Industry Leader Premium

Ja Ryong Kim

Dr. University of Nottingham, UK

B07, Si Yuan Building, University of Nottingham, Jubilee Campus, Wollaton Road, Nottingham, NG8 1BB, UK

Abstract

The advantage of becoming an industry leader is widely studied. However, how can we measure it? This paper measures how much premium an industry leader has in its valuation through a P/E ratio. The findings suggest industry leaders have significantly higher P/E ratios by 0.65 than their peers. The analysis of earnings forecasts suggests this is not due to their high earnings growth potentials but from other sources. However, in stock recommendations, the premium is not recognised by analysts but interpreted as the sign of over-valuation. The paper contributes the new structure of a P/E ratio by identifying the industry leader premium.

Keywords: industry, leader, premium, price-earnings, valuation

Introduction

Most companies strive to become the number one company in the industry and customers remember who they are. The advantages of becoming an industry leader are widely studied including the economies of scale, high bargaining power to suppliers and customers, customers' brand awareness and loyalty, and transition cost to other brands. Obviously, such advantages add value to an industry leader. How can we quantify this value? Do we even recognize it when valuing an industry leader? This paper addresses these questions from the perspective of shareholders (owners) using a price/earnings (P/E) ratio and measures a premium an industry leader has in its stock price.

In regard to a P/E ratio, there are three plausible but conflicting hypotheses. Firstly, as P/E ratios represent the earnings growth potentials of companies (Penman, 1996), small companies tend to have high earnings growth potentials and P/E ratios. Secondly, companies in the same industry tend to have the same P/E ratios as they also represent the degree of over/under-valuation of stock prices. Finally, industry leaders, companies with the largest market shares, tend to have high P/E ratios because they take advantage of premiums they have. The first two hypotheses imply there is no industry leader premium, while the third one indicates so. This paper investigates which hypothesis dominates and measures the industry leader premium if it exists.

The research starts with analysing the general trend of P/E ratios along company ranks and how the trend changes as companies are divided into large-three, large-medium and small companies. Afterwards, the analyses of analyst earnings forecasts, target prices and recommendations are conducted to investigate how analysts consider industry leaders.

The main finding is all three hypotheses coexist in an industry. In general, smaller companies tend to have higher P/E ratios consistent with the first hypothesis. However, when companies are divided into large and small companies, the positive increase in P/E ratios appears to be due to a structural difference in P/E ratios between large and small companies and, within each group, the increase is minimal supporting the second hypothesis. When large companies are subdivided into the three largest and other large companies, the three largest companies have higher P/E ratios than other large companies both economically and statistically, supporting the industry leader premium hypothesis. Overall, the low P/E ratios of large companies mainly relate to other large companies and, in fact, the three largest companies have P/E ratios as high as small companies. The results indicate industry leaders have a premium of 0.65 of their P/E ratios compared to their peers. However, when analyst forecasts are examined, the industry leader premium is not recognised by analysts but instead regarded as the sign of over-valuation.

The paper contributes to the current knowledge of a P/E ratio by identifying the distinctive characteristics of industry leaders. Although the current understanding of a P/E ratio generally prevails, industry leaders experience higher P/E ratios than

their peers due to the industry leader premium. The practical implication for analysts is to recognise the industry leader premium when valuing industry leaders before concluding that their high P/E ratios mean they are over-valued.

The paper proceeds in the following order: hypotheses and models are built up in a methodology part in section 2; data are explained in section 3; and section 4 explains findings, followed by conclusion in section 5.

Methodology

The research first studies the general trend of P/E ratios along company ranks, followed by changes in trend when companies are divided into large-three, large-medium and small companies. Based on the market definition of an industry leader - a company with the largest market share - companies are ranked based on their sales. A company with the largest sales is considered an industry leader and ranks first, followed by a company with the second largest sales ranks second, and so on. Because the ranks of companies are changing year-on-year depending on their performances, the research conducts the cross-sectional analysis based on ranks, instead of the panel-data analysis based on companies.

