
3 Trends in remuneration

Key points

- The available data suggest that the average remuneration of executives in ASX100 companies grew in real terms at an average annual rate of around 6–7 per cent between 1993 and 2009. This equates to an increase of 170–210 per cent over the period, or an increase from 17 times average earnings in 1993 to 42 times in 2009.
 - Executive pay grew significantly more strongly in the 1990s, with slower (but still positive) growth from 2000–07.
 - Average executive remuneration peaked in 2006-07, before falling significantly in the next two years, returning in 2008-09 to levels recorded in 2004-05.
- High levels of executive remuneration are most common at the largest companies. For example, in 2008-09, the average total remuneration of CEOs at the largest 20 companies (by market capitalisation) was approximately 50 per cent higher than for the next 20 largest companies, with remuneration levels declining progressively for smaller companies.
- After 2004, most of the growth of executive remuneration was accounted for by growth in the estimated value of incentive-based pay. This trend is particularly marked at the largest companies.
 - The extent to which there has been substitution for fixed remuneration is unclear, though base pay has declined in real terms since 2003-04.
- CEO remuneration in Australia is much lower than in the United States, which is the outlier internationally, and appears on average to be similar to smaller European countries.
- At the aggregate level, executive remuneration growth rates since 1988 are broadly consistent with the rate of growth of the ASX200 accumulation index.
- Directors' remuneration is less complicated than executive remuneration, generally taking the form of cash salaries.
 - Their remuneration grew at approximately 8 per cent per year over the period 1993–2008.

3.1 Introduction

This chapter investigates trends in director and executive remuneration. It looks at the quantum and structure of remuneration packages; how remuneration varies across companies of different sizes and industry sectors; the relationship between remuneration and corporate performance; and how the remuneration of Australian executives compares to that of their counterparts overseas.

Participants have made a range of statements about trends in executive remuneration in Australia (box 3.1). While there is some contention, most of the statements point to executive remuneration growing much faster than average weekly earnings and inflation. This chapter looks beyond the ‘headline’ numbers.

From the outset it must be acknowledged that there is no single, consistent, time series data before 1993. Data derive primarily from reporting obligations on companies under the Corporations Act, but these have varied in detail and changed several times over the past 20 years. Moreover, the increased use of equity-based remuneration (including grants of shares and options) complicates reported figures. Given these limitations, the Commission has had to present most of its conclusions using a range of estimates, and focus on more recent periods.

Nevertheless, it has been possible to reach some significant conclusions about trends in executive remuneration and to point to some of the factors that might have contributed to those trends. The factors that have driven the growth in remuneration are discussed in greater detail in chapter 4.

Box 3.1 **Statements about trends in executive remuneration**

A number of participants commented on trends in executive remuneration. For example, the Australian Council of Super Investors observed:

Over the period from 2001 to 2007, median fixed remuneration [of CEOs in the top 100 companies] increased by 96.4 per cent in total, or 11.9 per cent per annum compound, even allowing for the slight decrease in median CEO fixed pay in 2007. Over the same period, average adult weekly ordinary time earnings increased by 32.3 per cent, while the consumer price index increased by 17.7 per cent. (sub. 71, attachment 1, p. 8)

David Peetz noted:

The growth in CEO pay, of something around 470 per cent over the period 1971–2008, was nearly nine times the 54 per cent growth in real average weekly earnings over the same period. (sub. 50, p. 3)

The Australian Council of Trade Unions stated:

Between 1990 and 2005, the average cash remuneration of CEOs in top 50 listed Australian companies rose by 564 per cent, from \$514 000 to \$3.4 million, or 10.7 per cent per annum adjusted by inflation. During the same period, average full-time earnings only rose 85 per cent, or 1.4 per cent per annum adjusted for inflation. The result is that top CEO pay has ballooned from a multiple of 18 times average full-time earnings to a multiple of 63. (sub. 82, p. 1)

CRA Plan Managers contested the suggestion that executive remuneration has grown strongly. Referring to the period 1999 to 2008, it stated:

... CEO and Chairman's remuneration (with [long-term incentives] excluded) at the 75th percentile has not kept pace with the rate of growth in the ASX/S&P 300 Accumulation Index over the period or AFL player payments. CEO [total fixed remuneration] at the median has not kept pace with [the consumer price index], average weekly earnings, AFL player earnings, public servant remuneration increases or the ASX/S&P 300 Accumulation Index over the period. (sub. 103, p. 13)

3.2 Data difficulties and the Commission's approach

For over 20 years, Australian listed companies have been required to disclose the remuneration of their directors and some executives. In addition, for many years some companies have voluntarily disclosed details of executive remuneration to certain consulting firms. The Commission has accordingly drawn on publicly-available data as well as some data supplied by remuneration consultants. (Appendix B describes the data sources in detail.)

The publicly-available data and that from remuneration consultants apply to companies in the ASX300¹. However, there are close to 2000 entities listed on the ASX, most of them very much smaller than the top 300. To gain an understanding of remuneration practices at smaller companies, the Commission took a sample of companies from outside the ASX300 (see appendix B). While the sample is too small to be conclusive, evidence drawn from it can usefully illustrate some differences.

The Commission has not been able to create a database of remuneration practices over a broader sample of companies or over a longer period, as this would have exceeded the time and resources available for uncertain benefits. Furthermore, the requirements for companies to disclose the estimated value of long-term incentives changed in 2004. Information from remuneration reports prior to that date is not directly comparable with data since.

The Commission has necessarily focused on 2003-04 to 2008-09

The most detailed and consistent data (the Financial Review Executive Salary Database) cover the ASX300 over the period 2003-04 to 2008-09. The data set comprises, for each executive named in the remuneration report, the value of all sources of remuneration, including:

- base salary and other entitlements (such as superannuation and vehicle expenses)
- retirement benefits
- short-term incentive payments received
- the estimated value of long-term incentives granted over the year.

These data have been used to investigate trends in the various components of executive remuneration packages, how remuneration varies across companies of different sizes and across industries, and the relationship between executive remuneration and corporate performance.

Other data sources were drawn on where appropriate. Also, where possible, more than one data source was used to confirm findings. Interpretation of the data should take into account the difficulties that arise in comparing data sets over time (box 3.2), and the valuation of long-term and equity-based remuneration (see appendix E).

¹ The ASX300 consists of securities listed on the Australian Securities Exchange (ASX). It ‘includes up to 300 of Australia’s largest securities by float-adjusted market capitalisation’ (Standard and Poor’s 2007, p. 5). Other indexes referred to in this chapter include the ASX50 (the 50 largest stocks) and the ASX100 (the 100 largest stocks).

Box 3.2 Comparing data on executive remuneration over time

Difficulties arise when comparing disparate sources of data on executive remuneration over time. Failing to acknowledge or account for these is likely to lead to incorrect conclusions about the trends in remuneration. The most significant problems are listed below.

- Remuneration disclosure requirements have changed significantly over time.
- The data are derived from different samples of companies. The data sources referred to by the Commission include surveys of the top 50 companies, the top 100, top 300 and top 350, as well as surveys of the clients of remuneration consultants.
- The sources report data on the remuneration of executives at different levels, including CEOs, the second highest-paid executives, the top three executives and all non-CEO executives.
- Some data sources report median remuneration, others report average remuneration. There is generally a significant difference between the median and the average remuneration of any given sample of executives, because a small number of highly-paid executives tend to skew the distribution. For this reason, average remuneration tends to be higher and more volatile over time.
- Publicly-available data sources prior to 2003-04 report only average or median remuneration of groups of executives, without reference to the size of the companies they work for or the sectors in which they are employed. Remuneration is not broken down into different components (such as base pay, and short- and long-term incentives).

It is difficult to estimate the value of equity-based incentives

A significant proportion of executive remuneration is granted as long-term and equity-based incentive payments, including shares, options and ‘performance rights’. Companies are required to estimate the value of long-term incentives when they are granted, and publish this figure in the remuneration report. Estimating the value of equity-based remuneration involves forecasting the value of financial derivatives over an extended period (typically two to three years) which will be subject to the fluctuations of financial markets.

The estimated value that companies place on shares or options for accounting purposes at the date they are granted (the ‘accounting value’) can differ significantly from the realised value when they vest. The value that executives place on equity-based payments will be different again. There are a range of opinions on whether reported estimates of the value of long-term incentives tend to under or overestimate the realised value (box 3.3).

The Commission's analysis is based on the reported 'accounting value' of long-term incentives.² This is the only practical option, for several reasons, including:

- companies do not report the realised value of long-term incentives that were granted in previous years, so it is not possible to go back and 'correct' the reported data
- remuneration reports do not contain sufficient information to estimate the value of long-term incentives using a consistent methodology
- even if such information were available, there is no 'right' way to value equity-based incentives (appendix E).

Given this, the data should be interpreted with care. The data presented on the value of executive remuneration in a given year could over- or understate the final value of the remuneration received by the executive. This is significant because estimates presented in section 3.2 show that average base remuneration (the fixed component of remuneration that is paid as a cash salary) in 2008-09 was lower in real terms than it was in 2003-04. Most of the growth in executive remuneration over the period 2003-04 to 2007-08 was accounted for by growth in the estimated value of long-term incentives, and the reduction in the value of long-term incentives made a significant contribution to the decline in total executive remuneration since 2006-07. Therefore, the estimated real growth rate of executive remuneration is highly sensitive to the assumptions that underpin estimates of the value of the incentive component.

² Where data from the Hay Group are reported, the value of equity-based incentives has been estimated by the Hay Group on a consistent basis for all companies in the sample.

Box 3.3 Do companies under- or over-estimate the value of long-term incentives?

Some participants have stated that the estimated accounting value of equity-based incentive payments systematically under-estimates the realised value. For example, RiskMetrics studied 24 ASX100 companies in 2005-06. The study examined 70 tranches of options awarded to CEOs. Of these, two-thirds were exercised and one-third lapsed. Of those that were exercised, the estimated 'fair value' was, on average, only 26 per cent of the realised value (sub. 58, attachment 3).

A later study by RiskMetrics (commissioned by the Australian Council of Super Investors) stated that changes to the way performance hurdles are applied to long-term incentives mean that the reported values of long-term incentives might overstate the value received by the executive. It stated that:

... the increased use of relative [total shareholder return] hurdles over the past six years may mean that fewer CEOs are achieving the hurdles required for [long-term incentives] to vest. Where the [long-term incentive] does not vest, the actual value received by a CEO from the [long-term incentive] will be lower than the reported value. (sub. 71, attachment 1, p. 22)

Others agreed that performance hurdles might mean that the estimated accounting value overstates the realised value. For example, Regnan stated:

Many long-term incentive figures are overstated in company disclosures due to accounting standards, which require amortisation of some long-term incentive grants prior to performance testing. If performance hurdles are not met, an executive may not even realise these rewards which have already been accounted for. (sub. 72, p. 4)

Stern Stewart and Co. suggested that regardless of the estimated value, many executives place little value on equity-based remuneration that has not vested. The submission paraphrased a conversation with a typical executive:

... I put them in the bottom drawer and forget about them until they vest. There's just too many factors outside my control that mean they may be worth nothing. (sub. 53, p. 4)

Given the range of assumptions that underpin the estimates of the value of equity-based incentives, it is almost certain that the realised value will differ from the estimated value. It is not clear whether the estimated values reported in remuneration reports will tend to over- or understate the realised value. Nor is it clear how the estimated value relates to the value perceived by the executive.

However, it is probable that the unanticipated boom in equity markets in the 1990s led to the realised values of equity-based remuneration being higher than was estimated when the equity was granted. Similarly, given the decline in the value of equity markets since 2007, it is likely that many equity-based incentives that were granted in 2005 and 2006 are worth less than was estimated at the time, or have not vested at all.

