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Paying for performance
Demystifying executive pay

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Introduction

It's commonly accepted that CEO pay in the UK is not strongly linked to performance. But, properly analysed, the link between pay and performance is much stronger than generally assumed.

This paper is part of a series where we seek to shed light on aspects of the executive pay debate using ideas drawn from robust academic evidence. Along the way we hope to debunk a few myths. The series has been inspired by our involvement on the Steering Committee of the Purposeful Company Taskforce, run by the Big Innovation Company. This Taskforce has brought together academics, economists, think tanks, investors, and companies to look at how the UK governance and capital markets environment could be enhanced to encourage the development of companies driven by purpose, acting for the long term. We've been working in particular on the executive pay workstream, looking at how pay should be reformed to incentivise and reward long-term, purposeful action by companies.

Working with leading academics in the field we've looked at the best evidence available to identify where the real problems are, and where they are not. For the interested reader, the Interim Executive Remuneration Report produced by the Taskforce Steering Committee can be found ***here*** and contains a comprehensive list of academic references. In this paper we take a practitioner's perspective and interpret the conclusions using UK data for the FTSE-100. As a result our referencing is less extensive.

This report is our own take on the evidence and should not be taken to be the views of the Purposeful Company Taskforce or its Steering Committee. We are, however, indebted to the Steering Committee members, for the opportunity to collaborate on what has been a fascinating project. We are also especially grateful to Professor Alex Edmans of London Business School[1], one of the leading academics in the field, for having the patience to guide us through the academic literature on executive pay, and for inspiring us to explore many of the ideas in this series.

[1] www.alexedmans.com

The commonly held view of no link between pay and performance

The day of writing this paragraph was typical. The front page of the ***Financial Times*** *carried the headline:* ***'Negligible' link between CEO pay and investor value boosts case for shake-up'.***

The article referenced a report from the Lancaster University Management School[2], which found that although CEO pay in the FTSE-350 had increased by 82% over the 11 years to 2014, the median economic return on invested capital was less than 1%. Another widely quoted study by MSCI[3] found no correlation between levels of pay and total shareholder return (TSR) over ten years. The fact that levels of CEO pay have risen markedly since 2000 while the FTSE has remained broadly flat is another frequently quoted statistic that claims to show a failure of the linkage between pay and performance in FTSE companies.

These are important claims. CEO pay is a lightning rod for the public's distrust in big business. If CEOs are making huge sums regardless of performance, then this can be highly damaging to efforts to rebuild trust and may also mean that CEOs are not being incentivised in the right way to create long-term value.

We believe that there are some significant weaknesses in current norms of CEO pay programme design that need addressing. But we need to start from a proper analysis of the facts. In this paper we show that, properly analysed, using techniques that are standard in high quality academic research, pay is currently linked to performance more strongly than is generally assumed.

This is not an academic paper, and we do not hold it out as such. However, we will use simple analysis based on data for the FTSE-100 in order to illustrate some key academic findings about executive pay.

