

# Directors' Incentives in Japan and the UK\*

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## Summary

*As it is widely believed that the behaviour of large Japanese companies is different from that of their British counterparts, hypothesises that the directors in both countries may have different financial incentives. The research estimates the determinants of executive compensation, using the micro data of listed companies in both countries. Our result suggests that directors in Japan may have little incentive to pursue shareholders' interest while directors in the UK may have an incentive to maximise its value in stock markets. These results may be consistent with the view that large companies in Japan often neglect shareholders' interest.*

## 1. Introduction

It is widely believed that the behaviour of large Japanese companies is different from that of their British counterparts. Many studies suggest that Japanese firms are not paying enough attention to shareholders' wealth, compared with American or British firms (Aoki, 1988). This research examines the relationship between top directors' incentives and firm performance in Japan and the UK. This paper hypothesises that the directors in both countries may have different financial incentives. It estimates the determinants of executive compensation, using micro data of listed companies in both countries.

There are some studies that analyse the determinants of executive compensation in Japan and the UK (Gregg, Machin, Szymanski, 1993, Conyon, 1995, Conyon, Gregg, Machin, 1995, Kaplan, 1994, Kato, Rockel, 1992). The research presented here seeks to contrast the directors' financial incentive, by comparing the UK and Japan. As shareholders and the financial market have considerable power over directors in large UK companies<sup>1</sup>, directors in UK firms may have more incentive to work towards the increase shareholders' value.

The main findings of this research are as follows. 1) There is no positive relationship between directors' pay and shareholders' return in Japan. 2) Top pay in the UK is positively correlated with most company performance variables, including profit and stock market capitalisation. These results indicate that there is a substantial differ-

ence in directors' financial incentives between Japan and the UK. In other words, the directors in Japan may have little incentive to pursue shareholders' interest while directors in the UK may have incentive to maximise share value in the stock market. These results may be consistent with the view that large companies in Japan often neglect shareholders' interest.

## 2. Research Method

The purpose of this research is to analyse the financial incentives of directors in large companies in Japan and the UK. The determinants of executive compensation in both countries are estimated to test whether there are significant links between top pay and company performance, including stock market performance. If there is a positive relationship between executive pay and shareholders'

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<sup>1</sup> There are more hostile takeovers in the UK than in Japan (Odagiri, 1994, Prowse, 1994).

return, the directors may have a financial incentive to maximise shareholders' interest.

In addition to these performance variables, size is included as an independent variable, as many previous researches on executive compensation show that compensation of CEO depends largely on the sales of the company. It is known that the coefficients for size are similar across many studies (Rosen, 1990). Directors' age and tenure<sup>2</sup> are also included as independent variables for Japan's estimation.

### 3. Data

The Japanese data comprise 210 companies included in the NIKKEI STOCK MARKET INDEX, excluding firms in the financial sector. The time period covered is 1994 to 1995. Most variables, including directors' pay and their bonuses, are taken from NIKKEI NEEDS DATABASE. Other variables are taken from Toyokeizai Yakuin Shikihou (Directory of directors), and "KABUSHIKI TOSHI SHUE-KIRITSU" (Rate of Return on Stocks in Japan).

One of the difficulties in analysing the determinants of executive pay in Japan lies in obtaining appropriate data. The remuneration packages of individual directors usually are not disclosed. Neither the commercial code nor stock exchange listing rules require companies to disclose this kind of information. Therefore, we cannot directly observe the amount of compensation for CEOs in large companies. Instead, listed companies are required to report the total amount of remuneration for all their executives, which is disclosed in their annual reports. Several previous studies on executive pay have used this data, while others use data based on income tax. In this research, we use data based on "annual reports", instead of data based on "income tax" because data based on "income tax" have several problems.<sup>3</sup>

Listed companies are required to report the total amount of the directors' base pay and their bonuses. As they disclose the number of directors, we can then work out "directors' average pay" and "directors' average bonus". These figures are disclosed in companies' annual reports. This data set has its advantages. One of them is that it is the only data disclosed by individual companies themselves, showing how much they pay. The other advantage is that we are able to obtain a relatively large number of samples, every year. In addition, we can analyse directors' base pay and bonuses separately.<sup>4</sup>

We obtain "director's average pay" by dividing "pay bill for directors" by "number of directors". It should be noted that there is a possibility that the resulting figures will be smaller than the real figures. Firstly, there may be hidden payments made to some non-title directors who are also employees of the firm.<sup>5</sup> Secondly, the number of directors<sup>6</sup> includes the number of auditors who may not receive any bonus.

For the UK data of around 1,400 listed companies are used for the sample. 1993 and 94 data are collected for each company. The data analysed here are taken from Monks Partnership's "United Kingdom Board Earnings 1994", and "United Kingdom Board Earnings 1995". These data sets contain comprehensive data on executive compensation and company performance, including the detailed composition of highest paid director's salary taken from annual reports of listed companies. One of the advantages of Monks Partnership's data set is that it reveals the details of directors' remuneration, showing the fixed salary and annual incentive of the highest paid director.