3.3 What has happened to executive remuneration?

The Commission analysed a number of data sets reporting trends in executive remuneration over the period 1988–2009. Although, as noted, there are difficulties associated with comparing data sets over time, it is unambiguous that executive remuneration has risen strongly over that period. The growth rate depends on the sample of companies considered, and whether the sample includes only CEOs, or all executives. The evidence suggests that executive remuneration grew most rapidly from the early 1990s to around 1999, followed by a period of slower growth, to attain a peak level in 2007.

Executive remuneration has fallen significantly over the past two years in line with declining sharemarket performance, which has reduced incentive-based components of remuneration. Current average levels of executive remuneration (in real terms) are similar to levels that were observed in 2005.

Executive remuneration rose most rapidly in the 1990s

The available evidence suggests that executive remuneration grew fastest from the early 1990s until around 1999. Growth was slower — but still positive — over the period 2000–07 (figure 3.1, table 3.1).

- Over the period 1993–99, average CEO remuneration in ASX100 companies rose by around 13 per cent per year in real terms, and in ASX50 companies by around 16 per cent per year in real terms.
- For the period 2000–07, however, CEO remuneration in ASX100 companies grew more slowly, with average annual real growth rates of around 6 per cent.
- Non-CEO remuneration grew at similar rates to CEO remuneration (appendix B).

Executive remuneration has fallen since 2007

The available evidence suggests that executive remuneration peaked in the 2006-07 financial year. Since then, the decline in the value of equity markets appears to have been reflected in reductions in executive remuneration. Between 2007 and 2009, average total CEO remuneration fell in real terms by approximately:

- 15 per cent per year across the ASX50
- 16 per cent per year across the ASX100
- 11 per cent per year across the ASX300 (Financial Review Executive Salary Database).

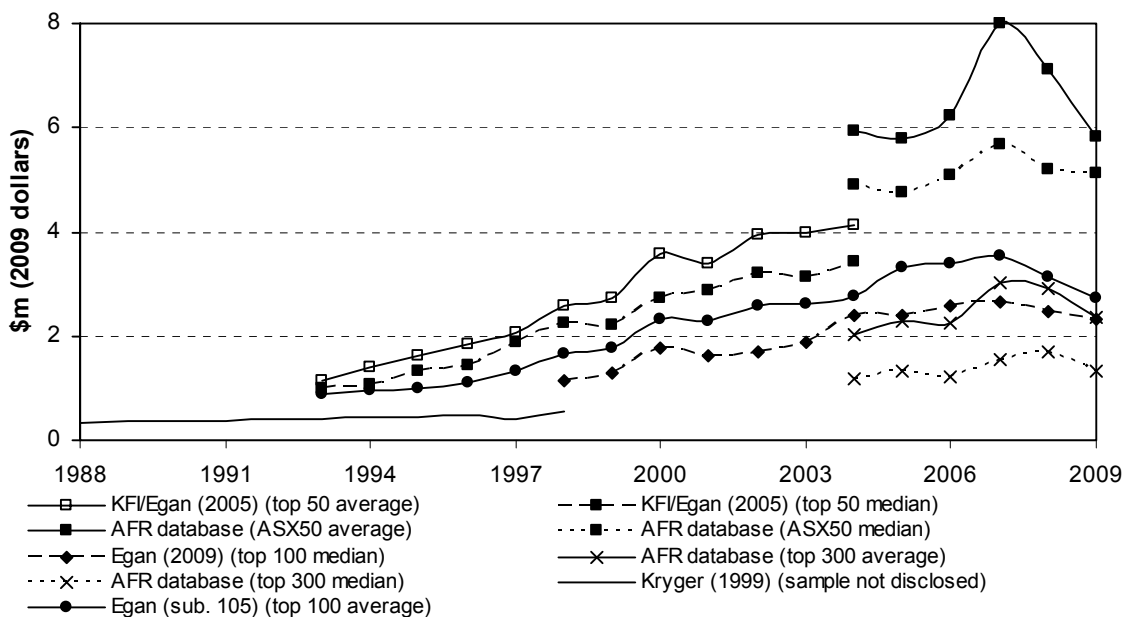
Most of the decline was due to reductions in the value of incentive-based remuneration. For example, across the ASX300:

- average base total remuneration fell less than 1 per cent per year
- average reported short-term incentives fell by approximately 25 per cent per year
- the average estimated value of long-term incentives fell by approximately 13 per cent per year.

The total effect of these reductions means that average total CEO remuneration across the ASX300 in 2008-09 had fallen back to levels comparable to those observed in 2004-05.

The reduction in executive remuneration is particularly evident for the highest paid executives. For example, in 2006-07 there were 11 CEOs of ASX300 companies whose remuneration exceeded \$10 million. In 2008-09 there were five. Over the same period, the number of ASX300 CEOs earning less than \$1 million increased from 78 to 91.

Figure 3.1 Australian CEO total remuneration, 1988–2009^{a,b}



^a Data sources are described in appendix B. ^b Data for Egan (2009) and Egan Associates (sub. 105) include additional data for 2009 that were provided by Egan Associates (pers. comm. 3 December 2009).

Sources: ABS (*Australian National Accounts: National Income, Expenditure and Product*, Cat. no. 5206.0); Egan (2009); Egan Associates (sub. 105); Financial Review Executive Salary Database; Korn/Ferry International and Egan Associates (2005); Kryger (1999); Productivity Commission estimates.

There is some evidence that lower executive remuneration may persist in 2009-10, as companies facing slow economic growth freeze or reduce executive remuneration (box 3.4).

CEOs of the top 50–100 public companies are not representative of all listed companies

The terms of reference request the Commission to consider trends in director and executive remuneration at all companies that are disclosing entities under the Corporations Act. Many statements about trends in executive remuneration refer to the remuneration of the CEOs of the 50 or 100 largest companies listed on the ASX. These samples are clearly not representative of all listed company executives, for two reasons:

- CEOs are paid significantly more than other executives in a company.
- Executive remuneration is closely related to company size, which varies hugely (market capitalisation ranges from approximately \$127 billion at the top of the ASX to less than \$100 000 at the bottom).

To address the terms of reference, the Commission has sought to analyse trends in remuneration across the broadest possible sample of companies.

Average remuneration is higher and more volatile than median remuneration

For any group of companies in the available data, *average* executive remuneration is higher and more volatile than *median* remuneration. Both levels and volatility are significantly influenced by the remuneration of a small number of highly paid executives, whose remuneration can vary significantly from year to year, due to the use of incentive-based remuneration.

The data only support broad conclusions about historical trends

Some researchers have used long-run indexes of executive remuneration compiled from a variety of data sources. Given the changing requirements regarding remuneration disclosure, differences in data collection methods, the diverse range of samples available and the reporting of mean and median remuneration, the splicing of data sets is fraught with problems, and is impossible to do in a statistically meaningful way (box 3.5). For this reason, the Commission has not been able to construct a single, long-running time series of remuneration data.

Table 3.1 Growth rates of executive remuneration
Average annual growth rate of real executive total remuneration

Series	Period	Estimated average annual growth rates			
		Sample period	1993–99	2000–07	2007–09
CEOs — total remuneration					
ASX50					
KFI and Egan Associates (2005)					
average	1993–2004	12.4	15.6		
median	1993–2004	11.9	14.4		
Financial Review Executive Salary Database					
average	2004–09	-0.5			-14.7
median	2004–09	0.9			-5.0
ASX100/top 100					
Egan Associates (sub. 105) (average)	1993–2009	7.5	12.5	6.3	-23.6 ^a
Egan (2009) (median)	1998–2009	6.3		6.0	-6.2 ^a
Financial Review Executive Salary Database					
average	2004–09	1.4			-16.4
median	2004–09	2.9			-11.6
ASX300					
average	2004–09	3.2			-11.4
median	2004–09	2.2			-7.3
Non-CEO executives — total remuneration					
ASX50/top 50					
KFI and Egan Associates (2005)					
median second highest-paid executive	1993–2004	9.4	12.7		
Financial Review Executive Salary Database					
average	2004–09				-11.3
median	2004–09				-7.5
ASX100/top 100					
Egan Associates (sub. 105)					
average of top 5 executives	1993–2008	7.9	12.0		-15.3 ^b
Egan (2009)					
median second highest-paid executive	1998–2008	6.5			1.3 ^b
ASX300					
Financial Review Executive Salary Database					
average (non-CEO executives)	2004–09				-14.0
median (non-CEO executives)	2004–09				-7.2

^a Includes data for 2009 that were provided by Egan Associates (pers. comm. 3 December 2009). ^b Refers to the period 2007–08 only.

Sources: ABS (*Australian National Accounts: National Income, Expenditure and Product*, Cat. no. 5206.0); Egan (2009); Egan Associates (sub. 105); Financial Review Executive Salary Database; Korn/Ferry International and Egan Associates (2005); Productivity Commission estimates.

Box 3.4 Some companies have reportedly frozen or cut pay for 2009-10

Over recent months, as the economic downturn has reduced company profits, a number of companies have announced pay freezes or reductions in some elements of executive remuneration for 2009-10. The total remuneration received by executives of these companies in 2009-10 will not be known until the second half of 2010. Some high-profile examples include:

- Pay freezes for 2009-10 have been announced by: ANZ (for the top 150 executives) (John 2009), AXA (executives earning over \$100 000) (John 2009), AMP (directors, the CEO and senior management) (Murdoch 2009a), Wesfarmers (directors, CEO and other senior managers) (sub. 65), Telstra (top 300 executives) (Colley 2009), and Qantas (management) (AAP 2009).
- Commonwealth Bank of Australia — it was reported that CEO Ralph Norris's base salary will be cut by 10 per cent (incentive-based remuneration arrangements were not altered). The base salaries and short-term incentives of bank staff in middle management roles who earn more than \$100 000 were to be frozen from 1 July 2009 (Murdoch and Condon 2009).

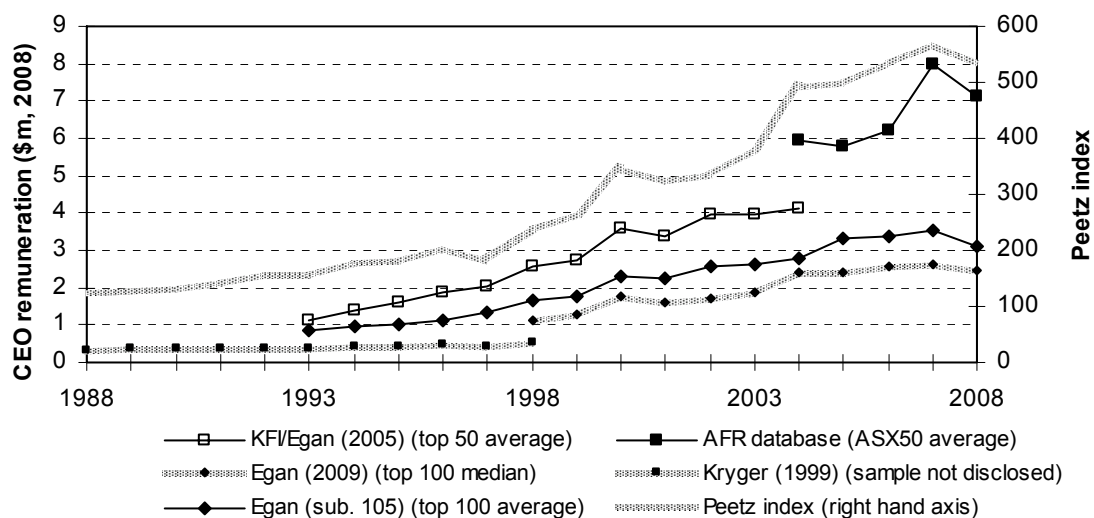
Roberts (2009) reported the results of a survey of the remuneration expectations of executives and senior managers over the coming year. Most of the survey participants were employed by companies with revenues of over \$1 billion. The results suggest that the examples above are consistent with a broader trend. Roberts reported that:

- among CEOs and senior executives ('direct reports') whose remuneration reviews had taken place between January and June 2009, 44 per cent had received no increase in fixed remuneration
- among CEOs and senior executives who were scheduled to review their salaries between July and December 2009, 70 per cent anticipated that they would receive no increase in fixed remuneration. Approximately 20 per cent anticipated an increase of less than 3 per cent, while 10 per cent anticipated receiving an increase of between 3 and 3.9 per cent.

