Analyst Earnings Forecast Trends in Pacific Rim Countries

by *Stephen J. Ciccone,* University of New Hampshire, Whittemore School of Business and Economics, McConnell Hall, 15 College Road, Durham, New Hampshire and *Ahmad Etebari*, University of New Hampshire, Whittemore School of Business and Economics, McConnell Hall, 15 College Road, Durham, New Hampshire

Abstract

This study analyzes trends in analyst forecast properties from 1987 through 1998 in the United States and seven Pacific Rim countries: Australia, New Zealand, Taiwan, Hong Kong, Japan, South Korea, and Thailand. Analyst forecast properties in the United States have become less dispersed, more accurate, and less optimistic during the sample period. Similar trends exist in Australia and New Zealand, but not in the other sample countries. In contrast, the forecast property trends of most Asian countries are the exact opposite. For example, in Japan and Korea, forecast dispersion, forecast error, and optimism all significantly increase over the sample period. The results suggest that Asian firms do not play the U.S.-style earnings game in which managers guide analysts toward a certain target number and then report earnings that beat the target.

1. Introduction

Earnings forecast properties in the United States have undergone major changes in the 1990s. The forecasts have become more accurate, less dispersed, and less optimistic (Ciccone, 2002). The reasons for these changes are numerous. Firms might disclose more information to avoid lawsuits (Kasznick and Lev, 1995). The scrutiny of the financial press might induce more careful forecasting analysis. Perhaps even, analysts have simply improved in their forecasting techniques and abilities. More controversially, however, some argue that firms manipulate earnings, playing the "earnings game." They do this by managing earnings to meet certain target numbers (Degeorge, Patel, and Zeckhauser, 1999) or guiding analysts toward a pessimistic earnings target (Matsumoto, 2002).[1] Furthermore, firms may use "Street" numbers, rather than GAAP, to achieve earnings objectives and improve the perception of reported earnings (Bradshaw and Sloan, 2002).

The probable forces causing the earnings forecasting trends in the United States may or may not exist in other parts of the world. The purpose of this study is to examine trends in forecast properties for the firms of seven Pacific Rim countries: Australia, New Zealand, Taiwan, Hong Kong, Japan, South Korea, and Thailand. The specific items examined include trends in forecast error, forecast dispersion, and forecast optimism. The use of Pacific Rim countries allows for a wide variety in the types of financial systems (i.e., bank-dominated versus markets-dominated), legal environments, the sophistication of the financial press, the quality of accounting standards, and the motivations of managers. Furthermore, the sample countries can be divided into two regional segments: Australia/New Zealand versus Asia. U.S. firm forecasts are also included in the sample for comparison purposes.

The results are quite striking. The decrease in dispersion, error, optimism, clearly evident in the U.S., does not necessarily extend to the Pacific Rim countries. Of the seven

Pacific Rim countries examined, only Australia and New Zealand show trends similar to those in the United States. On the contrary, the forecasts of Asian firms tend to get more dispersed, less accurate, and more optimistic throughout the sample period.

As an example, 59% of U.S. firms have optimistic forecasts in 1987. By 1998, this number declines to 38%. However, in Japan, a country with highly developed financial markets, the amount of optimism increases considerably, from 47% in 1987 to 67% in 1998. Forecast dispersion and forecast error also increase during the sample period in Japan.

The systematic optimism that pervades forecasts in Asia reveals that Asian firms are not reporting earnings that slightly beat the consensus forecast. Increasing dispersion and error suggest Asian firms are not guiding analysts toward any specific earnings target. Combined, these results indicate that Asian firms are reluctant to play the U.S.-style earnings game. Instead, Asian firms may be implicitly encouraging optimistic forecasts by hiding bad news, or Asian analysts may issue optimistic forecasts to garner favor with management resulting in increased investment banking revenues and access to private information. Several potential reasons for the Asian trends exist including different management compensation structures within firms (e.g., less reliance on stock options) and weaker legal systems and disclosure standards versus the U.S., Australia, and New Zealand. A complete exploration into the influence of these and other factors on international forecast trends is left to future research.

2. Background

Stemming from their critical role in financial performance perception, earnings releases are often the target of criticism in the United States. Managers are often thought to play an "earnings game," manipulating reported earnings (and hence the surprise) to reap various benefits: increased stock prices, favorable publicity, and bonuses, for example (Vickers, 1999). Fox (1997) tells of a Microsoft 1997 quarterly earnings release in January, the 41st time in 42 consecutive quarters that Microsoft met or beat the Wall Street consensus. Missing a consensus earnings estimate can be very costly to a firm (e.g., Skinner and Sloan, 2002).

