

December 25, 2004

JCGR Corporate Governance Survey 2004: Final Report
Appendix: Industry-Standardized Analyses

Japan Corporate Governance Research Institute (JCGR)
Corporate Governance Index Research Group
<http://www.JCGR.org/>

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For questions regarding this survey, please contact: <mailto:webmaster@JCGR.org>

The main report of the results of the JCGIndex survey uses unadjusted financial data to compare performance between 1) high and low JCGIndex groups and 2) high and low firms in each of the 4 categories that make up the JCGIndex. This appendix presents similar analyses of data that has been standardized for industry. In the analyses in this report, the high and low JCGIndex groups are constructed in the same way as in the main report, while the financial results have been adjusted for industry.

The analyses of industry-standardized data show the same trends as analyses of the unadjusted data. In other words, whether the comparison is between high and low JCGIndex groups, or high and low groups on each of the 4 categories, firms with higher points tend to be larger and have superior performance.

1. The relationship between JCGIndex and firm financials

(1) Procedure for standardizing across industry

To standardize the financial data across industry, we used the following formula:

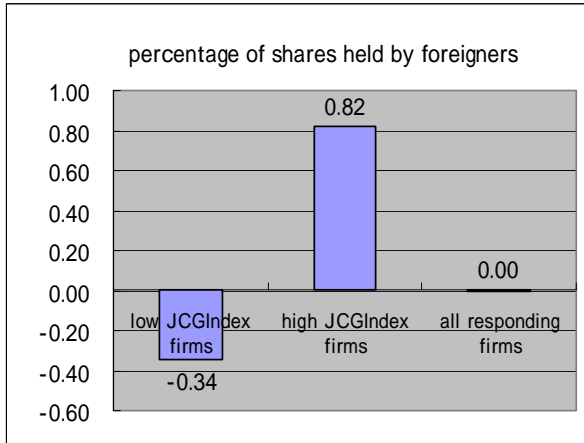
Standardized data=(data for individual firm – industry average)/(industry standard deviation)

Note that the industry adjusted mean for financial data for all responding firms is greater than 0. This is because responding firms tended to be larger and higher performers than other listed firms.

(2) Characteristics of firms responding to the JCGIndex

First, we present some of the more interesting differences between the characteristics of firms in the high and low JCGIndex groups. These results are generally similar to those from 2002 and 2003.

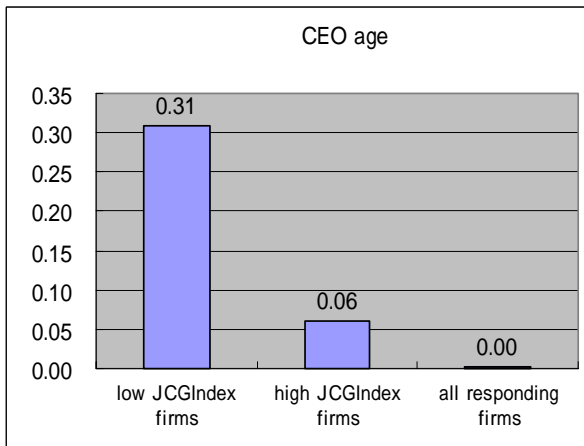
a. Percentage foreign ownership



Foreign ownership is higher in high JCGIndex firms than in low JCGIndex firms, and this difference is statistically significant (at the 1% level).

Total responding firms: 303
 High JCGIndex firms: 47
 Low JCGIndex firms: 47

b. Age of CEO

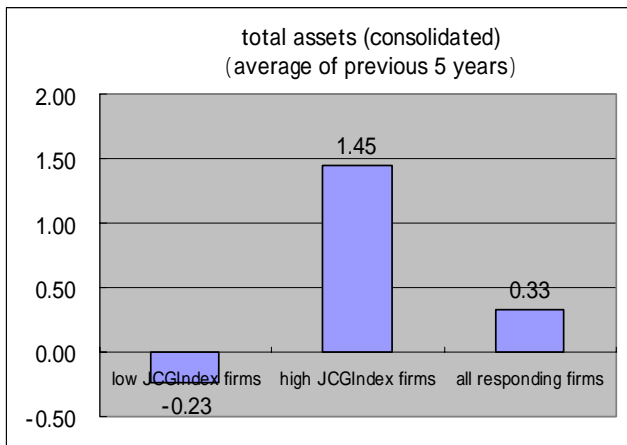


The CEO's of high JCGIndex firms are younger than CEO's of low JCGIndex firms, but this difference is not statistically significant at the 10% level.

Total responding firms: 316
 High JCGIndex firms: 49
 Low JCGIndex firms: 50

(3) JCGIndex and firm size

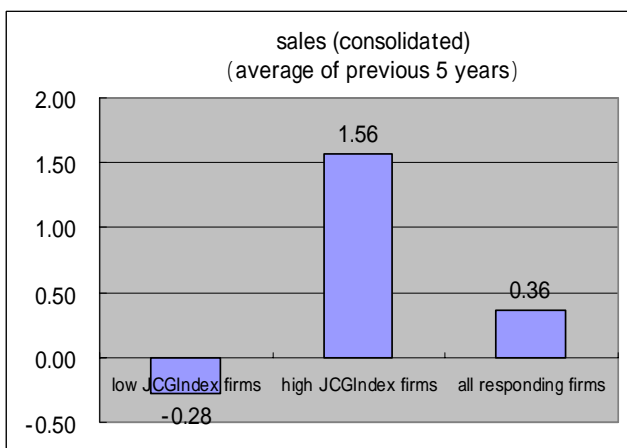
a. Total assets (consolidated, 5 years)



Total assets of high JCGIndex firms are greater than total assets of low JCGIndex firms, and this difference is statistically significant (at the 1% level).

Total responding firms: 287
 High JCGIndex firms: 45
 Low JCGIndex firms: 45

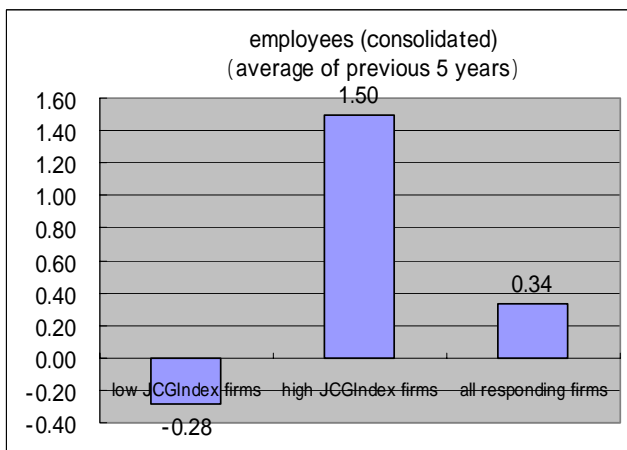
b. Total sales (consolidated, 5 years)



Total sales of high JCGIndex firms are greater than total sales of low JCGIndex firms, and this difference is statistically significant (at the 1% level).

Total responding firms: 287
 High JCGIndex firms: 45
 Low JCGIndex firms: 45

c. Number of employees (consolidated, 5 years)

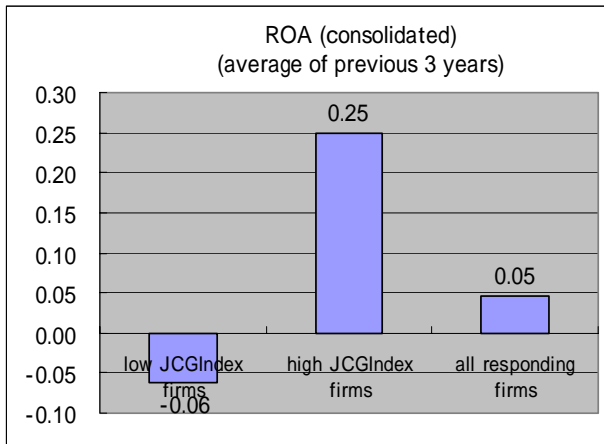


Number of employees of high JCGIndex firms is greater than number of employees in low JCGIndex firms and this difference is statistically significant (at the 1% level).

Total responding firms: 275
 High JCGIndex firms: 42
 Low JCGIndex firms: 45

(4) JCGIndex and firm performance

a. ROA (consolidated, 3 years and 5 years)



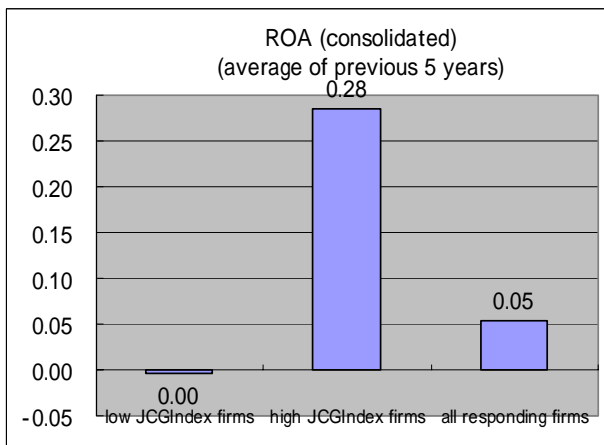
3 years

ROA for high JCGIndex firms is higher than ROA for low JCGIndex firms, but this difference is not statistically significant at the 10% level.

Total responding firms: 287

High JCGIndex firms: 44

Low JCGIndex firms: 46



5 years

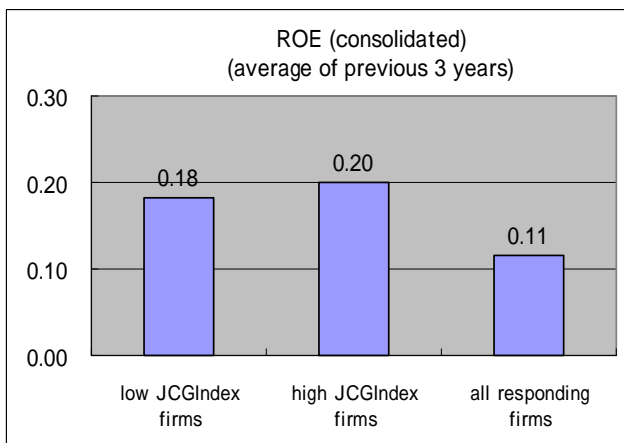
ROA for high JCGIndex firms is higher than ROA for low JCGIndex firms, and this difference is statistically significant (at the 10% level).

