

Swiss Finance Institute
Research Paper Series N°11 - 12

Are shareholders stupid? On the surprising impact of binding say-on-pay on stock prices

Alexander WAGNER

University of Zurich, Swiss Finance Institute and CEPR

Christoph WENK

University of Zurich

swiss:finance:institute

 FINRISK

National Centre of Competence in Research
Financial Valuation and Risk Management

Established at the initiative of the Swiss Bankers' Association, the Swiss Finance Institute is a private foundation funded by the Swiss banks and Swiss Stock Exchange. It merges 3 existing foundations: the International Center FAME, the Swiss Banking School and the Stiftung "Banking and Finance" in Zurich. With its university partners, the Swiss Finance Institute pursues the objective of forming a competence center in banking and finance commensurate to the importance of the Swiss financial center. It will be active in research, doctoral training and executive education while also proposing activities fostering interactions between academia and the industry. The Swiss Finance Institute supports and promotes promising research projects in selected subject areas. It develops its activity in complete symbiosis with the NCCR FinRisk.

The National Centre of Competence in Research "Financial Valuation and Risk Management" (FinRisk) was launched in 2001 by the Swiss National Science Foundation (SNSF). FinRisk constitutes an academic forum that fosters cutting-edge finance research, education of highly qualified finance specialists at the doctoral level and knowledge transfer between finance academics and practitioners. It is managed from the University of Zurich and includes various academic institutions from Geneva, Lausanne, Lugano, St.Gallen and Zurich. For more information see www.nccr-finrisk.ch.

This paper can be downloaded without charge from the Swiss Finance Institute Research Paper Series hosted on the Social Science Research Network electronic library at:

<http://ssrn.com/abstract=1793089>

Are shareholders stupid?

On the surprising impact of binding say-on-pay on stock prices *

Alexander F. Wagner[†] Christoph Wenk[‡]

August 1, 2011

Abstract

This paper is the first to empirically analyze the value to shareholders of the power to have a *binding* vote on management pay. We find that in response to an unanticipated event that made it likely that an annual binding vote would become compulsory for Swiss public companies, the apparent immediate beneficiaries of such a power shift – the shareholders – reacted strongly negatively on average: The stock prices of more than two thirds of public companies fell abnormally. We investigate two reasons for this surprising reaction. First, while there are alignment benefits of binding say-on-pay, it interferes with efficiently managed companies. Consistent with this idea, firms that have performed well and those that pay their CEOs at market levels experienced particularly sharp share price drops. Second, shareholders may worry that CEOs anticipate that any extra-contractual human capital investments they make in the firm are unlikely to be rewarded in full when shareholders vote on compensation in the next annual meeting. CEOs would, therefore, distort their specific investments, decreasing firm value today. Consistent with this idea, for example, firms with younger CEOs saw steeper valuation declines.

JEL-Classification: G38, G34

Keywords: Say-on-pay, event study, corporate governance, executive compensation

*This research was supported by the Swiss National Science Foundation, the NCCR FINRISK, the Swiss Finance Institute, and the Research Priority Program “Finance and Financial Markets” of the University of Zurich. We thank PricewaterhouseCoopers (especially Robert Kuipers and Remo Schmid) for providing compensation data and sharing insight into the compensation practices at Swiss companies and Josefine Böhm, Fabian Forrer and Oliver Schrempp for research assistance. Our thanks go to Jay Cai, Michel Habib, Alexandra Niessen-Rünzi and Per Östberg for comments, to Egon Franck, Hans-Ueli Vogt, and Rolf Watter for discussions of the implications of the say-on-pay initiative and to Thomas Minder for a conversation about the say-on-pay initiative’s demands.

[†]Swiss Finance Institute - University of Zurich and CEPR. Mailing address: Department of Banking and Finance, University of Zurich, Plattenstrasse 14, CH-8032 Zurich, Switzerland, Phone: +41-44-634-3963, Email: alexander.wagner@bf.uzh.ch.