Firms use several methods to play the earnings game. One method is to change operations. For example, firms may change shipment schedules or reduce prices to increase sales at the end of the year. Firms may also take advantage of accounting flexibility in the reserve and allowance accounts. These methods are imperfect, however. Changing operations is costly and accounting flexibility is limited, both by generally accepted accounting principles and by the audit process. Easier methods include reporting "Street" earnings and earnings guidance. Recent studies indicate an increase in the use of Street numbers – the numbers that are forecasted and evaluated by the professional analysts (Bradshaw and Sloan, 2002). Street earnings are supposed to exclude non-recurring items but are often criticized by the press for excluding recurring items as well, especially if the recurring items are bad (e.g., Gallagher, 2001). Consequently, Street earnings are unaffectionately dubbed "EBBS" or "earnings before bad stuff" by market observers. A similar low cost earnings surprise strategy involves guiding analysts toward a target and then beating that target (Matsumoto, 2002).[2]

The earnings game is linked to a remarkable change in U.S. firm forecast properties. The forecasts have become more accurate and less dispersed (Ciccone, 2002).[3] Additionally, forecasts have shifted from being optimistically biased to being pessimistically biased (Brown, 2001; Matsumoto, 2002). Although an optimistic bias is often considered bad (e.g., Keane and Runkle, 1998), a pessimistic bias might even be worse. When playing the earnings game, long-term prospects are often sacrificed by concern with short-term profits. Corporate decisions are altered, accounting rules are stretched, and investors lose faith in financial statements and stock prices (Collingwood, 2001).

Internationally, the incentives related to earnings are often different than in the United States. Consider Japan, for example. Japanese firms in a keiretsu structure do not have to rely on capital markets to raise funds. Instead, the close relationships that firms maintain with banks allow for relatively easy borrowing. Thus, the importance of earnings announcements is reduced and firms have less incentive to manipulate earnings surprises.[4] In contrast, in a capital markets system, such as Australia's, the incentives to manipulate earnings surprises are more similar to those in the United States.

Other, less controversial factors may be related to forecasting trends. Accounting regulations can play a role as reporting standards vary considerably around the world. The legal system is also potentially important. The improvement in U.S. firm accuracy is often attributed to the litigious nature of the U.S. system. Firms avoid large negative earnings surprises because they do not want to be sued (e.g., Kasznik and Lev, 1995; Skinner, 1994; Skinner, 1997). Typically, however, the legal system internationally is not nearly as litigious as in the United States. Thus, pressures to pre-warn investors might be less.

Several studies examine international forecast properties. Chang, Khanna, and Palepu (2001) find wide disparities in analyst forecasting performance internationally. Ang and Ciccone (2001) find that profitability has greater predictive value for forecast dispersion, error, and optimism than the legal environment, ownership structure, and accounting disclosure level. Brown and Higgins (2001) examine earnings surprises in 12 non-U.S. countries, finding that U.S. firms manage earnings to a greater extent than non-U.S. firms.

This study adds to the international forecast literature by examining forecast property trends in a sample of seven Pacific Rim countries: Australia, New Zealand, Taiwan, Hong Kong, Japan, Korea, and Thailand. The United States is also included for comparison purposes. Although this study does not focus on the specific differences among the countries, these countries vary considerably in their accounting standards, legal environments, extent of capital markets influence, extent of banking relationships, motivations of managers, and sophistication of the financial press.

3. Data and Methodology

The International Institutional Brokers Estimate System (IBES) summary database is used to obtain the forecast properties. The forecasts used are the last forecasts made prior to the fiscal period end. The mean forecast as of this month is used as the consensus forecast. All conclusions are similar if median forecasts are used instead of the mean forecasts or if the last mean forecasts prior to the earnings release date are used instead of the last mean forecasts prior to fiscal period end.

Forecast dispersion is defined as the standard deviation of the forecasts divided by the absolute value of the mean forecast. This measure requires at least two forecasts. Forecast error is defined as the difference between the actual earnings and the mean forecasted earnings, divided by the actual earnings. The absolute value is taken to obtain the final error number. A forecast is considered optimistic if the mean forecast is greater than the corresponding actual earnings. The error and optimism measures require at least one forecast.

Many studies deflate the forecast properties by the stock price rather than the deflators described above. However, deflating by price causes forecast properties to be influenced by market conditions. For example, when stock market returns are high, the consequent price increases necessarily decrease dispersion and error regardless of actual improvement in accuracy or information quality. When examining trends over time in forecast properties, it is imperative that stock market returns do not influence the results.