Total responding firms: 264

High JCGIndex firms: 42

Low JCGIndex firms: 40

b. ROE (consolidated, 3 years and 5 years)



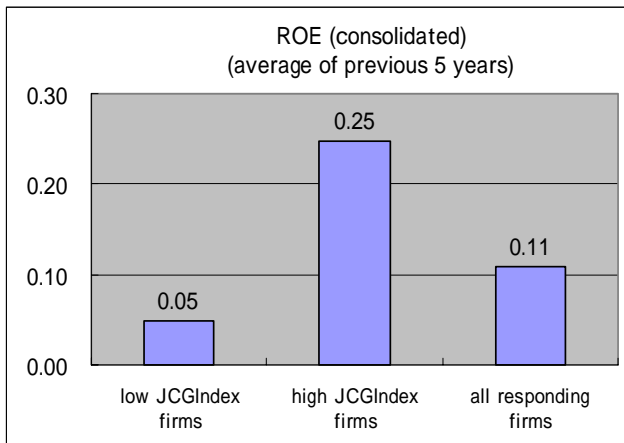
3 years

ROE for high JCGIndex firms is higher than ROE for low JCGIndex firms and this difference is statistically significant (at the 5% level).

Total responding firms: 285

High JCGIndex firms: 44

Low JCGIndex firms: 45

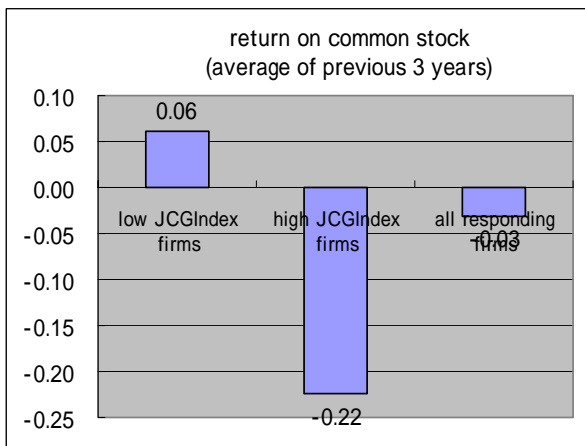


5 years

ROE for high JCGIndex firms is higher than ROE for low JCGIndex firms, and this difference is statistically significant (at the 5% level).

Total responding firms: 263
 High JCGIndex firms: 42
 Low JCGIndex firms: 40

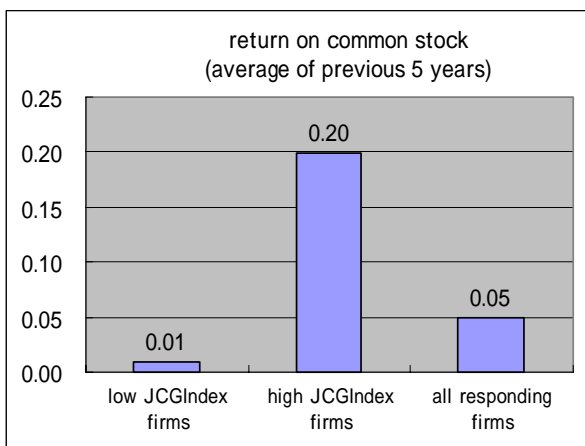
(5) CGIndex and return on common stock (3 years and 5 years)



3 year

Return on common stock for high JCGIndex firms was lower than return on common stock for low JCGIndex firms, and this difference was statistically significant (at the 10% level).

Total responding firms: 297
 High JCGIndex firms: 45
 Low JCGIndex firms: 51

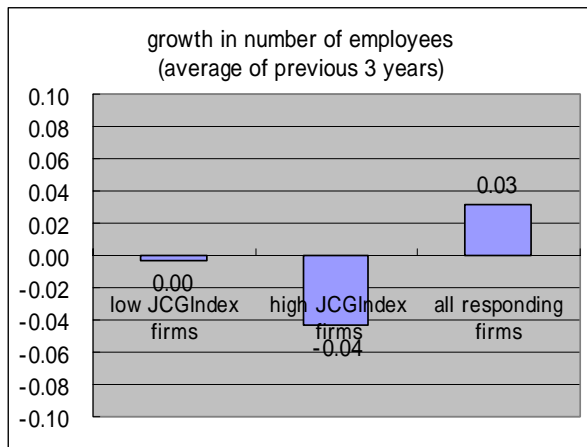


5 year

Return on common stock for high JCGIndex firms was higher than return on common stock for low JCGIndex firms, and this difference was significantly significant (at the 10% level).

Total responding firms: 284
 High JCGIndex firms: 43
 Low JCGIndex firms: 49

(6) JCGIndex and growth in number of employees (consolidated, 3 year)



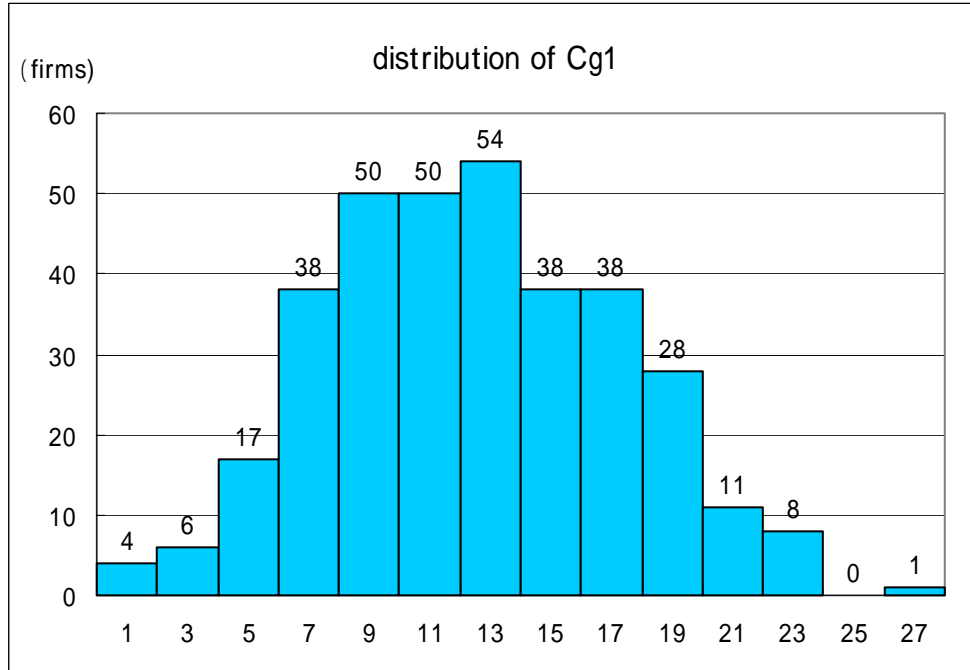
Growth in employment for high JCGIndex firms is higher than growth in employment for low JCGIndex firms, but this difference is not statistically significant at the 10% level.

Total responding firms: 296
 High JCGIndex firms: 46
 Low JCGIndex firms: 47

2. Results by category and firm performance

A. Category I (Corporate objectives and CEO responsibility)

(1) Distribution of Category I, and definition of high and low Cg1 groups



Distribution of Cg1

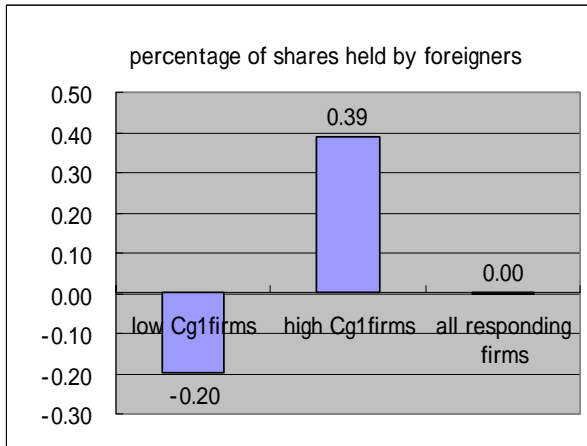
Mean: 11.9, standard deviation: 4.8, maximum, 27, minimum 0

High Cg1 groups: 58 firms for which Cg1 is over 17

Low Cg1 group: 65 firms for which Cg1 is under 7

(2) Cg1 and firm characteristics

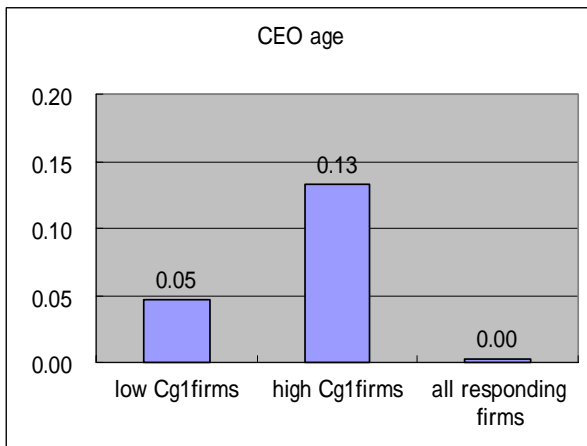
a. Percentage foreign ownership



Foreign ownership is higher in high Cg1 firms than in low Cg1 firms, and this difference is statistically significant (at the 1% level).

Total responding firms: 303
 High JCGIndex firms: 56
 Low JCGIndex firms: 56

b. Age of CEO

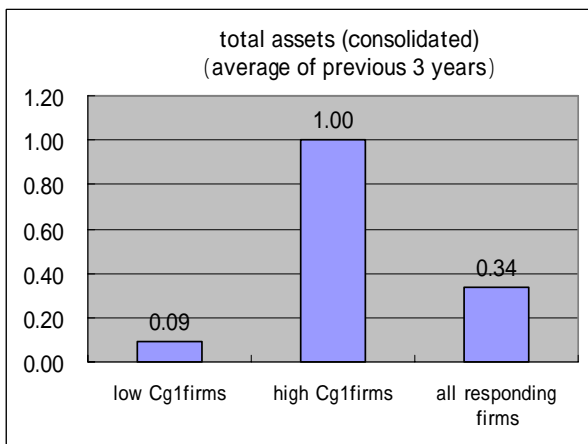


The CEO's of high JCGIndex firms are slightly older than CEO's of low JCGIndex firms, but this difference is not statistically significant at the 10% level.