[‡]Department of Banking and Finance, University of Zurich

1 Introduction

In this paper, we conduct an event study to assess the stock market reaction around the date of an important milestone towards a law requiring binding shareholder say-on-pay. The striking overall finding is that shareholders react quite negatively to the enhanced power that binding say-on-pay gives them. The market seems to be concerned that the costs to firms of binding say-on-pay are high and outweigh the potential benefits for all but the most inefficiently managed firms. We further document that firms where securing firm-specific, extra-contractual investments by CEOs is arguably more difficult, suffer more strongly from enhanced shareholder power. Thus, shareholders have a negative view on binding say-on-pay not despite, but *because of* the additional power it affords them. We conclude that the answer to the title question is “no,” and that the reaction of shareholders can be understood as reflecting the benefits and costs of binding say-on-pay in their respective companies.

The question how (and if at all) to design say-on-pay regulation is a topical policy question. In the U.S., a first proposal by Representative Barney Frank to provide shareholders with an advisory vote on executive compensation passed the house in 2007, but was never picked up by the Senate. Yet, a similar proposal later became part of the ‘Dodd-Frank Wall Street Reform and Consumer Protection Act’ of 2010. As a result thereof, the SEC adopted a rule in January 2011 that requires a shareholders’ advisory vote on executive compensation at least once every three years and forces firms to disclose and hold an advisory vote on “golden parachutes” in connection with mergers or going-private transactions. However, proposals for binding say-on-pay rules have also been brought

forward, and proposals to further strengthen shareholder power are likely to keep appearing.¹ In Europe, the European Commission has been issuing recommendations in connection with directors' remuneration ever since 2004 (see [European Commission \(2010\)](#) for a review; the U.K. had made the pioneering efforts in Europe), and in 2011 it released an updated Green Paper on Corporate Governance, in which it specifically raised the question if the remuneration policy and report should be subject to a mandatory shareholders' vote, whether advisory or binding.² A large number of countries is considering or has already implemented a (partially) binding say-on-pay rule.³

The popular attitude towards shareholder power tends to be "more is better." Researchers and practitioners alike emphasize instead that it is not obvious whether shareholders should welcome say-on-pay and enhanced governance rights or rather abhor them. Most discussions focus on whether alignment benefits or interference costs dominate.⁴

On the one hand, say-on-pay may better align owner-manager interests and improve governance and performance. Allowing shareholders to have a say in executive pay may help to reduce the agency costs between executives, directors and shareholders, resulting in more efficient compensation contracts and thus add value to the firm. To avoid the embarrassment of a low approval vote on executive compensation, management may be more willing to start dialogues with shareholders and listen to their concerns. Another advantage practitioners sometimes highlight is that having to explain a compensation system to shareholders and win their (advisory) approval forces the

¹For example, the Excessive Pay Shareholder Approval Act that was introduced in May 2009 would have required a shareholder approval rate of 60% if an individual executive received more than 100 times the average salary paid within the firm.

²[European Commission \(2011\)](#), Section 1.4 with questions (9) and (10).

³For example, Belgium, the Czech Republic, Denmark, Finland, France, Hungary, Latvia, the Netherlands, Norway, Portugal, and Sweden have introduced laws that require say-on-pay votes with partially binding elements.

⁴See for example, [Bainbridge \(2008\)](#), [Bebchuk and Fried \(2004\)](#), [Cai and Walkling \(2011\)](#), [Davis \(2007\)](#), [Deane \(2007\)](#), [Ertimur, Ferri, and Stubben \(2010\)](#), [Ertimur, Ferri, and Muslu \(2011\)](#), [Greenstone, Oyer, and Vissing-Jorgensen \(2006\)](#), [Grundfest \(1993\)](#), [Larcker, Ormazabal, and Taylor \(2011\)](#), [Lo \(2003\)](#), and [Thomas and Cotter \(2007\)](#).

board and executives to really think through the system.

On the other hand, say-on-pay may also be disruptive and interfere with efficient firm management. Opponents to say-on-pay argue that the current governance of most companies is efficient and there is no need for the government to regulate the process of determining executive compensation. They further reason that the bill will distract the management's decision process and reduce the authority of the board. Moreover, critics worry that the shareholder's initiatives will be divisive or driven by special interests of extremely small shareholder groups.