An important component of this research is the separation of firms with losses and profits. Previous research has demonstrated that loss firm forecasts are different from profit firm forecasts, as loss firms have more forecast dispersion, error and optimism (Butler and Saraoglu, 1999; Ang and Ciccone, 2001; Brown, 2001). A loss is defined as when the actual earnings per IBES are less than zero. A profit is defined as when actual earnings are greater than or equal to zero.

When the denominator is small, the dispersion or error can take on extreme values. To alleviate problems with small denominators, a firm with a divisor less than $0.02 in absolute value terms has the problem divisor set to $0.02. To reduce the influence of large observations, firms with dispersion or error numbers greater than 10 are eliminated from their respective sample. These procedures have no effect on the conclusions.

The countries included in this study are Australia, New Zealand, Taiwan, Hong Kong, Japan, South Korea, and Thailand. The United States is also included for comparison purposes. The final sample includes the years 1987 through 1998, although IBES forecast coverage for Korea and Taiwan begins in 1988. The maximum number of sample firms in each country is as follows: Australia: 2307 (192 per year average); New Zealand: 589 (49 per year average); Taiwan: 1621 (147 per year average); Hong Kong: 1951 (163 per year average); Japan: 23,856 (1988 per year average); Korea: 3275 (298 per year average); Thailand: 2343 (195 per year average); United States: 45,442 (3787 per year average). The sample firms represent a broad mix of industries.

Portfolio analyses are shown to communicate the results in an easily accessible manner. The included tables present the results after separating firms by time period: a "pre-1992" period that includes 1987 through 1991 and a "post-1992" period that includes 1992 through 1998. Year-by-year results are presented for the sample countries in the appendix. The dividing year, 1992, is chosen because in that year U.S. forecasts switched from being optimistically biased to being pessimistically biased (51.69% optimism in 1991, 48.92% optimism in 1992; see Table AIII in the appendix).

4. Results

Table I presents the forecast properties by country for all sample firms and after separating the sample-firm forecasts by time period: pre-1992 (1987 through 1991) and post-1992 (1992 through 1998). Consistent with previous studies, the forecast properties of

Table I
Forecast Dispersion, Error, and Optimism by Country and Time Period

	Max obs.	Dispersion	Error	Optimism	Max obs.	Dispersion	Error	Optimism
	Australia				**New Zealand**			
All	2306	0.19	0.32	57.17%	589	0.15	0.37	53.99%
Pre-1992	831	0.22	0.43	65.87%	153	0.22	0.46	62.09%
Post-1992	1475	0.17	0.26	52.27%	436	0.13	0.33	51.15%
Difference		0.05**	0.17**	13.60%**		0.09*	0.13*	10.94%**
	Taiwan				**Hong Kong**			
All	1609	0.37	0.64	59.04%	1945	0.19	0.46	59.61%
Pre-1992	360	0.18	0.68	61.33%	650	0.18	0.34	55.91%
Post-1992	1249	0.39	0.63	58.38%	1295	0.19	0.51	61.46%
Difference		-0.21**	0.05	2.95%		-0.01	-0.17**	-5.55%**
	Japan				**Korea**			
All	23,767	0.20	0.40	56.22%	3228	0.34	0.74	60.61%
Pre-1992	4799	0.12	0.24	48.31%	513	0.22	0.51	53.88%
Post-1992	18,968	0.23	0.43	58.21%	2715	0.35	0.78	61.87%
Difference		-0.11**	-0.19**	-9.90%**		-0.13**	-0.27**	-7.99%**
	Thailand				**United States**			
All	2325	0.31	0.58	62.40%	45,442	0.20	0.34	48.26%
Pre-1992	520	0.17	0.53	57.82%	29,065	0.24	0.43	54.99%
Post-1992	1805	0.35	0.59	63.72%	16,377	0.17	0.29	44.47%
Difference		-0.18**	-0.06	-5.90**		0.07**	0.14**	10.52%**

**, * Significant at the 1% and 5% levels, respectively

This table reports mean forecast properties for several Pacific Rim countries and the United States. The results are shown for all firms and also after separating firms into one of two time periods: pre-1992 (1987-1991) and post-1992 (1992-1998). Dispersion is defined as the standard deviation of the annual forecasts dividend by the absolute value of the mean forecast. Error is defined as the absolute value of the actual earnings less the mean forecast divided by the actual earnings. Optimism is defined as when the mean forecast is greater than the actual earnings. All forecast properties are computed at fiscal year end. Forecast data is from IBES. Significance is determined using a difference-in-means test or a difference-in-proportions test, as appropriate.

U.S. firms clearly differ between the two time periods. Dispersion and error significantly decrease while the optimism shifts to pessimism (54.99% versus 44.47%). The forecast properties of Australia and New Zealand show similar changes in the later time period.

