees would be more direct proxies. For example, Khanna, Kogen, and Palepu [2002] look for foreign first or last names among senior management and the board of directors as a proxy for labor market interaction. However, this information is costly to collect, and such information must first be disclosed to be available.

⁵ Evidence that the format of disclosure can influence market participants' assessments of the firm can be found in Hirst and Hopkins [1998].

University resources could prove to be a good source for proxies. Part of KPS's theory is that labor market effects stem from recruiting in U.S. markets and the resultant transfer of U.S. best practices to the company. Thus, researchers could use university databases to get the number of alumni working at sample companies, the number of sample companies that recruit on campus, and even the percentage of students from various countries admitted to the MBA program. Such additional proxies would not only strengthen the KPS results but they would also help investigate which mechanisms drive the interactions: movement of managers (business travel) or recruiting employees educated in the U.S. market (recruiting and MBA admission data).

3.3 WHAT IS THE DIRECTION OF CAUSALITY FOR THE RELATIONS?

Another interesting question is the direction of the relations between disclosure practices and U.S. market interactions. With only one year of data, KPS do not provide evidence on causality or endogeneity of the relations. Conference participants raised the issue that the authors' regressions imply that the level of market interactions affects disclosure practices rather than disclosure practices affecting the level of interactions, and they questioned whether this was the appropriate implied causality. In forming hypotheses, KPS rely on both directional links. In addition, the authors provide the supply-side argument that U.S. practices migrate to foreign firms through movements in U.S. labor. In an association test, the directions of the arguments are less important (absent econometric issues due to endogeneity), but future work should strive to sort out the causal relations.

Prior international work attempts to provide evidence on causality using two approaches. Hope [2003a, b] uses simultaneous equations models on cross-sectional data to show that different aspects of disclosure quality affect analyst forecast properties, but forecast properties do not significantly affect disclosure quality. Bradshaw, Bushee, and Miller [2003] examine lead-lag regressions to provide evidence that changes in accounting choices conforming to U.S. generally accepted accounting principles (GAAP) lead to future changes in U.S. investment in non-U.S. firms, but changes in investment have no effect on future changes in accounting choices. Thus, prior work finds that disclosure tends to affect capital market participants, but capital market participants do not exert a significant influence on managers' disclosure policies, suggesting the KPS regression should be reversed. These findings are not surprising given that home bias and foreign ownership restrictions have limited the amount, and hence influence, of U.S. equity investment in non-U.S. firms. An interesting extension to KPS is to test whether product and labor market interactions exhibit the same directional effects, or whether disclosure decisions are sensitive to prior product and labor market interactions. Given the number of U.S. companies with close product market relationships with foreign firms and the prominence of the United States in training MBAs, it seems likely that U.S. product and labor market interactions could exercise significant influence on disclosure practices of non-U.S. firms.

TABLE 1
Distribution of Disclosure Index Scores for U.S. Companies

S&P T&D Scores			CIFAR Scores (1995)			AIMR Scores (1996)			Botosan Scores (1990)		
Score	N	Percent	Score	N	Percent	Score	N	Percent	Score	N	Percent
									5.01–10	4	1.6%
									10.01–15	18	7.3%
						21–30	1	0.4%	15.01–20	44	17.8%
						31–40	1	0.4%	20.01–25	56	22.7%
			41–50	1	0.4%	41–50	11	4.5%	25.01–30	54	21.9%
6	4	0.9%	51–60	2	0.8%	51–60	43	17.5%	30.01–35	38	15.4%
7	223	48.5%	61–70	27	10.7%	61–70	60	24.4%	35.01–40	19	7.7%
8	230	50.0%	71–80	173	68.7%	71–80	64	26.0%	40.01–45	10	4.0%
9	3	0.7%	81–90	49	19.4%	81–90	43	17.5%	45.01–50	3	1.2%
10	0	0.0%	91–100	0	0.0%	91–100	23	9.3%	50.01–55	1	0.4%
Total	460		Total	252		Total	246		Total	247	