Total responding firms: 316
 High JCGIndex firms: 57
 Low JCGIndex firms: 59

(3) Cg1 and firm size

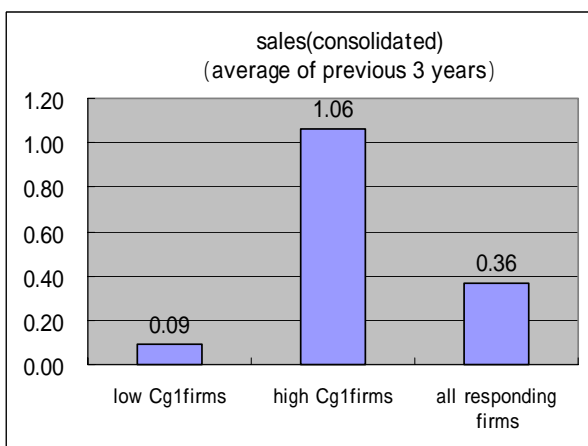
a. Total assets (consolidated, 3 years)



Total assets of high Cg1 firms are greater than total assets of low Cg1 firms, and this difference is statistically significant (at the 1% level).

Total responding firms: 296
 High JCGIndex firms: 53
 Low JCGIndex firms: 55

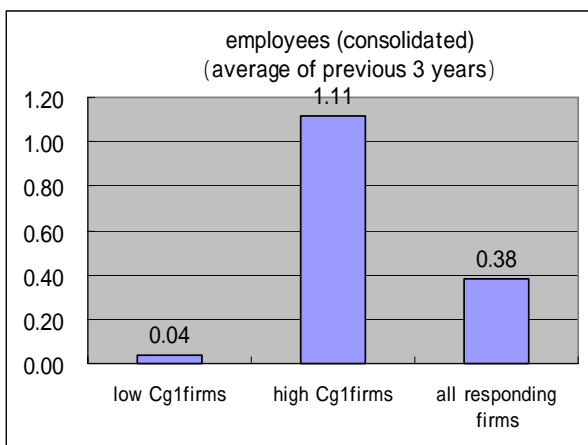
b. Total sales (consolidated, 3 years)



Total sales of high Cg1 firms are greater than total sales of low Cg1 firms, and this difference is statistically significant (at the 1% level).

Total responding firms: 296
 High JCGIndex firms: 53
 Low JCGIndex firms: 55

c. Number of employees (consolidated, 3 years)

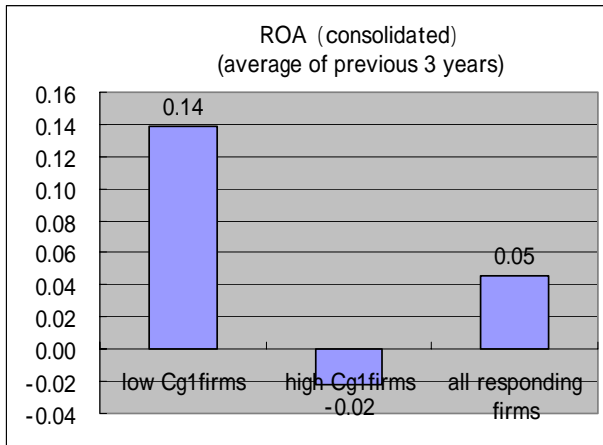


Number of employees of high Cg1 firms is greater than number of employees in low Cg1 firms, but this difference is not significant at the 10% level.

Total responding firms: 296
 High JCGIndex firms: 53
 Low JCGIndex firms: 55

(4) Cg1 and firm performance

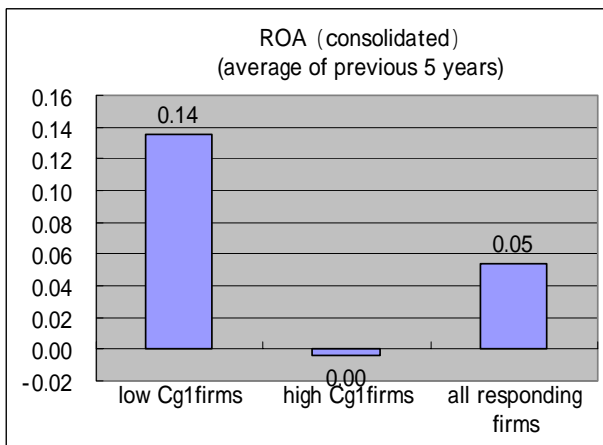
a. ROA (consolidated, 3 years and 5 years)



3 years

ROA for high Cg1 firms is slightly lower than ROA for low Cg1 firms but this difference is not statistically significant at the 10% level.

Total responding firms: 287
 High JCGIndex firms: 52
 Low JCGIndex firms: 53

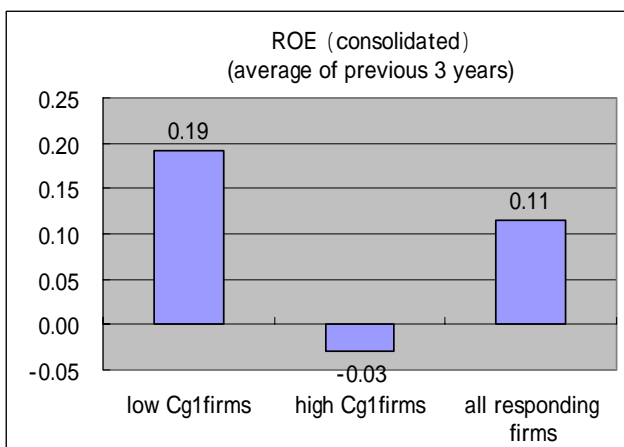


5 years

ROA for high Cg1 firms is slightly lower than ROA for low Cg1 firms and this difference is statistically significant (at the 5% level).

Total responding firms: 264
 High JCGIndex firms: 49
 Low JCGIndex firms: 48

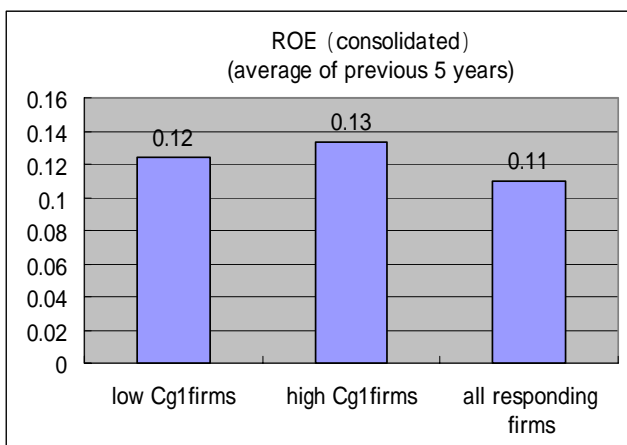
b. ROE (consolidated, 3 years and 5 years)



3 years

ROE for high Cg1 firms is lower than ROE for low Cg1 firms but this difference is not statistically significant at the 10% level.

Total responding firms: 285
 High JCGIndex firms: 52
 Low JCGIndex firms: 52

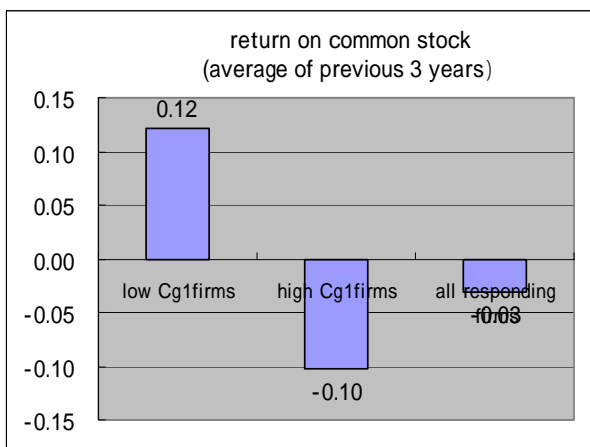


5 years

ROE for high Cg1 firms is higher than ROE for low Cg1 firms but this difference is not statistically significant at the 10% level

Total responding firms: 263
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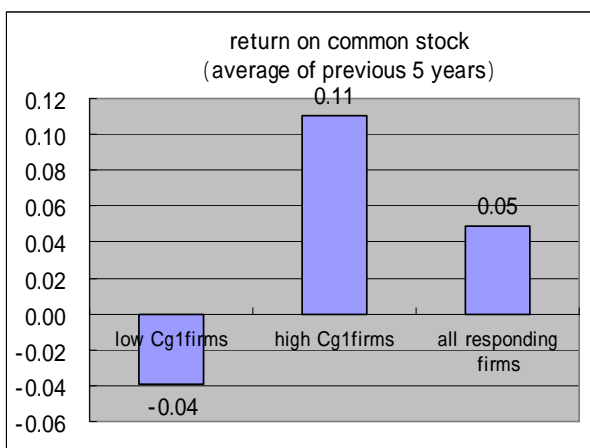
(5) Cg1 and return on common stock (3 years and 5 years)



3 years

Return on common stock for high Cg1 firms is lower than return on common stock for low Cg1 firms, but this difference is not statistically significant at the 10% level.