The general trend of P/E ratios along ranks is measured by model (1) as,

$$P/E = \alpha + \beta_1 Rank + \gamma Leverage + \delta DivPayout + \varepsilon \quad (1)$$

where *Leverage* and *DivPayout* are added as control variables due to their impact on P/E ratios (R.S. Bower and D.H. Bower, 1969; Leibowitz, 2002; Malkiel, 1970).

Companies are afterwards divided equally into large and small companies and their P/E ratios are measured by model (2) as,

$$P/E = \alpha + \beta_1 Rank + \beta_2 Large + \gamma Leverage + \delta DivPayout + \varepsilon \quad (2)$$

where *Large* is a binomial variable of 1 if a company is in the large group, and 0 in the small group.

To measure the industry leader premium, large companies are subdivided into large-three (i.e., three largest) and large-medium companies (i.e., other large companies). Therefore, Model (3) is measured as,

$$P/E = \alpha + \beta_1 Rank + \beta_3 Large3 + \beta_4 LargeMed + \gamma Leverage + \delta DivPayout + \varepsilon \quad (3)$$

where *Large3* is a binomial variable of 1 if a company is one of the three largest companies, and 0 otherwise. *LargeMed* is also a binomial variable of 1 if a company is one of the other large companies, and 0 otherwise.

Model (4) is identical to model (3) only different in a baseline intercept. Whilst model (1) – (3) use small companies as a baseline intercept, model (4) uses large-medium companies as a base. The reason for the change is to examine the statistical significance of the industry leader premium directly between large-three and large-medium companies.

$$P/E = \alpha + \beta_1 Rank + \beta_3 Large3 + \beta_5 Small + \gamma Leverage + \delta DivPayout + \varepsilon \quad (4)$$

where *Small* is a binomial variable of 1 if a company is in the small group, and 0 otherwise.

For analyst forecasts, the same model (1) – (4) are used but replacing *P/E* with one-year ahead earnings forecasts, two-year ahead earnings forecasts, target prices and recommendations, respectively. Moreover, the two control variables are omitted because the analysis is a forecast analysis of a dependent variable when ranks change, instead of a causality analysis.

Three hypotheses are tested in this paper. Firstly, if a P/E ratio is an indicator of earnings growth potential as the current knowledge suggests, smaller companies would have higher earnings growth potentials and therefore higher P/E ratios.

H1: P/E ratios increase as ranks increase.

On the other hand, the second hypothesis views a P/E ratio from a valuation perspective: identical companies should have the identical P/E ratios, and similar companies should have similar P/E ratios. As peer companies are often found from the same industry, the second hypothesis suggests companies in the same industry would have similar or same P/E ratios, especially between similar companies, otherwise arbitrageurs will take advantage of the deviations equalising the levels.

H2: P/E ratios stay the same notwithstanding the increase in ranks especially between similar ranks.

Finally, the third hypothesis indicates industry leaders enjoy premiums that other companies do not, such as the economies of scale functioning as the entry barrier, high bargaining power and customers' brand awareness. Although such benefits may not directly link to their future earnings, they clearly add value as either a protection mechanism against competition or a building block for future growth. The third hypothesis suggests such additional benefits would be reflected in company valuation as premiums and, therefore, industry leaders would have higher P/E ratios than their peers.

H3: P/E ratios of industry leaders are higher than those of their peers.

Data

The research studies European companies covered by Thomson One Banker between 2002 and 2011. All accounting data, except the GICS sub-industry classification, are obtained from Datastream (Worldscope). The GICS sub-industry classification is obtained from Thomson One Banker due to the unavailability in Datastream. Analyst forecasts (i.e., current earnings-per-share, one/two-year ahead earnings forecasts, target prices and recommendations) are acquired from I/B/E/S. For the selection of industry classification, I have considered ICB, ISIC, SIC, GICS and I/B/E/S SIG code. Visual inspection confirms the GICS sub-industry classification is the most appropriate to identify homogeneous companies and, therefore, industry classification in this paper is based on the GICS sub-industry classification.