S&P transparency and disclosure (T&D) scores are provided by Khanna, Palepu, and Srinivasan and are discussed in KPS. Center for Financial Analysis and Research (CIFAR) scores are provided by Hope (see Hope [2003b] for an extensive discussion of these scores). Association of Investment Management and Research (AIMR) scores are provided by the author and used in Bushee and Noe [2000], which contains a discussion of these scores. For the AIMR scores, the Natural Gas and International Oil Companies industries are excluded because the analyst subcommittees did not use 100-point scales. All other industries have raw scores consistent with the use of a 100-point scale. Botosan scores are provided by Botosan and are discussed in Botosan [1997]. There is no maximum score for this index. The highest score in the sample is 50.5; therefore, I report the scores in 5-point increments to correspond to the 10-point increments on the 100-point scales.

4. *S&P Disclosure Index*

4.1 WHAT DOES THE S&P INDEX MEASURE?

KPS use a relatively new disclosure index provided by S&P. To compute the index, S&P examines annual reports and other mandatory reports (e.g., the 10-K) for 98 items, covering disclosures of (1) financial and accounting information, (2) governance structures, and (3) ownership structures. Although not the stated goal of the index, KPS argue that it is well designed to measure U.S. disclosure practices.⁶ Given the extensive literature examining variation in voluntary disclosure practices within the U.S. market, it would seem difficult to characterize U.S. practices without focusing on the set of mandatory disclosures. However, the index includes a large number of voluntary disclosures, raising the question of how much variance the index reflects for U.S. firms.

To assess how well the index captures a set of common U.S. disclosure practices, I examine the distribution of the S&P index for U.S. firms in table 1.⁷ For U.S. firms coded by S&P, 98.5% of firms have scores of 7 or

⁶ S&P states that its study of corporate disclosure “was conducted as part of Standard & Poor’s initiative to introduce new governance information and analytical services” (including a corporate governance score service) (Patel and Dallas [2002]).

⁷ I am grateful to KPS for providing the S&P distribution data, Ole-Kristian Hope for providing the CIFAR data, and Christine Botosan for providing her disclosure score for this table. The AIMR data are used in Bushee and Noe [2000].

8, indicating that the S&P measure captures mandatory disclosures and a set of voluntary disclosures that are almost universal among U.S. S&P 500 firms. It is interesting that only 3 firms have scores of 9, and no firm has a score of 10, which is the maximum possible score. Thus, the S&P measure also includes a set of voluntary disclosures that are universally *uncommon* among U.S. firms. This suggests that the index recognizes that U.S. practices are not necessarily the best possible standard. The interesting question is whether the set of items that are generally not disclosed by U.S. firms are common or required disclosures in other countries. For example, table 2 of KPS shows that several countries, such as Japan, Singapore, and Portugal, have higher ownership scores than the United States. Clearly, there are interactions among the level of disclosure across the three components of the score, which KPS do not investigate. Exploring the trade-offs market participants face in getting good disclosure in one area but poor disclosure in another is a fruitful area for future investigation.

4.2 HOW DOES THE S&P INDEX COMPARE WITH OTHER DISCLOSURE INDEXES?

Although the S&P index is new, the use of disclosure indexes is fairly common in the literature. Prior indexes can be placed into three categories. First, quantitative indexes such as Center for Financial Analysis and Research (CIFAR) scores explicitly focus on the quantity of disclosures (see Hope [2003b] for an extensive discussion of this index). Second, subjective assessments such as Association of Investment Management and Research (AIMR) scores reflect analysts' ratings of disclosure, including both quantitative and qualitative assessments of disclosure practices (Lang and Lundholm [1993]). Finally, researcher-constructed indexes, such as those used by Botosan [1997] and Guo, Lev, and Zhou [2004], allow researchers to choose the exact items, the weighting of the items, and the firms coded to tailor the index to their research question.