Total responding firms: 297
 High JCGIndex firms: 56
 Low JCGIndex firms: 57

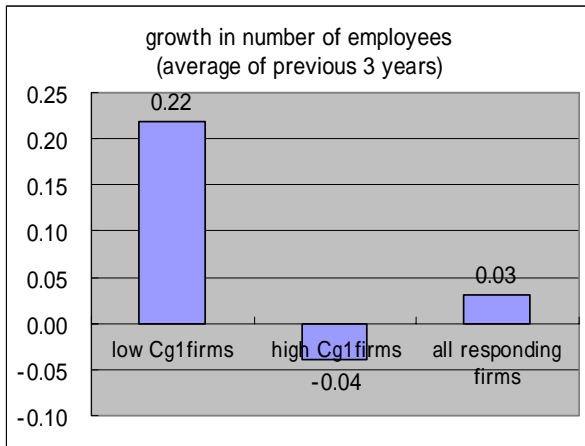


5 years

Return on common stock for high Cg1 firms is higher than return on common stock for low Cg1 firms, but this difference is statistically significant at the 10% level.

Total responding firms: 284
 High JCGIndex firms: 55
 Low JCGIndex firms: 54

(6) Cg1 and growth in number of employees (consolidated, 3 year)

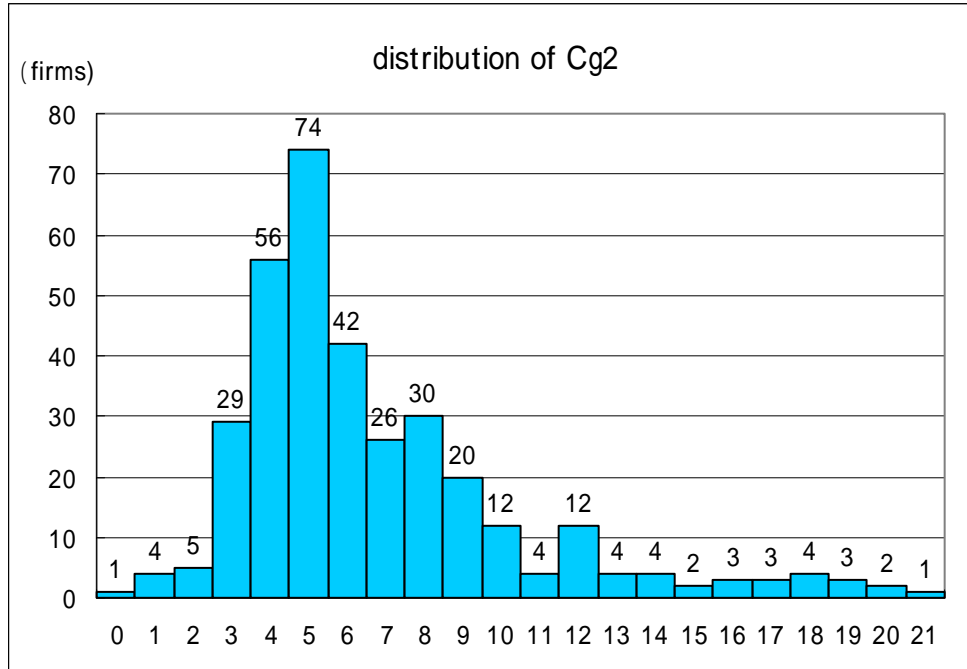


Growth in employment for high Cg1 firms is lower than growth in employment for low Cg1 firms, but this difference is not statistically significant at the 10% level.

Total responding firms: 296
 High JCGIndex firms: 53
 Low JCGIndex firms: 55

B. Category II (Structure and function of board of directors)

(1) Distribution of Cg2, and definition of high and low Cg2 groups



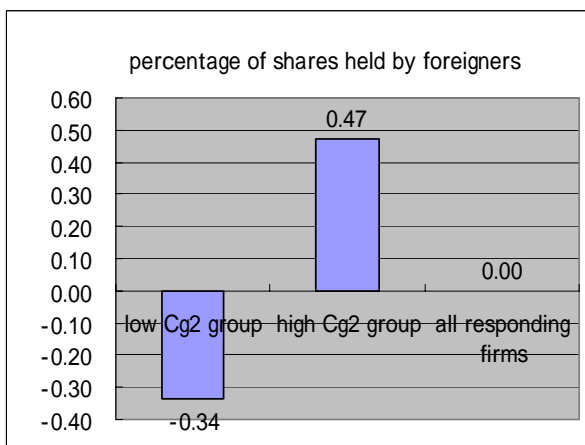
Mean: 6.7, standard deviation: 3.7, maximum, 21, minimum 0

High Cg2 group: 42 firms for which Cg2 is over 11

Low Cg2 group: 39 firms for which Cg2 is under 3

(2) Cg2 and firm characteristics

a. Percentage foreign ownership



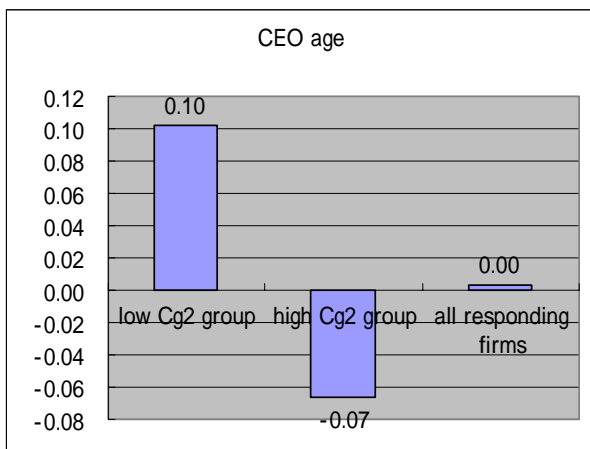
Foreign ownership is higher in high Cg2 firms than in low Cg2 firms, and this difference is statistically significant (at the 1% level).

Total responding firms: 303

High JCGIndex firms: 37

Low JCGIndex firms: 31

b. Age of CEO

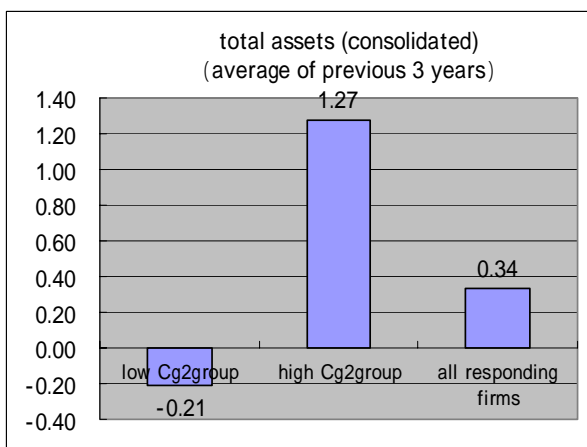


The CEO's of high Cg2 firms are younger than CEO's of low Cg2 firms, but this difference is not statistically significant at the 10% level.

Total responding firms: 316
 High JCGIndex firms: 39
 Low JCGIndex firms: 36

(3) Cg2 and firm size

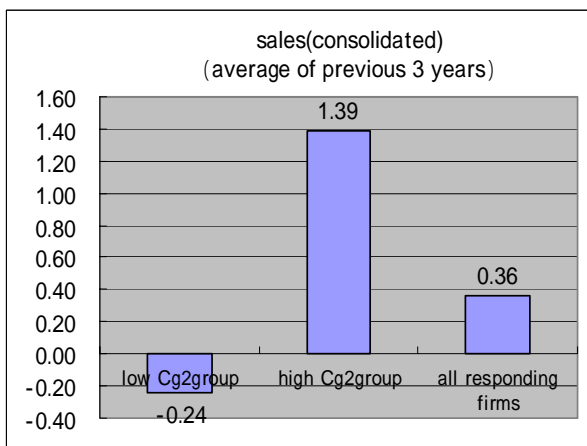
a. Total assets (consolidated, 3 years)



Total assets of high Cg2 firms are greater than total assets of low Cg2 firms, and this difference is statistically significant (significant at the 1% level).

Total responding firms: 296
 High JCGIndex firms: 36
 Low JCGIndex firms: 37

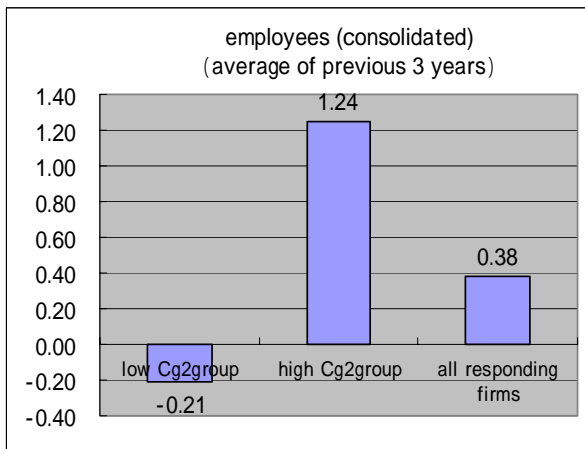
b. total sales (consolidated, 3 years)



Total sales of high Cg2 firms are greater than total sales of low Cg2 firms, and this difference is statistically significant (at the 1% level).

Total responding firms: 296
 High JCGIndex firms: 36
 Low JCGIndex firms: 37

c. Number of employees (consolidated, 3 years)

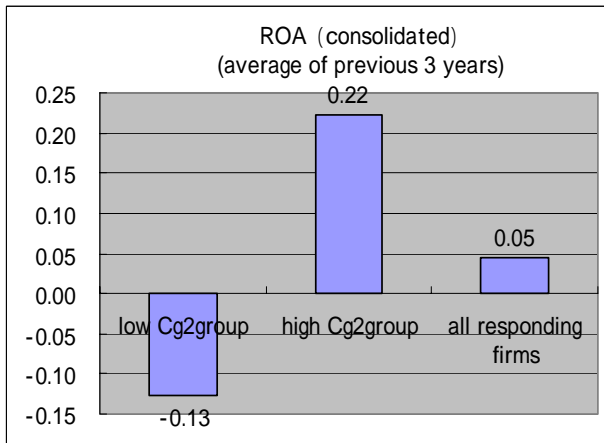


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(4) Cg2 and firm performance

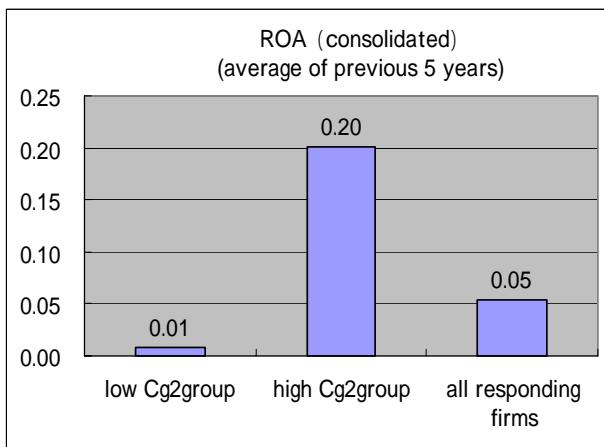
a. ROA (consolidated, 3 years and 5 years)



3 years

ROA for high Cg2 firms is higher than ROA for low Cg2 firms and this difference is statistically significant (at the 5% level).

