

Special Stock Option Watch

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This issue of the ZEW Stock Option Watch concentrates on the incentive-based compensation schemes of managers. The first article of Karl-Friedrich Raible und Urszula Pustelnik from Kienbaum Management Consultants gives an overview of the development of long-term incentive contracts in Germany. Ulrich Hocker from the “Deutsche Schutzvereinigung für Wertpapierbesitz” (shareholder association to represent the interests of individual investors, DSW, for short) analyses the effects of the “Management Compensation Disclosure Act” (Vorstandsvergütungsoffenlegungsgesetz) regarding the dis-

closure of management compensation in Germany. Günter Franke and Julia Hein from University of Konstanz investigate in the third article the incentive schemes contained in contracts for credit portfolio managers. And, eventually, Alex Edmans from the Wharton School deals in his analysis with the question whether the stock market fully values intangibles. His study shows that the stocks of the “100 Best Companies to Work For in America” outperform those of a matched benchmark portfolio.

Michael Schröder

Performance-Oriented Compensation Models for Executives

When it comes to performance incentives with long-term effect, the trend is running increasingly towards value- and performance-oriented programmes that reflect executives’ actual performance¹. The stock option plans that have frequently been a topic of public controversy are gradually losing their preeminent status. Performance-oriented plans now predominate over classic stock option plans. The long-term compensation component of an executive’s pay is no longer a mere reflection of the trend in a company’s share price, but rather the management’s contribution to the long-term success of the company.

These are the findings of a study on the topic of “long-term compensation elements” which we conducted within the scope of our consulting activities in early 2008. Forty companies listed on the DAX, MDAX, Tec-DAX and S-DAX stock market indices, thirty-one of which had implemented one or more mid-term incentive (MTI) or long-term incentive plans (LTI), took part in this study. An

immediate finding of the study was that the number of stock option plans has declined, comprising just 19 percent of the examined compensation models. This figure is all the more striking considering that the examined compensation models included stock option plans that had been issued some years ago and were still held by executives. In 2001, by contrast, more than half of DAX companies used stock options as instruments of long-term compensation; in 2005, this figure still exceeded one-third.

Boosting Executives’ Motivation and Company Loyalty

Performance-oriented plans now comprise nearly half of all incentive models. These include performance cash plans (26 percent of compensation packages) and performance share plans (19 percent of compensation packages) (see figure 1). Together, these incentive plans account for 45 percent of all packages and have thus displaced

classic stock option plans as the most popular incentive model. Classic stock option plans account for just 19 percent of incentive packages; virtual stock option plans just over one-quarter.

Long-term incentives account for a significant share of total target-based compensation. Figure 2 shows that at the companies studied, the share of long-term incentive plans in overall target-based compensation is 30 percent at the executive board level. At the first and second management levels below the executive board they account for 17 percent and 13 percent of target-based compensation packages, respectively². The relatively large share of this component serves to strengthen the ties that bind executives to the company and promote motivation as well as loyalty.

¹ Kienbaum Management Consultants, Mid- und Long Term Incentive Pläne 2007/2008, Frankfurt 2008

² Kienbaum Management Consultants, Vorstandsstudie 2006/2007, Vorstandsvergütung nach Höhe und Struktur, Frankfurt 2008

Kienbaum Management Consultants, Vergütungsstudie 2006, Leitende Angestellte, Gummersbach 2007

In this connection, a distinction must be drawn between the granting and payment of long-term compensation. The figures above refer to the value at grant, the fair value to be added, which is to be determined using an approved valuation model. The payout, on the other hand, is understood to mean the actual

sum due at time of settlement. The increasing popularity of performance-oriented and value-oriented models goes, as can be see from Figure 3, hand-in-hand with the selective, company-specific use of corresponding indicators (59 percent). These are measurements of performance used in accounting – for

example, EVA, ROCE or EBIT. The share price remains the dominant performance indicator. The absolute share price increase is used as a yardstick of success in 71 percent of all plans. Share price increases relative to benchmarks such as an index or peer group are used in 45 percent of all plans. On the other hand, the majority of “classic” stock option plans, 86 percent, are oriented to absolute price increases. Additionally, a connection between share price and indicators serves with increasing frequency as a standard of value. The intention behind this is to strike a balance between internal and external interests and thus attain a well-balanced incentive effect. Nearly half of all plans are already tied to two parameters. While real as well as virtual stock option plans are based primarily on one success parameter (in 57 percent of cases), value-oriented incentive programs generally include two parameters (60 percent of cases).