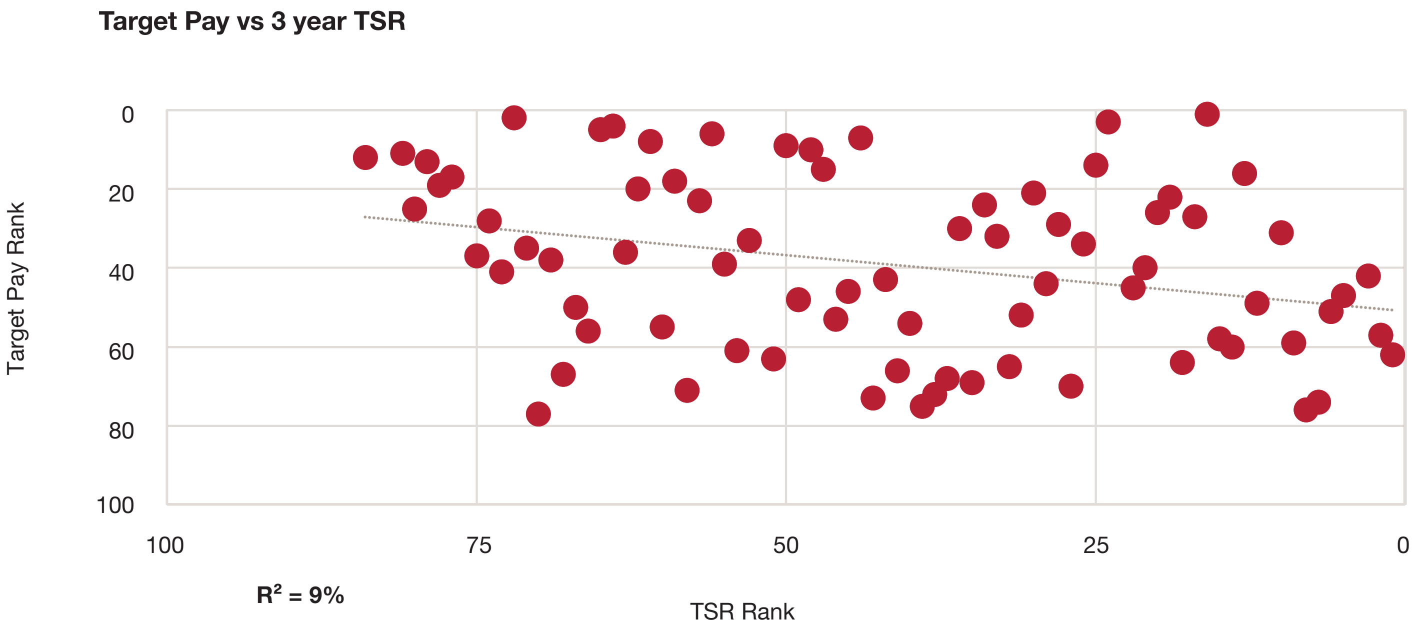
Our starting point is to look at the link between pay and performance for the FTSE-100 using a similar approach to that taken by MSCI. This compares TSR over the three years 2013 to 2015 to total target pay awarded at the start of the period. Note that this definition of pay assumes a 'typical' or 'target' level of achievement against performance criteria, and does not allow for the impact of share price growth on long-term incentives.

Both TSR and pay are volatile and outliers can distort analysis. To control for this, we compare the ranking in TSR over three years to the ranking in pay. We have looked at the 85 FTSE-100 companies for which we had data for 2013, 14, and 15 as at November 2016, so a company may be ranked between 1st (top) and 85th (bottom). The companies excluded are either those that have listed in the last three years or have September year ends and so did not have 2015/16 data available at the date of analysis.

2 Li, W. and Young, S (2016), 'An Analysis of CEO Pay Arrangements and Value Creation for FTSE-350 Companies', Report Commissioned and Funded by CFA Society of the United Kingdom

3 Marshall, R. and Lee, L.-E. (2016), 'Are CEOs paid for performance? Evaluating the effectiveness of equity incentives', MSCI Research Paper

Figure 1: Target CEO pay for the FTSE-100 compared with 3 year TSR rank



Source: PwC Database, Datastream

The same as MSCI, we find a very low and even slightly negative correlation, suggesting no link between pay and performance on this measure. This gives rise to the simple question: if higher pay doesn't lead to higher performance, then how can it be justified?

In fact, as shown in our publication *You can't buck the market,* there is no reason to expect a relationship between target pay and company performance. The well documented theoretical and empirical relationship is between target pay and company market value. In simple terms, the more valuable a company, the higher the stakes for its shareholders, and the higher the pay opportunity it is worth offering to get the right CEO. The analysis has started in the wrong place.

In the rest of this paper, we'll show how three adjustments completely change the picture and lead to quite different conclusions. The adjustments are:

- Using realised rather than awarded pay
- Adjusting for size
- Adjusting for the wealth incentives of previously granted equity

Realised rather than awarded pay

CEO pay is, unfortunately, complicated. Base pay, bonuses, and long-term incentives all pay out over different timeframes and according to different performance criteria.

CEO pay can be analysed as ***target pay*** or as ***realised pay***. Target pay is defined as the expected value of pay that a remuneration committee is awarding to an executive, assuming that bonus and long-term incentives are met at a 'target' level of performance. Target pay typically excludes share price growth, and is a good measure of what the remuneration committee believes it is awarding for a 'typical' or 'target' level of performance. By contrast, realised pay is based on the actual pay outcomes that crystallise for an executive, and take account of both the actual achievement against any performance conditions and any share price growth on long term incentives between the dates of grant and vesting.