Dispersion, error, and optimism all decrease quite dramatically. For example, in both countries, the percentage of optimistic forecasts declines from over 60% to a little above 50%.

No other country shows similar changes. In contrast, the forecast properties of the Asian sample countries become more dispersed, less accurate, and more optimistic. For example, in Japan, the optimism in the pre-1992 period is below 50%. However, in the post-1992 period, the optimism grows to nearly 60%, a 9.90% increase. Forecast dispersion doubles or nearly doubles in Taiwan, Japan, and Thailand. Error significantly increases in Hong Kong, Japan, and Korea and insignificantly increases in Taiwan.

The tables in the appendix present the year-by-year results for each country. Table AI shows dispersion trends, Table AII shows error trends, and Table AIII shows optimism trends. From the tables, it is clear that the forecast property trends of Asian countries are different from those of the United States. For example, in Korea, average forecast error increases from 0.48 in 1988 to 1.28 in 1998. In Japan, optimism increases from 47.37% in 1987 to 67.34% in 1998. In the United States, however, dispersion and error both decline by around 50% during the sample period, while optimism is only 38.30% in 1998. Although trends similar to the U.S. occur in Australia and New Zealand, they are not nearly as obvious.

Table II presents the forecast properties after separating firms by time period and profitability. Ignoring the time period for the present, loss firms have greater dispersion, error, and optimism across all countries. The magnitude of the differences between profit and loss firm dispersion is especially large. For example, in Australia, the average profit firm dispersion is 0.13 while the average loss firm dispersion is 0.78. In Thailand, the average loss firm dispersion is over seven times greater than that of the average profit firm (0.19 for profit firms versus 1.49 for loss firms). There are also substantial differences in error between profit and loss firms, although the magnitudes are not quite as large. Loss firm forecasts are overwhelmingly optimistic, with over 80% optimism in all Pacific Rim sample countries. Profit firm optimism is less than 60% in each country.

The decreases in the forecast properties of U.S. firms are due to changes in both profit firms and loss firms. For example, loss firm dispersion decreases from 0.88 to 0.58 while the percent of loss firm optimism decreases from 85.45% to 71.74%. Similar findings occur in Australia, although loss firm error and optimism are still high in the latter sample period (1.22 error; 87.16% optimism). New Zealand is a different story. In New Zealand, the decrease in dispersion and error occurs only in profit firms. For loss firms, both the dispersion and error increase in the post-1992 sample period. Optimism for loss firms does decrease insignificantly, from 100% to 85%.

In the Asian countries, there is little decrease in the forecast properties for either profit or loss firms. Profit firm optimism significantly increases in Hong Kong, Japan, and Korea and insignificantly increases in Thailand. For loss firms, optimism tends to decrease slightly. It still remains high, close to 90% in the post-1992 period for Hong Kong,

Table II
Forecast Dispersion, Error, and Optimism by Country, Time Period, and Profitability

	Dispersion	Error	Optimism	Dispersion	Error	Optimism
	Profit Firms			Loss Firms		
Australia						
All	0.13	0.22	54.49%	0.78	1.52	88.89%
Pre-1992	0.15	0.28	63.47%	1.01	1.99	91.55%
Post-1992	0.12	0.19	49.49%	0.60	1.22	87.16%
Difference	0.03**	0.09**	13.98%**	0.41*	0.77**	4.39%
New Zealand						
All	0.13	0.28	51.89%	0.47	1.95	90.63%
Pre-1992	0.15	0.37	58.87%	0.44	1.57	100.00%
Post-1992	0.12	0.25	49.52%	0.48	2.17	85.00%
Difference	0.03	0.12*	9.35%*	-0.04	-0.60	15.00%
Taiwan						
All	0.28	0.53	56.46%	1.54	1.70	82.91%
Pre-1992	0.17	0.58	59.06%	0.64	2.39	100.00%
Post-1992	0.30	0.52	55.66%	1.58	1.60	80.43%
Difference	-0.13**	0.06	3.40%	-0.94**	0.79*	19.57%*
Hong Kong						
All	0.14	0.37	57.21%	1.04	1.86	98.24%
Pre-1992	0.14	0.28	53.18%	0.67	1.32	100.00%
Post-1992	0.14	0.41	59.23%	1.16	2.13	97.37%
Difference	0.00	-0.13**	-6.05%**	-0.49*	-0.81**	2.63%

**, * Significant at the 1% and 5% levels, respectively

Table II
Forecast Dispersion, Error, and Optimism by Country, Time Period, and Profitability (Continued)