As a checklist of items with a focus on quantity, the S&P index is closest in construction to the CIFAR scores. Comparing the appendix of KPS with the appendix of Hope [2003b] shows that S&P and CIFAR largely cover the same items, but the weighting can differ greatly. For example, CIFAR codes for a disclosure of significant shareholders, whereas S&P codes for disclosures of the top 1, 3, 5, and 10 shareholders and for the number and identity of shareholders holding more than 3%, 5%, and 10%. In contrast, S&P has 2 items related to specific accounting policies, whereas CIFAR codes 19 types of accounting policies.

In table 1, I compare the distribution of the S&P index for U.S. firms with the distribution of CIFAR, AIMR, and Botosan [1997] scores. CIFAR scores exhibit a similar tight distribution of high scores in the United States, suggesting that CIFAR might serve as an acceptable alternative in measuring a common set of U.S. disclosure practices. The AIMR scores show much more variation in the United States, consistent with the AIMR's goal to assess quality in addition to quantity of disclosures. However, the variance is also

TABLE 2
Comparison of Country-Mean S&P Scores with CIFAR Scores

Country	CIFAR (1990)		CIFAR (1993, 1995)		S&P T&D Scores		Difference in Ranks S&P vs. CIFAR (1993, 1995)
	Score	Rank	Score	Rank	Score	Rank	
Malaysia	76	4	76.4	5	5.0	19	-14
Portugal	36	22	53.7	23	6.1	10	13
Hong Kong	69	7	72.0	9	5.4	16	-7
Belgium	61	20	67.8	15	6.3	8	7
Germany	62	16	66.0	17	6.1	10	7
United States	71	6	73.7	8	7.5	2	6
Italy	62	16	65.4	18	6.0	12	6
Philippines	65	10	64.1	19	3.3	24	-5
Sweden	83	1	81.8	2	6.7	7	-5
Netherlands	64	13	71.4	10	6.9	5	5
Taiwan	65	10	62.3	21	2.5	25	-4
Denmark	62	16	70.6	11	5.5	15	-4
South Korea	62	16	67.5	16	5.0	19	-3
France	69	7	75.8	6	7.2	3	3
Thailand	64	13	62.5	20	5.2	17	3
Switzerland	68	9	75.0	7	6.2	9	-2
Australia	75	5	78.9	3	7.0	4	-1
Singapore	78	2	76.6	4	6.9	5	-1
India	57	21	54.0	22	4.5	21	1
Spain	64	13	68.2	14	5.9	14	0
United Kingdom	78	2	82.1	1	7.6	1	0
Japan	65	10	70.5	12	6.0	12	0
Pakistan			68.7	13	4.2	22	-9
China					5.2	17	—
Indonesia					4.2	22	—

Country-mean S&P transparency and disclosure (T&D) scores are reported in Khanna, Palepu, and Srinivasan (KPS). Country-mean Center for Financial Analysis and Research (CIFAR) scores are obtained from two sources. CIFAR (1990) scores are reported in La Porta et al. [1998] based on 1990 annual reports. CIFAR (1993, 1995) scores are reported in Hope [2003c] and represent average scores from the 1993 and 1995 CIFAR reports. China and Indonesia were not rated by CIFAR and Pakistan was not rated in 1990.

partly an artifact of the requirement to compare firms within an industry, which naturally leads to a rank ordering of firms. Despite the fact that it is a checklist like S&P and CIFAR, the Botosan score also exhibits significant variance within the United States, suggesting that quality differences can be measured in a checklist format. Overall, this comparison suggests that the S&P index best minimizes the amount of variance within the United States to measure a set of common U.S. disclosure practices.