Besides these two often-discussed ideas, there is an additional indirect cost that has received little attention so far:⁵ Shareholders may do well to restrict their own power because other stakeholders who make specific investments in the firm fear that too powerful shareholders might "hold them up." Shareholders recognize that even their own "piece of the pie" will be smaller when such specific investments are not made. In the present case, if CEOs anticipate that they will not receive the full returns on their firm-specific investments, their incentives to engage in such investments are strongly diminished. Anticipating the fall in firm value, shareholders bid down the stock price.

Two existing studies have considered the alignment versus interference argument. [Cai and Walkling \(2011\)](#) were the first to recognize the potential of empirically investigating the value of say-on-pay to shareholders with the event study methodology. They found generally neutral to slightly positive stock market effects to the 2007 passage of the U.S. House act that required *advisory* say-on-pay, with positive outcomes in firms that paid their CEOs the largest excess compensation. Thus overall, for advisory say-on-pay, the alignment effect seems to outweigh the interference effect. [Larcker, Ormazabal, and Taylor \(2011\)](#) find similar results, on average, for this event. They also document, however, small negative market reactions to some other developments

⁵See in particular [Stout \(2003\)](#) and [Stout \(2007\)](#).

that suggest higher probabilities of regulation of corporate governance and executive pay. Pooling across the events, they find more negative reactions in firms with highly paid CEOs.

To our knowledge, however, no study related to say-on-pay has considered the need of firms to ensure firm-specific investment by top management. The testable implication here is that firms where specific investments by CEOs are more difficult to secure will suffer more from enhanced shareholder power. This effect is arguably most pronounced under binding say-on-pay (as are the benefits of stronger alignment and the potential interference costs), but no evidence is so far available on the consequences of such a pay regulation.

A recent development in Switzerland is now providing us with a genuine natural experiment that allows a quantitative analysis of the stock market reaction to an important step in the legislative process towards binding say-on-pay regulation. On February 26, 2008, entrepreneur Thomas Minder publicly announced that more than 100'000 signatures in favor of his "Fat Cat Initiative" ("*Abzocker-Initiative*") had been collected. Per Swiss law, this meant that the proposed bill of Mr. Minder was set for a public vote with potential effects on the Swiss constitution. While the text of the initiative contains several provisions enhancing shareholder rights, the central element is enhanced, binding say-on-pay for all publicly traded firms.

The environment in which the legislation process unfolded provides a very clean setting for the methodology we apply: the announcement that enough public support in favor of the initiative was gathered to enforce a national vote came suddenly and was hardly predictable. This setting is exceptional, especially compared to the traditional parliamentary vote setting where the date of the vote as well as the distribution of power in favor or against the issue is usually known in advance. Moreover, the Swiss stock market is highly liquid and open to domestic and foreign

investors alike, allowing for information to be reflected in market prices efficiently.⁶

We begin by documenting that the large majority of firms reacted significantly negatively. An equal-weighted average of all stocks making up the broad Swiss Performance Index (SPI) displayed a cumulative abnormal return of -1.49% in market value during the three day event-window.

We then study the notion that binding say-on-pay may improve alignment, but may bring about direct and indirect costs, and that the cross-sectional variation in share price reactions can be explained by the variation in benefits and costs.

We first consider the idea that implementation costs are likely to vary by firm size. The largest organizations are better prepared and face lower relative costs in coping with potential new laws on shareholder say-on-pay. The smallest companies are usually tightly knit to their shareholder base with a considerable amount of equity being held by management, so that potential interference through external shareholders can be kept at a low level. Consistent with these arguments, we find that the largest and smallest companies (top and bottom quintile) were largely unaffected while medium-sized firms lost significantly in market value.

As for alignment and improved outcomes for shareholders, we find, second, that firms which outperformed size- or risk-based benchmarks in the past, dropped significantly more than those with poor performance, and that even the latter group had negative abnormal returns on average. This suggests that there is a direct cost of interference that strongly disturbs otherwise efficiently run companies and also diminishes the benefits for the less efficiently run firms.

