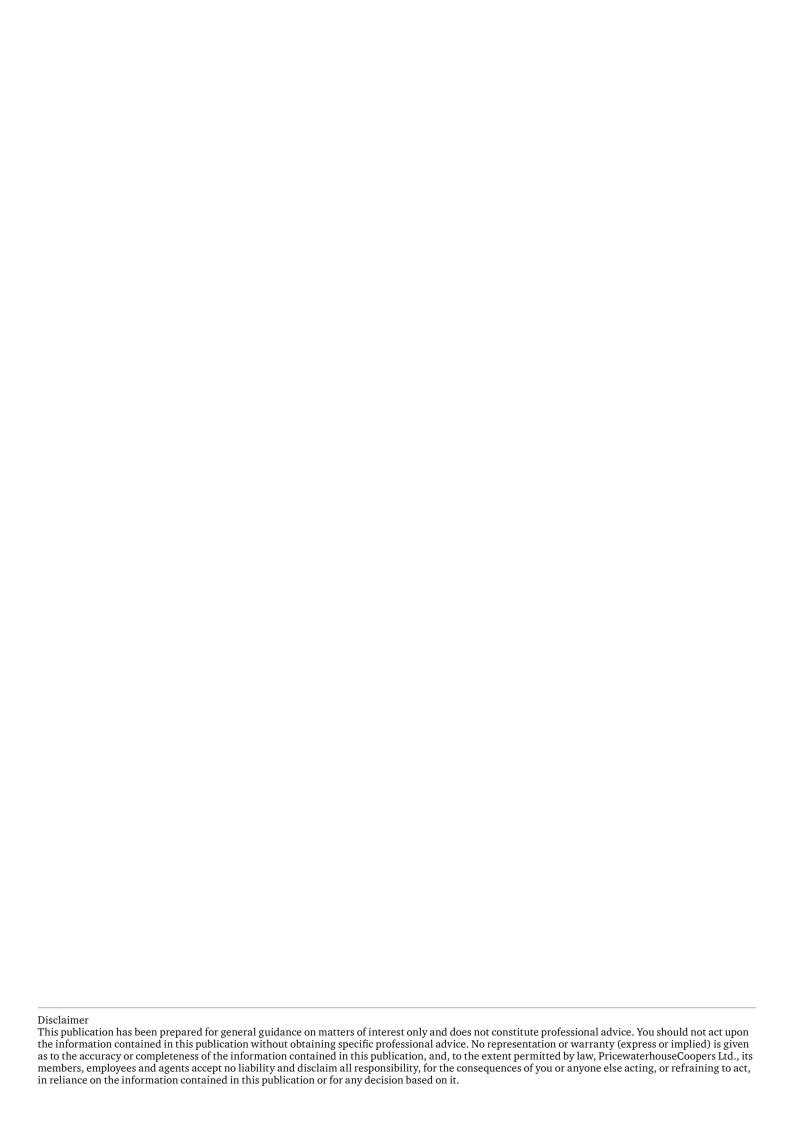
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Executive Compensation & Corporate Governance

A study examining compensation in SMI, SMIM and small-cap companies as well as trends in corporate governance

Insights 2016





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1 The Study

We are delighted to present the tenth anniversary edition of our study "Executive Compensation & Corporate Governance". This study is one of the most detailed Swiss studies available on the level and structure of board and executive compensation for the years from 2007 to 2015. This report provides a comprehensive picture of executive compensation for SMI, SMIM and small-cap companies in Switzerland today. We hope you find this breadth of perspective helpful.

The key insights this year are: firstly, compensation of the chairman, other members of the board of directors, CEOs and other executives of SMIM companies has been catching up with SMI companies over the last 9 years and it has been growing faster than compensation in small-cap companies. Secondly, equity-based pay is gaining in importance, especially in large and medium-sized companies. Thirdly, three distinct sources of managerial incentives to create value are playing a potentially powerful role: a direct pay-performance sensitivity, an executive turnover-performance sensitivity and share ownership, i.e. a wealth-performance sensitivity.

Because compensation plans can be difficult for shareholders to understand, the importance of compensation reports (and annual general meeting materials) in explaining the mechanics underpinning these plans continues to increase. There is not, however, a single "best practice" in information disclosure. Instead, boards of directors, executive management and investors, in particular institutional investors such as pension funds, have a responsibility to consider how in a given company

compensation should be designed and disclosed. An ongoing dialogue between boards of directors, investors and other stakeholders remains essential for fostering the long-term positive development of companies.

All compensation data used in this study is based on disclosed compensation and governance information in the annual reports of the companies reviewed. We have not made any assumptions or adjustments to the disclosed values and methodologies used, in particular with regard to variable compensation (valuation, vesting clauses, timing of disclosure and earning periods, etc.).

We hope that you will find "Executive Compensation & Corporate Governance: Insights 2016" to be an interesting read that will support you in answering key questions and will provide ideas for addressing today's reward challenges. As always, we welcome your feedback and hope to have an opportunity to discuss these issues with you.

Dr. Robert W. Kuipers Partner

12. Clufes

Remo Schmid Partner

2 Executive Summary

This study examines the following topics: (1) changes from 2007 to 2015 in the absolute level of total compensation for the board of directors and CEOs of SMI, SMIM and small-cap companies, (2) the structure of board and executive compensation, (3) the relative changes in compensation across and within these companies, (4) the direct and indirect power of incentives, and (5) communication about board and executive compensation.

The key findings are:

- In the nine years under review (from 2007 to 2015), median non-executive chairmen's compensation has increased in both SMI and SMIM companies by 33.6% from slightly below CHF 1 million to slightly above CHF 1.3 million in SMI companies and by a striking 84.2% from around CHF 380,000 to around CHF 710,000 in SMIM companies. While SMI chairmen's compensation had remained essentially constant between 2012 and 2014, in the most recent year it increased strongly (+18.8%). In SMIM firms, while remuneration had fluctuated significantly over the past years and increased substantially from 2013 to 2014, it stayed largely flat from 2014 to 2015. In small-cap firms (the next largest 50 companies), median chairmen remained at around CHF 310,000 this year. Median small-cap chairmen's compensation in 2015 is 6.2% below the level of 2007; however, since 2008 it has increased by 18.3%.
- The remuneration of other members of boards of directors has increased since 2007 in all three groups of companies, though to varying extents. In 2015, the median board member of an SMI company received about CHF 310,000 (+4.3% since 2007), the median board member of an SMIM company about CHF 230,000 (+33.3% since 2007), and the median board member of a small-cap firm about CHF 120,000 (+12.3% since 2007).
- The median and average **CEO total compensation** of SMI companies is lower than in 2007, while the median in SMIM companies is higher than in 2007 and the average virtually unchanged. Median compensation in small-cap firms is above the 2007 level, while the average is below 2007. Over the nine years under review, median CEO compensation has decreased in SMI companies by 10.3% from CHF 7.7 million to CHF 6.9 million, decreasing last year by about 7%. Median CEO total compensation increased in SMIM companies in the past year by 5% to CHF 3.6 million. Median SMIM CEO compensation is now 25.4% above the 2007 level. As for the

- small-cap firms, in the last few years we had observed increases across the whole group. In this context, it is surprising that median CEO total compensation of small-cap CEOs declined last year by 9.7% to CHF 1.2 million (3.9% above 2007), and indeed the whole distribution shifted down. For all three company groups, 2007 appears to have experienced unusually high executive compensation. Taking 2008 as the reference year, median CEO total compensation increased up to 2015 by 30.3%, 44.3% and 9.6% for SMI, SMIM and small-cap companies respectively.
- Combining these facts, in the past 9 years board and executive compensation in SMI and SMIM companies has converged. In 2007, the median chairman, board member, CEO and other executive in an SMI company received respectively about 2.6, 1.8, 2.7 and 2.9 times more than a counterpart in an SMIM company. In the meantime, these ratios have declined and in 2015 are 1.8, 1.4, 1.9 and 1.9 respectively. One interpretation of these intriguing findings is that while the job of a board member or executive at a very large company has always been very demanding, it is, relatively speaking, in medium public corporations where the greatest additional demands on the competencies and efforts of board members and executives have more recently surfaced. By contrast, SMIM and small-cap companies appear to be diverging: the ratios mentioned have increased from 1.2, 1.6, 2.4 and 1.8 in 2007 to 2.3, 1.9, 2.9 and 2.2 in 2015.
- Our analysis reveals interesting dynamics in the composition of CEO remuneration, with a general rise in equity-based compensation. In SMI companies over the years, base salary has rarely accounted for more than 30% of the total, the equity-based element never less than 30% (and often close to, or more than, 40%). Indeed, the average percentage of equity-based compensation has been increasing steadily over the years, from 37% in 2007 to 48% in 2015. At the median, the trend is even more pronounced, from 32% to 49%. In SMIM companies, from 2008 to 2012 base salary (around 35-40%) was a much more important component of compensation than equity-based compensation (around 25%). But these companies, too, are tending towards increased use of equity-based pay for their CEOs. As a consequence, in 2013 to 2015 equity-based pay and base salary both represented around 30% of total compensation. In small-cap companies, equity-based compensation is still at a low level, less than 20%, and has not increased noticeably over the survey period. Here, as a rule more than 40% of total compensation derives from base salary.

- We provide evidence on three components of incentives: direct pay-for-performance, indirect career incentives and wealth incentives. Firstly, in the top tercile of total shareholder return relative to the industry, variable CEO compensation increases year-on-year by 7.5% at the median; in the bottom tercile of industry-adjusted share performance, it falls by 6.6%. Secondly, in the top tercile of performance, the probability of **CEO turnover** is 12.5%; in the bottom tercile, it is 20.5%. Thirdly, the "wealth lever" can play an important role. While in 2007, the median ratio of equity wealth to base salary was around 1.8 in the overall sample, this ratio has increased steadily to 4.3, with a particularly strong increase in the SMI companies. In sum, our analysis suggests that value creation can be associated with substantial income and wealth changes for executives, but so can value destruction. In this report, we discuss in detail interesting differences among the three groups in all three dimensions.
- In votes on compensation reports, shareholders are more critical when pay-for-performance is lacking (that is, when variable compensation increases in the face of poor relative share price performance). Communication with shareholders, especially in difficult times, either through the compensation report or through the materials prepared for the annual general meeting (AGM), is becoming increasingly important.