Total responding firms: 287
 High JCGIndex firms: 35
 Low JCGIndex firms: 36

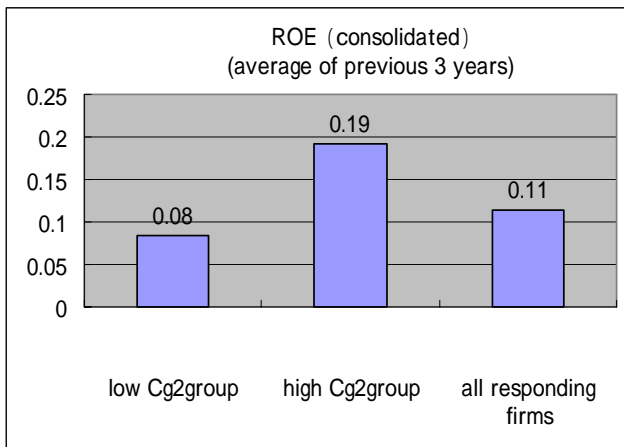


5 years

ROA for high Cg2 firms is higher than ROA for low Cg2 firms and this difference is statistically significant (at the 5% level).

Total responding firms: 264
 High JCGIndex firms: 34
 Low JCGIndex firms: 30

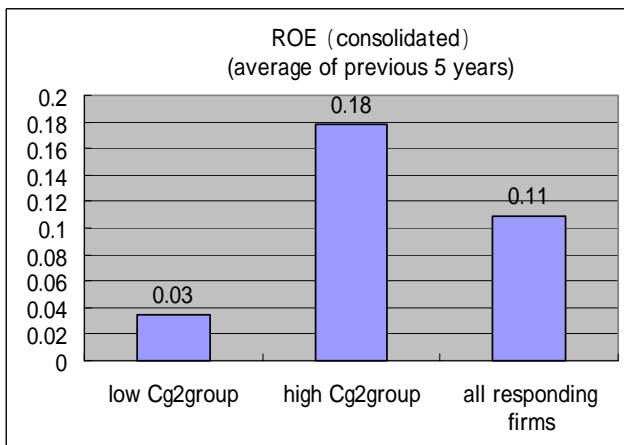
b. ROE (consolidated, 3 years and 5 years)



3 years

ROE for high Cg2 firms is higher than ROE for low Cg2 firms and this difference is statistically significant (at the 10% level).

Total responding firms: 285
 High JCGIndex firms: 35
 Low JCGIndex firms: 35

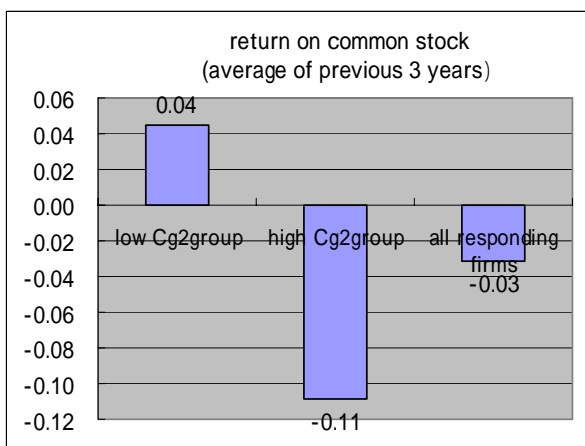


5 years

ROE for high Cg2 firms is higher than ROE for low Cg2 firms and this difference is statistically significant (at the 5% level).

Total responding firms: 263
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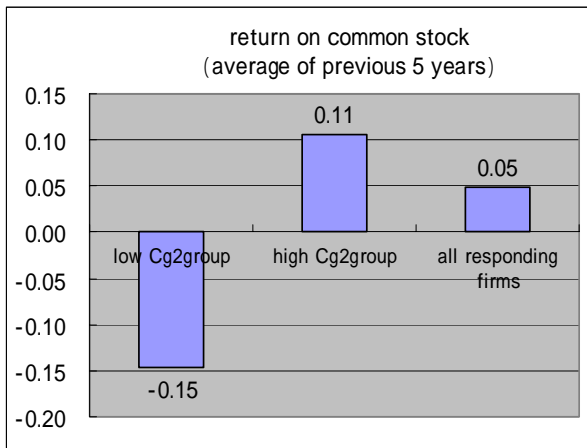
(5) Cg2 and return on common stock (3 years and 5 years)



3 years

Return on common stock for high Cg2 firms is lower than return on common stock for low Cg2 firms, and this difference is statistically significant (significant at the 5% level).

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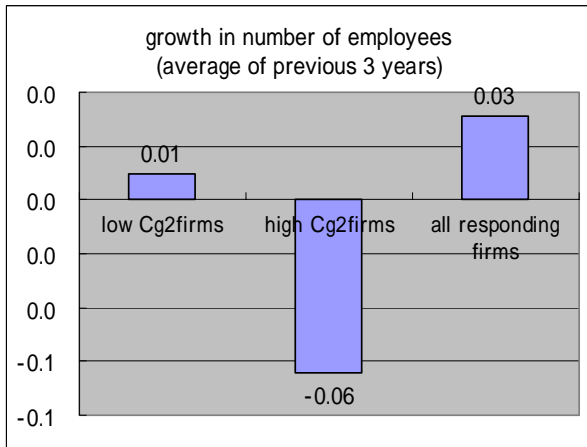


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Total responding firms: 284
 High JCGIndex firms: 32
 Low JCGIndex firms: 32

(6) Cg2 and growth in number of employees (consolidated, 3 year)

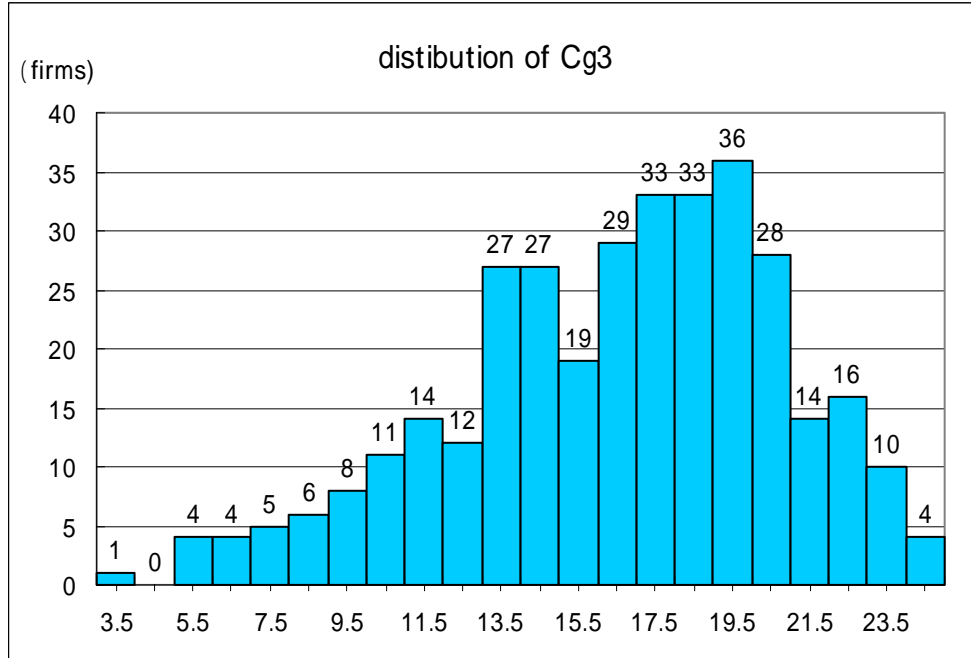


Growth in employment for high Cg2 firms is slightly lower than growth in employment for low Cg2 firms, but this difference is not statistically significant at the 10% level.

Total responding firms: 296
 High JCGIndex firms: 36
 Low JCGIndex firms: 37

C. Category III (Management system)

(1) Distribution of Cg3, and definition of high and low Cg3 groups



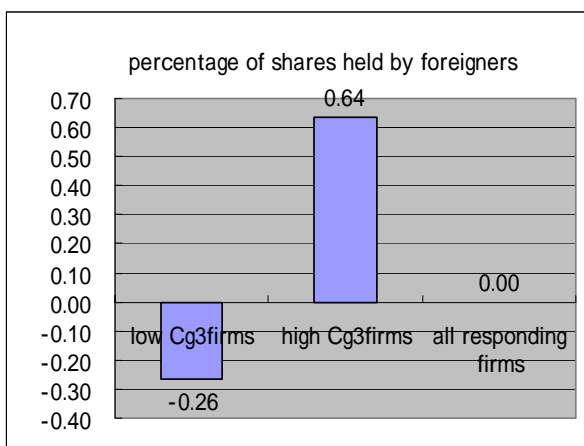
Mean: 16.0, standard deviation: 4.2, maximum, 25, minimum 3

High Cg3 group: 44 firms for which Cg3 is over 21

Low Cg3 group: 53 firms for which Cg3 is under 11

(2) Cg3 and firm characteristics

a. Percentage foreign ownership



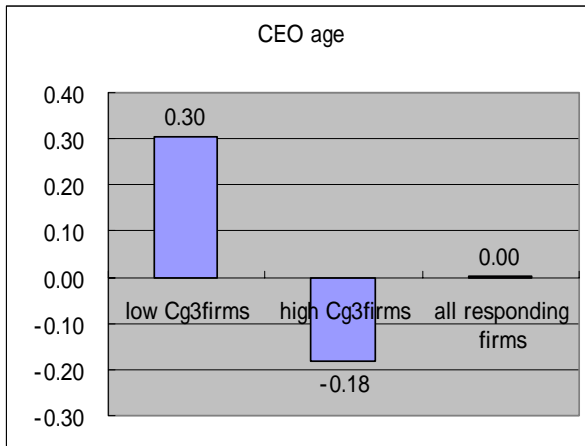
Foreign ownership is higher in high Cg3 firms than in low Cg3 firms, and this difference is statistically significant (significant at the 1% level).