Japan						
All	0.14	0.33	52.39%	0.72	0.83	81.58%
Pre-1992	0.10	0.21	47.33%	0.81	1.24	84.92%
Post-1992	0.16	0.36	53.86%	0.71	0.82	81.44%
Difference	-0.06**	-0.15**	-6.53%**	0.10	0.42**	3.48%
Korea						
All	0.27	0.65	58.75%	0.69	2.03	88.35%
Pre-1992	0.20	0.47	52.88%	0.63	2.11	92.31%
Post-1992	0.28	0.69	59.90%	0.70	2.03	88.08%
Difference	-0.08**	-0.22**	-7.02%**	-0.07	0.08	4.23%
Thailand						
All	0.19	0.47	58.36%	1.49	1.38	91.58%
Pre-1992	0.15	0.48	57.23%	0.99	2.65	83.33%
Post-1992	0.21	0.46	58.73%	1.50	1.32	91.94%
Difference	-0.06**	0.02	-1.50%	-0.51	1.33*	-8.61%
United States						
All	0.11	0.24	42.99%	0.69	0.88	76.73%
Pre-1992	0.13	0.30	49.28%	0.88	1.12	85.45%
Post-1992	0.10	0.20	39.45%	0.58	0.75	71.74%
Difference	0.03**	0.10**	9.83%**	0.30**	0.37**	13.71%**

**, * Significant at the 1% and 5% levels, respectively
This table reports mean forecast properties for several Pacific Rim countries and the United States. The results are shown after separating firms by profitability (profit or loss) and by time period: pre-1992 (1987-1991) and post-1992 (1992-1998). A profit is defined as annual earnings greater than or equal to zero. Dispersion is defined as the standard deviation of the annual forecasts dividend by the absolute value of the mean forecast. Error is defined as the absolute value of the actual earnings less the mean forecast divided by the actual earnings. Optimism is defined as when the mean forecast is greater than the actual earnings. All forecast properties are computed at fiscal year end. Forecast data is from IBES. Significance is determined using a difference-in-means test or a difference-in-proportions test, as appropriate.

Korea, and Thailand. In Thailand, optimism for loss firms actually increases by almost 9%.

Table III reports the percent of firms in which the mean forecast is the wrong sign (for example, when the mean forecast is a profit, but the actual earnings are a loss). From this table, it is apparent that analysts have little problem forecasting the sign of earnings for firms that report a profit.

Table III
Percentage of Firms with Analysts Forecasting the Wrong Sign

	Actual Profit, Forecasted Loss	Actual loss, Forecasted profit	Actual Profit, Forecasted Loss	Actual loss, Forecasted profit
	Australia		**New Zealand**	
All firms	0.42	54.44	0.00	75.00
Pre-1992	0.26	69.01	0.00	91.67
Post-1992	0.51	44.95	0.00	65.00
Difference	-0.25	24.06**	0.00	26.67*
	Taiwan		**Hong Kong**	
All firms	0.96	55.70	0.05	80.70
Pre-1992	1.17	100.00	0.00	86.84
Post-1992	0.89	49.28	0.08	77.63
Difference	0.28	50.72**	-0.08	9.21
	Japan		**Korea**	
All firms	0.90	31.55	2.31%	74.27
Pre-1992	0.30	51.59	0.99	76.92
Post-1992	1.07	30.71	2.57	74.09
Difference	-0.77**	20.88**	-1.58*	2.83
	Thailand		**United States**	
All firms	1.26	50.18	0.77	26.58
Pre-1992	0.39	66.67	0.86	36.40
Post-1992	1.55	49.45	0.73	20.95
Difference	-1.16*	17.22	0.13*	15.45**

**, * Significant at the 1% and 5% levels, respectively
This table reports the percentage of firms with analysts forecasting the wrong sing for several Pacific Rim countries and the United States. The results are shown after separating firms by time period: pre-1992 (1987-1991) and post-1992 (1992-1998). The sign is considered wrong if either 1) the mean forecast is a profit but the actual earnings are a loss or 2) the mean forecast is a loss but the actual earnings are a profit. The percents are computed as a percent of the total number of firms with the same actual profitability (e.g., % actual loss but forecasted profit + % actual loss and forecasted loss = 100%). The mean forecast is obtained at fiscal year end. Forecast data is from IBES. Significance is determined using a difference-in-proportions test.

Analysts forecast losses for profit firms less than 3% of the time in all countries. However, there is evidence that this number is increasing in some Asian countries as significant increases occur in Japan, Korea, and Hong Kong.

In contrast to actual profit firms, analysts poorly forecast the sign of actual loss firms. Analysts predict a profit for actual loss firms over 30% of the time in the Pacific Rim countries, including over 70% in New Zealand, Hong Kong, and Korea. Although

there is improvement in the post-1992 period, the amount of profit forecasts for actual loss firms still remains high.