Third, the stock prices of firms that paid their CEOs amounts close to the estimated normal

⁶The market capitalization of Switzerland (SIX Swiss Exchange) at the end of February 2008 was US\$ 1'264 billion, which was 2.21% of the world-wide market capitalization. Averaging over the past ten years, SIX Swiss Exchange ranks 10th highest in terms of market capitalization worldwide, and has the 3rd highest per capita market capitalization (World Federation of Exchanges 2010).

salary tended to drop the most during the event, whereas firms where abnormal executive pay was either highly positive or negative only moved slightly. This (not highly significant, but economically interesting) finding is consistent with the idea that in firms where pay is set according to competitive market requirements anyways, binding shareholder engagement in the pay-setting process may be value-destroying.

Fourth, as a novelty in the literature on shareholder rights legislation, we consider various tests of the idea that enhancing shareholder power may worsen hold-up problems and distort firm-specific investment incentives of CEOs in firms where CEOs have opportunities and incentives to invest in general human capital and thus improve their outside options. While no obvious direct measure of the intensity of the hold-up problem is easily available, we argue that shareholders of firms with younger CEOs and those with CEOs of a shorter tenure at the respective firm are likely to worry the most that CEOs will have less incentives to make firm-specific investments once shareholders have the power to decide whether they are paying the CEOs the full returns to their human capital investment in the future. Indeed, we find that stock price declines were much more pronounced in these firms. Other potential proxies, such as foreign asset ownership of firms, did not significantly determine share price reactions.

While our study is specific to Switzerland, the results (whose implications we further discuss in the conclusion) may also inform current policy debates in other countries.⁷

Section 2 describes the legislative setting and the say-on-pay proposal that we study. In Section 3 we discuss our empirical strategy and data. Section 4 presents the findings. Section 5 concludes.

⁷This is the first study to analyze the market perception towards say-on-pay legislation outside the U.S. Studies such as [Ferri and Maber \(2009\)](#) and [Conyon and Sadler \(2009\)](#) instead look at the impact of legislation on executive pay (see also [Deane \(2007\)](#)) and how legislation changed shareholder activism.

2 Legislative setting and the binding say-on-pay initiative

To provide a better understanding of the setting in which the event study is conducted, we first describe the political environment that surrounds it. Second, we describe the major points of the binding say-on-pay initiative.

2.1 Legislation process

The Swiss political system knows, roughly speaking, two ways of enacting new laws (see Klöti, Knoepfel, Kriesi, Linder, Papadopoulos, and Sciarini (2007) for a more detailed summary of the Swiss system). The common way is through a consensus decision between parliament and senate. In case the proposal does not interfere with the Swiss constitution, these decisions turn into law. The second way is through the public itself, by means of an initiative which can be started by every Swiss citizen. If an initiative receives the backing of at least 100'000 Swiss citizens (about 2% of the electorate of around 5'000'000) within 18 months, it must be put on the agenda for a national vote. In case the public vote supports the initiative, it will turn into an amendment to the Swiss constitution. This makes initiatives an important instrument for the public to step up in case parliament does not address an issue of public interest.⁸

We consider the so-called “*Abzocker-Initiative*” (“Fat Cat Initiative”). On February 26, 2008, the announcement was made that the threshold of 100'000 signatures in favor of the initiative had been collected. Unlike many initiatives that are rather a general call for action to parliament and senate than original proposals to turn into law, the present initiative had a clear program that it aimed at turning into legislation. It offered a specific text to be adopted as law, discussed in the

⁸Indeed, Switzerland is well-known for the lively tradition of direct democracy. See, for example, Frey (1994).

next section. Due to the unfavorable public mood concerning management compensation⁹ and the strong backing it received from important political parties, the initiative furthermore stands a good chance of successfully passing a national vote. We consider these circumstances as serious enough to catch the attention of the stock market participants. (Nonetheless, the fact that the initiative only represents a step towards a possible law implies that by studying stock market reactions to the initiative we likely underestimate the true economic impact it would have upon enactment.)