Variables are calculated as follows. Rank is measured based on company's market share, calculated as company's sales divided by the total sales of the industry in which a company belongs in the year. A company with the largest market share ranks first and the second largest ranks second, and so on. Leverage is measured as total debt to equity. For earnings forecasts and target prices, relative forecasts are used instead of absolute forecasts to eliminate the scale effect. Therefore, relative one-year ahead earnings forecasts are measured as one-year ahead earnings forecasts (EPS1) divided by current earnings (EPS). The same applies for two-year ahead earnings forecasts. Relative target prices are calculated as target prices divided by current prices. Recommendations scale from 1 (strong buy) through 3 (hold) to 5 (strong sell).

One important factor in dealing with P/E ratios and forecast variables is how to handle outliers. Two stage measures are implemented to mitigate the impact of outliers. In the variable level, P/E ratios of top and bottom 5% are truncated to remove outliers. For one-year ahead earnings forecasts, EPS1 and EPS are each truncated at top and bottom 1%, followed by a further top and bottom 1% truncation in relative earnings forecasts (EPS1/EPS). The same applies for two-year ahead earnings forecasts and target prices. In the general level, median is used to average variables instead of mean.

10 years' figures are averaged using median and these averaged variables are used in the analysis. Although the averaging appears to be a loss of data, this research is based on the cross-sectional analysis that does not require the panel-data set. This is because the research is based on the ranks of companies, not companies themselves, and the ranks of companies change year-on-year depending on companies' performances. Instead of conducting 10 separate cross-sectional analyses for each year, an industry cross-sectional analysis using the averaged variables is performed to mitigate the impact of outliers in each year. I require there are at least 20 companies in an industry to make a meaningful interpretation from the analysis. As a result, the research covers 67 industries with 69 companies on average in an industry.

Results

Descriptive Statistics

The different numbers of observations are used for the analyses of P/E ratios, earnings forecasts, target prices and recommendations to preserve the maximum numbers of data. This is because the purpose of the research is to draw a general conclusion of the industry leader premium given available data rather than to design a forecasting model using all variables. Descriptive statistics are explained in table 1.

<Table 1 here>

Sample is categorised in the GICS group-level, instead of the sub-industry level, due to the limitation in space. For the analysis of P/E ratios, 26,315 observations are used, followed by 21,376 observations for recommendations, 13,987 for target prices and 13,057 for earnings forecasts. The biggest group is capital goods accounting for 19% of observations. The capital goods group includes industries of aerospace and defence, building products, construction and engineering, electrical components and equipment, industrial machinery, and trading companies and distributors. The numbers of companies in industries (not reported) range from 20 for paper products to 167 for industrial machinery. The average

number of companies in an industry is 69. As widely reported in the literature of analyst forecasts, analyst recommendations have bias toward a buy signal with 2.36 on average, considering the scale of 1 (strong buy), 3 (hold) and 5 (strong sell). Target prices and earnings forecasts also have upward bias as their means are above 1 in the relative measures (Chan et al., 2003; Dugar and Nathan, 1995; Hunton and McEwen, 1997; Lin and McNichols, 1998; McNichols and O'Brien, 1997).

Industry Leader Premium

Panel A of table 2 describes how P/E ratios change along ranks. Model 1 supports the current knowledge of P/E ratios and the hypothesis 1 that smaller companies tend to have higher P/E ratios in general (Cheng, 2005; Frankel and Lee, 1998). However, when companies are divided into large and small companies in model 2, large companies have structurally lower P/E ratios than small companies. Interestingly, the positive slope observed in model 1 disappears in model 2 indicating the positive trend is mainly due to a structural difference in P/E ratios between the two groups and, within each group, the increase is minimal. Model 3 further divides large companies into large-three and large-medium companies. Although large-medium companies have significantly lower P/E ratios than small companies, the P/E ratios of large-three companies are not significantly different from those of small companies. This is in contrast to the general knowledge that larger companies tend to have lower P/E ratios. Although the coefficient on rank in model 3 is statistically significant, I believe its economic significance is limited. For example, given the fact that there are 69 companies on average in an industry, the difference of P/E ratios between the largest and smallest company would become only 0.21. This suggests P/E ratios are determined more by in which group companies belong than their ranks. Model 4 is identical to model 3 only changing a baseline intercept from small companies to large-medium companies. The result supports the industry leader premium hypothesis that industry leaders have significantly higher P/E ratios by 0.65 than their peers.