Overall, the results suggest that the U.S. trend of decreasing dispersion, error, and optimism is limited to only a couple Pacific Rim countries, Australia and New Zealand. In the Asian countries, the trends tend to work in reverse. In stark contrast to U.S. firms, optimism actually tends to increase for profitable firms. Moreover, increases in dispersion and error suggest that Asian firms are not guiding analysts toward a specific target earnings number. It thus appears that Asian firms are reluctant to play the earnings games that firms in the U.S. play. However, Asian firms may be playing a different game, a game that encourages inaccurate, optimistic forecasts.

5. Discussion of Results

Several factors may be behind the results described above. As mentioned previously, the threat of lawsuits might induce firms to disclose more information, thus decreasing the amount of negative earnings surprises. The legal system of the United States is widely considered to be effective, potentially explaining at least part of the decrease in forecast error, especially for the loss firms. However, in much of Asia, the legal system is not nearly as developed or effective. The International Country Risk Guide (ICRG) rates the legal system of many countries from 0-6 based on how well the country's legal system resolves business disputes. The United States gets a perfect 6.0 rating in each year from 1987 through 1997. Australia does as well. Japan and New Zealand also receive high ratings, near 6.0 in every year. The other Asian countries get lower ratings. Taiwan, Hong Kong, and Thailand have mean ratings under 5.0, while Korea has a mean rating of only 3.8. Thus, with the exception of Japan, the legal environment does appear to have some effect on the forecast trends.

Accounting disclosure levels also potentially affect forecast trends, as better disclosure should help increase transparency thus lowering dispersion and error. An accounting disclosure index is created by the Center for International Financial Analysis and Research's (CIFAR) *International Accounting and Auditing*. Ninety disclosure variables from the annual reports of 1000 firms in 44 countries are studied by CIFAR to construct firm-level International Financial Reporting Indexes. After separating firms by country, these firm-level indexes are averaged to produce an overall country measure for each of the 44 countries. The highest possible score is 90, the lowest is 0. Using 1995 numbers, the United States, Australia, and New Zealand receive the highest index values (76, 80, and 80, respectively) of the sample countries herein. Thailand receives the lowest at 66. Japan receives a 71 while Hong Kong receives a 73. (Korea and Taiwan are not rated by CIFAR.). Thus, the countries with the trends of decreasing dispersion, error, and optimism have the highest disclosure scores.

Another potential reason for different forecast trends is related to management compensation packages. Anecdotal evidence suggests that the U.S. is much more reliant on stock option compensation than the rest of the world. The heavy use of stock options provides U.S. managers with incentives to direct the public perception of their firms. Publicity is often favorable when firms report profits and beat earnings targets. If Asian managers do not have incentives related to steadily increasing profits, they will probably be less likely to manage earnings.

6. Conclusions

The results suggest that the trends of reduced forecast dispersion, error, and optimism evident in the United States do not exist in several Asian countries. Dispersion, error, and optimism actually tend to increase throughout Asia. For example, by the end of the sample period (1997 or 1998) Hong Kong, Korea, Japan, and Thailand all have forecast optimism for more than 60% of their firms, compared to only 38% of firms in the United States. These trend differences might be due to different compensation packages, legal environments, and accounting regulations versus the United States. Asian firms appear reluctant to play the earnings game in which firms guide analysts to a specific earnings number and then report earnings that beat the forecasted earnings.

Several interesting questions remain. How exactly do the differences in legal environments, accounting regulations, management compensation, and other relevant factors influence the forecast properties? Do the stock prices of Asian firms decrease dramatically when the consensus forecast is not met? Does the optimism in Asian firm forecasts arise from the firm or from the analysts? What effect does the financial press scrutiny have on analyst forecasts? Future research can examine these issues.

Endnotes

1. Many managers attribute the changes in forecast properties to improved communication with analysts (Kroll, 2001). Improved communication is related to earnings guidance, although earnings guidance represents a more cynical view. This cynicism is supported by the now ever-present pessimism surrounding profit firm earnings found in this and other studies.

2. Interestingly, on December 13, 2002, Coca-Cola announced it will no longer offer earnings forecast guidance. The decision is controversial. Some hail it as a decision to stop playing the earnings game (Beck, 2002), while others believe it will leave investors with less information and increase stock price volatility (Stone, 2002).

3. Decreased dispersion might also be related to an increase in "herding," the tendency of analysts to follow a lead analyst (Welch, 2000).

4. Consistent with these arguments, Dewenter and Warther (1998) find that the dividend policies of Japanese keiretsu firms do not consider stock price reactions in the manner of U.S. firms. For example, Japanese firms are more likely to omit a dividend payment.