In table 2, I compare the country-mean S&P scores with country-mean CIFAR scores at two time points. The first set of CIFAR scores is from 1990 as reported in La Porta et al. [1998]. These scores are by far the most prevalent measure of international disclosure practices used in the literature. The second set is the average from the 1993 and 1995 reports as documented in Hope [2003c]. The last column of table 2 presents the difference in ranks between the S&P score and the most recent CIFAR scores. Notably, the

United States is one of the countries with the biggest discrepancy in rankings between the two, indicating that CIFAR is geared toward capturing a slightly different range of disclosure practices, consistent with the fact that it was developed by a multinational set of analysts. Thus, estimating KPS's results again with the CIFAR data is a potential avenue for investigating whether the results are driven by U.S.-specific disclosure practices or simply by greater disclosure (I try this in section 5.2).

Table 2 also indicates that some countries score consistently high in CIFAR and low in S&P (e.g., Malaysia) and vice versa (e.g., Portugal). Assuming there was no major shift in disclosure regimes, it would be interesting to investigate such countries in detail because they clearly provide high-quantity disclosures in some aspect that is not valued by one of the indexes. Also interesting are countries that have trends in rankings over time (e.g., Belgium, Philippines) as these countries could serve as a good event study for examining changes in disclosure practices and changes in U.S. market interactions. Investigating these cross-sectional and time-series differences in disclosures scores, combined with an understanding of the commonalities and differences between CIFAR and the S&P indexes, will likely prove a fruitful area for future work on international disclosure practices and convergence in governance systems.

Overall, the advantages of the S&P index are that it is international in scope, measures U.S. practices well, and provides current data; both CIFAR and AIMR have been discontinued. The most promising new opportunities with S&P data lie in examining interesting subsets of the detailed items, much like Hope [2003a, d] does with the CIFAR index. A detailed breakdown of the score would allow the researcher to form subsets of items measuring quantity versus format of disclosure, mandatory versus voluntary items across countries, and the set of items not disclosed among U.S. firms.

4.3 WHAT ARE THE SELECTION BIASES IN THE S&P INDEX?

All commercial disclosure indexes suffer from the problem that they are only available for a certain set of countries and firms whose selection is beyond the control of the researcher. At the time of the conference, S&P had only coded disclosures for 13 Pacific Rim countries, which led to the question of why these countries were the first selected. Participants suggested that these countries were chosen because of the Asian crisis or because they were of the most interest to U.S. market participants. Because of these issues, it was suggested that KPS introduce a selection model if they later expanded the sample to other countries, which they did by adding the 11 recently coded European countries.⁸ S&P still does not track any Latin American

⁸ As an example of the potential problem, one participant suggested that the fact that business travel loaded up may be because European countries were missing from the sample. Incidentally, business travel has remained significant after the inclusion of European firms, but the coefficient magnitudes have been halved, suggesting that the result is somewhat driven by Asian firms.

or African countries, and even within Asia and Europe, there are countries that S&P does not follow. Future work needs to examine whether the KPS relations extend to these countries or whether the results are a by-product of the initial countries selected by S&P.

Another selection issue is that S&P does not code disclosure scores for the same number or percentage of companies in each country. As an example of the problem, someone noted that China has a better disclosure score than Korea, but a small number of Korean companies have greatly increased disclosure. Thus, the results could be driven by the fact that S&P went deeper into the Korean market, whereas it selected a smaller number of firms in China with good disclosure and foreign interactions. In fact, Patel and Dallas [2002] allude to the fact that the Chinese firms coded by S&P are those that are listed in Hong Kong or London, and their disclosure practices likely differ from the domestic norm in China. Although not a complete correction, the authors could examine a sensitivity analysis by restricting the sample to the largest $x\%$ of firms in each country. For example, Chang, Khanna, and Palepu [2000] restrict their sample to the top 30 firms in each country because the depth of coverage of the IBES database differs across countries.