Table 1 summarises the data used in this research. It should be noted that we cannot compare the mean of directors' compensation in Japan and the UK, as we use directors' average salary for Japan and highest paid directors' pay in the UK.

Table 1

#### Executive pay in the UK and Japan

	UK	Japan
Directors' salary	GBP 225,915	GBP 102,000 (JPY 19.4m)
Whose salary or income?	Highest paid director	Average salary per director
Year	1993–1994	1994–1995
Sample	1,431 listed firms	210 listed firms
Source	Annual report	Annual report
GBP 1 = Yen 190. — JPY: Japanese yen, GBP: British pound.		

<sup>2</sup> Tenure shows average directors' tenure as a director.

<sup>3</sup> The amount of income tax someone pays is disclosed by the tax office if it exceeds a certain amount. As the income tax of the president of a large company may exceed this threshold, it is possible to estimate his or her income by consulting the income tax table. The advantage of this data set is that we can examine the individual income of presidents, which is not disclosed by the company. However, as this data set is based on income tax, estimated income includes not only directors' salary from the company, but also other income from various sources, meaning that their income is likely to be overestimated. Secondly, the income tax office only reveals the amount of income tax paid by those who earn a considerable amount. As some directors do not receive such high compensation, the sample obtained by this approach is incomplete. Because of these problems, in this paper we use data based on 'annual reports', instead of data based on 'income tax'.

<sup>4</sup> There are two types of executive compensation in Japan: One is base pay, which is usually paid monthly, and the other is the bonus, which is paid at the end of the company's fiscal year.

<sup>5</sup> When a new director is appointed from among the employees, the chosen employee usually terminates his existing contract, and makes a new one as a director. However, in some cases, the employee retains his old contract as an employee while also entering into his new one. In this case, the person receives both his employee's salary and his director's salary. Usually, most of his salary consists of his employee's wage. Many companies do not include this part of the salary in their pay bill for directors.

<sup>6</sup> In our sample, the average number of directors in a company is 29.2. The maximum number of directors in a company is 60 while the minimum is 9 in our sample.

#### 4. Results from Japan's Data

Table 2 and 3 show the results of the estimation of the determinants of executive compensation in Japan. Table 2 shows the regression on the directors' base pay, and table 3 shows the regression on the directors' bonus.

There are a number of striking features about these tables. One of the most important results is that the coefficients for the shareholders' return are not significant and sometimes negative. In table 2, the coefficient for shareholders' return is not significant, while it is negative in table 3. These results suggest that there is no positive link between shareholders' return and executive pay in Japan. In other words, directors in large Japanese firms have little

financial incentive to maximise shareholders' value, as they will receive little reward for doing so.

In addition, the coefficients for profit and return on capital are also not significant in table 2, suggesting that directors' base pay does not depend on firm's profit. However, table 3 indicates that the coefficients for the profitability variables are positive and significant. These coefficients show that directors' bonus depends on the profit of the company.

Both in table 2 and 3, most coefficients for sales are strongly significant and positive. These results are consistent with previous studies, suggesting strong relationship between executive compensation and firm size (Rosen, 1990).

Table 2

**Determinants of directors' base pay in Japan**

Independent variables	Eq. 1	Eq. 2	Eq. 3	Eq. 4
Director's age	-0.239 '(-0.347)	-0.3506 '(-0.487)	-0.386 '(-0.521)	-0.360 '(-0.507)
Director's tenure	1.374 '(1.484)	1.408 '(1.591)	1.509 '(1.585)	1.500 '(1.581)
ln (sales)	3.588 (1.367)	5.954 (3.135)***	6.148 '(3.200)***	6.3402 ( 3.323)***
Shareholders' return (lagged)		0.0509 '(1.354)		
Profit before tax (lagged)			0.0000148 '(0.496)	
Return on Capital (lagged)				-3.924 (-1.034)
Constant	-33.353 (-0.685)	-51.542 (-1.090)	-52.955 '(-1.107)	-56.380 '(-1.217)
No. of observations	368	368	368	368
R-square	0.8095	0.8114	0.8087	0.8091

Estimation using fixed effect model. — Heteroscedasticity adjusted t-values are in parenthesis.  
\*\*\* Significant at the 1% level. — \*\* Significant at the 5% level. — \* Significant at the 10% level.

Table 3

**Determinants of directors' bonus in Japan**

Independent variables	Eq. 1	Eq. 2	Eq. 3	Eq. 4
Director's age	-0.235 '(-1.193)	-0.133 '(-0.837)	-0.114 '(-0.713)	-0.110 '(-0.794)
Director's tenure	0.243 '(1.551)	0.188 '(1.325)	0.148 '(1.055)	0.134 '(1.084)
ln (sales)	2.351 '(5.455)***	2.0791 '(4.885)***	2.270 '(5.377)***	1.965 '( 3.146)***
Shareholders' return	-0.00502 '(-1.857)*			
Profit before tax		0.0000109 '(2.280)**		
Return on capital			1.905 '(1.430)	
Constant	-13.278 '(-1.048)	-15.470 '(-1.1440)	-18.768 '(-1.751)*	-15.775 '(-1.295)
No. of observations	282	282	282	282
R-square	0.9679	0.9682	0.9669	0.9671

Estimation using fixed effect model. — Heteroscedasticity adjusted t-values are in parenthesis.  
\*\*\* Significant at the 1% level. — \*\* Significant at the 5% level. — \* Significant at the 10% level.