Panel B is a supplementary analysis to examine the robustness of the results in panel A by controlling the earnings growth potentials of companies. The result of model 1 indicates the generally positive slope observed in panel A is indeed due to the high earnings growth potentials of small companies. When growth potentials are controlled, the positive slope disappears and in fact turns into the negative. The negative effect of large companies observed in model 2 of panel A also disappears, suggesting there is no significant difference in P/E ratios between large and small companies when their earnings potentials are controlled. However, the largest three companies still have significantly high P/E ratios and, when earnings potentials are controlled, their P/E ratios are even higher than those of small companies. Model 4 suggests industry leaders have significantly higher P/E ratios by 0.75 compared to their peers when earnings potentials are controlled, indicating the high P/E ratios of industry leaders are not due to their high earnings growth potentials but from other sources. Figure 1, 2 and 3 depict the result of model 1, 2 and 3 of panel A, respectively. Figure 1 and 2 describe what we currently know about P/E ratios and figure 3 modifies that perspective by identifying the industry leader premium.

<Table 2 here>

<Figure 1, 2 & 3 here>

To examine how analysts consider industry leaders, table 3 reports the results of relative earnings forecasts along ranks. In panel A, for one-year ahead earnings forecasts, model 1 indicates smaller companies generally have higher earnings growth potentials. When the sample is divided into two groups, large companies have significantly lower earnings growth potentials than small companies. Interestingly, large-three companies have even lower earnings growth potentials than large-medium companies. Similar results are observed for two-year ahead earnings forecasts in panel B, except difference in earnings forecasts between large-three and large-medium companies is insignificant. The results support the findings in table 2 that the significantly higher P/E ratios of industry leaders are not from their high earnings growth potentials.

<Table 3 here>

Table 4 illustrates the results of relative target prices. Consistent with earnings forecasts, smaller companies tend to have higher target prices. When the sample is divided into two groups in model 2, large companies have significantly lower target prices than small companies. The difference between large-three and large-medium companies is insignificant, indicating analysts do not treat them separately in forecasting their target prices.

<Table 4 here>

The results of recommendations in table 5 are expected to be similar to those of target prices because they are the two different formats of the same opinion. Model 1 and 2 indicate large companies are more likely to receive sell

recommendations than small companies. When large companies are further divided, large-three companies have significantly higher tendency to receive sell recommendations than their peers. Overall, the results suggest analysts do not differentiate industry leaders in their forecasting but follow the general perception that large companies are more mature that they have lower earnings growth potentials, followed by more negative outlook in their stock performances.

<Table 5 here>

Why does a discrepancy occur between the results of P/E ratios and analyst forecasts? An exact answer is difficult to know. However, I suspect this is due to either analysts recommend shares only based on their earnings growth potentials (Abarbanell and Bushee, 1997; Elliot et al., 1995; Loh and Mian, 2006) or analysts interpret the high P/E ratios of industry leaders as they are over-valued. In either case, the findings suggest the industry leader premium, observed in the market, is not recognised by analysts.

Conclusion

What are the benefits of being an industry leader? This research aims to answer this question by taking the perspective of shareholders and measure how much premium an industry leader has in its valuation. In regard to a P/E ratio, there are three plausible but conflicting hypotheses. The first hypothesis suggests a P/E ratio is an indicator of earnings growth potential and, therefore, smaller companies tend to have higher P/E ratios. The second hypothesis suggests a P/E ratio is an indicator of over/under-valuation and, therefore, companies in the same industry would have similar or same P/E ratios. These two hypotheses represent the current knowledge of a P/E ratio. The third hypothesis suggests industry leaders would have higher P/E ratios than their peers due to premiums they enjoy.

The findings indicate all three hypotheses coexist in an industry. In general, hypothesis 1 prevails. However, when companies are divided into different groups, hypothesis 2 exists within each group. Between the three largest and other large companies, the three largest companies have significantly higher P/E ratios than their peers, indicating the industry leader premium. The study of earnings forecasts suggests this is not due to their high earnings growth potentials but from other sources. However, the results of target prices and recommendations demonstrate that analysts do not know or recognise the industry leader premium yet and interpret their high P/E ratios as the sign of over-valuation.