The key question is whether the S&P's selection of countries and firms within countries introduces a systematic bias toward finding that greater U.S. market interaction is associated with U.S. disclosure practices. Future work could explore selection issues by applying the S&P disclosure items to a broader set of firms within a country. Although costly, such an approach applied to a few sample countries could also yield enough power to test more detailed aspects of the relations between disclosure practices and market interactions.

5. *Method and Results*

5.1 DO THE RESULTS ALSO HOLD IN A COUNTRY-LEVEL ANALYSIS?

The major methodological challenge faced by KPS is to integrate firm- and country-level analyses in the same model. Prior international work generally does either firm- or country-level analyses only, or does both separately (e.g., see Bradshaw, Bushee, and Miller [2003], Ahearne, Griever, and Warnock [2004], Chang, Khanna, and Palepu [2000], respectively). One problem with including country-level variables in a firm-level analysis is that standard errors will be understated because the number of independent observations is not equal to the number of firms. One participant suggested that KPS perform a country-level analysis or drop the country-level variables and mean-adjust by country, or both. The authors now report the latter as an additional table (table 8), with the problem being that this analysis must exclude the labor market hypothesis, as the authors only have a proxy for this at the country level. They also add a correction factor for the standard errors on the country-level variables in the firm-level analysis. Another problem with

TABLE 3
Regression of Country-Mean Overall S&P Transparency Scores on KPS Country-Level Variables

	All Countries		Taiwan Excluded					
			KPS Model		MBA Admits Instead of Business Travel		MBA Admits and Business Travel	
	Coeff.	<i>p</i> -value	Coeff.	<i>p</i> -value	Coeff.	<i>p</i> -value	Coeff.	<i>p</i> -value
Intercept	3.79	0.00	3.92	0.00	4.26	0.00	4.13	0.00
<i>Investment Interaction</i>	0.05	0.12	0.05	0.08	0.03	0.23	0.03	0.23
<i>U.S. Trade</i>	-0.01	0.45	0.00	0.84	-0.02	0.16	-0.02	0.29
<i>Business Travel to U.S.</i>	0.05	0.21	0.06	0.09			0.05	0.10
<i>MBA Admits</i>					1.14	0.05	1.06	0.06
<i>English Legal Origin</i>	0.45	0.25	0.21	0.50	0.12	0.69	0.08	0.77
<i>Stock Return Comovement</i>	2.77	0.01	2.72	0.00	2.59	0.00	2.52	0.00
Adjusted R^2	0.566		0.669		0.688		0.722	
<i>N</i>	24		23		23		23	

Country-mean overall S&P transparency scores are obtained from table 2 in Khanna, Palepu, and Srinivasan (KPS). Data on *Investment Interaction*, *U.S. Trade*, *Business Travel to U.S.*, *English Legal Origin*, and *Stock Return Comovement* are reported in panel B of table 4 in KPS. The *Investment Interaction* variable in KPS is a factor formed from *U.S. FDI %* and *U.S. Equity Investment %*. Because factor loadings were not reported in KPS, I equally weight these two variables to form the factor. *MBA Admits* is the number of students admitted to the Wharton School's Class of 2001 from each country divided by the population of the country in billions. I am grateful to Peggy Bishop Lane for providing these data. Outlier analysis on the All Countries model reveal that Taiwan was an outlier. Thus, Taiwan is excluded from the other models. All *p*-values are two-tailed.

using country-level proxies in a firm-level analysis is that it can be difficult to interpret the results. A significant coefficient on a country-level variable could be driven by the voluntary actions of a few firms in the country or could reflect convergence in mandatory disclosures.⁹

To supplement KPS's firm-level-only analysis, I regress the country-mean overall S&P index scores on the country-level variables reported in table 2 of KPS.¹⁰ Table 3 of this discussion provides results from this analysis. Using all of the countries, none of the explanatory variables, except *Stock Return Comovement*, is significant at the 10% level. However, an outlier analysis reveals that Taiwan is a huge outlier. After removing Taiwan from the sample, *Investment Interaction* and *Business Travel to the U.S.* are now significant at the 10% level. Although there are problems inherent in a country-level analysis (see Miller [2004]), the country-level analysis weakly confirms the firm-level results and suggests that KPS's results might reflect systemic convergence in addition to firm-specific convergence.