Long-run trends in executive remuneration and the ratio of executive remuneration to other employees' earnings are important considerations, but need to be contextualised. Analysis of executive remuneration should take into account factors such as the relationship between executive remuneration and company size, the complex structure of executive remuneration packages and the influence this has on total remuneration, the complexity of executive positions, the different remuneration levels across industry sectors, and the explicit contractual link between executive remuneration and dimensions of corporate performance. Data illustrating these trends are set out in the following sections. An assessment of factors influencing executive remuneration is provided in chapter 4.

Box 3.5 Splicing the data series will distort underlying trends

An index of CEO remuneration over an extended period was submitted by David Peetz (sub. 50). The Peetz index was constructed by rebasing and splicing together different sources of data on CEO remuneration, and other 'senior executive' remuneration, including Kryger (1999) (for the period 1988 to 1998) and Egan (2009) (for the period 1998 to 2008). The Peetz index is shown below with other remuneration data series, including Kryger (1999) and Egan (2009).



Compared to the original data, the Peetz index exaggerates somewhat the growth rates of executive remuneration. The average annual compound real growth rates of the original sources and the Peetz index were:

- 1988 to 1998: Kryger (1999) — 5.1 per cent, Peetz — 6.7 per cent
- 1998 to 2008: Egan (2009) — 7.9 per cent, Peetz — 8.4 per cent.

Part of the explanation for the exaggerated growth rates is that the original sources are not based on comparable samples. Kryger (1999) was based on the average remuneration reported by an undisclosed sample of CEOs in a private survey. Egan (2009) was based on the median remuneration of CEOs in the top 100 companies. If the data for 1988 to 1998 included CEOs of companies outside the top 100, it would be expected that the index would exaggerate growth rates after this period.

A second explanation is that the Peetz index was deflated using the consumer price index. The more appropriate deflator for measures of labour cost is the Gross Domestic Product implicit price deflator, which is related directly to the costs of production of goods and services (appendix B). Using the consumer price index instead of the Gross Domestic Product deflator implies higher real growth rates of remuneration, particularly for the periods 1988–99 and 2004–08.

Changes in the structure of executive remuneration

It would appear that until the mid 1990s, most executive remuneration was in the form of a base salary plus some allowances and benefits (such as car allowances). Data from Kryger (1999) suggest that between 1988 and 1996, bonuses usually accounted for less than 10 per cent of total remuneration. Egan Associates stated that by the end of the 1990s ‘target annual incentives for senior executives were typically in the range of 20 per cent to 35 per cent of base remuneration’ (sub. 105, p. 18). Remuneration packages today contain a larger proportion of incentive-based remuneration (short-term cash bonuses and long-term incentives that are normally paid as equity). In 2008-09, approximately half of ASX300 CEO average remuneration was incentive-based.

Between 2003-04 and 2008-09, average base remuneration for CEOs of ASX300 companies fell by approximately 10 per cent in real terms. At the same time, the value of incentive-based remuneration grew, albeit with significant volatility as company performance was affected by the recent economic downturn. The value of incentive-based remuneration peaked in 2006-07, before declining in the following two years (table 3.2).

In sum, although the value of incentive-based remuneration varies from year to year, there is a general trend toward remuneration packages being weighted more heavily toward incentive-based remuneration, particularly long-term incentives.

Table 3.2 **The structure of ASX300 executive remuneration^a**

		Units	CEOs			Non-CEO executives		
			Base	STI ^b	LTI ^c	Base	STI ^b	LTI ^c
Average value	2003-04	\$'000 (2009)	1 324	668	235	670	225	97
	2006-07	\$'000 (2009)	1 204	1 038	782	581	423	299
	2008-09	\$'000 (2009)	1 194	583	594	554	203	208
Proportion	2003-04	%	59	30	11	67	23	10
	2006-07	%	40	34	26	45	32	23
	2008-09	%	50	25	25	57	21	22

^a All figures are estimates of the average remuneration of ASX300 executives. ^b Short-term incentive.

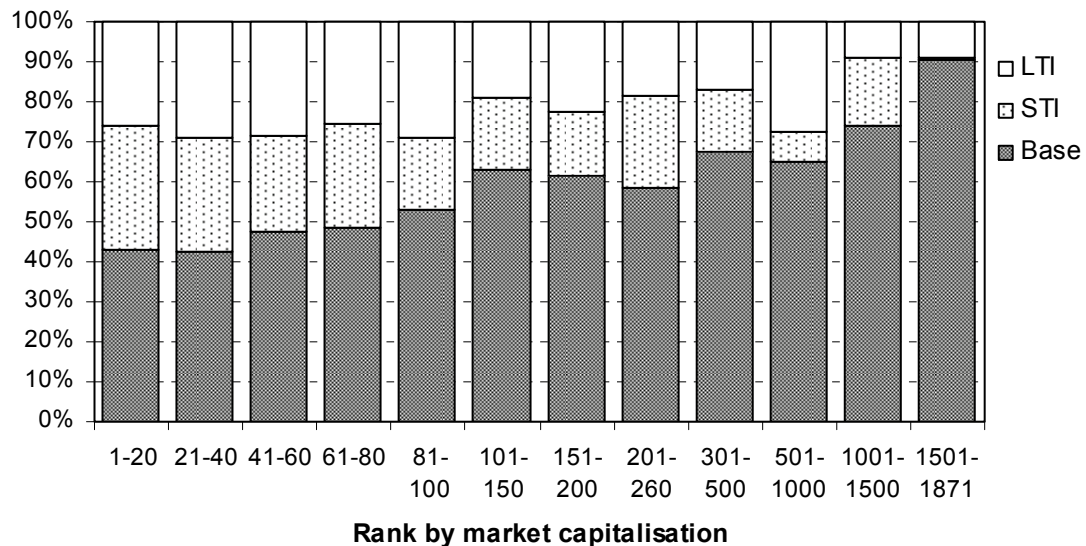
^c Estimated value of long-term and equity-based incentives, as reported in annual reports.

Source: Financial Review Executive Salary Database.

Larger companies make greater use of incentive-based remuneration

At the largest companies, the estimated value of incentive-based remuneration generally makes up a larger proportion of total remuneration than at smaller companies (figure 3.2). At a random sample of the smallest companies on the ASX in 2008-09 (companies ranked 1501 to 1871 by market capitalisation), incentive-based remuneration accounted for less than 10 per cent of total remuneration. Greater use of incentive-based remuneration has also meant that the total remuneration of executives at larger listed companies has been more sensitive to the recent declines in company performance.

Figure 3.2 **Structure of CEO average remuneration packages by company size, 2008-09^a**



^a From the 301-500 category to the 1501-1871 category the data are based on a random sample of 20 companies in each category. Appendix B describes the sample in more detail. **LTI** Estimated value of long term and equity-based incentives, as reported in annual reports. **STI** Short term incentive.

Sources: Financial Review Executive Salary Database; Productivity Commission estimates.

Executive remuneration is closely related to company size

An extensive literature from Australia and overseas consistently finds that company size is the single most significant determinant of the variation in executive remuneration (appendix D). The Commission's own analysis finds the same. Explanations for the relationship are discussed in greater detail in chapter 4, but include:

- the complexity associated with running large companies

- ‘magnification’ effects that increase the benefits to larger companies of employing the most talented CEOs.

Companies have grown greatly over the past 20 years

Market capitalisation is one indicator of the size of a listed company. Between 1989 and its peak in 2007, the market capitalisation of the ASX as a whole grew by approximately 680 per cent in real terms, equivalent to an average annual compound rate of approximately 12.1 per cent. Among the 20 largest companies on the ASX in 2006-07, three had experienced negative real growth since 1989. The rest had at least quadrupled in size, and nine were at least ten times larger (table 3.3). (It should be noted that not all of the companies in the top 20 had been listed since 1989.)

Table 3.3 Growth of the top 20 companies^a

<i>Company name</i>	<i>Period</i>	<i>Initial market capitalisation</i>	<i>2007 market capitalisation</i>	<i>Real growth</i>
		\$m ^b	\$m ^b	%
BHP Billiton	1989–2007	15 143	202 610	1 238
Rio Tinto	1992–2007	9 484	171 844	1 712
News Corporation	1989–2007	5 005	86 283	1 624
Commonwealth Bank	1992–2007	7 312	71 437	877
National Australia Bank	1989–2007	6 989	63 293	806
Telstra Corporation	1998–2007	64 062	57 114	-11
ANZ Banking Group	1989–2007	6 325	55 382	776
Westpac Banking Corporation	1989–2007	7 110	53 153	648
Alcoa	2000–2007	54 636	40 956	-25
Westfield Group	1989–2007	7 110	40 663	472
Woodside Petroleum	1989–2007	2 629	34 685	1 219
Woolworths	1994–2007	3 551	32 597	818
QBE Insurance Group	1989–2007	453	29 365	6 377
Macquarie Group	1997–2007	1 609	21 014	1 206
Suncorp-Metway	1991–2007	295	19 779	6 611
St. George Bank	1993–2007	1 139	18 836	1 554
AMP	1998–2007	26 769	18 404	-31
Wesfarmers	1989–2007	811	17 746	2 087
Coles Group	1989–2007	4 324	17 394	302
Brambles	1989–2007	3 014	17 241	472

^a 20 largest companies listed on the ASX in 2006-07, by market capitalisation. ^b Expressed in 2007 dollars.

Sources: ABS (*GDP Capital Deflator*, Cat. no. 5206.0); FinAnalysis; Productivity Commission estimates.

A strong relationship between remuneration levels and company size

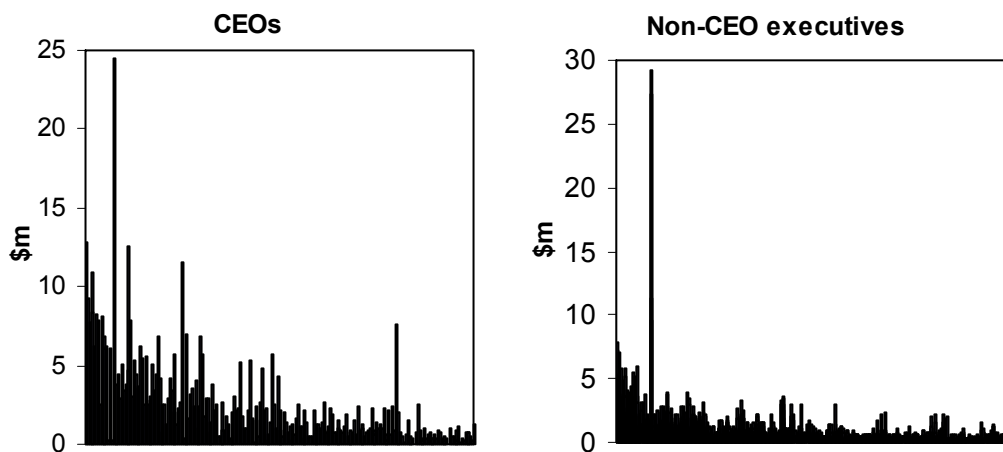
The positive relationship between remuneration and company size can be seen by plotting the total remuneration of executives by the size of their companies (figure 3.3). This shows that, in general, remuneration is higher at larger companies. It also demonstrates the variability in the data, and the difference between the highest and lowest-paid executives. The data can be further broken down to analyse the differences in remuneration across the ASX (figure 3.4).