Figure 1: Types of Mid Term Incentive and Long Term Incentive Plans

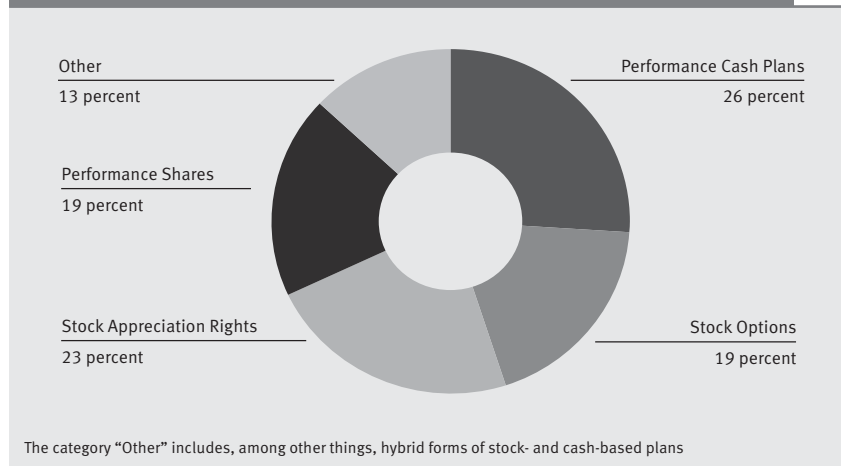


Figure 2: Average Composition of Overall Target-Based Compensation *

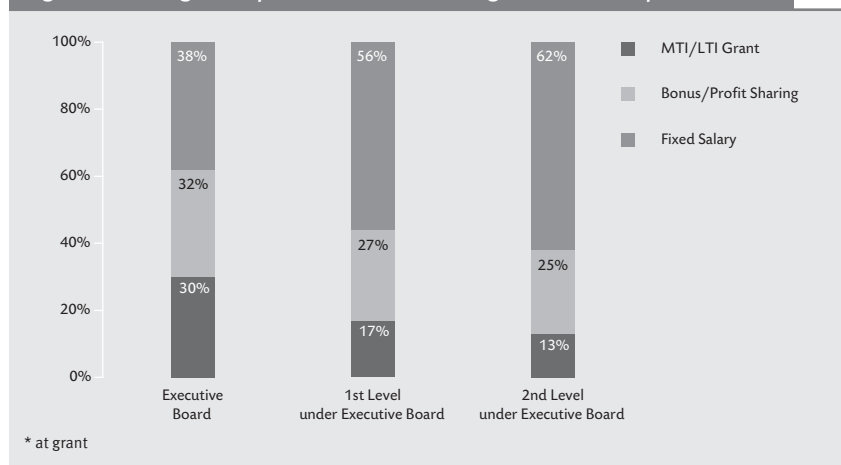
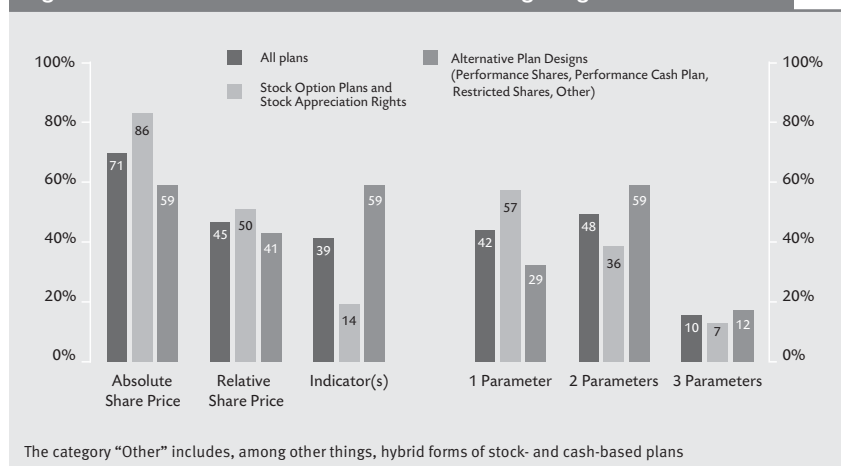