The paper contributes new knowledge to the behaviour of a P/E ratio. By identifying the industry leader premium, the research discovers the new structure of a P/E ratio, figure 3, from the current understanding of figure 1 and 2. The practical implication for analysts is to recognise the industry leader premium before concluding that their high P/E ratios mean they are over-valued.

References

[1] Abarbanell, J.S. and Bushee, B.J. (1997), “Fundamental Analysis, Future Earnings, and Stock Prices,” Journal of Accounting Research, Vol. 35 No. 1, pp. 1–24.
[2] Bower, R.S. and Bower, D.H. (1969), “Risk and Valuation of Common Stock,” Journal of Political Economy, Vol. 77 No. 3, pp. 349–362.
[3] Chan, L.K.C., Karceski, J. and Lakonishok, J. (2003), “The Level and Persistence of Growth Rates,” Journal of Finance, Vol. 58 No. 2, pp. 643–684.
[4] Cheng, Q. (2005), “What Determines Residual Income?,” The Accounting Review, Vol. 80 No. 1, pp. 85–112.
[5] Dugar, A. and Nathan, S. (1995), “The Effect of Investment Banking Relationships on Financial Analysts’ Earnings Forecasts and Investment Recommendations,” Contemporary Accounting Research, Vol. 12 No. 1, pp. 131–160.
[6] Elliot, J.A., Philbrick, D.R. and Wiedman, C.I. (1995), “Evidence from Archival Data on the Relation Between Security Analysts’ Forecast Errors and Prior Forecast Revisions,” Contemporary Accounting Research, Vol. 11 No. 2, pp. 919–938.
[7] Frankel, R. and Lee, C. (1998), “Accounting valuation, market expectation, and cross-sectional stock returns,” Journal of Accounting and Economics, Vol. 25 No. 3, pp. 283–319.
[8] Hunton, J.E. and McEwen, R.A. (1997), “An Assessment of the Relation Between Analysts’ Earnings Forecast Accuracy, Motivational Incentives and Cognitive Information Search Strategy,” Accounting Review, Vol. 72 No. 4, pp. 497–515.
[9] Leibowitz, M.L. (2002), “The Levered P/E Ratio,” Financial Analysts Journal, Vol. 58 No. 6, pp. 68–77.

[10] Lin, W. and McNichols, M.F. (1998), "Underwriting relationships, analysts' earnings forecasts and investment recommendations," Journal of Accounting & Economics, Vol. 25 No. 1, pp. 101–127.
[11] Loh, R.K. and Mian, G.M. (2006), "Do accurate earnings forecasts facilitate superior investment recommendations?," Journal of Financial Economics, Vol. 80 No. 2, pp. 455–483.
[12] Malkiel, B.G. (1970), "The Valuation of Public Utility Equities," The Bell Journal of Economics and Management Science, Vol. 1 No. 1, pp. 143–160.
[13] McNichols, M. and O'Brien, P.C. (1997), "Self-Selection and Analyst Coverage," Journal of Accounting Research, Vol. 35 No. 3, pp. 167–199.
[14] Penman, S.H. (1996), "The Articulation of Price-Earnings Ratios and Market-to-Book Ratios and the Evaluation of Growth," Journal of Accounting Research, Vol. 34 No. 2, pp. 235–259.

TABLE 1

DESCRIPTIVE STATISTICS

Sample is displayed in the GICS group level instead of the sub-industry level. 22 groups and 67 sub-industries are covered in the research. The different numbers of observations are used for the analyses of P/E ratios, recommendations, target prices and earnings forecasts to draw a general conclusion from maximum available data. For the analyses of target prices and earnings forecasts, relative forecasts are used instead of absolute forecasts to eliminate the scale effect. EPS represents current earnings-per-share, EPS1 is one-year ahead earnings-per-share forecasts and EPS2 is two-year ahead earnings-per-share forecasts.