In 2008-09 the estimated average total remuneration of the CEO of one of the 20 largest companies (by market capitalisation) listed on the ASX was approximately 50 per cent higher than the average remuneration of CEOs of the next 20 largest companies (\$7.2 million compared to \$4.7 million). CEOs of the next 20 companies were paid substantially less again. In the same year, CEOs at a random sample of companies ranked 1501 to 1871 on the ASX by market capitalisation were paid an average of \$264 000.

In conclusion, while there are some ‘lumps’ in the data, overall there is a strong positive relationship between the remuneration of CEOs and the size of the companies that employ them. A similar relationship holds for non-CEO executives.

Figure 3.3 Executive remuneration by company size, ASX300 companies, 2008-09^a

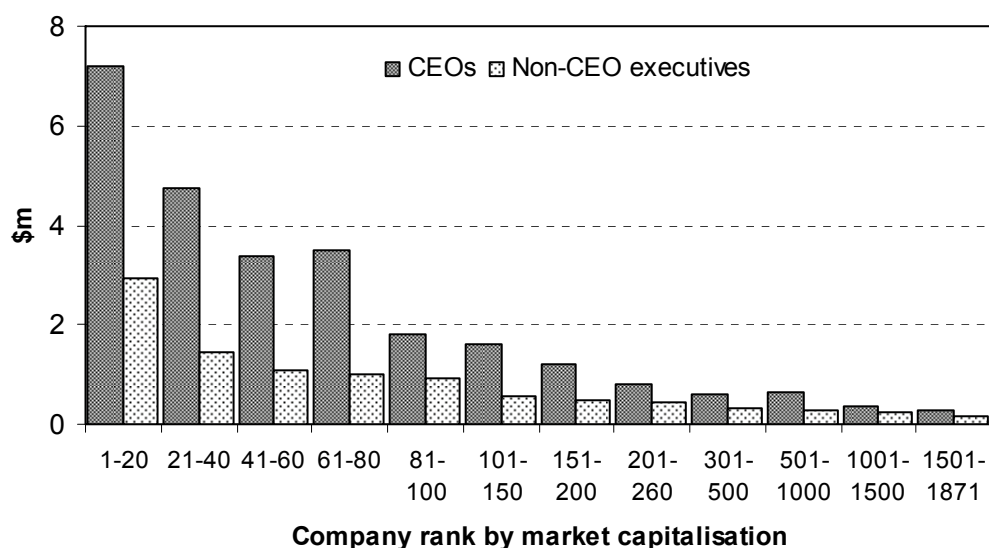
Total remuneration, ASX300 companies ordered by market capitalisation (largest companies on the left)



^a The highest peaks in both graphs refer to News Corporation executives. The highest-paid CEO in the sample is Rupert Murdoch of News Corporation, whose remuneration was approximately \$24.5 million, almost double that of the second highest-paid CEO. The four highest-paid non-CEO executives are all employed by News Corporation. Their remuneration was between \$9.6 million and \$29.2 million in 2008-09.

Source: Financial Review Executive Salary Database.

Figure 3.4 Executive remuneration by company size, 2008-09^{a, b}



^a Average total remuneration. ^b From the 301-500 category to the 1501-1871 category (inclusive) the data are based on a random sample of 20 companies in each category. Appendix B describes the sample in more detail.

Sources: Financial Review Executive Salary Database; Productivity Commission estimates.

Statistical correlation is high

Statistical techniques can be used to estimate formally the strength of the relationship between company size and executive remuneration. The Pearson correlation coefficient is a simple and widely-used measure of the relationship between two variables. It takes a value between -1 and 1, depending on the strength of the relationship, and whether it is negative or positive. The Pearson correlation coefficient for ASX300 company CEO total remuneration and company market capitalisation in 2008-09 is 0.64.³ For non-CEO executives, the coefficient takes a value of 0.44. These values of the Pearson correlation coefficient mean that, in 2008-09, there was a strong correlation between the remuneration of ASX300 executives and market capitalisation. The relationship is stronger for CEOs than non-CEO executives. The relationship between executive remuneration and company size is investigated in more detail in chapter 4.

³ The natural logarithm of market capitalisation was used because of the dispersion in the sample. (The highest market capitalisation in the ASX300 in 2008-09 was approximately \$127 billion, the lowest market capitalisation was only \$18 million.)

CEO remuneration varies according to job characteristics

Data provided to the Commission by the Hay Group support the proposition that CEOs with more complex roles receive higher remuneration. The ‘level’ of the CEO is evaluated by the Hay Group with regard to the knowledge and skills required to perform a particular role, and the responsibilities involved.

The three levels are:

- level ‘A’ — CEO of a diversified company that is mainly focused on domestic operations. Revenue: \$750 million–\$2.5 billion. Employees: 1500–8000
- level ‘B’ — CEO of a diversified company with significant international activities. Revenue: \$2.5 billion–\$8 billion. Employees: 5000–15 000
- level ‘C’ — CEO of a complex multinational company. Revenue: \$8 billion–\$15 billion. Employees: Over 15 000.

The data (table 3.4 and appendix B) show that over the period 2001–08:

- CEOs at higher levels consistently earned more than CEOs at lower levels
- total remuneration grew most rapidly for CEOs in levels B and C
- most of the growth in CEO remuneration was accounted for by growth in incentive-based remuneration.

Table 3.4 CEO median remuneration and growth rates by CEO level^a
2008 dollars

	2001	2002	2003	2004	2005	2006	2007	2008	Average annual real growth rate 2001–08
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	%
CEO level A									
Fixed remuneration ^b	996	1 030	1 217	1 344	1 273	1 378	1 186	1 112	1.6
Total remuneration ^c	na	na	na	2 177	1 794	2 147	2 642	2 153	-0.3 ^d
CEO level B									
Fixed remuneration ^b	1 455	1 544	1 669	1 716	1 631	1 612	1 645	1 828	3.3
Total remuneration ^c	na	na	na	2 786	3 091	3 519	3 405	4 468	12.5 ^d
CEO level C									
Fixed remuneration ^b	1 989	2 153	2 200	2 218	2 256	2 223	2 346	2 590	3.8
Total remuneration ^c	na	na	na	4 387	5 671	6 211	4 763	6 982	12.3 ^d

^a CEO level determined according to the Hay Group job evaluation methodology. ^b Refers to Hay Group ‘fixed annual reward’ data. ^c Refers to Hay Group ‘aggregate reward’ data. Due to a change in the way the Hay Group values equity-based incentives, data on aggregate reward is only available on a comparable basis for the period 2004–08. ^d Growth rate is for the period 2004–08. **na** Not available.

Sources: ABS (*Australian National Accounts: National Income, Expenditure and Product*, Cat. no. 5206.0); Hay Group (2009); Productivity Commission estimates.

Executive remuneration varies across sectors

The size and structure of executive remuneration packages vary across market sectors. The available data suggest that:

- average CEO remuneration is highest in the telecommunications, finance and consumer sectors, and lowest in the information technology and utilities sectors
- the sectors where incentive-based remuneration accounts for the largest proportion of remuneration are finance and telecommunications, with the lowest proportions in the utilities, consumer and industrial sectors
- over the period 2003-04 to 2008-09, average CEO remuneration grew fastest in the health care, telecommunications and information technology sectors.

Size and growth of executive remuneration packages across sectors

CEO remuneration is much higher in some sectors (finance, consumer and telecommunications) than in others (utilities and information technology) (table 3.5). This could reflect a number of factors, including the nature of the companies, their global reach, and average size.

Over the period 2003-04 to 2008-09, estimates of the value of short-term incentives grew faster than those for base remuneration across most sectors. In all sectors the estimated value of long-term incentives grew faster than base remuneration or short-term incentives (table 3.5). These observations also hold for non-CEO executives (appendix B).

Executive remuneration in the finance sector is highly variable. For example, in 2005-06, average CEO remuneration in the sector was approximately \$3.7 million. By 2006-07 this had risen to \$5.6 million. In 2008-09, average CEO remuneration in the sector was \$3.3 million (all figures in 2009 dollars). This variability is due to the fact that the finance sector makes greater use of incentive-based remuneration than other sectors.

It should be noted that some sectors comprise few companies. For example, in the years for which the Commission was able to access data, there were between one and three telecommunications companies, and between five and eight utilities companies. Results in these industries tend therefore to be driven by a small number of observations.

Table 3.5 ASX300 CEO remuneration by sector, 2003-04 to 2008-09

Sector	Average remuneration (2008-09)				Growth rates (2003-04 to 2008-09)			
	Base ^a	STI ^b	LTI ^c	Total	Base ^a	STI ^b	LTI ^c	Total
	\$'000	\$'000	\$'000	\$'000	%	%	%	%
Consumer	1 798	766	824	3 388	14	-17	321	35
Finance	1 462	1 098	764	3 324	-13	0	91	13
Telecommunications	1 041	1 485	564	3 089	-24	184	.. ^d	64
Industrial	1 137	675	342	2 154	-24	20	96	5
Health care	1 050	539	484	2 073	18	76	313	73
Materials and energy	1 038	348	665	2 051	-18	-11	105	22
Utilities	797	383	300	1 479	-10	-2	194	16
Information technology	520	156	379	1 055	-9	24	296	51

^a Includes base salary, superannuation and other allowances and benefits. ^b Short-term incentive. ^c Long-term incentive. ^d Growth rate of LTIs cannot be calculated because LTIs were not paid in 2003-04. .. Not applicable.

Sources: ABS (*Australian National Accounts: National Income, Expenditure and Product*, Cat. no. 5206.0); Financial Review Executive Salary Database; Productivity Commission estimates.

Trends in remuneration of executives compared to other employees

Several participants commented on the relationship between executive remuneration and average weekly earnings (AWE) (box 3.6). Statements about relative earnings typically focus on ASX50 or ASX100 companies. Analysis of the data shows that:

- the ratio of median CEO remuneration to AWE at the 100 largest companies was approximately 20 times in 1998, rising to approximately 40 times in 2008
- in some industries and at smaller listed companies, the growth of average weekly earnings kept pace with the growth of executive remuneration over the period 2003-04 to 2008-09
- after peaking in 2006-07, the ratio of executive remuneration to AWE in 2008-09 had returned to the levels observed in 2004-05
- executive remuneration grew more rapidly than the remuneration of other professionals, but the difference was not as large as the difference between the growth rates of executive remuneration and AWE
- up to the peak in executive remuneration in 2006-07, most of the difference between the growth rates of executive remuneration and AWE was accounted for by incentive-based remuneration paid to executives.

**Box 3.6 Executive remuneration and average weekly earnings:
participants' assessments**

Some participants commented on the relationship between executive remuneration and the earnings of other employees. The Australian Council of Trade Unions stated:

Between 1990 and 2005, the average cash remuneration of CEOs in top 50 listed Australian companies ... has ballooned from a multiple of 18 times average full-time earnings to a multiple of 63. (sub. 82, p. 1)

This figure is based on Shields (2005). It was also used in submissions from the Construction, Forestry, Mining and Energy Union (sub. 78) and the Finance Sector Union (sub. 39). Along similar lines, David Peetz stated:

The growth in CEO pay, of something around 470 per cent over the period 1971–2008, was nearly nine times the 54 per cent growth in real average weekly earnings over the same period. (sub. 50, p. 3)

Wage relativities for CEOs are largest at the largest companies

The differential between estimated CEO total remuneration and AWE is significantly greater for the top 20 companies in the ASX300 (figure 3.5). However, since the 2006-07 peak in executive remuneration, the ratio of top 20 CEO average remuneration to AWE has declined significantly (from approximately 165 times AWE to 110 times).

Analysis of remuneration ratios suggests that the very high executive salaries cited in the media are mainly a large company phenomenon. For example, in a random sample of companies ranked 1501 to 1871 on the ASX in 2008-09, average reported CEO remuneration was approximately four times AWE. Similar results hold for non-CEO executives (appendix B).