3 Board and Executive Compensation Levels

In this section, we analyse and comment on the level of compensation for chairmen, other board members and CEOs. We cover SMI, SMIM and small-cap companies. ¹⁾ This section lays the foundation for further analysis, but we emphasise that a view of top management compensation in Switzerland that focuses only on absolute compensation levels is incomplete and has to be complemented by an analysis of compensation structure (Section 4), relative compensation levels (Section 5), implicit and explicit incentives (Section 6), and communication related to compensation (Section 7).

3.1 Chairmen

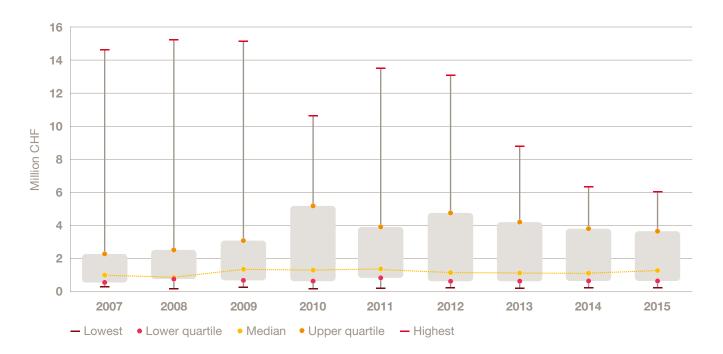
As the structure of the board of directors and the responsibilities as well as the tasks for members of the board of directors vary, of the chairman in particular, it is difficult to make a straight comparison of chairmen's compensation. Nevertheless, a comparison has been undertaken based on the compensation data disclosed. Some companies disclose the remuneration that

a chairman/CEO receives in the two roles separately. In this case, we include the chairman's remuneration in this section and the CEO compensation in the CEO-related analysis. If compensation is not reported separately for the two roles, the person is considered only in the CEO analysis. We also do not include chairmen who held a non-CEO executive role in this analysis, unless compensation for the executive function is disclosed separately.

3.1.1 Main findings

Over the nine years under review, median chairmen's compensation has increased in both SMI and SMIM companies, from CHF 981,479 to CHF 1.3 million (33.6%) in SMI companies and from CHF 384,327 to CHF 707,735 (84.1%) in SMIM companies. Last year, median chairmen's compensation in SMI companies increased by 18.8%. In small-cap companies, over these nine years chairmen's compensation fell by 6.2%, from CHF 334,000 to 313,367; however, 2007 appears to have been unusual and small-cap chairmen's compensation fell to CHF 265,000 in 2008, since when it has increased steadily.





¹⁾ In particular, we also consider the companies ranked 51st to 100th in terms of equity market capitalisation at the end of the year. Essentially, our study covers those 50 companies in the SPI Large and SPI Mid indices (which together contain 100 companies) that are not in the SMI and the SMIM. We refer to these companies in total as small-cap companies.

²⁾ Compensation for non-executive function (n = 18 in 2015)

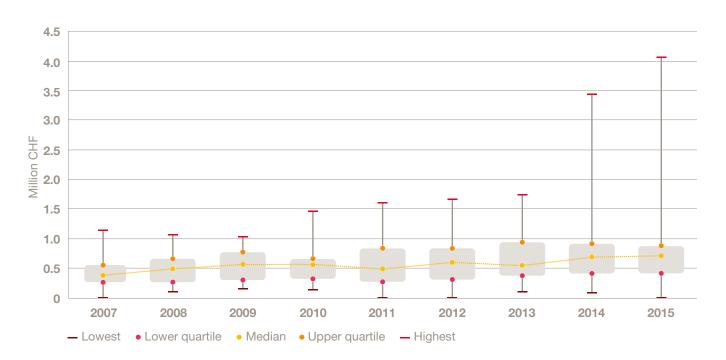
3.1.2 Details for SMI companies

From 2014 to 2015, the median SMI chairmen's compensation increased quite strongly, from CHF 1.1 million to CHF 1.3 million, almost reaching the all-time high of 2011. At the same time, the upper quartile decreased by 3.0% to CHF 3.7 million and the compensation of the highest paid chairman fell by 4.7% to CHF 6.0 million. In contrast, the lower quartile remained essentially unchanged at CHF 639,772, as did the compensation of the lowest paid chairman at CHF 231,294 (see Figure 1).

3.1.3 Details for SMIM companies

For SMIM chairmen, compared with the previous year the changes in distribution in the most recent year were very small. However, over a longer period, substantial changes are discernible. All quantiles in the distribution (except the lowest paid) have increased substantially since 2007, namely 53.6% (lower quartile), 57.7% (higher quartile) and 84.1% (median). In 2015, the highest compensated SMIM chairman received CHF 4.1 million, an 18.2% increase over 2014 (see Figure 2).

Figure 2: Total compensation of chairmen in SMIM companies³⁾

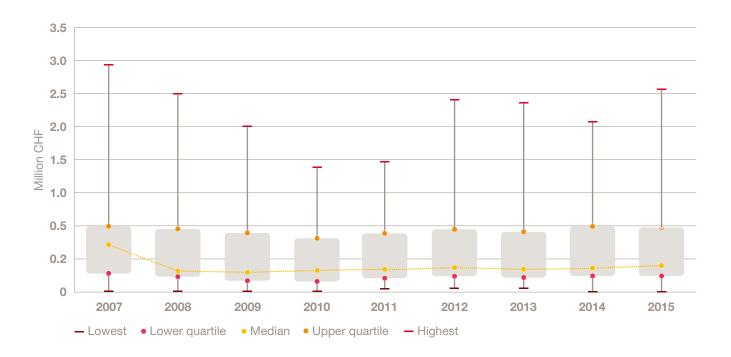


³⁾ Compensation for non-executive function (n = 22 in 2015)

3.1.4 Details for small-cap companies

For small-cap chairmen, the comparison of 2007 with 2015 compensation levels seems to suggest that an increase took place over the years in the lower quartile (+45.6%), but not in the median (-6.2%) and the upper quartile (-0.7%). However, the year 2007 is arguably a special reference year. Comparing small-cap chairmen's compensation in 2008 with 2015 indicates that there were increases everywhere: by 21.9% from CHF 194,500 to CHF 237,000 in the lower quartile, by 18.3% from CHF 265,000 to CHF 313,367 in the median and by 8.5% from 436,550 to CHF 473,673 in the upper quartile. In the most recent year, except for a sizeable 22.8% increase for the highest paid, there have been few changes (see Figure 3).

Figure 3: Total compensation of chairmen in small-cap companies⁴⁾



⁴⁾ Compensation for non-executive function (n = 46 in 2015)

3.2 Other members of the board of directors

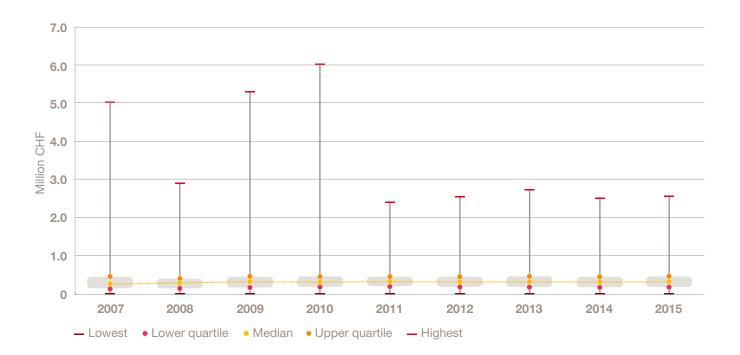
3.2.1 Main findings

In 2015, the median board member in an SMI company received about CHF 310,000, approximately 37% more than the median board member of an SMIM company who received about CHF 226,000. Compensation levels of SMI board members have been increasing (+4.3%) gradually in a relatively small range for the years 2007 to 2015. For SMIM board members, a pronounced increase took place across the distribution (+33.3% in the median). The median board member of a small-cap firm received about CHF 120,000 in 2015 (+12.3% since 2007).

3.2.2 Details for SMI companies

The lower quartile amounted to CHF 226,987 and the upper quartile to CHF 394,000 with small changes compared with last year, namely a decrease of 2.31% and an increase of 2.5% respectively. The median amounted to CHF 309,948 (an increase of 0.8% from last year). The highest amount has varied a lot over the years. In 2015, it remained similar to last year, with a small decrease of 1.5% to CHF 2.5 million. The median increased slightly from CHF 297,059 in 2007 to CHF 309,948 in 2015 (+4.3%), although it had reached somewhat higher levels in interim years (see Figure 4).

Figure 4: Total compensation of other members of the board of directors in SMI companies⁵⁾

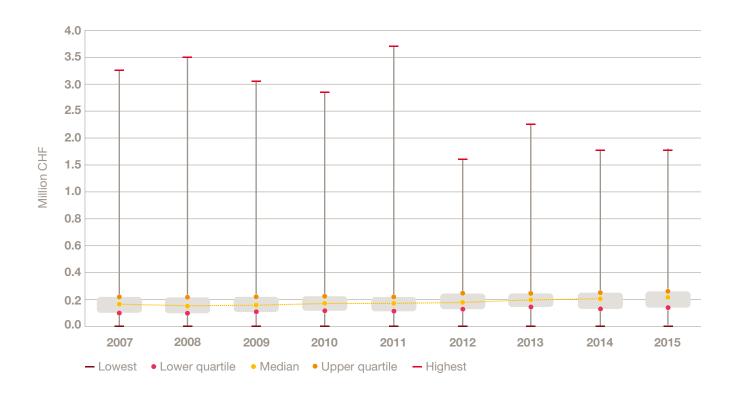


⁵⁾ Chairman and executive functions excluded (n = 183 in 2015)

3.2.3 Details for SMIM companies

The pay distribution of SMIM board members shifted upwards in 2015 relative to 2014. The lower quartile now amounts to CHF 159,250 (+22.2% relative to 2014), and the upper quartile to CHF 286,813 (+12.8%), i.e. in 2015 half of the SMIM board members received compensation in this range. The median increased from CHF 169,500 in 2007 to CHF 226,000 in 2015 (+33.3%), continuing its fairly steady increase over the years (see Figure 5).