Total responding firms: 303

High JCGIndex firms: 39

Low JCGIndex firms: 45

b. Age of CEO

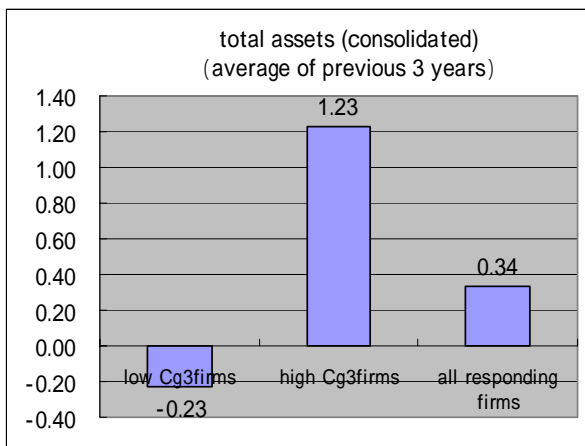


The CEO's of high Cg3 firms are younger than CEO's of low Cg3 firms, and this difference is statistically significant (significant at the 1% level).

Total responding firms: 316
 High JCGIndex firms: 42
 Low JCGIndex firms: 50

(3) Cg3 and firm size

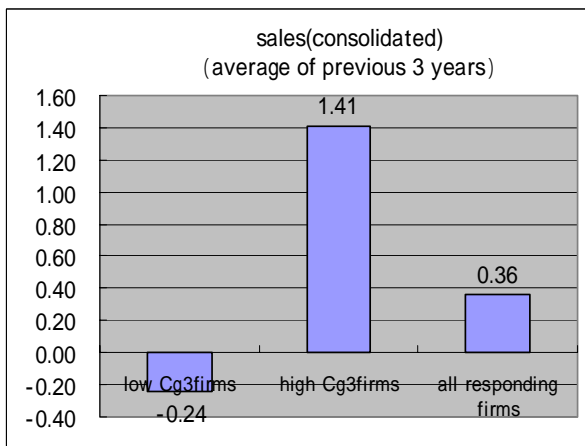
a. Total assets (consolidated, 3 years)



Total assets of high Cg3 firms are greater than total assets of low Cg3 firms, and this difference is statistically significant (significant at the 1% level).

Total responding firms: 296
 High JCGIndex firms: 41
 Low JCGIndex firms: 47

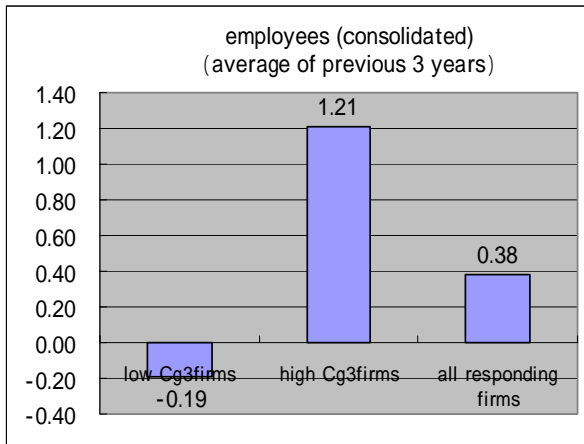
b. Total sales (consolidated, 3 years)



Total sales of high Cg3 firms are greater than total sales of low Cg3 firms, and this difference is statistically significant (significant at the 1% level).

Total responding firms: 296
 High JCGIndex firms: 41
 Low JCGIndex firms: 47

c. Number of employees (consolidated, 3 years)

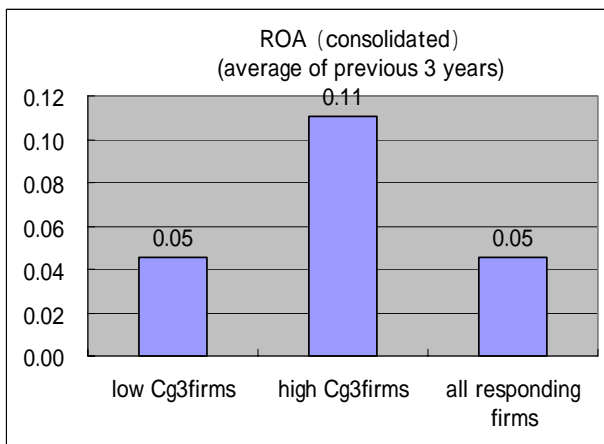


Number of employees of high Cg3 firms is greater than number of employees in low Cg3 firms, and this difference is statistically significant (significant at the 1% level).

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(4) Cg3 and firm performance

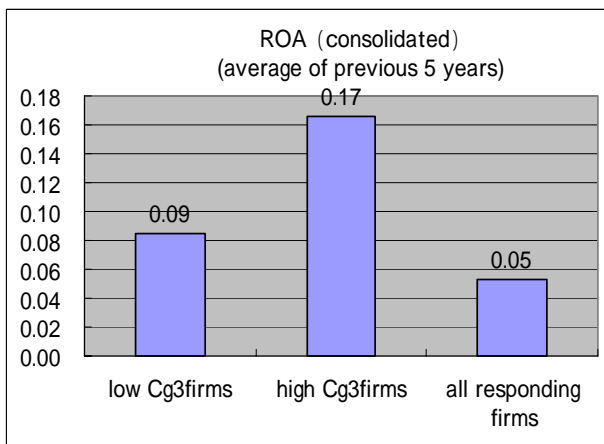
a. ROA (consolidated, 3 years and 5 years)



3 years

ROA for high Cg3 firms is higher than ROA for low Cg3 firms but this difference is not statistically significant at the 10% level.

Total responding firms: 287
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 Low JCGIndex firms: 45

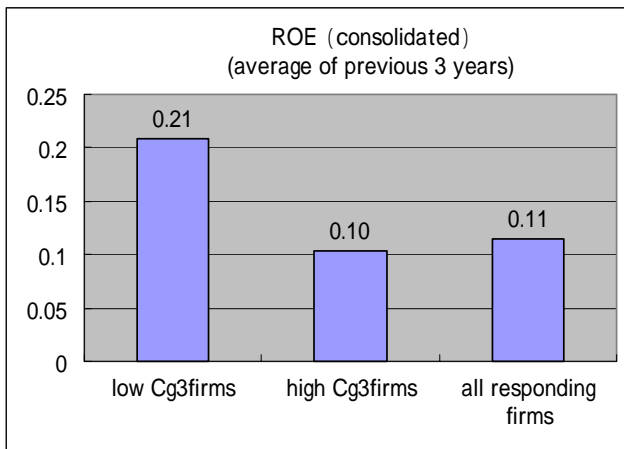


5 years

ROA for high Cg3 firms is higher than ROA for low Cg3 firms, but this difference is not statistically significant at the 10% level.

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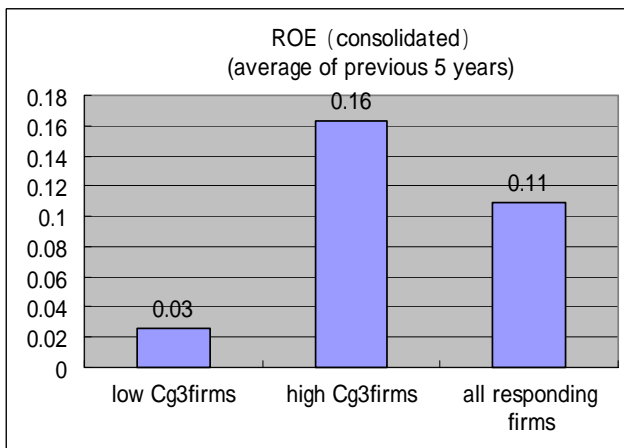
b. ROE (consolidated, 3 years and 5 years)



3 years

ROE for high Cg3 firms is lower than ROE for low Cg3 firms but this difference is not statistically significant at the 10% level.

Total responding firms: 287
 High JCGIndex firms: 38
 Low JCGIndex firms: 44

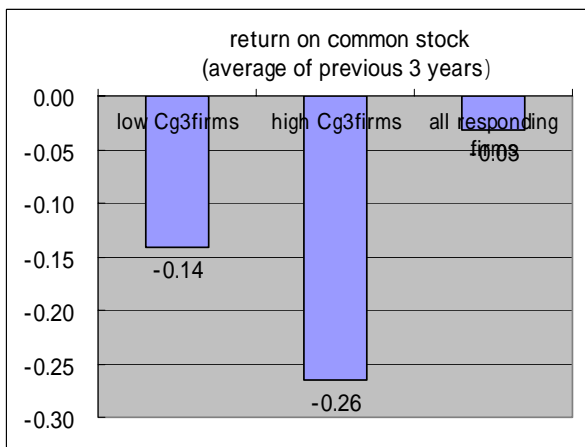


5 years

ROE for high Cg3 firms is higher than ROE for low Cg3 firms, but this difference is not statistically significant at the 10% level.

Total responding firms: 263
 High JCGIndex firms: 37
 Low JCGIndex firms: 39

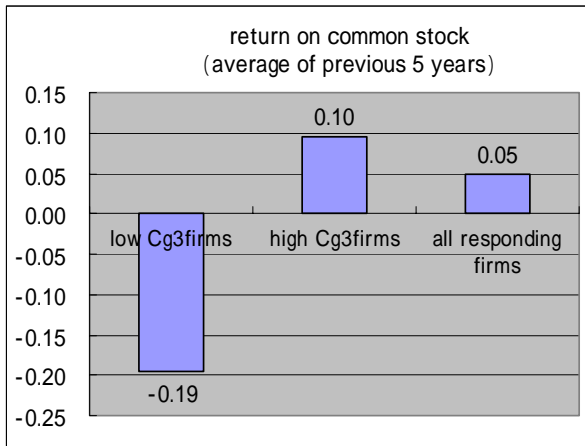
(5) Cg3 and return on common stock (3 years and 5 years)



3 years

Return on common stock for high Cg3 firms is lower than return on common stock for low Cg3 firms, but this difference is not statistically significant at the 10% level.