Figure 3: Performance Parameters and their Weighting



Several Performance Targets Are Recommended

We advocate the use of more than one performance target. For although the share price is considered to be a good indicator of the increase in the value of a company, it alone does not guarantee a comprehensive appraisal of a company’s position or executive performance. Including only the absolute price increase can lead to unwarranted “windfall profits”, while, on the flip side, executive pay may not be commensurate with performance in the event of a stock market crash. By the same token, we take a dim view of models that consider only relative performance or relative price increases as a yardstick, because the plans may become valuable even in the event of losses or falling share prices. To handle these problems, as a rule, two parameters of success are used in performance-oriented plans, whereby indicators from internal and external accounting are especially important.

Moreover, the Kienbaum study shows that, in most cases, mid- or long-term incentive plans have been modified or introduced to improve the incentive effect of long-term compensation. Value-

oriented models are implemented with the aim of harmonising executives' individual interests with the general interest of the company. This is achieved by strengthening the ties that bind the executive board and managerial staff to the company so that they participate in long-term corporate success as well as in value added.

However, as a rule, executives cannot profit endlessly from their company's success – most plans provide for a cap on payment amounts.

We welcome the trend towards a stronger emphasis on long-term variable compensation and thus performance-oriented incentive programs in particular. While short-term variable compensation is governed by the attainment of corporate, divisional, team or individual objectives on an annual basis, long-term incentives are tied to the long-term success of the company. This creates incentives for management to be committed to the long-term well-being of the company.

We advocate laying out LTI plans over the long term with grant periods of at least three to five years. Even after granting, it is advisable to provide for a waiting period of an additional five years, such as those attached to restricted shares, which remains in effect even if the beneficiary leaves the company. Management should be placed on the same footing as an entrepreneur – with all of the opportunities, but also with all of the risks.

Karl-Friedrich Raible and Urszula Pustelnik

Opting Out Helps to Avoid Unwelcome Transparency of Executives' Pay



Private-sector resistance to calls for transparency in the matter of the "individualised disclosure of executive board compensation" was vehement and protracted. A recommendation added in the German Corporate Governance Code converted a few to the cause of greater transparency, yet a large number of firms preferred to publicise that they had nothing to reveal rather than actually make the requested information available to participants in capital markets. The result was predictable: the legislators took action.

Since August 2005 the so-called "Management Compensation Disclosure Act" (Vorstandsvergütungs-offenlegungsgesetz, or VorstOG, for short) has been

in force. According to its provisions, every company listed on a German stock exchange must disclose its executives' compensation on an individual basis beginning in the fiscal year 2006.

It seems the legislators lacked complete faith in their own intentions, however, as the law leaves open a back door for corporations. An "opt out" clause makes it possible to evade this unwelcome transparency requirement if 75 percent of voting shares present at the annual shareholders meeting approve the decision.

The "Deutsche Schutzvereinigung für Wertpapiere" (shareholder association to represent the interests of individual investors, DSW, for short) is of

the opinion that this clause should have been rejected, because it creates a "two-class society". On one side are the controlling stockholders, who as a result of their position usually already know the details of executive salaries, and therefore do not need such disclosure. On the other side are the small stockholders, whose future access to this information will continue to be blocked. Erich Sixt, the managing director, founder and principal stockholder of Sixt, a Munich-based auto leasing company, was the first to employ the opt-out provision. Soon after the implementation of the law, it was determined that Mr Sixt's earnings are his business alone. The automaker Porsche soon followed this example.