Figure 5: Total compensation of other members of the board of directors in SMIM companies⁶⁾

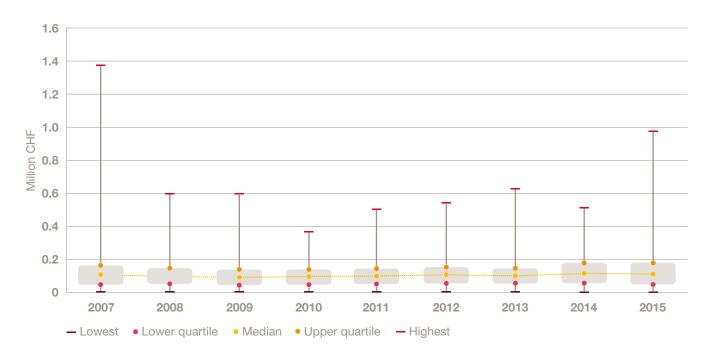


 $^{^{6)}}$ Chairman and executive functions excluded (n = 190 in 2015)

3.2.4 Details for small-cap companies

The compensation of small-cap board members remained fairly stable from 2014 to 2015, with the median remaining essentially unchanged at CHF 122,000. The lower quartile amounted to CHF 84,403 and the upper quartile to CHF 169,000 with small changes compared with last year, namely an increase of 1.7% and a decrease of 2.2% respectively. Over the nine years, the lower quartile, the median and the higher quartile have all increased by 29.9%, 12.3% and 17.7% respectively (see Figure 6).

Figure 6: Total compensation of other members of the board of directors in small-cap companies71



⁷⁾ Chairman and executive functions excluded (n = 190 in 2015)

3.3 CEOs

3.3.1 Main findings

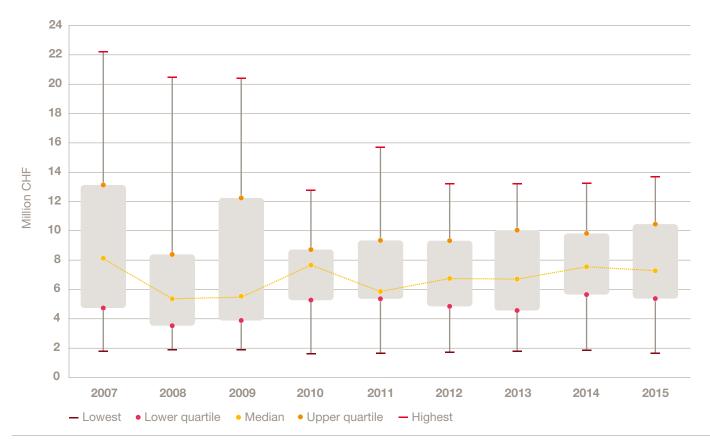
The year 2015 shows that total compensation of CEOs in SMI and SMIM companies has continued to converge. Specifically, comparing 2015 with 2014, the median compensation of SMI CEOs decreased by 7.0 % from CHF 7.5 million to CHF 6.9 million. Over the sample period from 2007 to 2015 median CEO total compensation in SMI companies fell from CHF 7.7 million to CHF 6.9 million, or by 10.3%, although if one takes 2008 as the reference year, when compensation was CHF 5.3 million, compensation has increased by 30%. By contrast, median SMIM CEO compensation increased by 5.0% from CHF 3.4 million to CHF 3.6 million from 2014 to 2015. Over the whole period, median CEO total compensation in SMIM companies increased from CHF 2.8 million in 2007 to CHF 3.6 million in 2014 (+25.4%). Taking 2008 as the reference year, in this case also, when median compensation was CHF 2.5 million, the increase was 44.3%. Small-Cap CEO compensation has remained

comparatively stable. The median small-cap CEO received CHF 1.2m in 2015, down 9.7% from 2014 and very similar to the CHF 1.2m in 2007, but 9.6% above the CHF 1.1m in 2008. In general, we note that companies have different approaches to their treatment of so-called replacement awards. We discuss this in Section 7.

3.3.2 Details for SMI companies

Comparing 2015 with 2014, the median compensation of SMI CEOs decreased by 7.0% from CHF 7.5 million to CHF 6.9 million. The lower quartile decreased even more, by 15.3% to CHF 4.7 million, whereas the upper quartile increased to CHF 11.2 million (+13.9%). The mix of these developments means that the average total compensation increased by 3.1% to CHF 7.8 million, substantially above the median. The average total compensation is still significantly below the figure for 2007 (CHF 9.4 million, -17.3%) but above 2008 (CHF 7 million, +11.5%) (see Figure 7).

Figure 7: Total compensation of CEOs in SMI companies8)

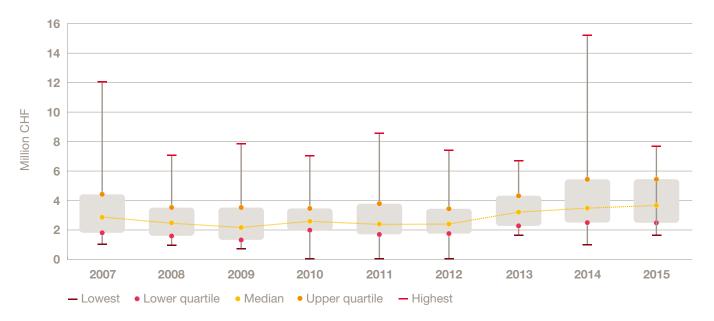


⁸⁾ n = 17 in 2015. In 2015, there was no (in 2014: one) company in which a member of the executive board other than the CEO received the highest total compensation. In 2008 and 2010, the highest paid disclosed person in the whole sample was not a CEO. In these firms the compensation of the CEO was not disclosed and so could not be used in figure 7. Leaving CEOs are not included in this calculation. Co-CEOs are averaged and treated as one observation.

3.3.3 Details for SMIM companies

In SMIM companies median CEO total compensation increased in the past year by 5.0% to CHF 3.6 million. There was very little movement in the lower and upper quartiles (remaining at CHF 2.4 million and CHF 5.3 million respectively). Thus, the whole distribution in 2015 is substantially above that for 2007 (except for the highest amount) and even more substantially above the distribution for 2008 (including the highest amount). Lowest, lower quartile, median, higher quartile and highest have increased since 2008 by 35.5%, 51.5%, 44.3%, 51.9% and 8.5% respectively. The highest amount in 2015 (CHF 7.7 million) is more in line with prior years than was the unusual 2014. Average total CEO compensation in SMIM companies is now at approximately the same level as in 2007, CHF 3.9 million (see Figure 8).

Figure 8: Total compensation of CEOs in SMIM companies9)

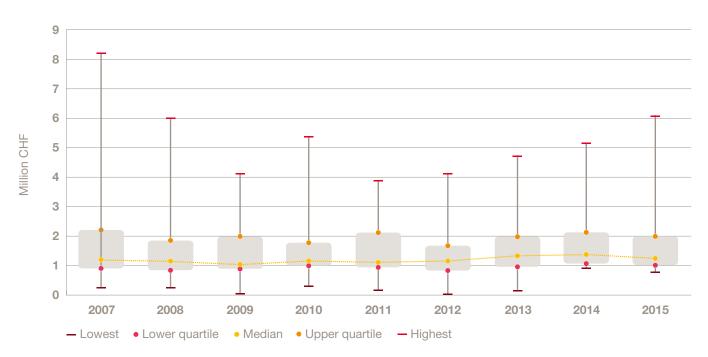


 $^{^{9)}}$ CEOs (exclusive highest paids). n = 27 in 2015. Co-CEOs are averaged and treated as one observation.

3.3.4 Details for small-cap companies

The median CEO of a small-cap company received CHF 1.2 million in 2015, 9.7% less than in 2014, but 3.9% more than in 2007. Indeed, the year 2015 brought pay decreases across the whole small-cap sample (-24.2%, -7%, -9.7%, -6.7% for the lowest-paid, lower quartile, median and upper quartile respectively), except for the highest-paid (+16.5%). It remains to be seen if this is a temporary development (see Figure 9).

Figure 9: Total compensation of CEOs in small-cap companies¹⁰⁾



n = 46 in 2015. In 2013, one company, which was included in the SPI Large index but not in the SMI or SMIM indices is not included in this study, as we do not consider it to be representative for the sample we wish to study.

4 Board and Executive Compensation Structure

As in previous years, we have analysed the structure of the average total compensation as we believe this provides important insights in addition to those provided by analysis of the level. Indeed, we refer the reader to the analysis in our "Insights 2015" study, where we provided a detailed analysis of the link between the composition and the level of compensation. As we emphasised in that study, compensation benchmarking without paying attention to differences in structure is flawed. Unfortunately, in their compensation reports so far, companies have rarely presented a discussion of whether the companies with which they are benchmarking are in fact using similar compensation structures. We urge companies to change this practice. The data provided in this study, and further analysis available on request, can aid companies in this endeavour.

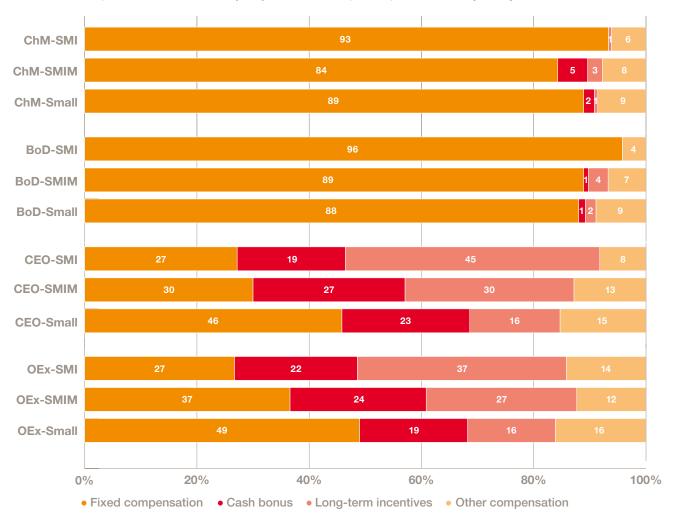
4.1 Board members and executives

By and large, when comparing the fixed versus variable compensation structure for different functions, board members on the one hand and executives on the other, a similar picture emerges for SMI, SMIM and small-cap companies. However, some differences are apparent, especially among executives. In this analysis fixed compensation means the sum of compensation paid in cash and non-performance-related equity based compensation.