Total responding firms: 297
 High JCGIndex firms: 39
 Low JCGIndex firms: 44

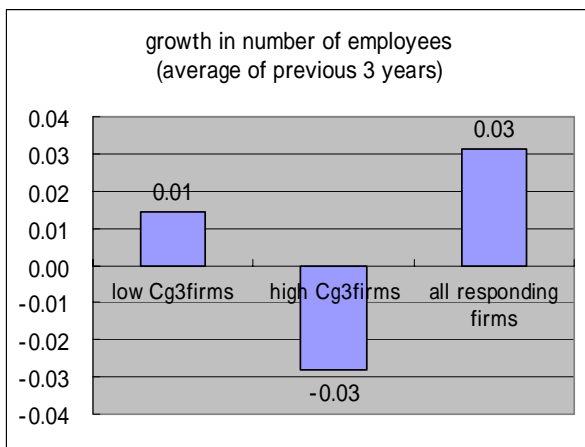


5 years

Return on common stock for high Cg3 firms is higher than return on common stock for low Cg3 firms, and this difference is statistically significant (at the 10% level).

Total responding firms: 284
 High JCGIndex firms: 38
 Low JCGIndex firms: 42

(6) Cg3 and growth in number of employees (consolidated, 3 year)

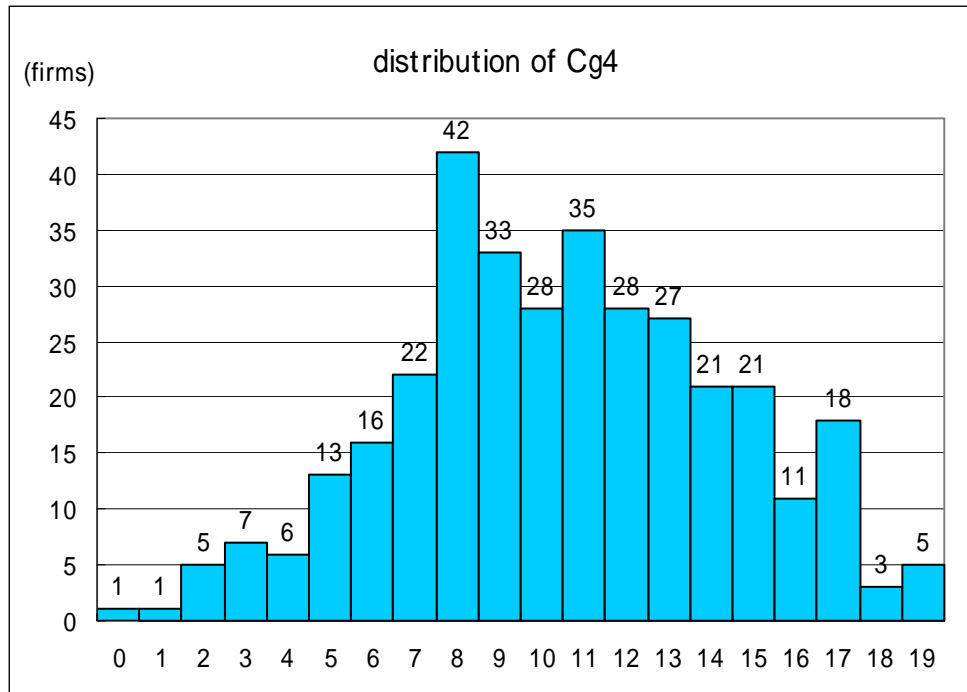


Growth in employment for high Cg3 firms is slightly higher than growth in employment for low Cg3 firms, but this difference is not statistically significant at the 10% level.

Total responding firms: 296
 High JCGIndex firms: 41
 Low JCGIndex firms: 47

D. Category IV (Transparency and communication with shareholders)

(1) Distribution of Cg4, and definition of high and low Cg4 groups



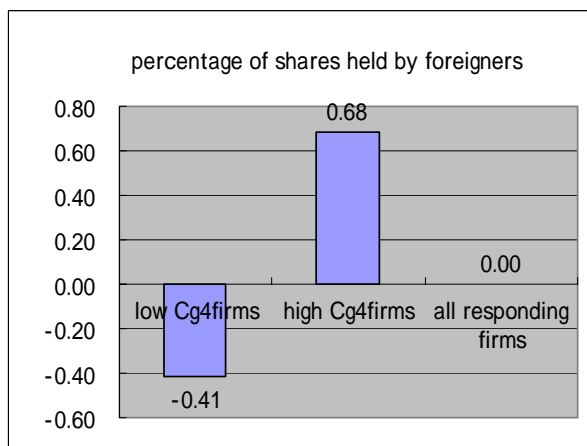
Mean: 10.4, standard deviation: 3.8, maximum, 19, minimum 0

High Cg4 group: 56 firms for which Cg4 is over 15

Low Cg4 group: 49 firms for which Cg4 is under 6

(2) Cg4 and firm characteristics

a. Percentage foreign ownership



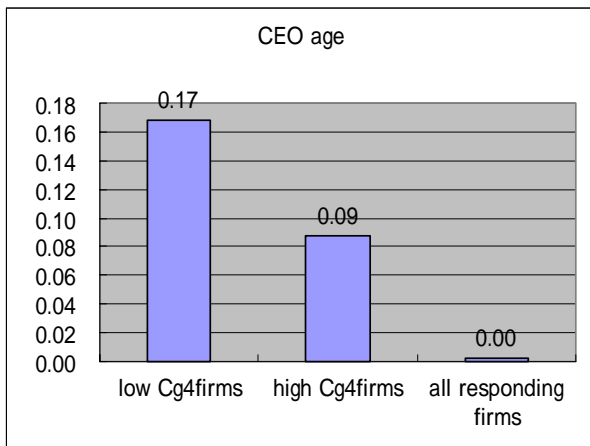
Foreign ownership is higher in high Cg4 firms than in low Cg4 firms, and this difference is statistically significant (at the 1% level).

Total responding firms: 303

High JCGIndex firms: 53

Low JCGIndex firms: 43

b. Age of CEO

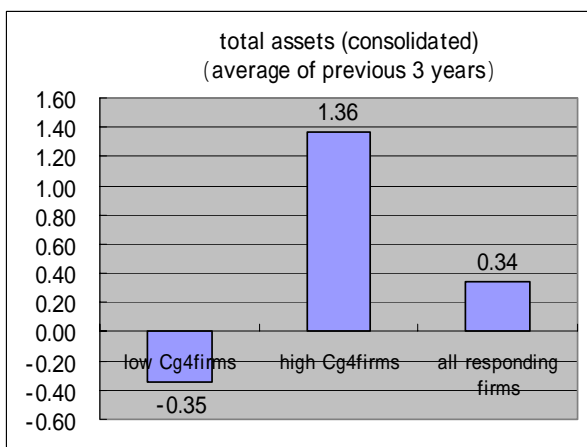


The CEO's of high Cg4 firms are younger than CEO's of low Cg4 firms, but this difference is not statistically significant at the 10% level.

Total responding firms: 316
 High JCGIndex firms: 53
 Low JCGIndex firms: 45

(3) Cg4 and firm size

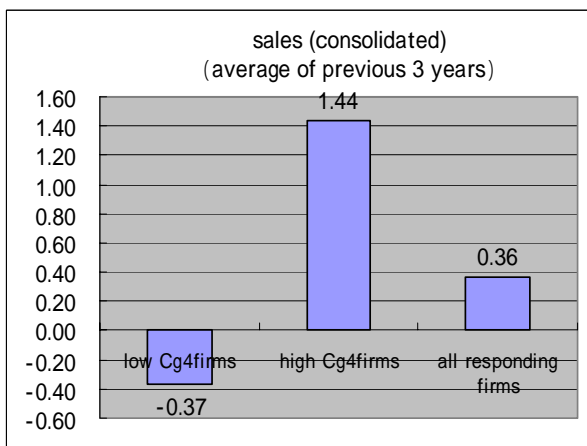
a. Total assets (consolidated, 3 years)



Total assets of high Cg4 firms are greater than total assets of low Cg4 firms, and this difference is statistically significant (at the 1% level).

Total responding firms: 296
 High JCGIndex firms: 45
 Low JCGIndex firms: 42

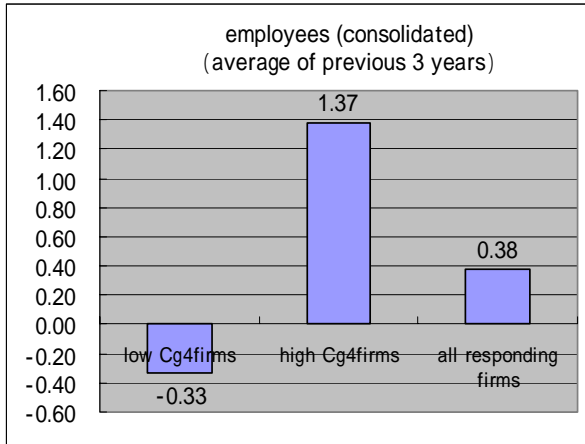
b. Total sales (consolidated, 3 years)



Total sales of high Cg4 firms are greater than total sales of low Cg4 firms, and this difference is statistically significant (at the 1% level).