Group	Observations	Frequency	No. Companies	Market Value (mil)	Sales (mil)	P/E	Recommendation (5: strong sell; 1: strong buy)	Target Price/ Current Price	EPS1/ EPS	EPS2/ EPS
Energy	645	2%	29	2,602	1,679	18.39	2.22	0.96	1.26	1.65
Materials	1,702	6%	33	3,346	4,442	17.26	2.40	1.27	1.31	1.54
Capital Goods	5,060	19%	104	2,195	3,594	17.22	2.37	1.28	1.24	1.50
Commercial & Professional Services	1,365	5%	34	649	873	19.61	2.13	1.32	1.27	1.58
Transportation	277	1%	38	5,052	9,111	14.91	2.46	0.98	1.28	1.67
Automobiles & Components	292	1%	34	673	1,561	16.60	2.37	1.28		
Consumer Durables & Apparel	2,235	8%	36	1,369	1,251	19.81	2.35	1.29	1.28	1.56
Media	1,144	4%	49	1,085	785	22.13	2.34	1.30	1.28	1.57
Retailing	203	1%	25	353	1,002	20.92				
Food & Staples Retailing	241	1%	24	4,033	10,176	18.45	2.55	1.16	1.13	1.32
Food, Beverage & Tobacco	1,851	7%	82	3,203	2,825	19.07	2.43	1.24	1.24	1.46

Household & Personal Products	591	2%	35	3,772	1,646	22.93	2.32	1.19	1.30	1.75
Pharmaceuticals, Biotechnology & Life Sciences	439	2%	51	38,128	14,402	21.67	2.28	1.47	1.19	1.42
Banks	1,906	7%	101	17,668	12,741	15.51	2.77	1.20	1.13	1.33
Diversified Financials	1,907	7%	91	1,246	766	19.54	2.27	1.38	1.21	1.44
Insurance	287	1%	30	9,406	18,731	16.09	2.49	1.20	1.26	1.46
Real Estate	1,692	6%	76	870	223	19.52	2.39	1.28	1.11	1.22
Software & Services	2,214	8%	94	577	438	22.30	2.26	1.35	1.38	1.87
Technology Hardware & Equipment	1,094	4%	53	4,467	2,521	20.52	2.40	1.26	1.35	1.76
Semiconductors & Semiconductor Equipment	189	1%	27	1,546	617	25.53	2.44	1.21	1.54	2.38
Telecommunication Services	312	1%	37	60,641	39,933	17.78	2.45	1.23	1.20	1.47
Utilities	741	3%	30	14,082	13,664	19.44	2.42	1.34	1.12	1.28
Mean	2,210	5%	69	4,835	4,088	19.02	2.36	1.28	1.26	1.55
N	26,315	100%		26,315	26,315	26,315	21,376	13,987	13,057	13,057

TABLE 2

P/E RATIOS OF INDUSTRY LEADERS

The industry leader premium is measured as difference between the P/E ratios of the three largest companies and their peers. Model 1 represents the general trend of P/E ratios along ranks. Model 2 separates the sample equally into large and small companies. Model 3 further divides large companies into the three largest and other large companies. Model 4 is identical to model 3 except a baseline intercept. Model 4 uses large-medium companies as a base intercept, instead of small companies, to measure the significance of the industry leader premium directly. A company with the largest sales ranks first, followed by the second largest ranks second, and so on. Panel B is a supplementary analysis controlling the earnings growth potentials of companies to examine the robustness of the results in panel A. *, ** and *** represent significance at 10%, 5% and 1% level, respectively.