The difference between executive remuneration and average earnings is related to the responsibilities of the executive

The complexity of executive positions varies according to the characteristics of the job, the responsibility assigned to the executive and the knowledge and skills required. Hay Group data on the remuneration of CEOs, broken down into three categories using the Hay Group's job evaluation methodology, show that those CEOs who are in roles that require more skills, and are more able to influence the performance of their company, earn significantly more than others, and have higher salaries relative to AWE (figure 3.6).

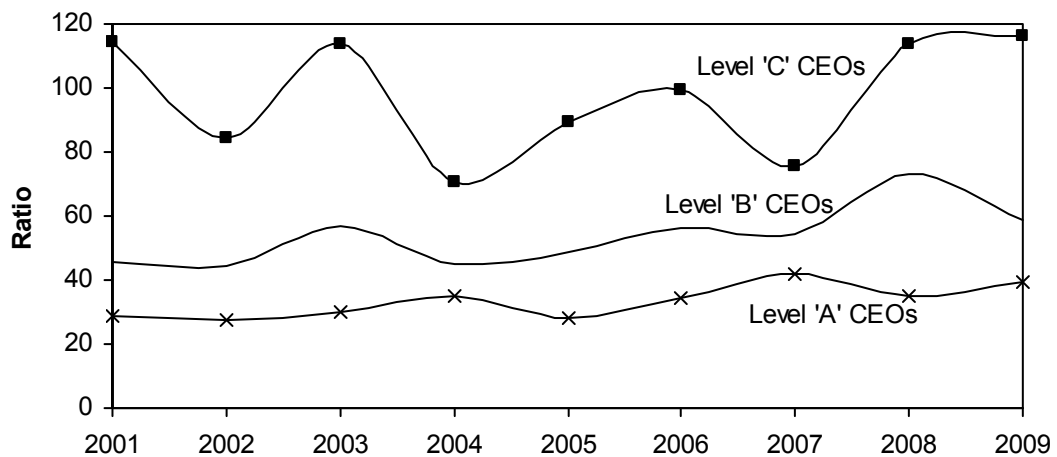
Figure 3.5 Ratio of CEO remuneration to AWE varies by company size, 2003-04 to 2008-09^{a, b}



^a Companies ranked in order of market capitalisation in each year. ^b The sample does not include every company in the ASX300. Depending on the year in question, the sample includes between 242 and 261 companies from the ASX300 (appendix B).

Sources: ABS (*Average Weekly Earnings, Australia*, Cat. no. 6302.0); FinAnalysis; Financial Review Executive Salary Database; Productivity Commission estimates.

Figure 3.6 CEO remuneration relative to AWE according to CEO level, 2001 to 2009^{a, b}



^a CEO level based on Hay Group job evaluation methodology. ^b Median total remuneration including fixed remuneration (base salary, superannuation and allowances), short-term incentives and long-term incentives.

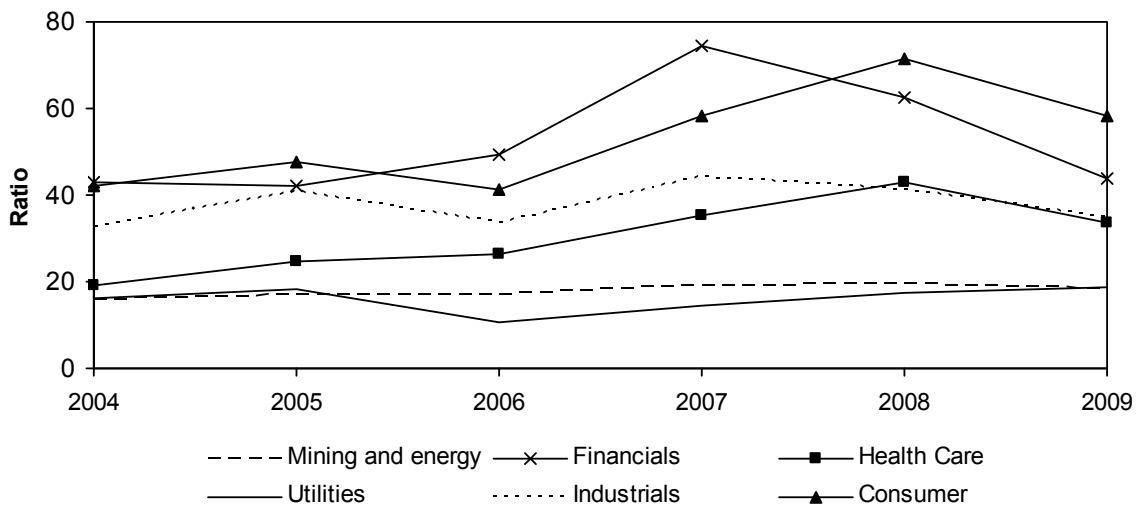
Sources: ABS (*Average Weekly Earnings, Australia*, Cat. no. 6302.0); Hay Group (2009); Productivity Commission estimates.

Average earnings have kept pace with executive remuneration in some industries

Over the past six years, AWE in some sectors grew at similar rates to executive remuneration (figure 3.7). This was particularly the case for the utilities sector, and the materials and energy sector (which includes mining). Executive remuneration in the finance sector grew rapidly between 2004-05 and 2006-07. However, in 2008-09 significant reductions in CEO average remuneration in the finance sector meant that the ratio of average CEO pay to AWE in the sector had returned to the same ratio as was observed in 2004-05 (44 times).

One explanation for the different wage relativities across industries relates to the demand for non-executive labour relative to that for executives. In the mining sector, strong demand for skilled labour and shortages in supply drove wage increases across the board, contributing to the relatively stable relationship of executive remuneration to AWE in this sector. Slower earnings growth among employees in other sectors (such as retail trade, hospitality, and health and community services) might equally have been due to weaker labour demand or a larger supply of workers with the skills demanded in those industries.

Figure 3.7 Ratio of average CEO total remuneration to AWE by industry sector, 2003-04 to 2008-09^a



^a The series show the ratio of CEO total remuneration to the average weekly earnings of employees in the sector. The derivation of these series are explained in greater detail in appendix B.

Sources: ABS (*Average Weekly Earnings, Australia*, Cat. no. 6302.0); Financial Review Executive Salary Database; Productivity Commission estimates.

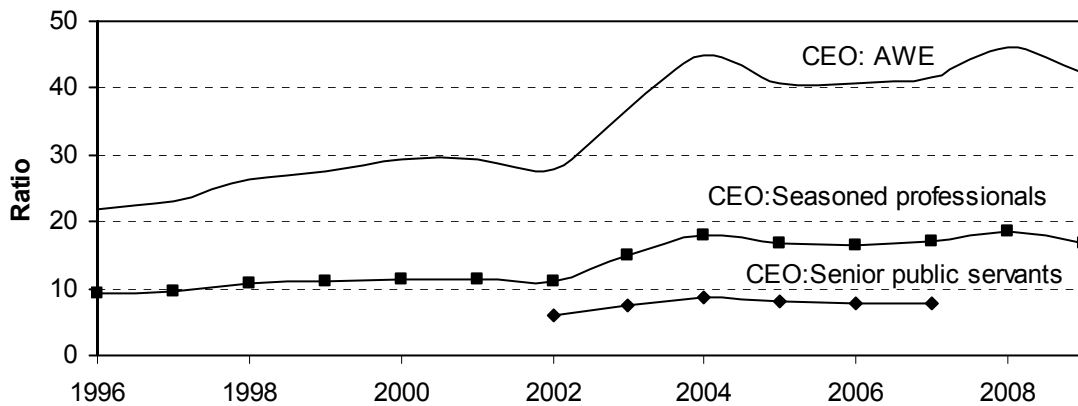
Less divergence between executives and professionals

The ratio of executive remuneration to that of professionals has grown, but at a slower rate than that to average earnings. The Hay Group stated:

The ratio of CEO pay to pay of junior professionals has remained constant over recent years at approximately 16:1 for fixed remuneration and 20:1 at fixed plus annual incentives. (sub. 84, p. 8)

The limited data that are available suggest that the slower growth of the ratio of average CEO remuneration to the average remuneration of professionals is evident for both the public and private sectors (figure 3.8).

Figure 3.8 Ratio of CEO remuneration^a to AWE and other professionals^b



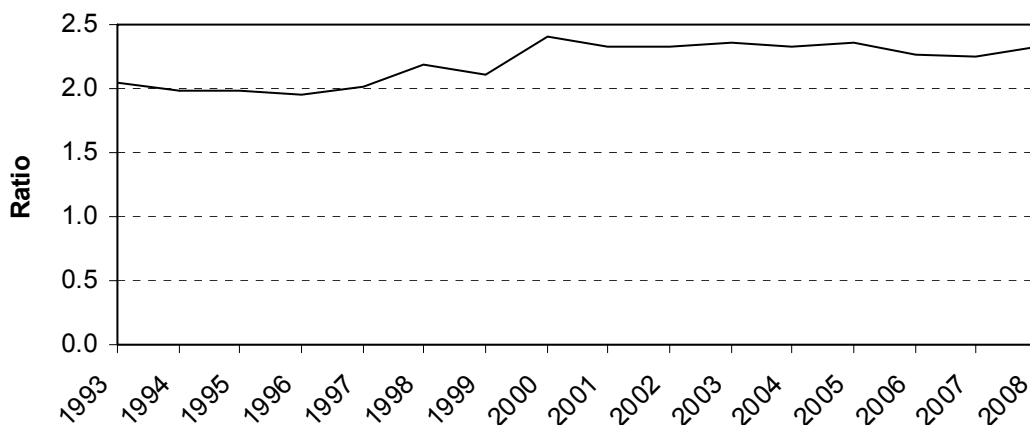
^a Refers to the remuneration of 'Level B' CEOs, not including long-term incentives. ^b Appendix B includes a definition of 'seasoned professionals'. 'Senior public servants' refers to Australian Public Service Senior Executive Service Band 3.

Sources: ABS (*Average Weekly Earnings, Australia*, Cat. no. 6302.0); Hay Group (2009); Productivity Commission estimates.

The ratio of CEO remuneration to other executives' remuneration

The data suggest that over the period 1993–99, the ratio of CEO remuneration to the average remuneration of other executives remained relatively constant at approximately 2:1. Over the period 2000–08, the ratio rose somewhat, being around 2.4:1 in most years (figure 3.9).

Figure 3.9 Ratio of CEO remuneration to other executives^a, top 100 companies



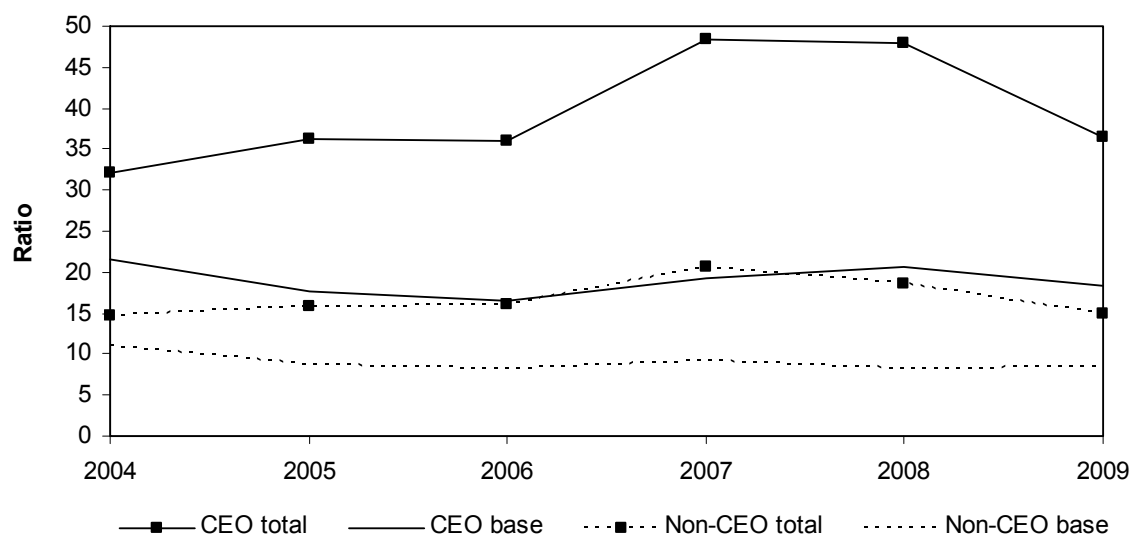
^a Data refer to the average remuneration of CEOs and the average remuneration of 'top 5' executives at the largest 100 companies by market capitalisation.