Total responding firms: 296
 High JCGIndex firms: 45
 Low JCGIndex firms: 42

c. Number of employees (consolidated, 3 years)

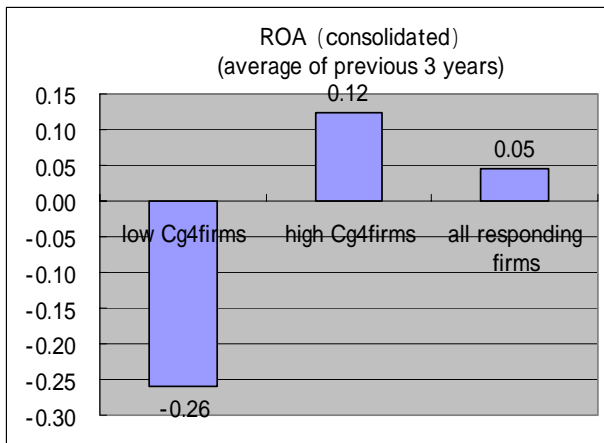


Number of employees of high Cg4 firms is greater than number of employees in low Cg4 firms, and this difference is statistically significant (at the 1% level).

Total responding firms: 296
 High JCGIndex firms: 45
 Low JCGIndex firms: 42

(4) Cg4 and firm performance

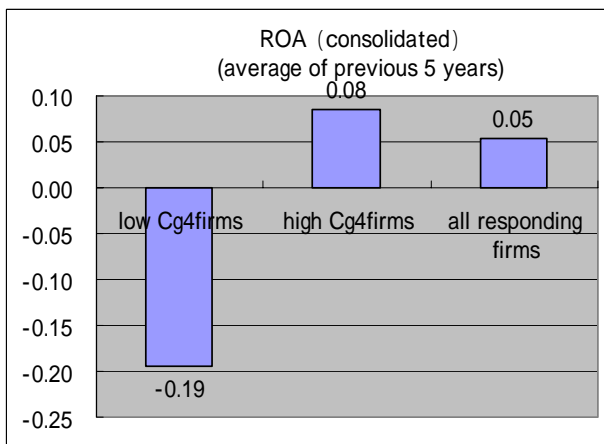
a. ROA (consolidated, 3 years and 5 years)



3 years

ROA for high Cg4 firms is higher than ROA for low Cg4 firms and this difference is statistically significant (at the 1% level).

Total responding firms: 287
 High JCGIndex firms: 42
 Low JCGIndex firms: 42

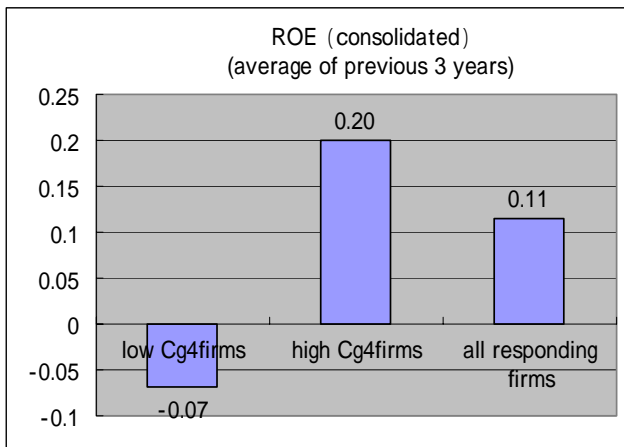


5 years

ROA for high Cg4 firms is higher than ROA for low Cg4 firms, and this difference is statistically significant (at the 10% level).

Total responding firms: 264
 High JCGIndex firms: 40
 Low JCGIndex firms: 34

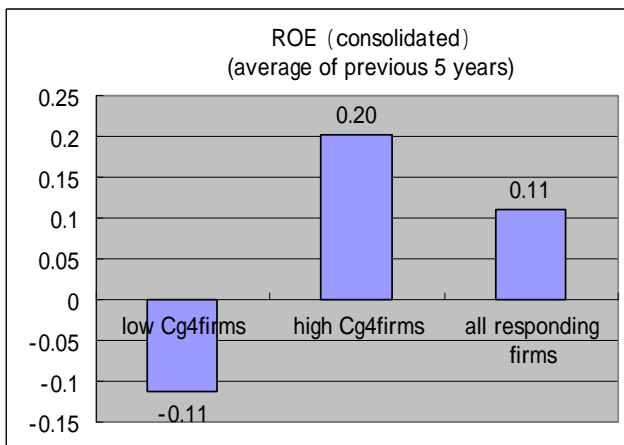
b. ROE (consolidated, 3 years and 5 years)



3 years

ROE for high Cg4 firms is higher than ROE for low Cg4 firms and this difference is statistically significant (at the 5% level).

Total responding firms: 285
 High JCGIndex firms: 42
 Low JCGIndex firms: 41

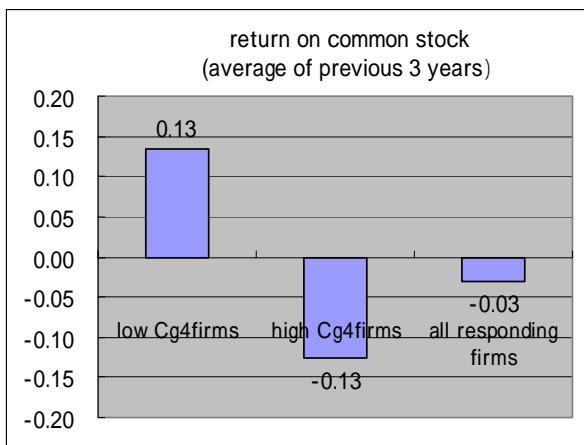


5 years

ROE for high Cg4 firms is higher than ROE for low Cg4 firms, and this difference is statistically significant (at the 5% level).

Total responding firms: 263
 High JCGIndex firms: 40
 Low JCGIndex firms: 34

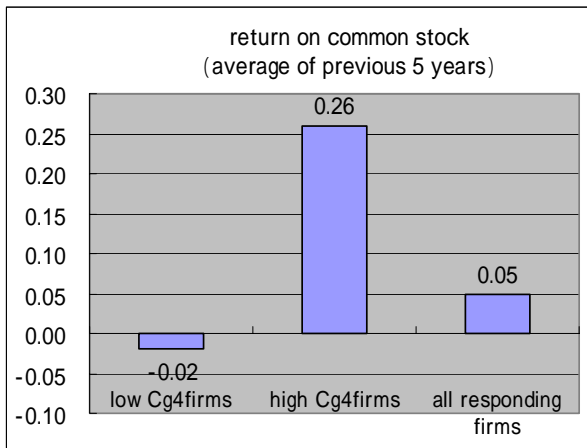
(5) Cg4 and return on common stock (3 years and 5 years)



3 years

Return on common stock for high Cg4 firms is lower than return on common stock for low Cg4 firms, and this difference is statistically significant (significant at the 10% level).

Total responding firms: 297
 High JCGIndex firms: 46
 Low JCGIndex firms: 48

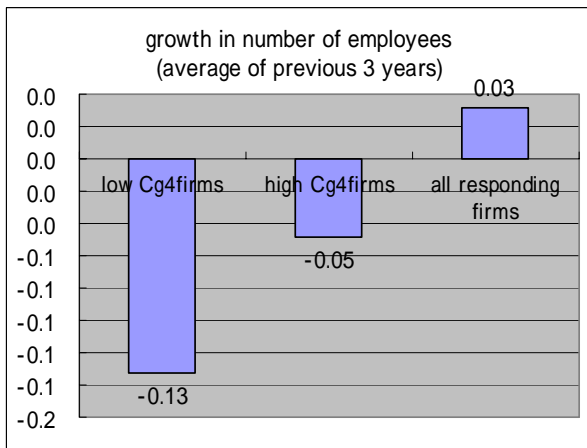


5 years

Return on common stock for high Cg4 firms is higher than return on common stock for low Cg4 firms, and this difference is statistically significant (at the 10% level).

Total responding firms: 284
 High JCGIndex firms: 44
 Low JCGIndex firms: 47

(6) Cg4 and growth in number of employees (consolidated, 3 year)



Growth in employment for high Cg4 firms is higher than growth in employment for low Cg4 firms, but this difference is not statistically significant at the 10% level.

Total responding firms: 296
 High JCGIndex firms: 45
 Low JCGIndex firms: 42

An explanation of the data used for analysis

1. Industry classifications

Tokyo Stock Exchange industry classifications

2. Financial data

Source: NEEDS (Nikkei Shinbunsha data bank)

Firms covered: Tokyo Stock Exchange First Section firms (1,596 firms as of October 30, 2004).

Items: Total assets, sales, number of employees, ROA, ROE (firm-based and consolidated)

Period: 1999-2003

3. Return on common stock

Source: Nihon Shoken Keizei Kenkyusho 2003 Kabushiki Toshi Shueki Ritsu

Firms covered: Tokyo Stock Exchange First Section firms (1,596 firms as of October 30, 2004).

Items: Monthly returns on individual stock and market

Period: January 1999-December 2003

4. Beta

Calculated by Fujitsu Research Institute

Source: Toyo Keizai Inc., "Stock Price CD-ROM 2003"

5. Calculation of characteristics of the responding firms

Average, minimum, maximum and standard deviation of the responded firms were compared with those of the Tokyo Stock Exchange First Section firms, based on consolidated financial data for the previous 3 or 5 years.

	item	consolidation	term	data	formula
1	total assets		3year-average	NEEDS total assets(FB144)	total assets = total debts + total equities
2	sales		3year-average	NEEDS sales(FC001)	revenue from sales activities as operating activities
3	ROA		3year-average	NEEDS ROA : (FP01034)	$\text{return on asset} = (\text{operating income} + \text{interest and discount charge income}) / \text{total of debt} \cdot \text{minority interest} \cdot \text{assets of 2 period -average} \times 100$
4	ROE		3year-average	NEEDS ROE(FP01147)	$\text{return on equity} = \text{net income} / \text{total equities of 2period-average} \times 100$
5	employees		3year-average	NEEDS employees (FE056)	number of employees at year-end
6	stock return	-	3year-average	Nihon Shoken Keizei Kenkyusho stock return	Calculated monthly stock return Calculated average of period covered (1year、 5years、 10years)

Note 1) Tokyo Stock Exchange First Section firms : 1,596 firms as of 10/30/2004

Although the number of Tokyo Stock Exchange First Section firms were 1,560 when JCGR sent a mail survey as of 07/02/2004, it changed due to its increase and decrease.

Note 2) Consolidated accounting takes priority to the accounting requirements of SEC.