Claim for Non-Transparency

In the annual shareholders' meeting season of 2006 at least 200 corporations took the opt-out path. Opting out was on the agenda for ten companies listed on the MDAX index alone. The boards of AMB General, HypoVereinsbank (HVB), Celesio, Hannover Re, HeidelbergCement, Hugo Boss, Krones, ProSiebenSat.1, Stada Arzneimittel and Südzucker all decided they did not want to disclose their pay packages to present or future stockholders. In the case

of Stada Arzneimittel, DSW was able to prevent the executive board from achieving this objective. On the TecDax index, Bechtle, Drägerwerk, Nordex, Pfeiffer Vaccum, QSC and Solarworld all took the route of non-transparency. Because of pressure from DSW, Pfeiffer Vacuum and Solarworld were forced to bring the issue to a vote. In the case of Drägerwerk the question was stricken in advance from the agenda of their annual stockholders' meeting. Even the venerable DAX30 index now has a transparency resistor, since Merck KGaA joined the index in 2007.

However, opt-out provision is not the law's only weakness. Of course, the "VorStOG" clearly specifies which information companies must make public. But unfortunately the legislature avoided issuing clear specifications for a standardised format in which this information must be presented, as is the case, for example, in the UK. This omission effectively provides corporations with a broad range of discretion regarding exactly which compensation data they wish to present regarding individual executives.

In the opinion of DSW, a meaningful accounting of compensation for all active members of the executive board as well as those who retired in the past fiscal year should be included in the company's annual report, in standardised tabular form, with the following information (see table).

Experiences from Abroad

Adopting these measures would hardly make Germany a world leader in the field, but would merely represent an upgrading of long-outdated practices.

Since 2001, publicly traded corporations in France have been required to make executive compensation transparent on an individual basis. The driving force for change in France has been the stock exchange regulatory agency (AMF), however, to a greater extent than the legislature. The agency, AMF, expects to find detailed information in every corporation's annual report regarding the balance of fixed and of variable executive compensation and how the variable portion of earnings is calculated.

In the United States, the public disclosure of executive compensation is a long established practice that goes back to the Securities Exchange Act of 1934. According to this law, all publicly traded companies are obligated to disclose the compensation of their top executives directly to the SEC, a regulatory agency. Despite this law, in the past companies regularly concealed compensation details like pension payments, which led the SEC to tighten disclosure requirements. Now, companies must put everything on the table, including bonuses, company pensions or health insurance paid for by the company.

In the UK, listed corporations provide detailed itemised "Remuneration Reports" that disclose individual compensation and what considerations underlie the compensation policy. Fixed and variable aspects of compensation are thereby made public, as well as re-deemed and newly acquired stock options, retirement provisions, and other benefits. The legal basis is the "Companies Act," which for some time has proscribed public disclosure of salaries. Three years ago, two additional regulations came into force: compensation policy and payments for the following year must now be elucidated, and stockholders must also approve the Remuneration Report at their annual meeting. They do not get to vote on individual compensation. This would be a viable model for Germany as well.

Stricter Requirements Needed

In Germany, the supervisory board remains responsible for all contract negotiations with the board of directors, and this should not be altered, in the opinion of DSW. The "VorStOG" has shed somewhat more light on various stock related compensation models, which over the past few years have acquired ever-increasing importance. Nowadays there is hardly a management contract that does not include such elements. With the extremely rapid stock market rise at the end of the 1990s, stock options plans became particularly popular. After the tech bubble burst, a large proportion of these were not "in the money."