Source: Egan Associates (sub. 105).

The growing gap between executive remuneration and AWE was due to growth in incentive-based remuneration

The growth in executive remuneration relative to AWE over the period 2003-04 to 2007-08 was entirely accounted for by the growth of incentive-based remuneration (figure 3.10). Base remuneration was constant or declining over the period, whereas the value of incentive-based remuneration (including the estimated value of long-term incentives) grew rapidly. The value of the incentive-based components of remuneration fell significantly in 2008-09, leading to a reduction in the ratio of executive remuneration to AWE.

Figure 3.10 Ratio of average executive earnings to AWE



Sources: ABS (*Average Weekly Earnings, Australia*, Cat. no. 6302.0); Financial Review Executive Salary Database; Productivity Commission estimates.

3.4 What has happened to directors' remuneration?

The Government has asked the Commission to examine the remuneration of both executives and directors. These two groups are not mutually exclusive, as some directors are drawn from a company's management. Generally, executive directors (for example, the CEO) are not paid additional fees for serving on boards, as this is assumed to be part of their executive responsibilities. Non-executive directors (NEDs) do not perform other services for the company and are generally paid solely for board duties. Hence, this section focuses on payments made to NEDs.

NEDs' remuneration is much less complicated than executive remuneration. They are typically paid a fixed sum in cash, with an opportunity (or requirement) in some companies to sacrifice a portion of their fee to buy shares in the company. Incentive-based pay for non-executive directors is uncommon and is not considered good practice (chapter 7).

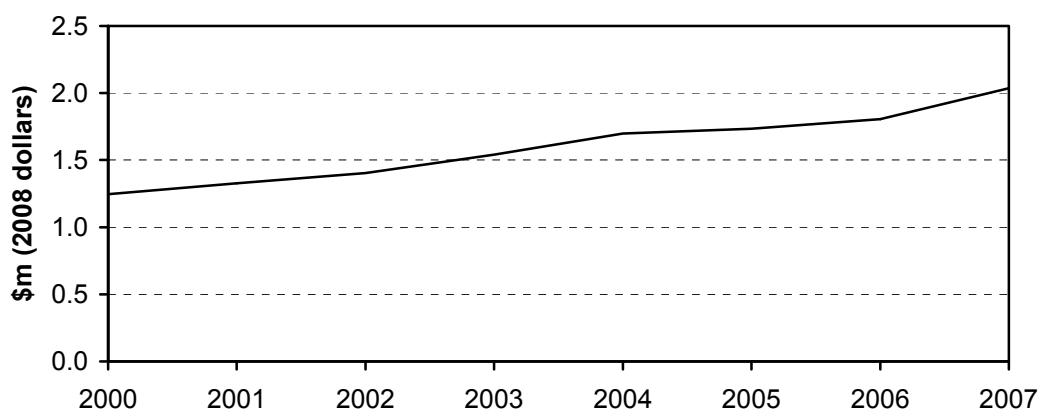
Companies must obtain shareholder approval for payments to NEDs. This takes the form of a binding vote on the 'fee pool' — a dollar ceiling imposed on companies for their total provision of (non-executive) directors' fees. The board decides how to allocate the fee pool among the chair and other NDEs (chapter 6).

Between 2000 and 2007, the average fee pool at the top 100 listed companies increased by about 63 per cent in real terms (figure 3.11). In 2007, the average fee

pool for ASX100 companies was approximately \$1.9 million, which compares to average CEO total remuneration within that group of over \$4.5 million (Korn/Ferry International and Egan Associates 2008; Financial Review Executive Salary Database). Clearly, NEDs are paid considerably less than CEOs.

Board chairs generally receive significantly higher remuneration than other NEDs. In 2008, the average remuneration of chairs of top 100 companies was around \$400 000, and average NED remuneration was around \$175 000 (Egan Associates, sub. 105). Between 1993 and 2008, the average remuneration of chairs and NEDs in this group increased by approximately 215 per cent in real terms, or around 8 per cent per year (figure 3.12).

Figure 3.11 ASX100 companies average directors' fee pools, 2000–07



Sources: ABS (*Australian National Accounts: National Income, Expenditure and Product*, Cat. no. 5206.0); Korn/Ferry International and Egan Associates (2008).

As with executive remuneration, there is a relationship between company size and the remuneration of directors. The average remuneration of chairs and NEDs is significantly higher at larger companies (figure 3.13).

Some companies pay NEDs additional fees for chairing or serving on board subcommittees (such as the audit, remuneration or nomination committees). However, there are no consistent rules or practices relating to payment for committee work. (Appendix B sets out the board committee remuneration practices of a sample of companies.)

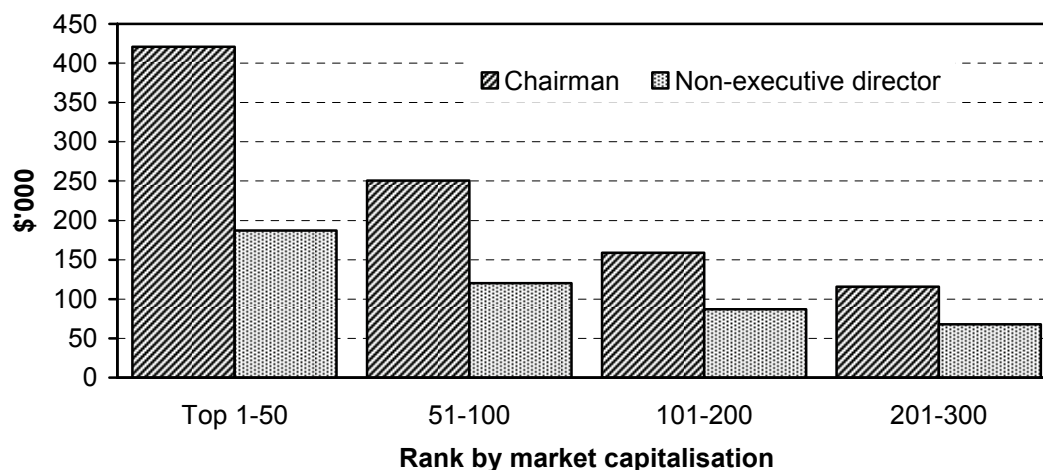
Figure 3.12 **ASX100 average company chair and non-executive director^a remuneration, 1993–2008**



^a Refers to the five highest-paid non-executive directors.

Sources: ABS (*Australian National Accounts: National Income, Expenditure and Product*, Cat. no. 5206.0); Egan Associates (sub. 105).

Figure 3.13 **Directors' remuneration^a and market capitalisation^b, 2007**



^a Average remuneration. ^b Market capitalisation as at 30 June 2008.

Source: Korn/Ferry International and Egan Associates (2008).

3.5 Remuneration and corporate performance

The Commission was also asked to consider the relationship between remuneration and corporate performance. Because directors' remuneration is typically not directly

linked to corporate performance, this section focuses on executives. There are a number of issues that complicate the analysis, including: the definition of corporate performance; determining which components of remuneration are expected to be linked to company performance; and the effect of corporate performance on the portion of executives' wealth that is held in company shares.

There are many ways to measure corporate performance

One of the challenges in attempting to identify the relationship between remuneration and corporate performance is determining appropriate measures of corporate performance itself. Listed companies use a range of measures of performance when designing executive remuneration (box 3.7). These include some publicly-disclosed measures (such as accounting measures of financial performance, or measures that are linked to the company's share price), but also some measures that are not disclosed, often for strategic reasons.

Researchers investigating the relationship between pay and corporate performance are limited to using publicly-available indicators. Some have used regression analysis to identify statistical relationships between indicators of corporate performance and executive remuneration. This approach is reasonable provided the data are adequate and the indicators correspond with those used by companies to determine executive remuneration.

However, many of the performance indicators used by companies are not publicly disclosed. Furthermore, it is not necessarily the case that they are correlated with the performance indicators used by researchers. There are circumstances (such as the recent downturn) where an executive might be performing well against targets set by the board, though the company is not performing well in terms of a particular accounting or market-based indicator. Statistical analysis that attempts to identify a numerical relationship between remuneration and the chosen indicators of corporate performance could lead to incorrect conclusions.

Box 3.7 How do companies measure corporate performance for remuneration purposes?

Submissions detail a range of indicators of corporate performance that different companies use when setting executive remuneration.

For example, Woolworths stated:

... short-term incentives are payable upon the achievement of Woolworths' financial key result areas (KRAs), as well as a component for non-financial or individual performance. Generally the components are weighted 70% to financial KRAs and 30% to non-financial or individual performance.

The financial KRAs may be measures such as Sales, Earnings Before Interest and Tax (EBIT), Return on Funds Employed (ROFE) and Cost of Doing Business (CODB). Non-financial measures may include objectives such as reducing staff turnover rates and performance in areas such as safety, shrinkage and food safety compliance ratings. (sub. 91, p. 3)

Egan Associates stated that:

... a reasonable proportion of named executives in Annual Reports are receiving annual incentives on the basis of business group, divisional or regional performance outcomes, not the corporate result. (sub. 105, p. 20)

Other submissions identified performance indicators including 'health and safety ... and performance against cost and schedule of capital projects' (BHP Billiton, sub. 45, p. 4) and 'customer satisfaction, environmental/sustainability practices and employee engagement' (Australian Bankers' Association, sub. 70, p. 6).

Not all remuneration is *meant* to be linked to performance

Of the three main components that constitute a typical executive remuneration package (base salary, short-term and long-term incentives), only the incentive-based components are contractually linked to individual and corporate performance. Base salary is paid to executives regardless of corporate performance, and is explained to a significant extent by the size of the company, the complexity of the role and the executive's other opportunities for employment. However, annual increments in base salary could be linked to performance. Accordingly, analysis of the relationship between remuneration and corporate performance should focus on incentive-based remuneration.

Previous sections have detailed the difficulties associated with using the publicly-reported values of long-term incentives (based on accounting estimates). Long-term incentives are often linked to corporate performance in subsequent years. Disclosed grants of equity-based long-term incentives could under- or overstate the amount that is received by the executive. The realised value will depend on whether performance hurdles are met, and on the company's share price performance in the

intervening period. The reported values of short-term incentives are increasingly subject to the same complications as an increasing number of companies opt to defer payment of some short-term incentives subject to performance in subsequent years (box 3.8). The implication is that statistical analysis that attempts to identify relationships between incentive-based remuneration and performance indicators in a single year could lead to spurious conclusions.

Box 3.8 Short-term incentives are complex

Short-term incentives are typically paid as cash bonuses for performance against targets in a given year. Two issues complicate analysis of the relationship between short-term incentives and corporate performance.

The first is that companies only report the incentive that was paid, not the total amount the executive could have received if he or she had met all of their performance goals (the ‘target bonus’). If the target bonus was reported, it would be possible to measure how well the executive had performed against the targets that were set for them. Without knowing how much the executive could have received in short-term incentives, the reported data only convey part of the relationship between short-term incentives and performance.