Figure 10 illustrates that on average, for chairmen and other board members, the largest part of their total compensation, between 90% and 100%, comes from fixed and other compensation. This is true for all three groups of companies.

By contrast, for CEOs and other executives of SMI and SMIM companies, only between 35% and 50% of total compensation derives from fixed and other compensation. For them, variable pay (either cash bonuses or equity-based long-term incentive plans) make up the biggest portion, between 50% and 65% of the total compensation package. For small-cap executives, variable pay plays a somewhat smaller role, but is still significant, between 40% and 50%. For them, the fixed portion accounts for between 50% and 60% of total compensation.

Figure 10: Overview of compensation structure of chairmen (ChM), other members of the board of directors (BoD), CEOs, and other executives (OEx) in 2015 in SMI, SMIM, and small-cap companies

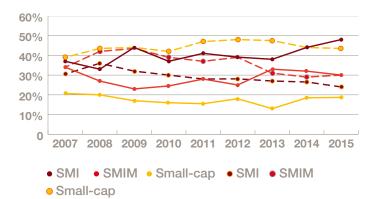


4.2 Trends in CEO compensation structure

This section analyses the composition of CEO compensation over time. It focuses on two questions that are often raised: what are the developments in the role of base salary? And, also in the light of pressures by international shareholders, has the compensation structure been shifting towards equity? This analysis combines all types of equity-based pay (whether fixed or variable) into one category. (This provides a slightly different perspective than Figure 10.)

The patterns visible in Figure 11 are remarkable. Visually (a) for SMI companies the maroon solid and dashed lines diverge, (b) for SMIM companies the red solid and dashed lines diverged briefly at the beginning of the survey period but have since converged and indeed crossed, (c) for small-cap companies, the yellow solid and dashed lines are mostly parallel. What this means is that for CEOs in SMI companies, equity-based compensation has almost always been more important than base salary and has further increased in importance; for CEOs in SMIM companies, in the last 7 years (since 2009), while equity-based compensation started as being far less important than base salary, equity-based pay has increased in importance; and for small-cap CEOs, the compensation structure has remained mostly stable, with base salary always being far more important than equity-based compensation.

Figure 11: Development of the percentages of average base salary (dashed lines) and of equity-based compensation (solid lines) in total compensation of CEOs in SMI, SMM, and small-cap companies



In detail, in 2015 for CEOs in SMI companies the average total compensation was split into 24.0% base salary, 19.3% cash bonus, 48.4% equity-based compensation and 8.3% other compensation. In SMI companies, base salary is now at its lowest percentage level ever and equity-based compensation at its highest level.

In SMIM companies we also observe changing composition dynamics. In SMIM companies, for 2015 the average total CEO compensation was split into 29.2% base salary, 27.5% cash bonus, 32.7% equity-based compensation and 12.8% other compensation. In SMIM companies, therefore, base salary is at a much lower level than it was at the beginning of the survey period (leaving aside the arguably special 2007). In the past three years, equity-based compensation has overtaken base salary in importance, although in the most recent year it declined moderately.

As discussed in Section 5 in more detail, these changes in compensation structure must be borne in mind when interpreting the relative development of levels of executive compensation in SMI and SMIM companies.

Finally, in small-cap companies, for 2015 the average total CEO compensation was split into 43.8% base salary, 22.8% cash bonus, 18.1% equity-based compensation and 15.3% other compensation. This split has remained largely constant over the years.

Board and Executive Compensation Ratios

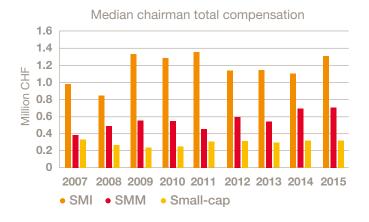
Section 3 described the absolute development of compensation. This section, by contrast, considers its relative development. Section 5.1 studies relative compensation across firms. Section 5.2 then looks within firms.

5.1 Ratios of board and executive compensation across firms

We begin by providing in Figure 12 a summary of the development of median total chairmen's and CEO compensation in the three groups of companies under consideration. This repeats

information contained in Section 3, but it emphasises visually that there are substantial differences in compensation levels across firm size groups. As we discuss in more detail in Section 6.2, these compensation level differences can induce significant "career concern" incentives. While it is quite clear that such differences exist, it is harder to see from these graphs alone just how these differences have developed over time. Shedding light on this development is important, because it can reveal to companies how the market's consideration of appropriate relative pay levels in attracting competent board and executive committee members from other companies changes over time. Therefore, in Figure 13, we plot the ratios of median chairman and CEO total compensation and also include other board members and other executives in the illustration.

Median chairman and median CEO total compensation Figure 12:



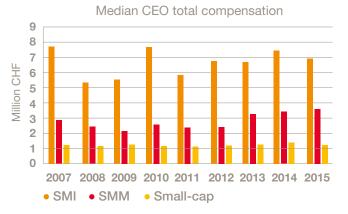
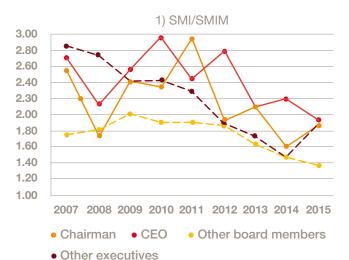


Figure 13: Ratios of median chairman, board member, CEO and other executive pay



2) SMIM/Small-cap 3.00 2.80 2.60 2.40 2.30 2.00 1.80 1.60 1.40 1.20 1.00 2007 2008 2009 2010 2011 2012 2013 2014 2015 • Chairman • CEO Other board members

Figure 13 reveals a striking picture. The basic observation to be made is that the ratios are declining in panel 1) and rising in panel 2). Overall, the past 9 years show a convergence in board and executive compensation between SMI and SMIM companies. In contrast, a divergence between SMIM and small-cap companies appears to be developing.

Panel 1) shows that in 2007 the median chairman of an SMI company received around 2.6 times the compensation of the median chairman of an SMIM company. Since then, this ratio has fallen (with a brief outlier in 2011) to about 1.8 in 2015. At the same time, panel 2) documents that, while the median SMIM chairman received approximately the same as the median small-cap chairman in 2007 (a ratio of 1.2), in 2015 median SMIM chairmen's compensation was more than double (2.3 times) that of small-cap chairmen. In other words, SMIM chairmen have been catching up with the largest companies and have left the smallest companies behind. A similar picture, though not quite so pronounced, also emerges when considering other members of the board of directors.

Interestingly, panel 1) also shows an overall similar development for CEOs and other executives. An SMI CEO received 2.7 times the compensation of an SMIM CEO in 2007, but 1.9 times in 2015. For other executives, the ratios are 2.9 and 1.9 respectively. By contrast, an SMIM CEO received 2.4 times the compensation of a small-cap CEO in 2007, but 2.9 times in 2015. For other executives, the ratios are 1.8 and 2.2 respectively.

An important additional factor to be borne in mind when interpreting these numbers is that CEOs in differently sized categories of firms are compensated differently and that the compensation structure has also been shifting over time (see the analysis in Section 4). As the portion of SMI CEO total compensation in the form of equity has been increasing quite

strongly, while equity-based compensation of SMIM CEOs has increased a little, but not quite so strongly, the catch-up of SMIM CEOs has, in terms of "subjective" values of compensation, been even more pronounced. It is difficult to say just how much the additional effect is. For example, if one posits that equity-based compensation is discounted by 50%, then an SMI-CEO received 2.8 times the "subjective" total compensation of an SMIM CEO in 2007, but 1.8 times in 2015. Thus, if anything, the observed changes in compensation structure strengthen the conclusions of the above analysis. Of course, what matters in the public perception and in terms of shareholders' costs are reported compensation values.

A third panel can be constructed (and is available on request) that considers compensation ratios of SMIs relative to small-cap companies. Not surprisingly from considering panels 1) and 2), the third panel shows relatively steady compensation ratios, with a decrease in the SMI/small-cap ratios for chairmen, other board members and other executives since 2009 (after the crisis) and an increase for CEOs. In the last 5 years, though, SMI companies have continued to pay their CEOs a fairly constant multiple of around 5.5 compared with small-cap firms (or around 5, when using the above approximation of subjective valuations of equity-based compensation).

The convergence of board and executive compensation between SMI and SMIM companies is not because the larger companies pay their boards less, but is the result of a catch-up process in the mid-sized companies. One interpretation of these findings is that, while the job of top management at a very large company has always been very demanding, it is – relatively speaking – in medium-sized public corporations where the greatest additional demands on the competencies and efforts of top management have surfaced.

Disclosed values of compensation are typically "fair market values". (The practice of disclosing tax values has become less prevalent.) As a simple example, a stock option may be valued according to the Black-Scholes formula. Occasionally, companies apply discounts for non-tradability of equity awards (during the vesting period). However, there are two additional aspects that are typically not taken into account in valuations: risk aversion of executives and under-diversification of executives. Executives are likely to be less risk-averse than the general population, but they still exhibit some risk aversion, which induces a discount of risky compensation. Under-diversification adds to this. The possibility of exercising American options early, by contrast, increases their value relative to Black-Scholes values. Incorporating these factors into valuations is fairly complex and model-dependent. See Peters and Wagner, "The Executive Turnover Risk Premium", The Journal of Finance, 2014, 69/4, pp. 1529-1563, for a discussion of various models of subjective pay values. A rough approximation from these models is that a discount of around 50% for equity-based compensation may be appropriate. The PwC study "Psychology of Incentives" provides survey evidence that executives may discount equity-based pay by around 50%.

5.2 The chairman and the CEO compensation slices: ratios within companies

This year we also provide a summary analysis of the so-called "CEO pay slice" and the "chairman pay slice", that is the total CEO compensation as a fraction of the total compensation of the complete executive board and the chairman compensation as a fraction of the total compensation of the complete board of directors.

Perhaps not surprisingly, but still reassuringly, the median CEO pay slice does not fluctuate very much over the years. Table 1 shows the minimum and maximum values of the median CEO pay slice that have been observed over the years: the pay slice fluctuates most for SMI companies and least for small-cap companies, but in all firms it is fairly stable. In fact, the same holds true for the chairman pay slice shown in the table below.