Standardised Information to Be Given in Companies' Annual Report

- | | |
|--|--|
| <ol style="list-style-type: none"> 1. Salary 2. Variable compensation/ cash bonuses 3. Payment from third parties and businesses with connections to the company 4. Severance pay/signing bonuses 5. Additional compensation and perks (for example, company cars and other non-cash benefits) 6. Stock-based compensation with specific information regarding: <ol style="list-style-type: none"> 6.1 Options portfolio as of the beginning of the fiscal year with market value at the beginning of the fiscal year 6.2 Options granted/expired 6.3 Options exercised during the fiscal year with (hypothetical) market value at the time they were granted and exercised as well as the number of shares acquired 6.4 Options portfolio at the end of the fiscal year (hypothetical) along with market value at the end of the fiscal year 6.5 Total number of exercisable options along with (hypothetical) market value | <ol style="list-style-type: none"> 6.6 Date of earliest possible exercise 6.7 Expiration date 7. Pensions with specific information regarding: <ol style="list-style-type: none"> 7.1 Number of years of service in the company that will be counted towards a pension 7.2 Existing pension entitlements at the beginning of the fiscal year, differentiated according to: <ol style="list-style-type: none"> 7.2.1 Cash retirement allowances and death benefits, and 7.2.2 other allowances, such as a company car, use of company office space, et cetera, along with the cash value of each item 7.3 Pension rights vested during the past fiscal year 7.4 Existing pension rights at the end of the fiscal year, differentiated according to: <ol style="list-style-type: none"> 7.4.1 Cash retirement allowances and death benefits, and 7.4.2 other allowances, such as a company car, use of company office space, et cetera, along with the cash value of each item 7.5 amounts deferred or expended during the past fiscal year |
|--|--|

But since 2003, this situation has changed dramatically. The law now requires that corporations disclose share-based compensation based on its value at the time it is granted. This means that corporations must disclose their stock-based pay in accordance with their compensation policy. Unfortunately, the law-

maker chose not to additionally require disclosure of the magnitude of accrual from the exercise of options and similar vehicles of compensation. With respect to the disclosure of rights to future pension benefits, the law remains wishy-washy. Here is what it declares: "This (meaning the individual compensation

disclosure requirement) also applies to benefits related to termination of work, if these differ substantially from those provided to other employees." Here, data can be presented in such a way as to meet the letter of the law. We would have hoped for stricter requirements.

Ulrich Hocker

Incentive Systems for Credit Portfolio Managers and Executives

A public debate about incentive systems has erupted over the course of the subprime crisis. In particular, critics assert that the bonus systems currently in place are too strongly governed by short-term objectives and tempt managers into excessive risk-taking; this, according to critics, runs contrary to the long-term interests of shareholders.

Essentially, a bank manager receives a compensation package consisting of three components: A fixed base salary (including pension commitments and payments in kind), a profit-related annual bonus payment in cash and stock-based compensation. UBS's annual report, for example, discloses that in 2007 the income of the Board of Directors consisted of 22 percent base salary, 50 percent bonus payments and 28 percent restricted or deferred shares of stock. Concerning the compensation of the Board of Directors of Deutsche Bank in 2007 the three components amounted to 13 percent, 52 percent and

35 percent. Thus, the base salary comprises only one small portion of the total income. Approximately half of the total compensation package is accounted for by annual bonus payments which may be tied to the attainment of companywide and/or individual objectives during the previous financial year. However, this component leads to conflicts of interest between managers and shareholders on account of its short-term incentive effects. Long-term incentives, on the other hand, are generated by stock-based compensation, which frequently can be turned into cash only after several years.

Conflicts of Interest between Managers and Shareholders

Using a simple example, we aim to show how different compensation structures, different combinations of the three components of a compensation package, affect a bank manager's

willingness to take risks. To this end, we consider the situation of a credit portfolio manager who can choose between several credit portfolios of varying quality. The best portfolio exists exclusively of loans with an AAA rating and the worst of loans with a B rating. The worse the quality of the loan pool, the higher is the likelihood of default and the higher the lending rate.

To start with, we assume that the portfolio is financed exclusively with equity capital. Its annual cost is assumed to be equal to the bank's refinancing rate. The manager's annual bonus payment is the portfolio profit (= interest income minus default losses incurred minus financing costs), multiplied by a participation rate. The bonus cannot be negative. At the end of the transaction, the shareholders receive all accumulated profits after payment of the manager's compensation. For a compensation including only a fixed base salary and a bonus payment, at a low participation rate the manager always chooses the worst portfolio quality. This is driven by the option character of the bonus payment, which is like a call option on the portfolio profits. As is known from option pricing theory, the value of this option increases with the underlying risk. However, an increasing bonus risk also reduces the manager's expected income benefit if he cannot hedge against it. At a low participation rate, the manager chooses the worst portfolio quality because his risk then is low and, thus, the anticipated expected profit drives his decision.