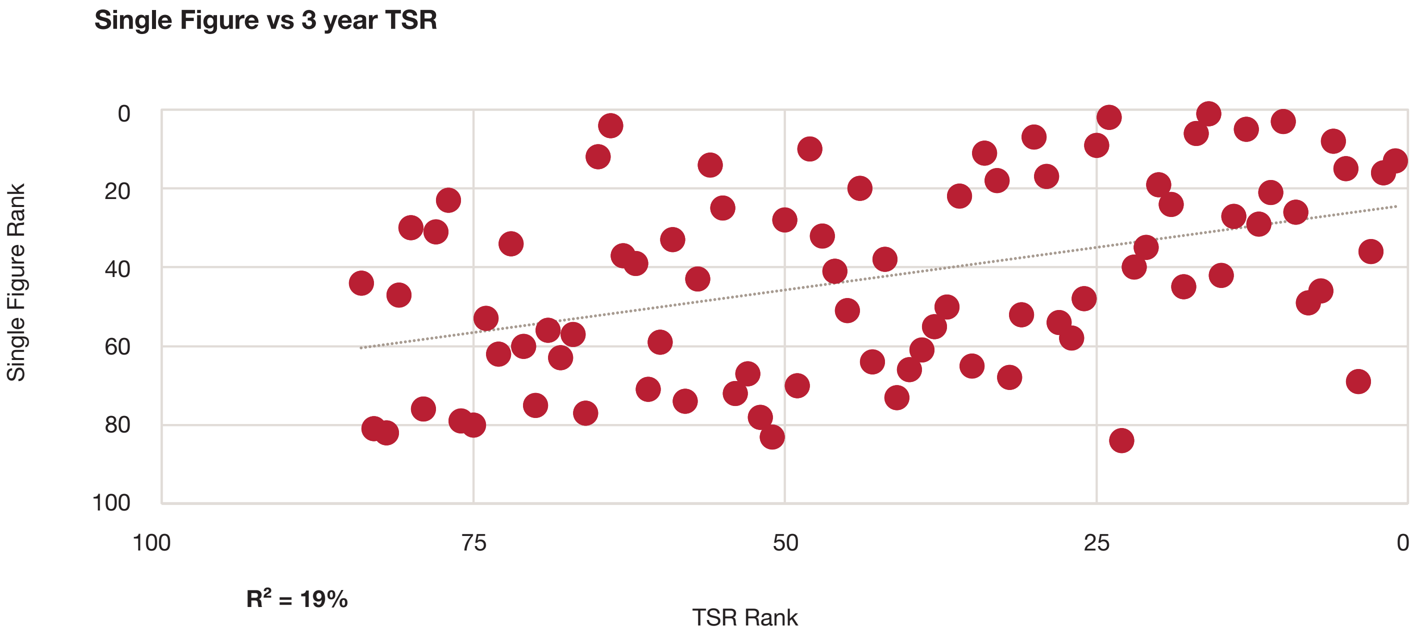
Target pay corresponds to the target pay disclosure required in the scenario charts in a company's remuneration policy. Realised pay corresponds to the single figure or remuneration reported each year in the annual report on remuneration.

As described above, the first mistake that can be made is to look for a relationship between performance and CEO target pay. However, performance linkage instead comes through performance conditions and through the fact the awards are made in shares, which vary in value with the company's share price.

In the chart below we replace target pay for each company by realised pay for the 2015 financial year. This comprises fixed pay (salary, pension, and benefits), bonus for 2015, plus long-term incentives vesting in respect of 2015 performance. Because the long-term incentive award applies for the three performance years 2013, 14, and 15 we continue to compare with three year TSR.

Note that US disclosure rules differ from those in the UK, and the Total Summary Pay figure used in the MSCI analysis is in effect a mixture of the target pay and single figure realised pay numbers used in the UK.

Figure 2: Realised CEO pay for the FTSE-100 compared with 3 year TSR rank



Source: PwC Database, Datastream

The R^2 is now 19%, meaning that we've explained about one-fifth of the variance in pay rank by performance. Better, but still very weak, and not much of a better advert for the pay-performance link. This type of analysis is at the heart of 'value for money' analyses produced by pay consultants, which purport to find the 'best value' CEO by comparing the value they add to what they are paid.