The lower panel of table 1 provides an alternative view of the data. Because the size of executive committees vary, in assessing the CEO's share it may be important to control for this variation; similarly, the size of the boards of directors vary. Therefore, in this panel we set the CEO and chairman's pay against the total compensation of the average other executives and the average other board member. Other executives are relatively rarely disclosed individually. In the following analysis, we posit that each of the other executives receives the same average pay. Therefore, these numbers have to be interpreted with care. For example, the experience as well as the roles and responsibilities of executives vary significantly. Naturally, individual performance also plays an important role. Companies also have different policies in terms of which group of top management they disclose in the remuneration report. Thus, our approximation is unlikely to be exact, but in the absence of other data, this is the only possible approach and in our opinion it does not affect the analysis fundamentally.

As expected, this multiple is generally higher in SMI firms than in SMIM firms and in SMIM than in small-cap firms. This result is consistent with the fact that there appears to be a premium for managing larger companies.

We suggest that companies pay attention to the balance of compensation for the board and for the executive committee. Academic studies (in the US) suggest a trade-off. On the one hand, an unequal compensation distribution can induce productive tournament incentives. On the other hand, if the chairman or CEO receives a much larger compensation package than other board members or other executives (adjusted for experience and other factors), this can indicate an imbalance of power and cause excessive conflicts and potential governance problems.

Table 1: CEO and chairman pay slice. Two perspectives

	Median of slice		Median of chairman pay slice			
2007-2016	Min	Max	Min	Max		
SMI	20%	28%	26%	35%		
SMIM	25%	32%	26%	30%		
Small-cap	27%	30%	30%	33%		

	Median of ra average other compens	executive	Median of ratio chairman / average board member compensation			
2007-2016	Min	Max	Min	Max		
SMI	2.11	2.87	2.34	3.25		
SMIM	1.72	2.25	1.63	2.33		
Small-cap	1.75	2.13	1.79	1.95		

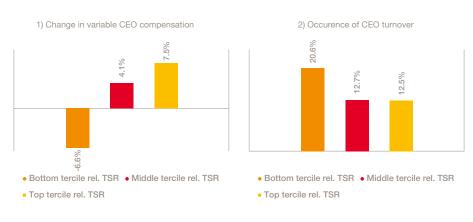
6 Executive Performance Incentives

Compensation systems are designed to achieve three main goals: to attract, to retain and to incentivise employees and managers. Pay levels (both absolute and relative) are primarily relevant to attracting and retaining, and our analysis in Sections 3 and 5 addresses this. The pay structure, discussed in Section 4, affects forward-looking incentives, but it also affects the (self-)selection of managers: more optimistic and risk-tolerant managers will tend to prefer, everything else being equal, to work for a company offering a performance-oriented compensation system.

In this section we offer an additional perspective on incentives, namely what happens to the income and wealth of a CEO as company performance changes. Figure 14 provides a summary of the key points we make in this analysis, providing evidence for SMI, SMIM and small-cap companies combined. (Further below, we elaborate on the methodology underlying these results and discuss these points specifically for each group of firms.) The three panels tell a clear story: panel 1) shows that variable CEO

compensation increases when performance is higher. Specifically, when in a given year a company achieves a total shareholder return (TSR) in the top tercile of TSRs in the same industry in that year, variable CEO compensation disclosed for that performance year increases relative to the previous year by 7.5% at the median. In the bottom tercile of industry-adjusted share performance, variable CEO compensation falls by 6.6% compared with the previous year. Panel 2) shows that companies are more likely to change CEO when performance is lower. Specifically, in the top tercile of relative share price performance, the probability of CEO turnover is 12%; in the bottom tercile it is 20%. Panel 3) presents evidence that for the typical CEO equity wealth from shareholdings in his or her own company is today a substantial multiple of base salary. All three effects combine to make CEO income and wealth sensitive to performance to an extent that can be significant. As we will now elaborate, there are, however, substantial diversities among companies in each of the three dimensions.

Figure 14: Three sources of performance incentives 12)





¹²⁾ Change in variable CEO compensation is the percentage change relative to the previous year of the CEO's total variable compensation (received either in cash or equity). Rel. TSR indicates relative total shareholder return. In each year, we classify each company into TSR terciles within the same industry as the company. This accounts for movements common to an industry.

6.1 Pay-Performance sensitivity

The topic of "pay-for-performance" is commonly used in discussions on corporate governance. It is nonetheless worthwhile investigating this relationship. Before presenting the results in detail, we will clarify a few points.

Firstly, it is clear that absolute compensation levels alone do not provide insight on whether they are justified from a performance perspective. Even more challenging is that relating pay levels to performance does not necessarily provide the desired insights, because companies also differ on other dimensions that drive compensation. Therefore, in our analysis, we look at changes in variable compensation from the prior year for the same CEO.¹³ This has the big advantage that we do not need to specify the "right" model for determining compensation. Instead, we rely on the idea that, in general, business models do not change substantially from one year to another. But this is an assumption that should not be ignored. Another consequence is that this analysis (deliberately) excludes incoming CEOs, who are in the sample for the first year. Thus, for example the analysis is not distorted by unusual one-off payments that may be disclosed as variable compensation.

Secondly, an important question concerns which performance measure we should consider. We focus on share price performance. Of course, in many instances, the CEO cannot directly influence the share price per se, or if he or she can, it is mostly in the downward direction, e.g. through lack of (reputation) risk management. However, all the business decisions the CEO takes (and induces others to take) will ultimately feed into one of two outcome variables: cash flows and/or cost of capital, and these two components determine the share price development. Moreover, for the top 100 companies, it is a reasonable assumption that the capital market reflects the available information efficiently, that current changes in corporate policies, even those that will have an impact on cash flows only further down the road, will be reflected in share prices today.

Thirdly, we look at relative share price development. It is true that there are good reasons why a reward system should not, in fact, eliminate all common share price movements of an industry or market. For example, relative performance evaluation can lead to excessive risk-taking. Also, a reward system is designed not only to incentivise, but also to attract and retain. If competitors in the industry are doing well and are therefore able to offer higher compensation, it would be difficult for a firm to tell its executives that common industry developments will be completely filtered out, as it would then be unable to offer commensurate compensation. However, for the present purpose, where we wish to isolate the relationship between companyspecific performance and changes in CEO variable compensation, an industry-adjusted total shareholder return is the appropriate measure. (That said, the results also hold with "plain-vanilla" share returns.)

Fourthly, there is the question of the timing of performance and the related variable compensation. In our analysis, we classify as variable compensation all those compensation elements that companies disclose as variable for a given year. This is clearest in the case of the prototypical short-term incentive payment (whether conveyed in cash or in equity). A pure long-term incentive programme, under which, completely regardless of performance in a given year, a CEO receives a fixed number of shares or a fixed value of shares, is not included as variable compensation (although, of course, the ultimate value of this share grant will depend on the future performance of the company). However, even if an equity grant does not depend on the individual performance of a CEO, but according to the company's description in the compensation report, depends on the company's overall performance in the past year, then such a grant is classified as variable compensation.14

¹³⁾ Clearly, if a CEO did not receive any variable pay in one year, no percentage change in variable pay with that year as the reference year can be computed. Even setting variable pay to CHF 1 in such a case (and thus computing a very large increase in pay in the next year) does not affect the percent change analysis.

¹⁴⁾ We acknowledge that this method may induce errors, to the extent that, despite our best efforts, we assign compensation that is, in fact, a pure, long-term incentive programme (that is regardless of past performance) to variable compensation, thus inducing a bias against finding a relationship between pay and performance, because for such a company the (then wrongly classified) "variable" compensation would not, in fact, vary with performance.

Figure 15: Pay-performance sensitivity. The median percent change in CEO compensation compared with the previous year, within each of three relative total shareholder return terciles¹⁵⁾



• Bottom tercile rel. TSR • Middle tercile rel. TSR • Top tercile rel. TSR

Figure 15 presents the basic results for median year-on-year percent changes in variable compensation of CEOs in the three performance terciles. ¹⁶As can be seen, there is throughout a positive relationship between share price change (returns) in one year and the change in variable compensation in the following year. As such, changes in shareholders' wealth and the variable compensation of CEOs are aligned.

Quantitatively, the link is modest at the median. Within the lowest tercile of relative TSR, the median relative TSR is -27%. In the top tercile, the median relative TSR is +19%. Thus, being in the top or lowest relative share price performance tercile creates substantial wealth gains or losses for shareholders in aggregate. Table 2 documents the corresponding changes in CEO variable compensation. For example, for the median SMIM CEO, when relative TSR is in the top tercile, variable compensation is higher by CHF 140,000 compared with the previous year; when relative TSR is in the lowest tercile, variable compensation decreases by CHF 190,000 compared with the previous year. Thus, the difference in changes in variable compensation in the top tercile minus the change in the lowest tercile is around CHF 330,000 for the median SMIM CEO. Similarly, the table shows that this difference is around CHF 160,000 for the median SMI CEO and around CHF 34,000 for the median small-cap CEO. As can be seen in table 2, for SMI, SMIM and small-cap companies, the distribution (lower quartile to upper quartile) of variable compensation differences from one year to the next shifts up as one goes up in performance terciles. This is what is to be expected, when there is an effective pay-performance relationship. However, table 2 also reveals that among all three groups of companies there are some CEOs, who obtain substantial increases in variable compensation even when performance is poor (and there are some CEOs who see declines in variable compensation even when performance is strong). While in individual circumstances there may be good reasons for such outcomes, they need to be particularly carefully explained to shareholders (and other stakeholders, including the public).

¹⁵⁾ For details, see footnote 12.

¹⁶⁾ It is of course easy to think of other variables that influence performance and pay. We have also conducted a more rigorous regression analysis, controlling for firm size, firm risk, the composition of compensation, time trends, governance features of the company, such as board size, and other variables. This more detailed analysis supports the summary analysis presented here. An advantage of the more descriptive analysis presented here is that it provides a better feel for the data and allows a more detailed look at specific quantiles, such as lower and upper quartiles.