The second complication arises from the increasingly-common practice of deferring short-term incentives. Many companies have instituted schemes to withhold part of a performance bonus that was granted (and reported). The withheld portion can only be claimed if the executive meets performance targets in subsequent years. This practice is becoming widespread. Macquarie Group noted:

The 2009 Ernst and Young Executive and Board remuneration report stated that 52 per cent of the 46 companies they surveyed in the ASX50 had mandatory variable short-term incentive deferral mechanisms. This was an increase from 32 per cent in the previous year. In aggregate, across the ASX200 companies, the percentage of companies with mandatory deferral increased from 21 per cent to 31 per cent. (sub. 52, p. 8)

Both of these practices are likely to distort the statistical relationship between corporate performance and the reported value of short-term incentives.

Corporate performance also affects executives’ wealth

Executives often accumulate significant holdings of equity in the companies they work for. (Tables 4.2 and 4.3 set out examples of holdings valued at several million dollars.) As such, a significant proportion of executives’ wealth is aligned to the performance of the company. Analysis of the relationship between remuneration and corporate performance therefore only captures one element of the alignment. Even in cases where there appears to be no statistical relationship between remuneration and corporate performance, an executive may be experiencing

significant changes in their wealth, related to the company's performance (see chapter 4).

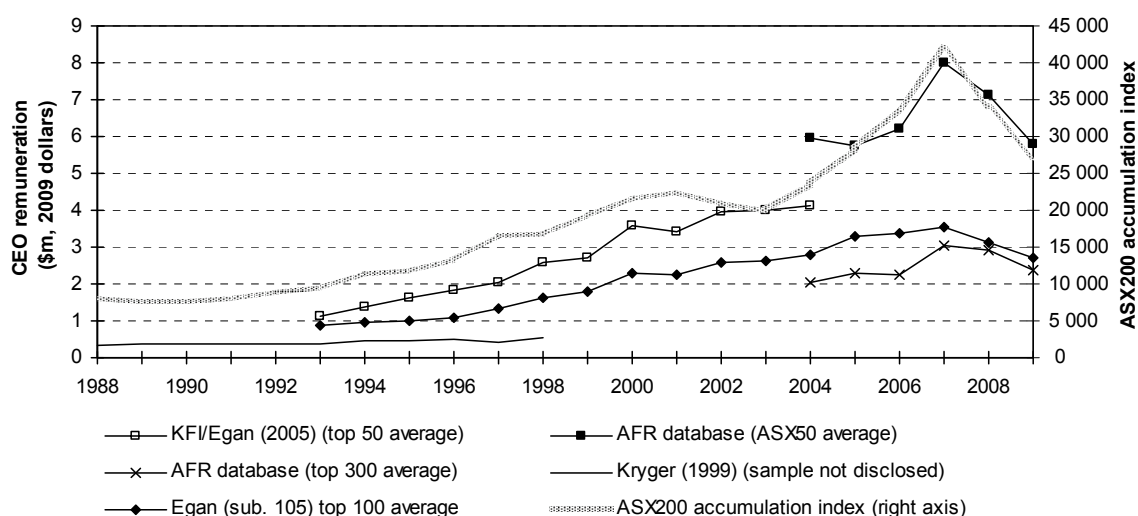
Executive remuneration has grown at similar rates to company performance at an aggregate level

There is some evidence that the trend growth of executive remuneration over the past 20 years has been broadly consistent with the aggregate performance of the 200 largest Australian listed companies. In particular, the reduction in shareholder wealth over the past two years appears to have been matched by a significant reduction in CEO remuneration, particularly at the largest companies.

The ASX200 accumulation index measures the total pre-tax return to investments in the 200 stocks that are part of the index, including both price changes (capital growth) and dividends (income). The evidence on executive remuneration suggests that, on average, the real growth rates of various measures of executive remuneration have been comparable in magnitude to the growth rate of the ASX200 accumulation index (figure 3.14, table 3.6).⁴ Statistical measures provide further evidence of a link between corporate performance and executive remuneration: between 2003-04 and 2008-09, the correlation coefficient of the ASX200 accumulation index and average CEO remuneration at ASX50 companies was 0.88. For ASX300 average remuneration, the correlation coefficient was 0.83. This supports the proposition that executive remuneration is sensitive to corporate performance.

⁴ The Commission used the ASX200 accumulation index because it was the most readily-available index of ASX performance. Standard and Poor's also compile an accumulation index for the ASX300, but the Commission was not able to access the full data series. Analysis of the ASX200 accumulation index and figures provided by CRA Plan Managers (sub. 103) indicate that the ASX300 accumulation index grew at an almost identical rate to the ASX200 accumulation index between 1999 and 2008.

Figure 3.14 CEO remuneration and corporate performance, 1988–2009



Sources: ABS (*Australian National Accounts: National Income, Expenditure and Product*, Cat. no. 5206.0); Economagic.com (nd); Kryger (1999); Korn/Ferry International and Egan Associates (2005); Egan (sub. 105); Financial Review Executive Salary Database; Productivity Commission estimates.

Table 3.6 Growth of CEO remuneration versus the ASX200 accumulation index, 1988–2009

Data source	Period	CEO remuneration average annual growth rate	ASX200 accumulation index average annual growth rate
		%	%
Kryger (1999) (undisclosed sample)	1988–98	5.1	7.5
Egan (2009) (top 100 median)	1998–2008	7.9	7.3
KFI/Egan (2005) (top 50 average)	1993–2000	17.8	12.2
KFI/Egan (2005) (top 50 median)	1993–2000	15.4	12.2
AFR Database (ASX300 average)	2004–07	14.3	21.2
	2007–09	-11.4	-19.5
AFR Database (ASX50 average)	2004–07	10.3	21.2
	2007–09	-14.7	-19.5

Sources: ABS (*Australian National Accounts: National Income, Expenditure and Product*, Cat. no. 5206.0); Economagic.com (nd); Kryger (1999); Korn/Ferry International and Egan Associates (2005); Egan (2009); Financial Review Executive Salary Database; Productivity Commission estimates.

Identifying relationships between executive remuneration and individual indicators of corporate performance is difficult

Researchers have attempted to identify relationships between executive remuneration and specific indicators of corporate performance. Some have examined the performance of individual companies over time, and sought to

determine whether executive remuneration has changed in response to changes in the company's performance. Others have analysed large samples of companies simultaneously to attempt to identify whether, in a given year, a change in a certain performance indicator is linked to a change in remuneration on average. Neither approach has provided conclusive evidence of an observable link between remuneration and the chosen indicators of corporate performance across all companies. In interpreting these results (or the absence of results) it is important to be aware of the weaknesses of such analytical frameworks when investigating the relationship between remuneration and corporate performance.

Company-by-company analysis

RiskMetrics analysed the remuneration of the 10 highest-paid CEOs in 2007 to determine whether there was a relationship between remuneration and corporate performance. The analysis consisted of a series of case studies in which the growth of each CEO's remuneration over the period 2001–07 was compared to the company's share price performance, its return on assets and total shareholder return over the previous one and three years (Australian Council of Super Investors, sub. 71, attachment 1). (Some CEOs in the sample had not served for the full period under analysis.) The case studies showed some evidence of a relationship between CEO remuneration and corporate performance. For example, in several cases, growth in total remuneration was consistent with the company's share price performance and/or total shareholder return. And in many cases, trends in incentive-based remuneration were consistent with trends in return on assets.

Regression analysis

Regression analysis is a statistical technique used to identify causal relationships in larger samples of data. Researchers have used regression analysis to determine whether there is a statistically significant relationship between the reported remuneration of individual executives and various publicly-available measures of company performance. The performance measures used include accounting measures (such as sales, profit and return on equity) and market-based measures (such as share price and total shareholder return).

Regression analysis is a useful tool, provided the data in the sample under analysis are representative of the population. In the case of executive remuneration, this assumption may be violated for reasons outlined above, including:

- the reported value of incentive-based remuneration is not necessarily the same as the realised value

-
- not all remuneration is intended to be linked to corporate performance
 - indicators of corporate performance might not reflect the measures used by companies in determining remuneration packages.

A further problem is that the data used do not include executives who were dismissed following poor corporate performance (and whose remuneration therefore falls to zero). The exclusion of these executives from the analysis means that it ignores one of the most significant ways in which remuneration is linked to corporate performance.

Along similar lines, the regression framework is not well suited to analysing remuneration packages where significant proportions of executive remuneration are subject to performance conditions that can only be met in subsequent years. Under the commonly-used regression framework, all remuneration is treated as if it were cash received in the year it is reported. This approach will tend to understate the extent to which the value of remuneration that is actually received by executives is linked to corporate performance.

These issues could lead to conclusions that are at odds with the true relationships between remuneration and corporate performance.

The conclusions in the Australian literature reflect the difficulties in using regression analysis. Some researchers identified statistically significant relationships between executive remuneration and one or more measures of corporate performance (Doucouliagos, Haman and Askary 2007; Merhebi et al. 2006; O'Neill and Iob 1999). Others found no evidence of a relationship between pay and performance (Izan, Sidhu and Taylor 1998; Capezio 2008). (Appendix D includes a more detailed review of the empirical research.)

The Commission carried out some regression analysis of its own, examining the relationship between CEO remuneration and various measures of corporate performance over the period 2003-04 to 2007-08 (table 3.7). The results support the previously-identified positive relationship between remuneration and market capitalisation. They also suggest that the proportion of total remuneration that is incentive-based tends to be larger at larger companies.

However, it proved difficult to draw conclusions from the regression analysis about the relationship between remuneration and indicators of corporate performance. The results suggest that the three chosen indicators of corporate performance (total shareholder return, profit growth and return on equity) are related to some of the measures of executive remuneration, but not to all. In some cases there is a positive statistical relationship between remuneration and corporate performance (for example, there was a positive relationship between long-term incentives and return

on equity and between long-term incentives and both total shareholder return and profit growth, when the performance variables are lagged one year). In other cases, the statistical relationship is negative (for example, between some measures of remuneration and total shareholder return).

The analysis shows that the chosen indicators of corporate performance explain only a small part of the variation in executive remuneration. The value of the coefficient of determination (R^2) for each of the statistical models suggests that variations in market capitalisation and in the chosen performance indicators explain less than half of the variation in executive remuneration (and in some cases as little as 10 per cent). Further analysis suggests that most of the explanatory power comes from variations in market capitalisation (appendix B), and the corporate performance indicators add little explanatory power to the models. This suggests that there are other variables that explain more of the variation in executive remuneration. Two types of variables that have been identified in the literature as having significant explanatory power in such analysis deal with the effects of share price volatility on remuneration, and the effects of share price changes on executive wealth (box 3.9), but the Commission was unable to include these variables in its analysis because of data limitations.

Box 3.9 Share price volatility and executive wealth

Regression analysis using US data suggests that the sensitivity of an executive's pay to corporate performance declines with the volatility of company performance (Aggarwal and Samwick 1999). This finding has been corroborated by subsequent studies including Merhebi et al. (2006) (for Australia) and Clementi and Cooley (2009) (for the US). The relationship is explained by the tradeoff between providing incentives to executives (by making pay contingent on performance), and the need to avoid imposing too much risk on a risk-averse executive. Consequently, estimates of pay-performance sensitivities that do not consider the variance of company performance are likely to be biased downwards.

Other authors have found that the relationship between corporate performance and executives' financial rewards is stronger when the analysis includes the market value of shares and options, the expected value of future cash payments, and the total value of shares granted, in addition to cash and bonus pay (Clementi and Cooley 2009). Along similar lines, Hall and Liebman (1998) found that CEO pay became increasingly more sensitive to corporate performance in the 1980s and 1990s. They considered that this was mainly due to the increased issuance of options to US executives in the 1980s and 1990s (which explicitly ties an executive's wealth to that of shareholders).