This profit is higher for poor portfolio quality. Shareholders, however, who are fully exposed to the default risk, tend to prefer average quality, giving rise to a conflict of interest.

Stock-Based Compensation to Solve the Conflicts

There are two ways to resolve this conflict of interest: The first way is to increase the manager's participation rate. If the base salary is reduced, so that the benefit from the total income remains the same, this increases the share of the compensation package that is at risk. Therefore, for a manager weighing the expected bonus payment against the bonus risk, there is a stronger incentive to choose portfolios of higher quality. The second way is for the shareholders to additionally grant the manager a share of the net assets; this is the equivalent to stock-based compensation. This also results in an increase in the share of the compensation package that is at risk and the manager chooses portfolios of higher quality. Moreover, as a share owner, he also bears the risk of default (together with the shareholders).

Thus, it appears that with a compensation structure consisting of the three aforementioned components, the share of the compensation package that is at risk must be high enough to give the manager an incentive to invest in portfolios of high quality and thus act in the interest of the shareholders.

If, in addition to the selection of the portfolio quality, the manager is allowed to increase the portfolio volume by raising debt capital, one observes, on the one hand, a similar effect, yet on the other, a strong trend towards taking high risks. With a given base salary and low participation rate, a manager will choose a worse portfolio when the volume is low – that means, when little leverage is used. At large volume, the bonus risk has a relatively stronger effect on him, thus inducing him to prefer a better portfolio quality. On the other hand, however, the manager always profits from an increase in leverage with a given portfolio quality. Because the bonus that he receives is non-negative, it increases with the portfolio volume; in the unfavourable borderline case, it remains at zero. Consequently, the anticipated income benefit increases in tandem with greater leverage.

Penalty Components

This phenomenon underscores the problem with a bonus system of this kind. Even if the manager invests with high leverage exclusively in good portfolio quality, he increases the bank's insolvency risk and therefore endangers financial stability, especially in periods of crisis. Behaviour of this type was observable during the period before the subprime meltdown. Examples of risky instruments include structured investment vehicles (SIVs) and ABCP conduits, which are typically highly lever-

aged and invest primarily in assets with the highest credit standing. The SIVs contributed to the triggering of the subprime crisis because their own capital resources were consumed very quickly. The ABCP conduits, which operate without equity capital, discovered to their chagrin that commercial paper financing collapsed. How can bank managers be prevented from choosing such high debt ratios? To this end, one could incorporate additional penalty components in the compensation system which punish a high debt ratio and, thus, high insolvency risk. This can be accomplished, for example, with a termination clause that provides for dismissal of the manager if an agreed upon share of equity capital is consumed by losses. Alternatively, a penalty for high indebtedness can be incorporated in the calculation of bonuses. Summarising, it should be emphasised that the effect of individual compensation components strongly depends on the manager's attitude towards risk and the decisions which he may take to avoid unwarranted compensation effects. It is impossible to generally determine the optimum compensation system. Nevertheless, it is very important that the compensation system use penalty components to prevent the managers from taking high risks. In addition, the market participants should insist on information about the compensation system so that they can better anticipate the incentives and the associated bank risks.

Günter Franke and Julia Hein

Does the Market Value Intangibles?