Table 2: Changes in variable CEO compensation in CHF and in percentages, compared with the previous year, classified by terciles of relative share price performance, for SMI, SMIM and small-cap companies

	SN	II	SM	IM	Small-cap		
Bottom tercile rel. TSR	CHF-change	%-change	CHF-change	%-change	CHF-change	%-change	
Median	0	0.1%	-190000	-13.1%	0	-7.7%	
Lower quartile	-790000	-19.4%	-930000	-55.4%	-150000	-25.6%	
Upper quartile	840000	24.2%	190000	12.6%	80000	21.3%	

Middle tercile rel. TSR	CHF-change	%-change	CHF-change	%-change	CHF-change	%-change
Median	100000	2.0%	40000	6.5%	0	1.3%
Lower quartile	-540000	-9.0%	-150000	-11.9%	-50000	-17.8%
Upper quartile	1050000	29.9%	590000	27.2%	140000	28.4%

Top tercile rel. TSR	CHF-change	%-change	CHF-change	%-change	CHF-change	%-change
Median	160000	5.5%	140000	10.8%	30000	7.4%
Lower quartile	-370000	-6.6%	-10000	-1.1%	-30000	-9.7%
Upper quartile	1180000	24.7%	530000	56.1%	190000	34.7%

Comparing across companies, the analysis of the median changes suggests that SMI pay-performance relationships are both quantitatively weaker and more one-sided than SMIM pay-performance relationships. In the lowest share price performance tercile, variable compensation stays flat for the median SMI CEO, but drops by 13.1% for the median SMIM CEO. In the top tercile, variable compensation increases for an SMI CEO by 5.5% at the median, but increases by 10.8% for the median SMIM CEO. Of course, SMI CEOs have higher equity-based compensation and larger shareholdings (see below), so this partial view does not provide a complete picture of pay-performance sensitivity. Still, the perception of some observers that, especially in large firms, this relationship is sometimes not as strong as one might expect, also appears to be warranted, at least to some extent.

Overall, an effective pay-performance relationship exists, with substantial diversity among companies. For companies, managing the pay-performance relationship is tricky. On the one hand, shareholders care about this relationship (see also the evidence provided in section 7) and it is at the core of a functioning compensation system. On the other hand, imposing too strong a set of incentives, for example, with powerful performance conditions, can induce excessive risk-taking, among other problems. Indeed, risk-taking becomes more interesting for executives if they are close to being fired. That CEO turnover is performance-sensitive is a topic we cover in the next section.

6.2 Turnover-Performance sensitivity

Pay differentials between companies of different sizes (see Section 5) bring with them a natural element of "career concern incentives." That is, individuals are motivated not only by the incentive system in place in their current position, but arguably they also take into account that good performance now opens up better career opportunities in the future, in particular the opportunity to manage a larger, higher-paying firm. Conversely, they are aware that poor performance now is likely to result in fewer such opportunities in the future; indeed, poor managers may find themselves slipping down a notch or two in the size of the company they lead, which implies lower pay. When added up over the duration of a career, these forward-looking incentives can be substantial.

Of course, a necessary condition for career concerns is that there is, in fact, a higher likelihood of keeping one's job if one performs well. The analysis in this section provides evidence of such turnover-performance sensitivity. In this analysis we also include firms, where the CEO is not disclosed in the compensation report (because he/she was not the highest paid in the year).

Turnovers here are identified as follows. If the CEO at the end of the prior year is different from the CEO at the end of the year under consideration, this is classified as a turnover. We highlight for the reader two limitations to this analysis which, however, are unlikely to affect the ultimate inferences. Firstly, the method used to identify turnovers may assign a turnover to a year when the new CEO was in fact in office for a large part of the year. More generally, there are necessarily imperfections in the association of the time period, for which performance and turnover are observed.

Secondly, we cannot here distinguish between voluntary and truly forced turnovers. Certainly, some of the turnovers are voluntary. Companies very rarely explicitly state that the board has fired the CEO. The academic literature has resorted to various intricate methods of distinguishing forced and voluntary turnover, but these measures are necessarily imperfect. Some seminal studies use overall turnover as a proxy. For lack of better data, we therefore also use the overall turnover rate in this analysis.

To the extent that CEOs are less likely to be fired when performance is good and that the imperfection in the alignment of the timing between observed performance and the firing decision is random across companies, our analysis of the turnover-performance sensitivity will be subject to noise. Such noise would make it less likely to find a relationship between turnover and performance. In this sense, to the extent that we do find a relationship, the results are more compelling.

Overall, on average, each year 16% of CEOs change. The turnover ratio varies somewhat: the lowest rate was in 2010

(10%), the highest in 2008 (20%). SMI, SMIM and small-cap firms have, on average, similar turnover rates, though not every year. Our interest here is in how turnover and performance are related. Again, we use the industry-adjusted share price performance as an indicator of performance.

Figure 16 tells a clear story. The probability of a CEO turnover increases when performance is weak. Specifically, turnover is by far the highest in the lowest relative TSR tercile. At 20.6%, it is substantially higher than the turnover probability in the second and third terciles, at around 12%. This is true in all three groups of companies, though it is markedly more pronounced among the SMIM companies than among small-cap companies, which in turn show a stronger pay-performance sensitivity than the SMI firms. One should also note, however, that the consequences to an SMI CEO, if there is a turnover, are, in absolute terms,

Figure 16: Turnover rates, classified by terciles of relative share price performance



• Bottom tercile rel. TSR • Middle tercile rel. TSR • Top tercile rel. TSR

substantially more severe than for an SMIM or a small-cap CEO because SMI top management compensation is much higher than for SMIMs or small-caps. Thus, even where the turnover probability is relatively small, the risk of turnover can have substantial incentive effects. While this makes economic sense, a challenge is that the turnover-performance sensitivity is much less visible and less salient than a CHF variable compensation amount published in a compensation report and voted on at the annual general meeting.

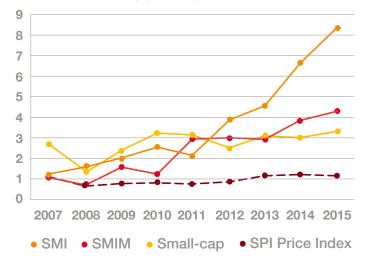
For companies, our advice is to plan ahead actively for the possibility of a CEO turnover (and indeed also of other executives). With high probability, a board, which serves for 6 years, will experience at least one CEO change. Every company can be hit by a storm and boards are sometimes forced to find a more suitable CEO, if circumstances change. Besides grooming an appropriate pool of potential successors, a central task of the remuneration and governance committee(s) is to have a clear policy in place on, for example, how invested shares will be treated before a turnover occurs. The disclosure of compensation and the preparation of both prospective and retrospective say-on-pay votes can be significantly affected by CEO turnover, depending on the voting regime in place.

6.3 Wealth-Performance sensitivity

Another topic that is rarely addressed in the public discussion on executive pay but which nonetheless is of potentially great importance is the direct alignment through executive share ownership of the interests of executives with the wealth of shareholders. Executives may hold shares voluntarily or they may be required to do so. Shareholding guidelines are more frequent among large-cap companies than among smaller firms. For example, in 2015, 14 out of 20 SMI companies had shareholding guidelines for their executives, but only 5 out of 27 SMIM companies had such guidelines. For board members, 6 out of the SMI companies had guidelines, but only 2 of the SMIM companies.

To assess the importance of wealth incentives, we compute, for each CEO, the ratio of wealth to base salary. Figure 17 plots the median of the resulting ratio.

Figure 17: The wealth lever. Equity wealth as a multiple of base salary (medians)



The data shows a striking development of the wealth lever especially in the SMI and SMIM companies. Consistent with international trends, Swiss CEOs of these companies are holding increasing multiples of base salary as equity. In interpreting the results in this section, it is important to keep in mind that ownership, of course, does not derive only from equity-based compensation but also from share purchases by management. Also, the numbers reported here include all shares reported by

the companies as shareholdings; they do not include options. While in 2008, the median ratio of equity wealth to base salary was around 1.6 and below 1 in SMI and SMIM companies respectively, this ratio has increased to 8.3 and 4.4. Interestingly, in small-cap companies, at the beginning of the sample period, the upper quartile of the wealth lever was actually the highest among the three groups of companies, but it has since significantly decreased (due to a combination of increases in base salary in the lower quartile and a decrease in shareholding wealth in the upper quartile). In small-cap companies, since 2008, the equity wealth multiple has increased to 3.4. The graph also shows the development of the SPI price index, which is normalised to 1 for the year 2007. The graph suggests that general stock market development explains relatively little of this overall development for SMI and SMIM companies.

Overall, we are witnessing an increase in the "wealth lever" especially in the SMI and SMIM companies. This is occurring both on the extensive and the intensive margins. Firstly, more CEOs are holding equity and the proportion of CEOs who do not hold any shares has dropped sharply in the past seven years. Secondly, those who already hold equity hold large positions (and/or do not sell the shares even though share prices have increased). Small-cap companies' CEOs started out with a greater exposure, but have not increased it much over time. Boards of companies of all sizes should keep these facts in mind as they consider shareholding requirements. It may also be appropriate for companies to emphasise in their compensation reports this dimension of alignment of management with shareholders more. However, we also caution that shareholdings can induce substantial business risk-taking incentives, especially if a company is highly leveraged, but they can also induce riskaversion or short-termism if managers are concerned that the market does not value the company's investments appropriately. Transparent and credible communication with the market is, therefore, an essential component of successful long-term value generation.

These equity wealth holdings induce net wealth changes in the share ownership of executives (and of board members) resulting from share price changes. They can be substantial when markets are volatile. Table 3 lists these changes for the median CEOs, chairmen and other members of the board of directors. (Details on other quantiles, such as the top 25% or bottom 25%, are not reproduced here because of space constraints, but are available on request). The highest gains and losses relate to chairmen and other board members who have significant share holdings (in particular as founders or founding family members).

¹⁷⁾ For this analysis, the price index, not a total return index is relevant. We compute a version of the index which allows comparison from year to year of the increase in the general stock market value, that is, each year we add the percentage point change of the current year to the index level of the previous year. This is not a buy-and-hold strategy from 2007, which would not be the appropriate comparison for this analysis.