2.2 Say-on-pay initiative

The full text of the initiative is in Appendix A. The initiative affects all public Swiss limited liability companies, independent of their size. Most of the claims are directly related to management and board compensation, demanding a *binding* annual vote on total compensation for the board of directors (BOD), the executive board (EB) as well as the advisory council. The shareholders vote ex-ante for the the different compensations packages of each body and furthermore have the right to vote ex-post on all compensation that is paid in excess of what has been approved at the previous general assembly. For example, shareholders may approve an equity plan (where the amount approved is determined according to some valuation model) and a bonus pool for management for the coming year. To the extent that the board of directors wishes to hand out bonuses covered by this bonus pool, no additional vote is necessary ex-post. However, if the board of directors wishes to grant higher bonuses, the difference needs to be approved ex-post. In either case, contracts with new management would be conditional on their pay packages being approved

⁹In a large national public poll in November/December 2007, 85% of the people questioned were in favor of a stringent say-on-pay law for Switzerland (Vimentis, 2007).

at the next general assembly, with obviously high uncertainty for management and the board. (One interpretation of the initiative is that if the incoming management's compensation package is similar to the leaving manager's package, the previously approved package may be used for the incoming management as well.) In case shareholders vote against a proposal, management has to schedule a new assembly to vote on a revised proposal.

The compensation committee is also required to be elected anew on an annual basis with an individual vote for each member. Furthermore, all monetary benefits (loans, pension benefits, etc.), as well as the relative composition of the variable, performance-related pay (e.g., the proportions of pay conveyed in shares, options, and cash, as well as the maturities and vesting periods for options, etc.) to the BOD and the EB need to be included in the firm's articles of association. Once in the articles of association, these rules stay in place until the general assembly decides to change them. The initiative also prohibits any kind of termination pay or advance payments to the BOD or EB. Other requirements concern the election of the BOD, the transparent voting of a firm's pension fund, and the individual liability of BOD and EB members. The initiative not only demands binding annual votes, but also closes all known loopholes to evade these votes. For example, it prohibits companies to delegate a firm's management to a foreign company.

In short, the initiative implies a significantly more intense effort to strengthen shareholders power within the firm than advisory say-on-pay laws in some other countries.

3 Empirical strategy and data

3.1 Event study

The event study methodology applied in this research follows standard practices as described, for example, in [Kothari and Warner \(2007\)](#) or [MacKinlay \(1997\)](#) and further incorporates a recently improved test statistic ([Kolari and Pynnönen, 2010](#)). Based on the two events described in the previous section, we defined event-windows that span ± 1 day around the event-day to capture early information leakages as well as lagged reactions to the news. The initiative committee went public without leaking information previously to obtain the highest possible impact. Extending the event-window would, therefore, only dilute the results. For the length of the estimation-window, we chose the well-established duration of 250 trading days ending two days before the event.

To calculate abnormal returns (AR), we applied the commonly used market model that relates market returns to individual stock returns:

$$R_{i,t} = \alpha_i + \beta_i(R_{m,t}) + \epsilon_{i,t},$$

with $R_{i,t}$ being the risk-free rate adjusted return of company i on day t ($r_{i,t} - r_{f,t}$), $R_{m,t}$ the daily risk-free adjusted return of the SPI at date t and β_i is the sensitivity measure of stock i to movements of the SPI. $\epsilon_{i,t}$ is a zero-mean disturbance term and α_i a stock specific constant. The difference between the effectively observed return ($R_{i,t}$) and the estimated normal return ($\widehat{R}_{i,t}$) is the *abnormal return*.

We use two different methods for studying the cross-sectional variation in stock price reactions:

(1) by comparing mean CARs within portfolios formed based on relevant characteristics of interest,

and (2) by running regressions with CARs as the dependent variable. The former approach has the benefit that we can make use the maximum number of observations for each variable, while the latter has the advantage that we can hold certain important control variables constant.