⁹ A final issue is that KPS are somewhat inconsistent in whether they country-adjust firm-level variables. For example, firm size and three-year returns are country-adjusted variables, whereas analyst following, the debt-equity ratio, and R&D are not country-adjusted.

¹⁰ I had to make one assumption to perform this analysis. The *Investment Interaction* variable used in KPS is a factor score formed from *U.S. FDI %* and *U.S. Equity Investment %*. However, KPS do not report factor loadings; therefore, I had to assume equal loadings for these two variables to form the factor. I found similar results when I used each of the variables individually.

In table 3 I also investigate another proxy for labor market interactions. Earlier, I raised the question of whether the percentage of MBA students from a given country might be a good proxy for labor market interactions driven by the migration of U.S. practices through recruiting. I obtain the number of MBA admissions to the Wharton School's class of 2001 and scale it by the country's population in billions. This variable is significant and positive and remains significant when *Business Travel* is added, suggesting that additional proxies for labor market interactions could be used to bolster this result.¹¹ It is interesting that the inclusion of this variable makes *Investment Interaction* no longer significant, suggesting that these variables are proxying for some underlying effect (e.g., culture, language) that may be the true driver of the results. This finding suggests that country-level proxies must be interpreted with caution because there are important construct validity issues and numerous correlated omitted country effects that are difficult for researchers to measure.

Ultimately, I believe the best approach to providing more evidence on convergence in governance systems versus voluntary convergence by firms would be to perform (1) country-level analyses to assess the impact of mandatory disclosures or common voluntary disclosures, or both, on country-level interactions and (2) firm-level analyses to assess the impact of within-country variations in voluntary disclosures on firm-specific interactions. Because of limited data availability, KPS try to merge these in one analysis, but my work suggests that they could be estimated separately.

5.2 DO THE RELATIONS HOLD WITH CIFAR DATA?

The country-level analysis also allows me to replace the S&P index score with the country-mean CIFAR score. The CIFAR scores are from 5 to 10 years earlier and are not geared specifically to measure U.S. best practices. If the results hold with the CIFAR index, it suggests a stable relation between disclosure practices and market interactions that may be driven by greater disclosure rather than U.S.-specific practices. If the results are not significant with CIFAR, it suggests that U.S. practices do matter or that the time mismatch between the CIFAR scores and the KPS variables reduces power significantly.

Table 4 presents results of the analysis, which are estimated with both 1990 and 1993 to 1995 CIFAR scores. The *Investment Interaction* variable is no longer significant, consistent with Ahearne, Grier, and Warnock [2004], who find that the CIFAR score is not associated with home bias. This result suggests that a U.S.-focused measure is important in explaining U.S. equity investment (consistent with Bradshaw, Bushee, and Miller [2003]). *U.S. Trade* and *Business Travel* are positive and significant, suggesting that it is greater disclosure, rather than U.S.-specific practices, that matters for these interactions (in fact, *U.S. Trade* is insignificant with the S&P index). The

¹¹ To ensure that the *MBA Admits* result was not driven by the denominator, I replaced the variable with $1/Population$. The population variable was not significant.