Table 3: Median CEO, chairmen and board of director wealth changes in SMI, SMIM and small-cap companies in the years 2008 to 2015 as a result of ownership¹⁸⁾

	2008	2009	2010	2011	2012	2013	2014	2015			
CEOs .											
SMI	-1070000	+300000	+30000	-390000	+560000	+1210000	+110000	+410000			
SMIM	-500000	+400000	+370000	-330000	+160000	+1250000	+200000	+390000			
Small-cap	-360000	+90000	+70000	-180000	+90000	+160000	+20000	+50000			
Chairmen											
SMI	-1170000	+220000	+40000	-310000	+360000	+590000	+60000	+10000			
SMIM	-2250000	+360000	+390000	-470000	+50000	+680000	+200000	+200000			
Small-cap	-220000	+70000	+90000	-80000	+40000	+150000	+5000	+50000			
Other member	s of board of direct	ors									
SMI	-210000	+50000	+/-0	-70000	+100000	+120000	+20000	+/-0			
SMIM	-170000	+40000	+30000	-80000	+30000	+100000	+20000	+50000			
Small-cap	-40000	+10000	+15000	-20000	+10000	+16000	+/-0	+10000			

In 2008, at least 75% of CEOs, chairmen and other board members suffered net wealth losses resulting from falling share prices. In 2009, we observed the mirror image, i.e. at least 75% of the managers benefited from rising share prices. In 2010, an intermediate result occurred. The median CHF wealth change from ownership was around zero or slightly positive for all three groups. The difficult market environment in 2011 led to broad losses throughout and so the gains the median CEO, chairman and board members enjoyed in 2009 and 2010 essentially evaporated in 2011. In 2012 the significant positive market development helped the median CEO recoup all losses from the previous year so that the overall wealth position of this (imaginary) median CEO was, at the end of 2012, approximately unchanged from the beginning of 2008. The years 2013 and 2014 then resulted in quite significant further positive wealth changes.

Although the overall market was relatively flat in the year 2015, we observe positive wealth changes for many board members and executives. For example, the median SMI CEO's wealth in equity in his company increased by CHF +410,000, mostly from additional shareholdings rather than share price increases. The variation was large, however. The lower quartile of SMI CEO wealth changes was CHF -1.2 million, while the upper quartile was CHF +1.7 million. Median chairman and board member wealth changed relatively little, but here, too, a broad variation in wealth changes can be observed in the data. For example, the lower quartile of SMI chairman wealth changes was CHF -120,000, while the upper quartile was CHF +430,000.

¹⁸⁾ All amounts in CHF and rounded. Wealth changes in 2008 are calculated as the difference between the wealth due to the average of the reported shareholdings on 31 December 2007 and on 31 December 2008, valued on 31 December 2008, minus the value of these average shareholdings on 31 December 2007. For wealth changes in 2009 to 2015 the same methodology is applied. All reported shares (not only vested shares) are considered. Companies that report no shareholdings for the respective category of individuals are not considered in this table. Significant changes in wealth in these calculations can also arise, independent from developments in the share price, when an individual acquires or sells shares. Outside (non-equity) wealth is not observable. Not all of the numbers reported in this section reflect implied ownership through options or other instruments similar to equity. They are merely based on what companies report as the direct alignment of their CEOs with shareholders through shares.

7 Communicating Board and Executive Compensation

Although each company must decide not only on its own optimal compensation system but (within the legal disclosure requirements) also on how it wants to communicate about pay, we recommend that companies actively consider straightforward, easy-to-understand disclosure.

For example, we believe that most readers appreciate getting a quick and direct statement by the chairman of the compensation committee (or the chairman of the board) about important facts concerning board and executive compensation in the year under review. Half of SMI companies and rather more than one third of SMIM companies now begin the compensation report with a letter to shareholders. By contrast, only 3 small-cap companies use this direct mode of communication. Small-cap companies do, however, present an overview of their compensation system relatively frequently. (This is, however, to be taken with a pinch of salt. Small-cap companies have much simpler compensation systems. A summary paragraph is relatively easily provided in such a case, and this is coded as an "overview" in this analysis. Providing an actual overview is substantially more complicated, and provides substantially more added value, for SMI companies.)

When it comes to the body of the compensation report, there is much variation among companies on the extent of disclosure of individual goals relevant for variable pay plans and of how the link between the attainment of goals and the change in pay from one year to the next is established. We note that the market standard for disclosure has been raised significantly by the decision of several companies to provide more insight into how they aim for pay-for-performance.

Overall, we believe that companies will do well to consider compensation disclosure as a key element in a value reporting strategy. Value reporting, a concept developed first by partners at former Price Waterhouse¹⁹, now has a firm place in the context of an overall value-based management strategy. Value reporting refers to the enhanced and improved reporting by companies that is oriented towards sharing information about how value is created and distributed, and how value generation is rewarded.

Effective value reporting requires that companies explain how their compensation policy matches their business strategy. Two examples of how compensation reports may become more palatable to shareholders and more informative in the value reporting sense are the following. Firstly, modern compensation systems reward either outcomes (in the traditional pay-for-performance sense) or the achievement of strategic goals. In particular when the second approach is employed, as is the case in many companies, at least as a supplement, it becomes critical to explain to stakeholders why and how the chosen metrics are related to the overall firm value. Secondly, we believe that a way to communicate more proactively with shareholders today would be to provide shareholders insight into the relationship of grants and ensuing vested amounts and actual pay-outs. Only with such disclosure can shareholders (and boards and executives themselves) really understand the compensation received as a function of performance.

Indeed, shareholders appreciate the existence of pay-for-performance. Lack of pay for performance arguably exists when variable compensation increases although total shareholder return lags behind the industry. An analysis of more than 250 votes on compensation reports at AGMs over the last years has shown that, in such cases, the percentage of shareholders voting against the compensation report is 11.1% on average; see table 4. By contrast, if there is a suitable pay-performance relationship, that is, when pay is higher and TSR is higher, the votes against account for only 8.4% on average. Of course, in both cases, the compensation report is accepted by a large majority, but this data suggests that shareholders are rationally paying attention to the pay-performance relationship and may react more critically if a lack of such a relationship persists. (It is somewhat surprising that the percentage of votes against is higher when variable compensation decreases than when it increases, but the key point of the table is that the outcome of the vote depends on both variable compensation changes and relative performance).

¹⁹⁾ Philip D. Wright and Daniel P. Keegan (1997), "Pursuing Value: The Emerging Art of Reporting on the Future", Price Waterhouse. The seminal contributions (especially as regards normative suggestions for companies) in the Swiss and Anglo-American literature respectively are Peter Labhart (1999), "Value Reporting - Informationsbedürfnisse des Kapitalmarktes und Wertsteigerung durch Reporting", Zürich: Versus Verlag; and Robert G. Eccles, Robert H. Herz, David Philips, and Mary M. Keegan (2001), "The Value Reporting Revolution: Moving Beyond the Earnings Game", New York: John Wiley & Sons.

Table 4: Average percentages of votes AGAINST on compensation reports in various scenarios²⁰

		Total shareh	older return
		Below industry return	Above industry return
Change in variable CEO pay from prior year	Decrease	12.3%	9.9%
	Increase	11.1%	8.4%

One way in which companies are arguably trying to signal their restraint to the market (and in which they are, perhaps, committing themselves as well) is through bonus caps. As expected, Table 5 shows that these are somewhat more prevalent when shareholders do not receive an opportunity for a retrospective say-on-pay vote, that is, when they approve a compensation budget prospectively.

Table 5: Bonus caps and say-on-pay regimes

	No	Yes	Total
Fully prospective	20%	80%	68%
Bonus retropective	36%	64%	33
Total	25%	75%	

Finally, one specific challenge concerns the disclosure of, and the voting on, replacement awards; that is, equity awards and similar given to incoming executives who lose their unvested equity awards at their prior employer. Market practice in the disclosure and treatment of these awards regarding say-on-pay votes varies. Some companies treat these awards as compensation. Other companies take the view that such awards are not, in fact, compensation. In our view, companies should very carefully consider the advantages and disadvantages of either route. Even if it appears possible today to argue that replacement awards are not compensation (a question on which courts will presumably decide in the not too distant future), shareholders are likely to

consider such rewards as costs that they bear. As such, they may feel entitled, regardless of the specific legal treatment of these awards, to a clear disclosure and explanation of what these awards are, how the decision to grant them was made and why the company treats them one way or another in their disclosure.

In the course of our series of Compensation Committee Luncheons we are able to talk to companies, investors and proxy advisors on a regular basis. From this dialogue and our experience with AGMs in 2014 to 2016, we have found that three questions dominate when it comes to retrospective votes, and these questions should also inform the review of compensation systems itself, not merely the disclosure or the preparation of the AGMs:

- 1. Is the amount proposed justifiable and complete?
- 2. Is the relationship between pay and performance adequately explained? In other words, is the proposed pay, including compensation amounts in the prior reference period, justified in terms of performance?
- 3. In cases where the system is not purely formula-based, is the procedure for deciding bonuses clear and transparent?

Naturally the compensation report is a particularly important vehicle for this information for retrospective voting, as in this case it refers to the time period in which the vote is held. Some additional information may be provided in the AGM materials.

²⁰⁾ This table is taken from Schneider, Wagner and Wenk "Der Verwaltungsrat zwischen Regulierung und Marktdisziplin", 2016, Expert Focus 9/2016, pp. 49-54.

For prospectively voted-on compensation components, the ways in which information can be provided vary widely. The compensation report can be a significant source of information for such votes. When it comes to the vote on granting compensation, it is important to describe not only the compensation system used in the past. Shareholders need either an indication that the compensation system (and the way it is adjusted) will remain unchanged in the period targeted by the prospective vote or an explanation of how the system is going to function in the future. This forward-looking information can also be presented in the AGM documentation. Finally, to a certain extent a company can promise shareholders that there will be detailed reporting in future compensation reports. Of course this promise will be more credible if the organisation agrees to hold a consultative vote on future reports and if, in general, the company has acted in a trustworthy manner in the past.