References

Ang, James S. and Stephen J. Ciccone. 2001. "International Differences in Analyst Forecast Properties." Working Paper. University of New Hampshire.

Beck, Rachel. 2002. "Coca-Cola Sets Precedent with its Decision to Stop Playing Wall Street's Earnings Game." *Daily Herald*, December 20.

Bradshaw, Mark T., and Richard G. Sloan. 2002. "GAAP Versus the Street: An Empirical Assessment of Two Alternative Definitions of Earnings." *Journal of Accounting Research*, vol. 40, no. 1 (March): 41-65.

Brown, Lawrence D. 2001. "A Temporal Analysis of Earnings Surprises: Profits Versus Losses." *Journal of Accounting Research*, vol. 39, no. 2 (September): 221-241.

Brown, Lawrence D. and Huong Ngo Higgins. 2001. "Managing Earnings Surprises in the U.S. Versus 12 Other Countries." *Journal of Accounting and Public Policy*, vol. 20, nos. 4 and 5: 373-398.

Butler, Kirt C., and Hakan Saraoglu. 1999. "Improving Analysts' Negative Earnings Forecasts." *Financial Analysts Journal*, vol. 55, no. 3 (May/June): 48-56.

Chang, James, Tarun Khanna, and Krishna G. Palepu. 2001. "Analyst Activity Around the World." Working Paper. Harvard University.

Ciccone, Stephen J. 2002. "Improvement in the Forecasting Ability of Analysts." Working Paper. University of New Hampshire.

Collingwood, Harris. 2001. "The Earnings Game: Everybody Plays, Nobody Wins." *Harvard Business Review*, vol. 79, no. 6 (June): 65-74.

Degeorge, Francois, Jayendu Patel, and Richard Zeckhauser. 1999. "Earnings Management to Exceed Thresholds." *Journal of Business*, vol. 72, no. 1 (January): 1-33.

Dewenter, Kathryn L. and Vincent A. Warther. 1998. "Dividends, Asymmetric Information, and Agency Conflicts: Evidence from a Comparison of the Dividend Policies of Japanese and U.S. firms." *Journal of Finance*, vol. 53, no. 3 (June): 879-904.

Fox, Justin. 1997. "Learn to Play the Earnings Game (And Wall Street Will Love You)." *Fortune*, March 31.

Gallagher, Jim. 2001. "Corporations Pile Accounting Fluff on Profit Reports to Mask Bottom Line." *St. Louis Post*, December 23.

Kasznik, Ron, and Baruch Lev. 1995. "To Warn or Not to Warn: Management Disclosures in the Face of an Earnings Surprise." *Accounting Review*, vol. 70, no. 1 (January): 113-134.

Keane, Michael P. and David E. Runkle. 1998. "Are Financial Analysts' Forecasts of Corporate Profits Rational?" *Journal of Political Economy*, vol. 106, no. 4 (August): 768-805.

Kroll, Karen M. 2001. "Bridging the Earnings Divide." *Industry Week*, October 1.

Matsumoto, Dawn. 2002. "Management's Incentives to Avoid Negative Earnings Surprises." *Accounting Review*, vol. 77, no. 3 (July) 483-514.

Skinner, Douglas J. 1994. "Why Firms Voluntarily Disclose Bad News." *Journal of Accounting Research*, vol. 32, no. 1 (Spring): 38-60.

Skinner, Douglas J. 1997. "Earnings Disclosures and Stockholder Lawsuits." *Journal of Accounting and Economics*, vol. 23, no. 3 (November): 249-282.

Skinner, Douglas J., and Richard G. Sloan. 2002. "Earnings Surprises, Growth Expectations, and Stock Returns or Don't Let an Earnings Torpedo Sink Your Portfolio." *Review of Accounting Studies*, vol. 7, no. 2-3 (June-September): 289-312.

Stone, Amey. 2002. "The Wrong Thing at Coke." *Business Week*, December 17.

Vickers, Marcia. 1999. "Ho-Hum, Another Earnings Surprise." *Business Week*, May 29.

Welch, Ivo. 2000. "Herding among Security Analysts." *Journal of Financial Economics*, vol. 58, no. 3 (December): 369-396.