The problem is how to define value added. If we define it as percentage TSR, then this advantages smaller companies, which we know pay less than large companies, but have every much chance of creating high TSR. So should we define value added in absolute terms, i.e. the £ value added? This creates the opposite problem of advantaging large companies – this is because we know that a company double the size of another will only pay around a quarter more but will have the opportunity to add double the value.

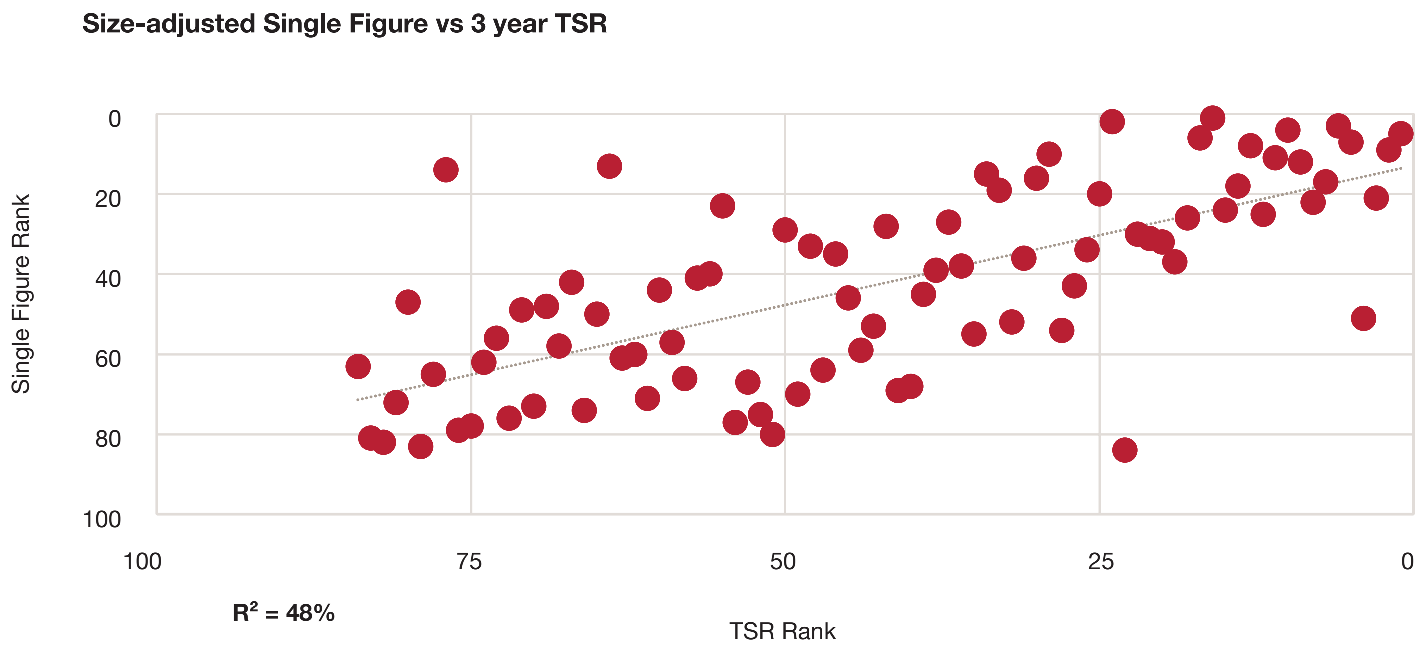
The MSCI study does not adjust for size, and so its result is almost certainly a consequence of the fact that small-caps (who pay less) outperformed large caps (who pay more) over the period of the study in the US. This says nothing about pay and performance. Comparing pay and performance without adjusting for this size effect will almost always produce spurious results that boil down to one of two truisms: big companies pay small than small ones; or a 1% return in a bigger company is worth more than a 1% return in a smaller one.

Adjusting for size

To address this we need to adopt a standard procedure in academic analysis, which is to adjust for size.

Because we know that a doubling in size typically leads to an increase in target pay of one quarter, we scale the pay of each company to allow for this size factor. By stripping out the known impact of company size, this allows us to focus on how pay varies, on a comparable basis, with performance.