Table 3.7 Models of the relationship between CEO pay and performance 2003-04 to 2007-08 — coefficient estimates

<i>Dependent variable</i>	<i>Independent variables</i>							<i>R</i> ²
	<i>Log (market capitalisation)</i>	<i>TSR</i> ^a	<i>TSR</i> _{<i>t</i>-1}	<i>NPAT growth</i> _{<i>t</i>} ^b	<i>NPAT growth</i> _{<i>t</i>-1}	<i>ROE</i> _{<i>t</i>} ^c	<i>ROE</i> _{<i>t</i>-1}	
Log(base salary)	0.282***	-0.127**	0.005	-0.012	-0.004	-0.067	0.034	0.16
Log(total remuneration)	0.462***	-0.162**	0.044	-0.017*	0.008	-0.053	-0.040	0.28
Log(STI) ^d	0.572***	-0.098	0.053	-0.007	0.001	-0.219	-0.569	0.46
Log(LTI) ^e	0.557***	-0.424***	0.083**	-0.002	0.006	0.196*	0.363	0.38
STI as a proportion of base salary	0.446***	-0.024	0.032	-0.006	0.011	-0.022	-0.750	0.12
LTI as a proportion of base salary	0.188***	-0.087	0.137***	-0.005	0.014*	-0.013	0.060	0.10

* Significant at the 10 per cent level. ** Significant at the 5 per cent level. *** Significant at the 1 per cent level.

^a Total shareholder return. ^b Growth of net profit (after tax). ^c Return on equity. ^d The natural logarithm of short-term incentives. ^e The natural logarithm of the estimated value of long term and equity-based incentives, as reported in annual reports.

Sources: Financial Review Executive Salary Database; FinAnalysis; Productivity Commission estimates.

The regression framework could potentially be improved by examining the relationship between changes in corporate performance and changes in executive remuneration from year to year. The Commission's regression framework used cross-section data. That is, the value of executive remuneration in a given year was compared with corporate performance indicators in the same year (or in previous years). Both the company-by-company analysis undertaken by RiskMetrics and aggregate indicators of remuneration and performance (such as the ASX200 accumulation index and time series of average and median executive remuneration) suggest that there is a relationship between changes in remuneration and changes in performance. A regression framework that does not capture this kind of relationship will therefore tend to understate the relationship between remuneration and corporate performance.

However, while it is possible to suggest changes to the modelling framework that might increase its explanatory power, the fact remains that the available data on executive remuneration and corporate performance limit the ability of the regression framework to explain variation in executive remuneration.

3.6 Executive remuneration overseas

Limited data are available on the remuneration of executives in other countries. International comparisons are also complicated by factors including: differences in executive roles and responsibilities across countries; reporting requirements that are not consistent across countries; differences in the way executive remuneration packages are structured; differences in company size and market capitalisation; currency fluctuations and differences in the purchasing power of currency across countries (and hence the cost of living); and differences in tax systems. However, it is possible to reach some conclusions, notably:

- executive remuneration in Australia appears to be well below that observed in the United States, which is a significant ‘outlier’ to the rest of the world
- executive remuneration in Australia appears comparable to that in smaller European countries.

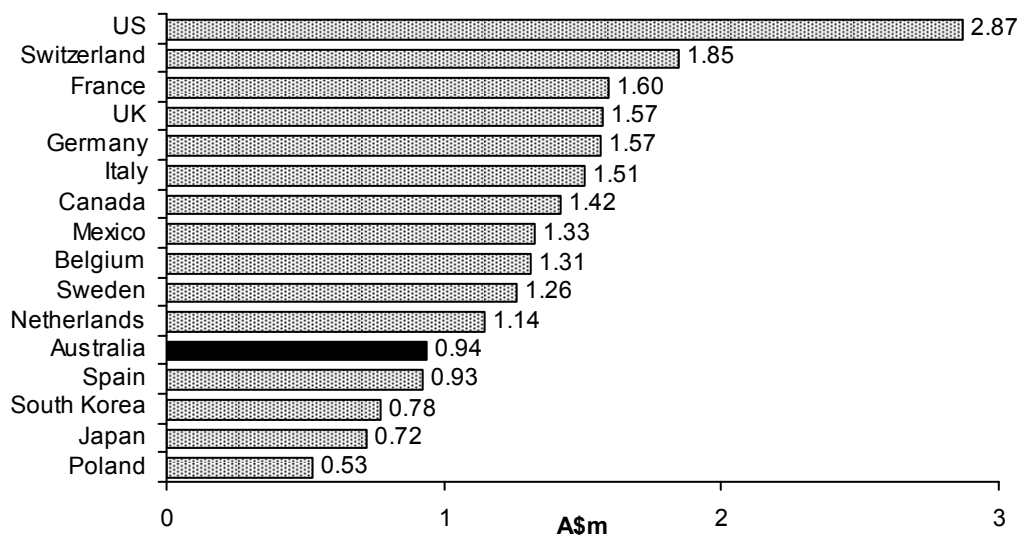
Australia compared to other countries

CGI Glass Lewis and Guerdon Associates provided data on the total remuneration of CEOs of companies with a market capitalisation of US\$500 million in 2006 (figure 3.15). This equates to a company ranked around 150 in the ASX by market capitalisation in 2006. The data indicate that the remuneration of CEOs of Australian companies of this size was similar to the remuneration of CEOs of companies of a similar size in Spain and some smaller European countries (Belgium, Sweden and the Netherlands). CEOs of US companies were paid almost three times the remuneration of CEOs of similar-sized Australian companies. The data for Australia were broadly consistent with other Australian data used by the Commission.⁵

⁵ Data from the Financial Review Executive Salary Database suggest that the average remuneration of the CEO of a company ranked 146–166 by market capitalisation (equivalent to a market capitalisation of \$530–\$750 million) was approximately \$870 000, compared to the \$940 000 in the data provided by CGI Glass Lewis and Guerdon Associates.

Figure 3.15 CEO total remuneration at similar-sized companies

Remuneration of CEOs of companies valued at US\$500 million, 2006



Source: CGI Glass Lewis and Guerdon Associates (sub. 80, p. 51).

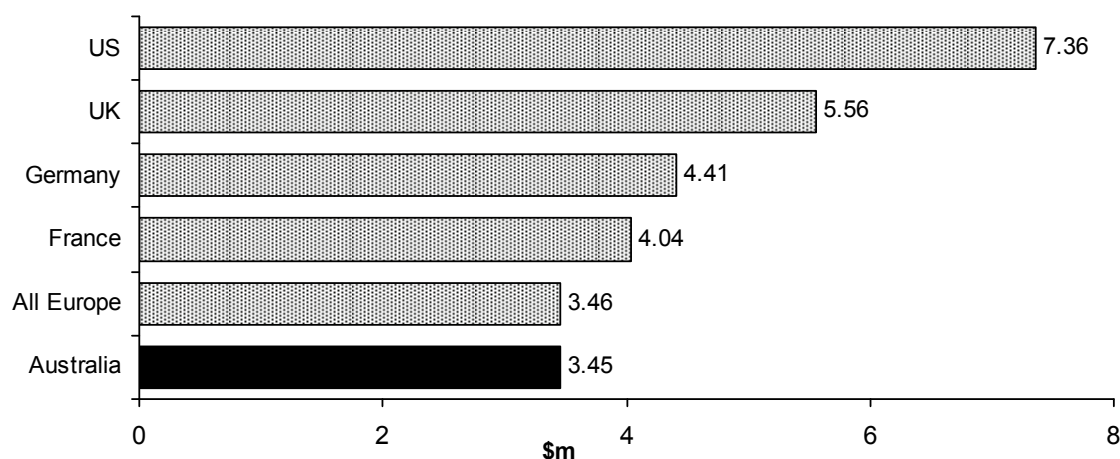
The Hay Group provided the Commission with data on the remuneration of CEOs performing similar-sized roles, based on its job evaluation methodology. The overseas CEOs were employed by organisations with a market capitalisation of approximately \$5–\$17 billion. They were compared to CEOs of Australian companies in the top 50 (but not in the top 10) by market capitalisation (market capitalisation in this group was between \$4.5 billion and \$30 billion).

Australian company CEOs' remuneration was less than half that of CEOs in the United States, and significantly less than CEOs in major European countries. Australian CEO remuneration was similar to the average remuneration of all European CEOs performing a similar role (figure 3.16).

Exchange rates and non-financial benefits

Comparisons of remuneration across countries can be significantly influenced by exchange rate fluctuations. Furthermore, exchange rates themselves do not necessarily reflect the differential purchasing power of remuneration packages, resulting from differences in tax and the cost of living. There are also non-financial factors to consider. For example, Australian executives might be prepared to accept lower remuneration to work in Australia because they place a greater value on the quality of life in their home country, including proximity to family and friends.

Figure 3.16 International CEO remuneration for similar roles, 2008^{a, b}



^a Data refer to the base salary, bonus and long-term incentives paid to CEOs performing roles of similar levels, as assessed according to the Hay Group job evaluation method. The data do not include the value of 'benefits' (such as health insurance). The Hay Group has advised the Commission that overseas executive remuneration packages often include a far greater weighting towards 'benefits' than in Australia. The reference group is Australian CEOs in the top 50 companies by market capitalisation, but outside the top 10, compared to overseas CEOs of companies with a market capitalisation of between \$5 billion and \$17 billion.

^b The 'All Europe' category includes Austria, Belgium, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, The Netherlands, Norway, Poland, Portugal, Russia, Spain, Sweden, Switzerland and the United Kingdom.

Source: Hay Group (2009).

Australia compared to the United States

Executive remuneration in the United States is much higher than remuneration in any other country, including Australia. For example:

- The highest-paid CEO in the United States in 2008 was Lawrence Ellison, from Oracle, whose total remuneration (including the value realised from exercising stock options) was estimated at US\$557 million (approximately A\$653 million) (DeCarlo and Zajac 2009).
- Five other CEOs received remuneration that was estimated to be equivalent to over \$A100 million. (In these cases the majority of total estimated remuneration consisted of gains from the exercise of stock options).
- The average remuneration of CEOs of the 500 largest companies in the United States was estimated to be US\$11.4 million (approximately A\$13.4 million).

By way of comparison, the reported remuneration of the highest paid Australian CEO in 2008 was estimated at \$29 million and the remuneration of CEOs in the ASX300 averaged approximately \$2.9 million. Only eight Australian CEOs earned more than the *average* remuneration of a top 500 CEO in the United States (this

number includes Rupert Murdoch, the American-based CEO of News Corporation). However, it should be noted that the estimated remuneration of Australian executives does not include the estimated value of stock options exercised.

As noted, like-for-like comparisons between remuneration in Australia and the United States is complicated by differences in company size and industry sector. The Commission accordingly undertook comparisons for selected Australian companies and similar-sized US companies operating in the same sector (table 3.8). The results suggest that:

- for companies of similar market capitalisation operating in the same sector, CEO remuneration is much greater in the United States than in Australia
- the differences in remuneration are smaller in the finance sector.

Table 3.8 Comparing CEO remuneration in Australia and the United States, 2007-08^a

	<i>Units</i>	<i>Australia</i>	<i>United States</i>
Company		Rio Tinto	Freeport McMoran
Market capitalisation	\$b	55.5	32.6
CEO total remuneration	\$m	13.1	43.1
Company		Alumina	Titanium Metals Corporation
Market capitalisation	\$b	2.0	1.4
CEO total remuneration	\$m	1.6	1.2
Company		Woolworths	Safeway Stores
Market capitalisation	\$b	29.6	9.6
CEO total remuneration	\$m	6.9	13.1
Company		Harvey Norman Holdings	Whirlpool Corporation
Market capitalisation	\$b	3.3	5.4
CEO total remuneration	\$m	1.4	6.8
Company		Commonwealth Bank	US Bancorp
Market capitalisation	\$b	52.9	47.3
CEO total remuneration	\$m	8.7	7.5
Company		National Australia Bank	Bank of New York Mellon
Market capitalisation	\$b	40.6	40.3
CEO total remuneration	\$m	8.8	13.3

^a All figures are in 2008 Australian dollars.

Sources: Associated Press (2009); DeCarlo and Zajac (2009); Financial Review Executive Salary Database; FinAnalysis.