Appendix

Table AI
Forecast Dispersion by Country and Year

	Dispersion			
Year	**Australia**	**New Zealand**	**Taiwan**	**Hong Kong**
1987	0.25	n/a	n/a	0.16
1988	0.20	0.38	0.14	0.15
1989	0.18	0.09	0.16	0.17
1990	0.24	0.15	0.10	0.20
1991	0.26	0.36	0.23	0.19
1992	0.26	0.19	0.20	0.12
1993	0.14	0.13	0.60	0.11
1994	0.13	0.14	0.50	0.14
1995	0.18	0.11	0.26	0.20
1996	0.13	0.11	0.34	0.30
1997	0.12	0.11	0.23	0.25
1998	0.24	0.14	n/a	0.23
	Japan	**Korea**	**Thailand**	**United States**
1987	0.15	n/a	0.15	0.28
1988	0.14	0.20	0.16	0.21
1989	0.12	0.23	0.15	0.25
1990	0.08	0.24	0.12	0.24
1991	0.12	0.21	0.19	0.22
1992	0.20	0.24	0.17	0.20
1993	0.24	0.37	0.36	0.18
1994	0.26	0.31	0.34	0.16
1995	0.26	0.30	0.25	0.17
1996	0.21	0.43	0.31	0.17
1997	0.23	0.41	0.93	0.16
1998	0.20	n/a	n/a	0.14

This table reports the mean dispersion for several Pacific Rim countries and the United States, separating by year (1987-1998). Dispersion is defined as the standard deviation of the annual forecasts dividend by the absolute value of the mean forecast, determined at fiscal year end. “n/a” indicates the data is not available for that year or there are not enough observations to obtain a meaningful sample. Forecast data is from IBES.

Table AII
Forecast Error by Country and Year

	Error			
Year	**Australia**	**New Zealand**	**Taiwan**	**Hong Kong**
1987	0.44	n/a	n/a	0.40
1988	0.51	0.80	0.58	0.34
1989	0.43	0.28	0.59	0.43
1990	0.35	0.50	1.06	0.32
1991	0.37	0.39	0.57	0.24
1992	0.22	0.29	0.90	0.17
1993	0.24	0.47	0.57	0.27
1994	0.26	0.53	0.65	0.49
1995	0.28	0.25	0.55	0.63
1996	0.32	0.31	0.56	0.73
1997	0.24	0.12	0.56	0.61
1998	0.25	0.18	n/a	0.71
	Japan	**Korea**	**Thailand**	**United States**
1987	0.33	n/a	0.85	0.47
1988	0.21	0.48	0.49	0.42
1989	0.21	0.54	0.36	0.44
1990	0.24	0.49	0.52	0.44
1991	0.26	0.54	0.36	0.36
1992	0.40	0.61	0.33	0.33
1993	0.45	0.57	0.54	0.29
1994	0.38	0.61	0.41	0.28
1995	0.45	0.74	0.68	0.28
1996	0.37	0.94	0.69	0.28
1997	0.43	1.28	1.06	0.28
1998	0.55	n/a	n/a	0.27

This table reports the mean error for several Pacific Rim countries and the United States, separating by year (1987-1998). Error is defined as the absolute value of the actual annual earnings less the mean annual forecast divided by the actual annual earnings, determined at fiscal year end. “n/a” indicates the data is not available for that year or there are not enough observations to obtain a meaningful sample. Forecast data is from IBES.

Table AIII
Forecast Optimism by Country and Year

	Percent Optimistic			
Year	**Australia**	**New Zealand**	**Taiwan**	**Hong Kong**
1987	68.16	n/a	n/a	57.28
1988	66.48	65.00	74.07	53.51
1989	71.86	66.67	52.94	55.88
1990	66.23	62.75	68.83	59.87
1991	55.33	52.27	53.68	52.74
1992	47.37	35.29	61.58	49.71
1993	44.94	48.39	55.86	47.25
1994	46.70	60.29	56.32	60.29
1995	58.89	51.19	68.29	68.06
1996	59.78	52.56	64.77	62.03
1997	51.71	55.07	47.24	71.98
1998	44.07	50.00	n/a	75.86
	Japan	**Korea**	**Thailand**	**United States**
1987	47.37	n/a	57.53	58.55
1988	38.41	51.64	71.43	50.30
1989	40.24	59.38	57.75	56.01
1990	57.32	46.40	46.53	58.73
1991	53.97	57.45	59.26	51.69
1992	68.20	68.70	60.61	48.92
1993	60.92	53.58	56.59	46.78
1994	51.83	55.63	55.97	44.30
1995	57.38	67.84	67.43	44.97
1996	48.01	66.73	65.99	42.99
1997	55.79	66.11	87.97	42.20
1998	67.34	n/a	n/a	38.30

This table reports the percentage of forecast optimism for several Pacific Rim countries and the United States, separating by year (1987–1998). Optimism is defined as when the mean annual earnings forecast is greater than the corresponding actual earnings, determined at fiscal year end. “n/a” indicates the data is not available for that year or there are not enough observations to obtain a meaningful sample. Forecast data is from IBES.