TABLE 4
Regression of Country-Mean CIFAR Scores on KPS Country-Level Variables

	CIFAR (1990)		CIFAR (1993, 1995)			
	KPS Model		KPS Model		MBA Admits Added	
	Coeff.	<i>p</i> -value	Coeff.	<i>p</i> -value	Coeff.	<i>p</i> -value
Intercept	40.44	0.00	46.09	0.00	46.63	0.00
<i>Investment Interaction</i>	-0.06	0.86	0.09	0.72	0.05	0.85
<i>U.S. Trade</i>	0.60	0.02	0.44	0.02	0.40	0.05
<i>Business Travel to U.S.</i>	0.63	0.14	0.62	0.05	0.60	0.07
<i>MBA Admits</i>					2.75	0.60
<i>English Legal Origin</i>	4.69	0.26	1.62	0.59	1.36	0.66
<i>Stock Return Comovement</i>	29.81	0.03	29.50	0.01	28.96	0.01
Adjusted <i>R</i> ²	0.353		0.479		0.453	
<i>N</i>	21		21		21	

Country-mean Center for Financial Analysis and Research (CIFAR) scores are obtained from two sources. CIFAR (1990) scores are reported in La Porta et al. [1998] based on 1990 annual reports. CIFAR (1993, 1995) scores are reported in Hope [2003c] and represent scores from the 1993 and 1995 CIFAR reports. Because of missing CIFAR scores, China, Indonesia, and Pakistan are omitted from the analysis; all other countries are the same as in Khanna, Palepu, and Srinivasan (KPS) (Taiwan is included as there are no significant outliers with the CIFAR data). Data on *Investment Interaction*, *U.S. Trade*, *Business Travel to U.S.*, *English Legal Origin*, and *Stock Return Comovement* are reported in panel B of table 4 in KPS. The *Investment Interaction* variable in KPS is a factor formed from *U.S. FDI %* and *U.S. Equity Investment %*. Because factor loadings were not reported in KPS, I equally weight these two variables to form the factor. *MBA Admits* is the number of students admitted to the Wharton School's Class of 2001 from each country divided by the population of the country in billions. I am grateful to Peggy Bishop Lane for providing these data. All *p*-values are two-tailed.

MBA Admits variable becomes insignificant with CIFAR, consistent with the fact that this measure is geared toward U.S. practices. Though not definitive, analyses such as these could help separate out some of the possible explanations for the relations between disclosure practices and U.S. market interactions.¹²

6. Conclusions

KPS provide compelling evidence that the level of interactions a non-U.S. firm has with the U.S. capital, product, and labor markets is associated with the use of U.S. disclosure practices. This paper should broaden the focus of the literature beyond simple capital market incentives for disclosure into a recognition that managers must trade off interactions in other markets as well to determine the optimal to disclosure policy. The paper also provides interesting suggestive evidence on the debate over international convergence in governance systems by finding that there has been partial convergence in disclosure practices with a U.S. model both at the country

¹² In unreported analyses, I added the CIFAR score to the regression with the S&P index as the dependent variable to look for an incremental effect of U.S. practices above overall disclosure. None of the market interaction variables was significant under this approach, suggesting that there are limits to how far these data can be pushed to draw such conclusions.

and firm level. Finally, KPS use a new disclosure index provided by S&P that has many promising future applications.

Future research should build on KPS's ambitious start to investigate the following areas. First, the use of time-series data and separate examinations of mandatory and voluntary disclosure practices could provide more insight into the degree of convergence in countries' institutions versus convergence in firm's practices and on the causality of the relations between disclosure practices and product and labor market interactions. To answer these questions, researchers could use detailed CIFAR and S&P data to identify countries and firms with big changes in disclosure practices over time and countries with different emphases in disclosure areas. Another interesting context for answering these questions would be to identify countries where there is limited interaction at the country level but significant interactions for a few firms. Second, small sample, clinical, or experimental studies could provide more evidence on exactly which deviations from U.S. disclosure practices (quantity, quality, or format) create significant costs for U.S. market participants and on how managers trade off domestic, U.S., and other foreign interactions in choosing disclosure practices. Now that KPS have provided large-sample cross-sectional evidence of these relations, the biggest payoff to future researchers will likely come to those who construct their own disclosure indexes and hand collect proxy data tailored to the specific research questions within powerful contexts.

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