Figure 3: Realised CEO pay, adjusted for size, for the FTSE-100 compared with 3 year TSR rank



Source: PwC Database, Datastream

Once we have stripped out the impact of size, nearly half of the remaining variation in pay rank is explained by performance. For the first time we have a chart that is visually indicative of a positive relationship. But much remains unexplained, and there is one final, very important factor, to take into account.

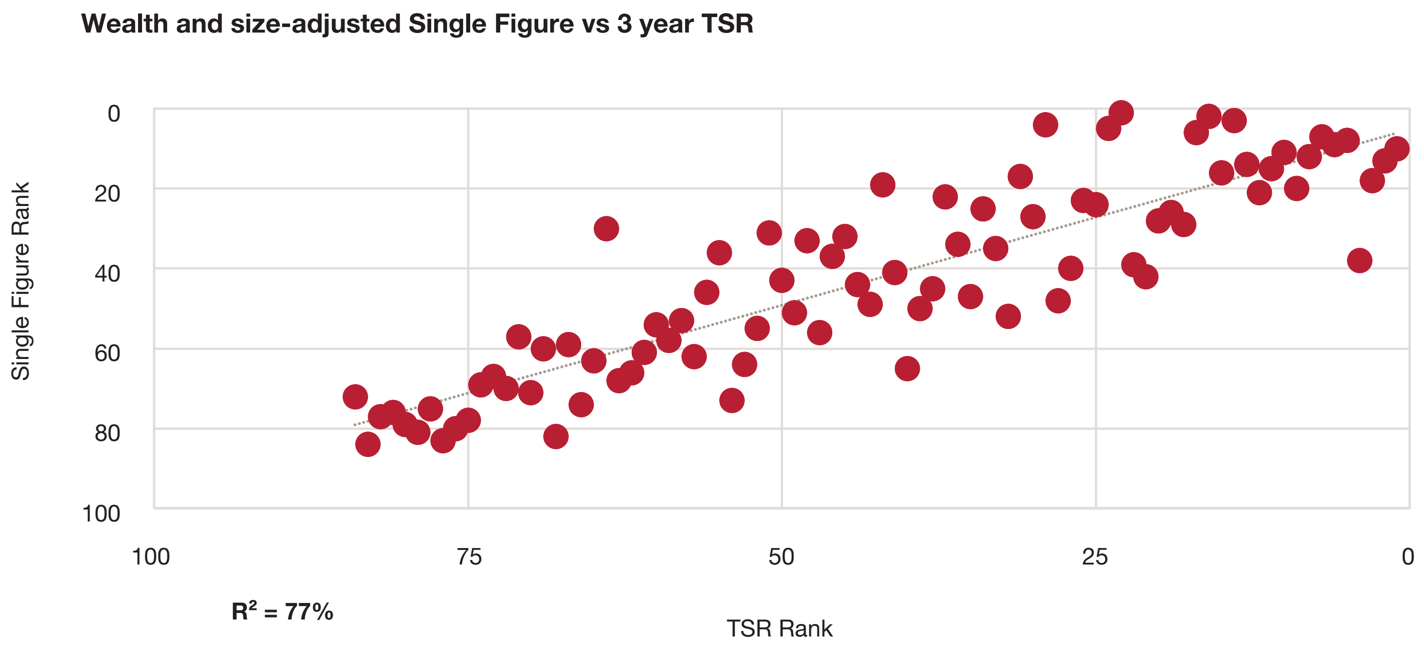
Most definitions of pay used by consultants and non-academic analysts focus on pay received or crystallised in a year, being the salary, benefits, bonus, and long-term incentives paid out or awarded. By contrast, academics recognise that incentives are driven not just by these flow measures of pay but also by the outstanding stock of share awards made to an executive in previous years. The combined impact of newly awarded pay and the change in value of previously granted shares gives the overall pay and wealth performance sensitivity for an executive. This more holistic measure of incentives is a requirement for any pay for performance analysis published in a top quality academic journal.

Adjust for previously awarded equity

Analysing pay using only flow measures of pay is a bit like analysing investment returns using dividends but ignoring capital gains. In other words, it makes no sense.