Panel A			
Model 1	Model 2	Model 3	Model 4

Intercept	16.090 (0.081)	***	16.629 (0.102)	***	16.561 (0.103)	***	15.845 (0.084)	***
Rank	0.007 (0.001)	***	0.001 (0.001)		0.003 (0.001)	**	0.003 (0.001)	**
Large			-0.680 (0.079)	***				
Large3					-0.068 (0.135)		0.649 (0.117)	***
LargeMed					-0.717 (0.079)	***		
Small							0.717 (0.079)	***
Leverage	-0.005 (0.000)	***	-0.005 (0.000)	***	-0.005 (0.000)	***	-0.005 (0.000)	***
DivPayout	-0.008 (0.002)	***	-0.007 (0.002)	***	-0.007 (0.002)	***	-0.007 (0.002)	***
R^2	0.026		0.028		0.029		0.029	
N	26,315		26,315		26,315		26,315	

Panel B

	Model 1		Model 2		Model 3		Model 4	
Intercept	14.242 (0.260)	***	14.360 (0.282)	***	14.165 (0.283)	***	14.025 (0.261)	***
Rank	-0.010 (0.002)	***	-0.011 (0.002)	***	-0.007 (0.002)	***	-0.007 (0.002)	***
Large			-0.117 (0.108)					
Large3					0.611 (0.154)	***	0.752 (0.114)	***
LargeMed					-0.141 (0.108)			
Small							0.141 (0.108)	
Leverage	-0.005 (0.000)	***	-0.005 (0.000)	***	-0.005 (0.000)	***	-0.005 (0.000)	***
DivPayout	0.004 (0.003)		0.004 (0.003)	*	0.004 (0.003)		0.004 (0.003)	
EPS1/EPS	-4.309 (0.342)	***	-4.311 (0.342)	***	-4.256 (0.342)	***	-4.256 (0.342)	***
EPS2/EPS	5.017 (0.226)	***	5.008 (0.226)	***	5.001 (0.225)	***	5.001 (0.225)	***
R^2	0.080		0.080		0.083		0.083	
N	13,488		13,488		13,488		13,488	

FIGURE 1

The result of model 1 of panel A in table 2. It represents the general trend of P/E ratios along ranks. A higher rank means a smaller company.

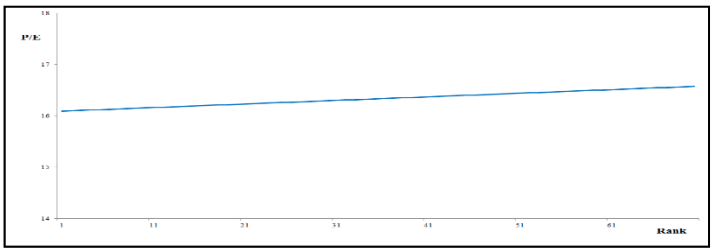

FIGURE 2

The result of model 2 of panel A in table 2. It represents the structure of P/E ratios when companies are equally divided into large and small companies. A higher rank means a smaller company.

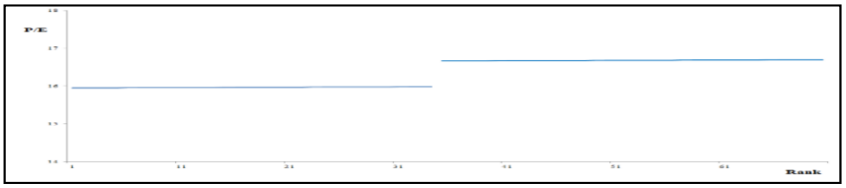

FIGURE 3

The result of model 3 and 4 of panel A in table 2. It represents the structure of P/E ratios when large companies are further divided into the three largest and other large companies. A higher rank means a smaller company.

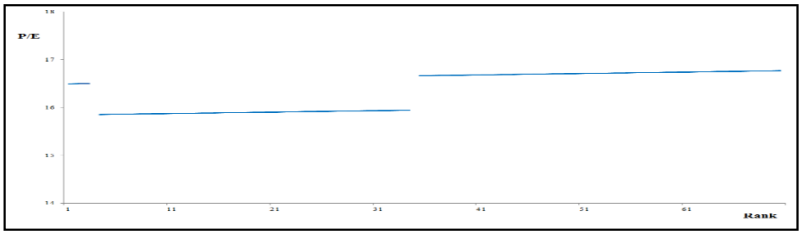

TABLE 3

EARNINGS FORECASTS OF INDUSTRY LEADERS

Panel A and B measure the impact of ranks on one- and two-year ahead earnings forecasts, respectively. Earnings forecasts in a dependent variable are relative earnings forecasts measured as EPS forecasts divided by current EPS. Model 1 represents the general trend of earnings forecasts along ranks. Model 2 separates the sample equally into large and small companies. Model 3 further divides large companies into the three largest and other large companies. Model 4 is identical to model 3 except a baseline intercept. Model 4 uses large-medium companies as a base intercept, instead of small companies, to measure the significance for industry leaders directly. *, ** and *** represent significance at 10%, 5% and 1% level, respectively.