This paper documents significant excess returns to Fortune magazine's "100 Best Companies to Work for in America". Between 1998-2005, a portfolio of these firms earned an annualized return of 14 percent per year, over double the market return, and a monthly four-factor alpha of 0.64 percent. The outperformance is consistent, in both booms and recessions, and also holds when extending the sample back to 1984. These findings are robust to a

large number of controls. One concern is that the Best Companies' outperformance was simply because they were in industries that happened to do well. To address this concern, for each Best Company I calculated the return to every firm in its industry over the relevant period and subtracted the average industry return from the Best Company's return; the outperformance remained significant. A similar concern is that the Best Companies' outperformance stem-

med from possessing characteristics that are correlated with higher returns – for example, small companies, value stocks, and stocks that have recently risen are known to perform well. My results are still significant when controlling for a large list of firm characteristics (including, but not limited to, size, value and momentum). The results are similar regardless of whether I equal- or value-weight the portfolios, and are not driven by outliers.

As expected, returns are higher when the portfolio is rebalanced each year to reflect annual updates in the Fortune list, compared to a simple strategy of buying and holding the 1998 list.

The paper uses stock returns as the primary dependent variable, rather than accounting variables, for a number of reasons. First, stock returns address issues of reverse causality – that profitable companies lead to employees being happier. A company's profits

cient level of compensation, albeit in a non-pecuniary form. Retention was not a motivation for increasing employee satisfaction, as employees typically performed unskilled tasks and were easily substitutable. Intrinsic motivation was not a reason, as workers could easily be motivated extrinsically, via pay-for-output.

In addition, employee satisfaction may represent an inefficient form of compensation compared to cash, for

club memberships, these cannot be bought with cash from third parties, and so it is efficient for the firm to provide them by on-the-job satisfaction. Moreover, high employment satisfaction may represent an efficient level of compensation. Nowadays, workers are increasingly called upon to exhibit creativity and initiative rather than follow prescribed processes. Since key outputs are hard to measure (for example teamwork, idea generation, building client relationships), the traditional motivation tool of pay-for-output is often inappropriate. High employee satisfaction is thus increasingly important in generating intrinsic motivation. Satisfied employees identify with the firm and internalise its goals, and will therefore willingly exert effort even in the absence of extrinsic incentives. In addition, high employee satisfaction can also achieve retention of key workers. This is critical to many firms for which employees are the most important asset and the greatest source of sustainable competitive advantage.

Even if managers are aware of the long-run benefits of investing in human capital, they may forgo investment. The key problem is that such investment is intangible: while the costs are immediately observable (lower earnings), the benefits may not become observable for many years. Intangible investment may thus depress earnings and thus the stock price. Since a low stock price increases the risk of a hostile takeover, and reduces the value of the manager's shares and options in his firm, he may avoid investment even though it is beneficial in the long-run.

Socially Responsible Investing

These "myopia" concerns rest on the assumption that the benefits of investment are very difficult to credibly communicate to the market. This explains why the study analyses a widely-respected, publicly available survey which represents independent certification of a firm's intangibles. In addition, I delay forming my portfolios until the month after Fortune publication, to give the market time to react to the list. If the market fully incorporated the contents of the Fortune list, I should have



should already be impounded in the current stock price and so a profitable company should not generate superior returns going forwards. Second, employee satisfaction may improve shareholder value through many channels other than accounting performance, such as the launch of new products or patent filings. Third, the paper is concerned with the stock market's valuation of employee satisfaction, and shareholder returns to a trading strategy based on employee satisfaction.

Employee Satisfaction and Shareholder Value

The first implication is to suggest that employee satisfaction is positively correlated with shareholder value. This is not as obvious as it may sound. Historically, employees were viewed as a cost to be minimised, no different to other costs such as raw materials. Management strategies therefore sought to extract as much effort as possible from workers, while minimising their compensation (in terms of both cash salary and working conditions). Employee satisfaction thus may represent an ineffi-

cient reason that CEO perks, such as country club memberships, are often viewed as inefficient compensation. The CEO is forced to consume the perk even if he does not value it highly, whereas cash is freely exchangeable and could be used to buy the perk if the CEO desires it. The same argument would imply that workers should be paid entirely in the form of cash, rather than superior working conditions.

Indeed, in the early 20th century, cash was the strongest motivator: given relatively harsh economic conditions, workers were mainly concerned with meeting their physical needs (such as food and shelter), which were best addressed with money.