Disclosure rules mean that we can now estimate the wealth impact of share price movements on an executive over historic periods. For each of 2013, 2014, and 2015 we use the disclosed shareholding data to estimate the change in wealth (pre-tax equivalent) from previously vested shares and unvested deferred share awards not subject to performance conditions. We can then sum these to provide a total wealth adjustment over the three year period of analysis. Because each year of wealth adjustment could be attributed to three different three year periods, we adjust the 2015 single figure of pay by one third of this amount. This means that as we look at pay across years, we do not double count any pay or wealth incentive element. If we take all of, rather than one-third of, the wealth adjustment then we do not change the results shown here to any material degree.

Figure 4: Target CEO pay, adjusted for size and wealth effect of previously granted equity, for the FTSE-100 compared with 3 year TSR rank



Source: PwC Database, Datastream

Using realised pay, and adjusting for size and previously awarded equity means that we have now explained nearly four-fifths of the variation in pay rank by performance. This is now an extremely strong relationship, and this is before other common controls that academics might apply, for factors such as industry, leverage, package mix, and corporate governance strength.

We do not claim academic standards of rigour for the analysis in this paper. But it shows how application of standard academic research techniques results in a very different conclusions compared with a more simplistic approach.

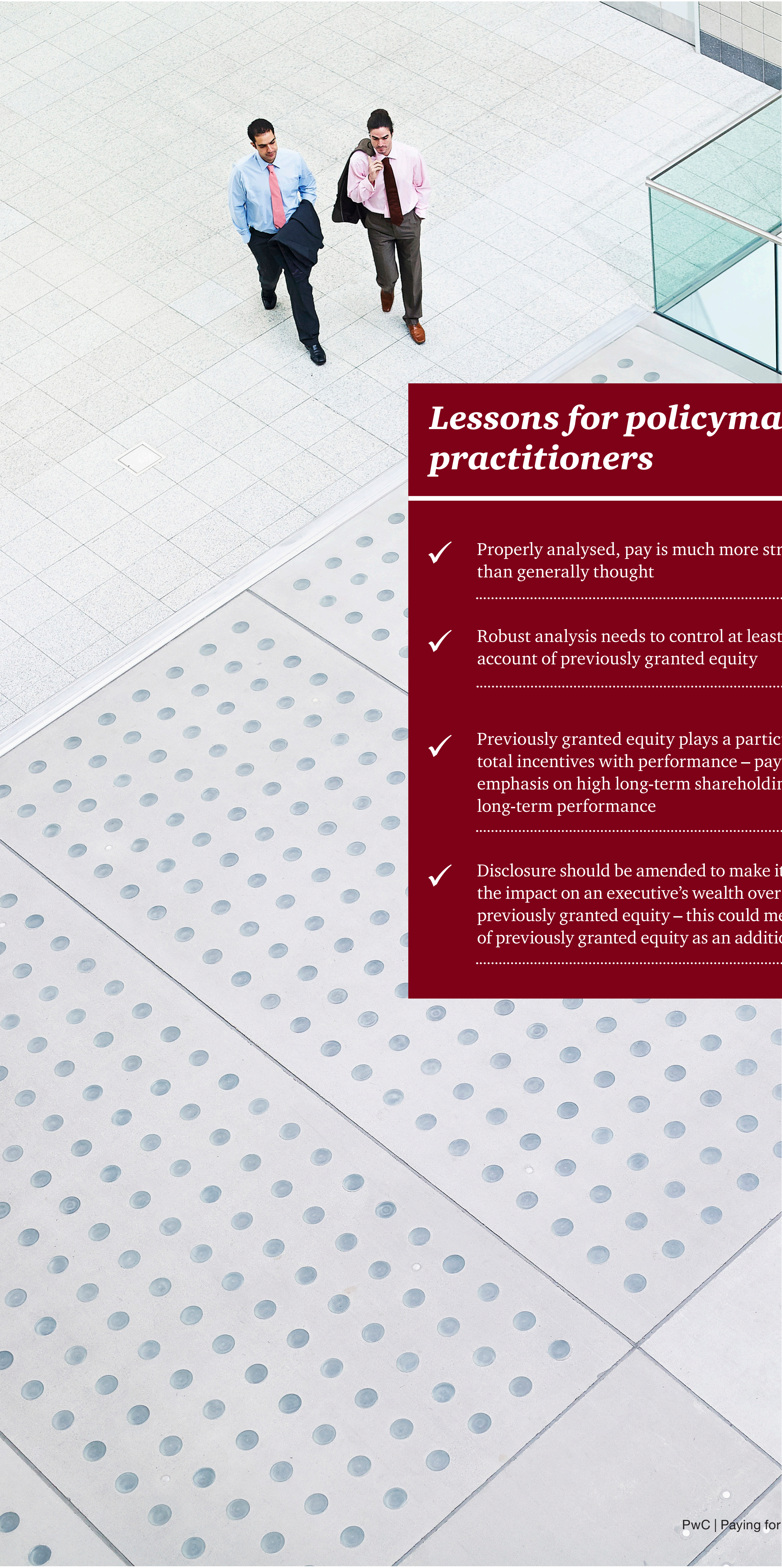
Bringing it all together

- As predicted by theory (and well documented empirically) there is no strong relationship between target levels of CEO pay and company performance – expected pay instead depends on company size.
- Even the relationship between realised pay and TSR is quite weak, because the impact of company size on pay creates a distorting factor, and because flow measures of pay ignore the impact of previously granted equity, which is a very significant component of total pay incentives.
- Adjusting for both size and the wealth effect of previously granted equity means we can explain nearly 80% of the variation in pay by reference to TSR performance.

Correlation between pay and performance

Pay	Performance
Measure of Pay	R-squared
Target pay	9%
Realised pay	19%
Size-adjusted realised pay	48%
Size and wealth-adjusted realised pay	77%