Panel A: One-Year Ahead Earnings Forecast			
Model 1	Model 2	Model 3	Model 4

Intercept	1.106 (0.003)	***	1.124 (0.005)	***	1.127 (0.005)	***	1.109 (0.003)	***
Rank	0.001 (0.000)	***	0.000 (0.000)	***	0.000 (0.000)	**	0.000 (0.000)	**
Large			-0.018 (0.005)	***				
Large3					-0.032 (0.007)	***	-0.014 (0.006)	**
LargeMed					-0.017 (0.005)	***		
Small							0.017 (0.005)	***
R^2	0.003		0.004		0.005		0.005	
N	13,057		13,057		13,057		13,057	

Panel B: Two-Year Ahead Earnings Forecast

	Model 1		Model 2		Model 3		Model 4	
Intercept	1.266 (0.004)	***	1.305 (0.008)	***	1.308 (0.008)	***	1.269 (0.005)	***
Rank	0.002 (0.000)	***	0.001 (0.000)	***	0.001 (0.000)	***	0.001 (0.000)	***
Large			-0.040 (0.007)	***				
Large3					-0.054 (0.011)	***	-0.015 (0.009)	
LargeMed					-0.039 (0.007)	***		
Small							0.039 (0.007)	***
R^2	0.011		0.014		0.014		0.014	
N	13,057		13,057		13,057		13,057	

TABLE 4

TARGET PRICES OF INDUSTRY LEADERS

Target prices in a dependent variable are relative target prices measured as target prices divided by current prices. Model 1 represents the general trend of target prices along ranks. Model 2 separates the sample equally into large and small companies. Model 3 further divides large companies into the three largest and other large companies. Model 4 is identical to model 3 except a baseline intercept. Model 4 uses large-medium companies as a base intercept, instead of small companies, to measure the significance for industry leaders directly. *, ** and *** represent significance at 10%, 5% and 1% level, respectively.

	Model 1		Model 2		Model 3		Model 4	
Intercept	1.104 (0.004)	***	1.223 (0.007)	***	1.222 (0.007)	***	1.097 (0.004)	***

Rank	0.004 (0.000)	***	0.002 (0.000)	***	0.002 (0.000)	***	0.002 (0.000)	***
Large			-0.125 (0.006)	***				
Large3					-0.123 (0.010)	***	0.002 (0.008)	
LargeMed					-0.125 (0.006)	***		
Small							0.125 (0.006)	***
R^2	0.067		0.091		0.091		0.091	
N	13,987		13,987		13,987		13,987	

TABLE 5

RECOMMENDATIONS OF INDUSTRY LEADERS

Recommendations scale from 1 (strong buy) through 3 (hold) to 5 (strong sell). Model 1 represents the general trend of recommendations along ranks. Model 2 separates the sample equally into large and small companies. Model 3 further divides large companies into the three largest and other large companies. Model 4 is identical to model 3 except a baseline intercept. Model 4 uses large-medium companies as a base intercept, instead of small companies, to measure the significance for industry leaders directly. *, ** and *** represent significance at 10%, 5% and 1% level, respectively.

	Model 1		Model 2		Model 3		Model 4	
Intercept	2.419 (0.005)	***	2.169 (0.009)	***	2.163 (0.009)	***	2.425 (0.005)	***
Rank	-0.005 (0.000)	***	-0.002 (0.000)	***	-0.001 (0.000)	***	-0.001 (0.000)	***
Large			0.263 (0.008)	***				
Large3					0.293 (0.013)	***	0.032 (0.011)	***
LargeMed					0.261 (0.008)	***		
Small							-0.261 (0.008)	***
R^2	0.055		0.103		0.104		0.104	
N	21,376		21,376		21,376		21,376	