However, the world is now different. Human relations theories argue that satisfaction is an efficient form of compensation in the modern firm. These theories stress that money is only an effective motivator up to a point: once workers' basic physical needs are met (which is increasingly true in the more affluent current economic environment), they are increasingly motivated by non-pecuniary factors such as recognition and self-esteem. Unlike country

found no abnormal returns to my portfolios. By showing that intangibles are not incorporated into the market, even when certified by a study as respected as Fortune's, my study suggests that intangibles in general are not incorporated into the stock market, the vast majority of which have no equivalent of the Fortune survey for independent verification. This provides support for managerial myopia theories.

The traditional view of Socially Responsible Investing (SRI) is that it worsens investment performance, since SRI screens reduce an investor's choice set. Investors thus face an "either-or" choice: either to maximize returns, or to pursue non-financial goals (for example social responsibility) at the expense of returns. Indeed, many prior studies have found that SRI either worsens, or at best has no effect on returns. This paper shows that an SRI screen, based on em-

ployee satisfaction, may enhance returns. Investors thus may be able to "do well and do good."

Discussion of the Study's Findings

While I document a statistically and economically significant association between employee satisfaction and stock returns, I cannot make strong claims about causality. The use of stock returns as the primary dependent variable addresses concerns of reverse causality from profitability to employee satisfaction, but I cannot rule out the explanation that a third unobservable variable (for example superior management practices) drives both employee satisfaction and performance – while I control for a large number of observable determinants of returns, by their very nature I cannot control for unobservables. This would not affect the con-

clusions on the profitable trading strategy and the market's non-incorporation. However, it would mean that firms should not expect to increase corporate performance by improving employee satisfaction (without changing management practices).

The Fortune survey only contains 100 companies per year, the right-tail of the employee satisfaction distribution. This small sample may not be fully representative of the effect of employee satisfaction in general on shareholder returns. For example, employee satisfaction might only matter at very high levels. The results only document superior returns to an SRI strategy based on an employee satisfaction screen. We cannot draw conclusions about the profitability of SRI in general, particularly using alternative screens (for example environmental or societal factors).

Alex Edmans

The Authors

Prof. Alex Edmans, Ph.D.

Assistant Professor of Finance, The Wharton School, University of Pennsylvania, Philadelphia, USA.

Prof. Dr. Dr. h.c. Günter Franke

Professor for International Finance, University of Konstanz, Germany, Head of the "Center of Finance and Econometrics" at the University of Konstanz, Coordinator of the DFG-research group on "Price, Liquidity, and Credit Risk: Measurement and Allocation", and research associate Centre for European Economic Research in Mannheim, Germany

Julia Hein

Research fellow at the chair of International Finance, University of Konstanz, Germany.

Ulrich Hocker

Chief Executive of the Deutsche Schutzvereinigung für Wertpapierbesitz e.V. (DSW), Düsseldorf, Germany.

Dr. Karl-Friedrich Raible

Head of compensation consulting at Kienbaum Management Consultants GmbH, Frankfurt/Main, Germany; has dealt for many years with the design of performance-oriented compensation systems for managers, particularly executive boards and directors.

Urszula Pustelnik

Compensation consulting associate at Kienbaum Management Consultants GmbH, Frankfurt/Main, Germany; key researcher for the study Mid- and Long Term Incentive Plans 2007/2008.

Dr. Michael Schröder

Head of the research department "International Finance and Financial Management", Centre for European Economic Research in Mannheim, Germany.

ZEW

Zentrum für Europäische
Wirtschaftsforschung GmbH
Centre for European
Economic Research

IMPRESSUM

Special Stock Option Watch – Responsible for the content:

Dr. Michael Schröder (ZEW), Phone +49 621/1235-140, Fax +49 621/1235-223, E-Mail schroeder@zew.de

Zentrum für Europäische Wirtschaftsforschung GmbH (ZEW) Mannheim

L 7, 1 · 68161 Mannheim · P.O.Box 10 34 43 · 68034 Mannheim · Germany

Phone +49 621/1235-01 · Fax +49 621/1235-224 · Internet: www.zew.de, www.zew.eu

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