Executive pay is an emotive topic. As with most such topics, opinion is polarised. Much of the commentary about executive pay is strongly critical. Some criticism is justified, but we need to assess the problem based on robust analysis or evidence. Otherwise we'll just come up with faulty prescriptions for a misdiagnosed illness. As we show, here, the link between pay and performance over the short term is stronger than commonly assumed. There's a valid question about whether three years is long enough. And target driven pay plans can encourage short term behaviour to meet the targets set. Executive pay certainly needs reform. But the status quo is not as unremittingly bad as is often assumed.



Lessons for policymakers and practitioners

- Properly analysed, pay is much more strongly linked to performance than generally thought
- Robust analysis needs to control at least for company size and must take account of previously granted equity
- Previously granted equity plays a particularly important role in aligning total incentives with performance – pay design should place more emphasis on high long-term shareholding to create incentives for long-term performance
- Disclosure should be amended to make it easier for investors to monitor the impact on an executive's wealth over time of changes in the value of previously granted equity – this could mean showing the change in value of previously granted equity as an additional item in the single figure table

Contacts

Fiona Camenzuli

T: +44 (0)20 7804 4175
M: +44 (0)7739 876723
E: fiona.camenzuli@uk.pwc.com

Sean Drury

T: +44 (0)20 7212 5552
M: +44 (0)7715 771294
E: sean.drury@uk.pwc.com

Dean Farthing

T: +44 (0)20 7212 5323
M: +44 (0)7739 873164
E: dean.farthing@uk.pwc.com

Tom Gosling

T: +44 (0)20 7212 3973
M: +44 (0)7714 226430
E: tom.gosling@uk.pwc.com

John Harding

T: +44 (0)161 247 4542
M: +44 (0)7801 042607
E: john.l.harding@uk.pwc.com

Daniel Harris

T: +44 (0)1293 594547
M: +44 (0)7771 974777
E: daniel.harris@uk.pwc.com

Phillippa O'Connor

T: +44 (0)20 7213 4589
M: +44 (0)7740 968597
E: phillippa.o.connor@uk.pwc.com

Marcus Peaker

T: +44 (0)20 7804 0249
M: +44 (0)7808 404044
E: marcus.peaker@uk.pwc.com

Julian Sansum

T: +44 (0)20 7212 1652
M: +44 (0)7919 057454
E: julian.a.sansum@uk.pwc.com

Jon Terry

T: +44 (0)20 7212 4370
M: +44 (0)7720 555397
E: jon.p.terry@uk.pwc.com

Paul Wolstenholme

T: +44 (0)20 7212 6225
M: +44 (0)7956 464102
E: paul.wolstenholme@uk.pwc.com

Alastair Woods

T: +44 (0)20 7804 8102
M: +44 (0)7834 250359
E: alastair.woods@uk.pwc.com

Tim Wright

T: +44 (0)20 7212 4427
M: +44 (0)7899 958330
E: tim.wright@uk.pwc.com

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