In terms of substance, when it comes to compensation components subject to prospective voting, investors and proxy advisors primarily ask the following eight questions, and again these questions should also inform the review of compensation systems itself, not merely the disclosure or the preparation of the AGMs:

- 1. Is the amount proposed justifiable and complete?
- 2. Is the comparison between the targeted maximum and compensation in the prior period meaningful (i.e. on a like-for-like basis)?
- 3. Are the reasons given for any divergence in total compensation, or parts of it, and compensation in the prior reference period reasonable and justified?
- 4. Do shareholders know how total compensation breaks down into the various components?
- 5. Does the proposal make clear why the proposed system and amounts are deemed to be reasonable?
- 6. Variable incentive programmes: are the mechanisms for determining STIs and LTIs reasonable and comprehensible? Are shareholders informed as to how they create incentives for management?
- 7. LTI programmes: do shareholders find out whether actual distributions will be disclosed in future compensation reports?
- 8. Is the procedure for management compensation transparent?

Overall, we recommend to our clients that they take the opportunity of say-on-pay to review and, where necessary, improve the mechanics of their compensation systems and should not to be afraid to engage their major shareholders in a constructive dialogue. Of course, there is always a challenge as regards the equal treatment of shareholders, but this challenge can be successfully navigated. When boards of directors realise that institutional investors are not "out to get them" but are (also) interested in the long-term success of the company, successful cooperation will take place that will support long-term value-creation for all concerned.

8 Concluding Remarks: Six Principles

Despite, or because of, the market fluctuations we have experienced over the past years and the many new regulatory challenges companies face, we continue to recommend that executive compensation is designed with six simple principles in mind.

- 1. Only a strong board can implement an effective total compensation system.
- 2. The incentive system must be designed as a "best fit" with company strategy, and it must be communicated as such.
- 3. Compensation should be linked to a few key performance indicators (KPIs), but not exclusively to easily controllable factors.
- 4. Limits to pay are not needed in well-balanced compensation systems.
- An effective compensation system establishes entrepreneurial incentives.
- 6. An effective compensation system focuses on value created for the long term.

Chairman									SMI	SMI Changes	
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2014/2015	2007–2015
Highest	14,624,000	15,228,951	15,116,196	10,599,302	13,500,946	13,067,592	8,778,814	6,329,765	6,034,140	-4.67 %	-58.74%
Upper Quartile	2,267,343	2,510,380	3,070,609	5,170,938	3,901,563	4,744,835	4,193,723	3,793,850	3,678,387	-3.04%	62.23%
Median	981,479	849,045	1,330,867	1,288,694	1,359,124	1,139,932	1,140,754	1,103,368	1,310,876	18.81 %	33.56%
Lower Quartile	540,402	752,011	670,599	621,725	817,837	611,893	620,260	634,076	639,772	0.90%	18.39%
Lowest	277,000	157,000	256,570	145,845	179,230	199,230	200,316	231,378	231,294	-0.04%	-16.50%
Average	2,388,680	2,452,604	2,954,167	2,984,783	2,972,324	2,985,809	2,435,080	2,138,133	2,275,148	6.41 %	-4.75%

Board of Directors		SM										
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2014/2015	2007–2015	
Highest	5,027,381	2,901,796	5,274,667	6,034,881	2,390,000	2,556,000	2,708,134	2,502,481	2,539,418	1.48%	-49.49%	
Upper Quartile	400,030	374,497	408,169	427,780	423,935	397,445	400,951	384,495	394,000	2.47%	-1.51 %	
Median	297,059	279,869	317,407	327,388	323,680	326,376	318,411	307,620	309,948	0.76%	4.34%	
Lower Quartile	176,794	170,000	189,000	216,991	229,308	217,098	228,806	232,364	226,987	-2.31 %	28.39%	
Lowest	0	0	0	0	0	0	0	0	0	0.00%	0.00%	
Average	380,461	355,828	413,729	413,077	375,373	363,348	379,753	363,180	355,460	-2.13%	-6.57%	

CEO									SMI	SMI Changes	
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2014/2015	2007–2015
Highest	22,280,000	20,544,032	20,471,929	12,760,000	15,722,386	13,228,188	13,226,287	13,247,004	14,311,261	8.03%	-35.77%
Upper Quartile	13,654,750	8,363,477	12,239,331	8,696,498	9,322,764	9,303,409	10,025,031	9,804,585	11,172,205	13.95%	-18.18%
Median	7,727,944	5,318,957	5,487,132	7,631,875	5,820,000	6,707,148	6,668,465	7,453,575	6,932,919	-6.99%	-10.29%
Lower Quartile	4,572,415	3,466,990	3,821,146	5,220,068	5,315,541	4,795,092	4,510,798	5,606,639	4,749,719	-15.28%	-3.88%
Lowest	1,704,000	1,814,702	1,819,000	1,560,206	1,570,000	1,652,000	1,713,000	1,773,000	1,784,857	0.67%	4.75%
Average	9,424,239	6,989,794	7,971,237	7,159,064	7,208,376	7,142,766	7,143,090	7,556,979	7,794,373	3.14%	-17.29%

Chairman		SMIM Changes									
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2014/2015	2007–2015
Highest	1,124,000	1,052,000	1,009,100	1,458,055	1,596,343	1,654,735	1,726,476	3,429,700	4,055,100	18.23%	260.77 %
Upper Quartile	548,173	649,000	751,464	645,000	837,975	839,700	920,417	898,600	864,721	-3.77%	57.75%
Median	384,327	491,364	554,000	550,000	461,819	590,488	544,000	691,798	707,735	2.30%	84.15%
Lower Quartile	266,250	260,000	302,000	316,906	275,000	306,000	379,000	409,000	409,000	0.00%	53.62%
Lowest	0	107,000	160,000	141,000	0	0	107,010	90,000	0	-100.00%	0.00%
Average	458,859	496,978	538,301	555,840	565,027	619,228	697,304	816,365	809,708	-0.82%	76.46%

Board of Directors		SMIM	SMIM Changes								
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2014/2015	2007–2015
Highest	3,255,621	3,511,407	3,052,565	2,844,157	3,702,177	1,591,000	2,370,000	1,732,000	1,732,000	0.00%	-46.80%
Upper Quartile	221,000	215,341	220,180	224,020	222,000	243,205	248,375	254,250	286,813	12.81 %	29.78%
Median	169,500	154,000	157,388	171,000	169,950	175,000	194,955	208,120	226,000	8.59%	33.33%
Lower Quartile	106,417	106,500	105,288	114,000	112,000	127,300	145,000	130,346	159,250	22.17%	49.65%
Lowest	0	0	0	0	0	0	0	0	0	0.00%	0.00%
Average	203,512	193,255	199,360	202,270	201,351	198,408	217,161	217,868	243,008	11.54%	19.41 %

CE0		SMIM										
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2014/2015	2007–2015	
Highest	12,024,884	7,062,808	7,840,619	6,999,000	8,568,000	7,400,468	6,689,000	15,259,030	7,661,700	-49.79%	-36.28%	
Upper Quartile	4,397,000	3,512,979	3,505,219	3,452,000	3,770,986	3,425,508	4,323,350	5,376,457	5,336,870	-0.74 %	21.38%	
Median	2,846,000	2,472,705	2,151,000	2,576,000	2,388,487	2,391,389	3,230,000	3,396,888	3,568,000	5.04%	25.37 %	
Lower Quartile	1,792,000	1,579,217	1,314,369	1,976,291	1,680,750	1,801,000	2,424'999	2,404,365	2,393,046	-0.47 %	33.54%	
Lowest	1,012,836	930,824	710,000	5,000	5,000	5,000	1,634,412	888,000	1,261,000	42.00%	24.50%	
Average	3,945,922	2,939,327	2,828,691	2,801,649	2,930,972	2,912,164	3,654,038	4,273,561	3,932,127	-7.99%	-0.35%	

Chairman	Small-caps										Small-caps Changes	
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2014/2015	2007–2015	
Highest	2,924,700	2,500,000	1,991,300	1,366,780	1,452,600	2,319,900	2,318,200	2,118,200	2,600,300	22.76%	-11.09%	
Upper Quartile	477,000	436,550	393,539	381,000	407'558	456,376	431,198	486,821	473,673	-2.70%	-0.70 %	
Median	334,000	265,000	235,000	247,100	305,100	309,000	291,935	314,625	313,367	-0.40%	-6.18%	
Lower Quartile	162,732	194,500	150,000	159,866	194,123	226,423	202,893	223,755	237,000	5.92%	45.64%	
Lowest	0	0	0	0	60,413	64,000	69,364	0	0	0.00%	0.00%	
Average	457,706	422,241	360,143	338,696	386,969	406,859	405,349	405,445	397,609	-1.93%	-13.13%	

Board of Directors	Small-caps										Small-caps Changes	
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2013/2014	2007–2014	
Highest	1,369,487	606,810	600,000	356,000	501,671	535,000	638,000	511,901	971,000	89.69%	-29.10%	
Upper Quartile	143,600	140,000	133,750	138,000	148,726	155,925	155,195	172,800	169,000	-2.20%	17.69 %	
Median	108,600	99,000	89,500	100,279	105,569	109,740	108,500	121,000	122,000	0.83%	12.34%	
Lower Quartile	65,000	62,000	60,500	66,800	67,000	73,800	70,949	82,992	84,403	1.70%	29.85%	
Lowest	0	0	0	0	0	0	0	0	0	0.00%	0.00%	
Average	125,240	112,538	101,524	108,427	110,226	118'968	122,389	136,666	136,010	-0.48%	8.60%	

CE0		Small-caps Changes									
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2014/2015	2007–2015
Highest	8,254,573	5,938,000	4,175,632	5,389,826	3,830,506	4,200,957	4,612,870	5,202,259	6,058,809	16.46%	-26.60%
Upper Quartile	2,239,390	1,760,000	1,922,525	1,715,896	2,091,000	1,523,550	1,911,406	2,116,501	1,975,259	-6.67%	-11.79%
Median	1,196,500	1,135,243	1,208,485	1,140,200	1,097,057	1,179,500	1,240,000	1,376,291	1,242,829	-9.70%	3.87%
Lower Quartile	951,471	829,388	765,072	916,746	943,500	832,245	924,000	1,076,282	1,001,371	-6.96%	5.24%
Lowest	298,500	303,727	20,000	338,210	289,348	0	116,000	813,000	616,000	-24.23%	106.37 %
Average	1,885,469	1,638,597	1,487,823	1,647,145	1,419,737	1,379,043	1,465,641	1,702,956	1,734,066	1.83%	-8.03%

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