## 5. Results from the UK Data

In this section, the determinants of executive compensation are estimated using company data for the UK. Tables 4 and 5 show the results of the regression, which analyses the determinants of executive compensation in the large companies. These estimations analyse whether or not there is a significant link between the company performance and executive compensations. Performance variables, such as the Earnings Per Share (EPS) and stock market capitalisation are included as independent variables.

One of the most striking features of these tables is that we find a strong positive relationship between directors' pay and company performance, including stock market performance, profit and earnings per share (EPS). Coefficients for profit and stock market capitalisation in table 4 are positive and significant at the 1-% level. In addition, the coefficient for change in profit and change in EPS are positive and significant in table 5. These results indicate that there is a positive and significant link between directors' salaries and a firm's performance. In other words, these tables suggest that top directors in large UK companies have strong financial incentives to maximise the

Table 4

**Determinants of fixed pay of highest paid director in the UK**

	Eq. 1	Eq. 2	Eq. 3	Eq. 4	Eq. 5
Dprofit	0.00434 (0.00228)*				
DEPS		0.00277 (0.00292)			
Profit			0.129 (0.0114)***		
Profit (-1)				0.156 (0.0127)***	
Cap					0.0244 (0.00162)***
In (sales)	37.888 (1.432)***	37.953 (1.431)***	31.529 (1.490)***	31.441 (1.467)***	34.650 (1.638)***
Constant	-55.681 (7.279)***	-55.777 (7.277)***	-33.035 (7.287)***	-32.937 (7.210)***	-43.079 (7.517)***
R-square	0.2852	0.2851	0.329	0.3392	0.4488
N	2,665	2,622	2,666	2,659	2,356

Estimation using random effect model. — Heteroscedasticity adjusted standard errors are in parenthesis.

\*\*\* Significant at the 1% level. — \*\* Significant at the 5% level. — \* Significant at the 10% level.

Dprofit: change in profit; DEPS: change in earnings per share; Profit (-1): profit of the previous year; Cap: stock market capitalisation.

Table 5

**Determinants of annual incentive of highest paid director in the UK**

	Eq. 1	Eq. 2	Eq. 3	Eq. 4	Eq. 5
Dprofit	0.0186 (2.327)**				
DEPS		0.0452 (3.90)***			
Profit			0.0164 (0.528)		
Profit (-1)				-0.0232 (0.0679)	
Cap					0.00658 (1.378)
In (sales)	21.164 (3.430)***	20.694 (3.429)***	20.608 (3.777)***	22.506 (3.746451)***	22.534 (4.839595)***
Constant	-60.405 (17.713)***	-58.451 (17.710)***	-58.173 (18.639)***	-65.14756 (18.58467)***	-65.49629 (22.41095)***
R-square	0.0165	0.0201	0.0146	0.0146	0.0181
N	2,665	2,622	2,666	2,659	2,356

Estimation using random effect model. — Heteroscedasticity adjusted t-values are in parenthesis.

\*\*\* Significant at the 1% level. — \*\* Significant at the 5% level. — \* Significant at the 10% level.

Dprofit: change in profit; DEPS: change in earnings per share; Profit (-1): profit of the previous year; Cap: stock market capitalisation.

firm's performance, including its stock market performance.

## 6. Summary and Conclusion

The purpose of this paper is to analyse the directors' incentive in large companies in Japan and the UK, with particular emphasis on the relationship between firm performance and executive compensation.

The contribution of this research can be summarised as follows. Firstly, this paper has provided systematic evidence that shows that the directors in Japan may not have a financial incentive to consider shareholders' return. This research could find little relationship between shareholders' return and directors' compensation. Thus, directors are considered to have little incentive to pursue shareholders' interest, because they will receive little reward for doing so.

Secondly, this is the first research that compares the directors' incentive in Japan and the UK. This research suggests that directors' in both countries are managing the company with different financial incentive, as this research finds that directors' pay in the UK responds to all performance measures, including stock market evaluation. Thus, the directors in the UK may have financial incentive to pursue shareholder's return, while those in Japan do not.

Although the determinants of directors' pay are generally different, there are some similarities. In both countries, the coefficients for sales are positive and significant.

This research has highlighted some points that could be improved for future research. One of the possible limitations of this study may be that our data in both countries are not directly comparable. Japan's data includes 210 companies while UK's data contains more than 1,000 companies. In addition, independent variables are not the same in the estimations for each country data.

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