In the case of means comparisons across portfolios, for the main presentation, we use the resulting CAR-variance to draw inference. (For details, see Appendix B.) When testing the impact of legislative events on a cross-section of companies, event-time clustering (a common event-window for companies) can potentially complicate inference because it implies a violation of the assumption of independence of abnormal returns in the cross-section of analyzed firms (Bernard, 1987). However, even for our basic testing procedure, this problem is typically much attenuated in studies like ours that use very short event-windows in connection with daily return data (see, for example, Kothari and Warner (2007)).

We also employ an adjustment to the Boehmer, Musumeci, and Poulsen (1991) test statistic, suggested by Kolari and Pynnönen (2010).¹⁰ By taking into account the average sample cross-correlation of abnormal returns in the test-specific variance, they show that their adjusted test statistic not only stays robust in case of an event-induced variance increase, but also to event-time clustering.¹¹

Finally, we further followed proposals by Kolari and Pynnönen (2010) and Campbell, Cowan, and Salotti (2010) and complemented the parametric tests mentioned above with a non-parametric

¹⁰Both test statistics account for event-time clustering by using scaled cumulative abnormal returns (SCARs), as suggested by Patell (1976). Scaled returns reduce noise by weighting abnormal returns by the inverse of their standard deviation and hence make it more likely to detect the true statistical significance of the data. The test proposed by Boehmer, Musumeci, and Poulsen (1991) not only takes into account event induced variance changes, but also has better properties vis-a-vis the standard test to deal with event time clustering.

¹¹As with all test-statistics based on SCARs, the authors point out that it is important to only consider SCARs to detect statistical significance of abnormal returns, but to rely on standard CARs for the interpretation of economic effects. Hence, when comparing the difference in reaction between various portfolios, we rely on the measures of basic CARs.

test, in our case the generalized sign test (Corrado and Zivney, 1992). The generalized version of the sign test was calibrated according to the binomial distribution of positive and negative abnormal returns, either of single stocks or in case of portfolios of all stocks within, during the estimation window. Campbell, Cowan, and Salotti (2010) show that this test generally performs better compared to parametric tests as it does not rely on assumptions about correlations (and is, as such, free from the clustering issue), yet has a drawback in case the event induced variance change is large. Since the variance increase in our sample is only 30% instead of the doubling assumed in their test environment, we believe that the generalized sign test is a reliable complement to the parametric tests.

3.2 Events

As for every event study, the crucial point is to carefully examine and define the date at which the significant event took place. In case of a legislative change (as considered here), it is especially important to determine which milestone is likely to have the largest impact, either because it was the least expected and/or the most important one. We conducted a national keyword-search in the vast news-database of LexisNexis for the time period of July 2006 to March 2010, the timeline during which the initiative has been developing.

The main results of this search are collected in Table 1, and we discuss them briefly here. The initiative was initially mentioned in the first week of August 2006, officially verified in mid-October 2006, and the collection of signatures started on the last day of October 2006. As these first three steps all carried a lot of uncertainty about the outcome and implication of the initiative, it seems very unlikely that they had a significant impact on the stock market.

TABLE I ABOUT HERE

The main event we focus on in this paper, taking place on February 26, 2008, was the announcement that the threshold of 100'000 signatures in favor of the initiative had been collected. The news were released shortly before mid-day and communicated widely through various channels, i.e., radio, television, news networks such as Bloomberg as well as through the internet. The coverage was further extended on the following day by the print media.¹² The timing of this event was hardly predictable for market participants since there was no publicly available signatures count. According to different sources of the Swiss press, the announcement was chosen to be released right before the reporting season of the largest Swiss corporations started. By doing so, Mr. Minder aimed at increasing the pressure on companies to voluntarily introduce advisory votes. This is another indication that the news release was new to the market, as this strategy would not have had the anticipated impact otherwise.

In the additional results (see Section 4.3), we also provide information on a second potentially important event, in February 2010, when a major exponent of the largest political party in Switzerland (Christoph Blocher, a former minister in the Swiss federal government) announced that he and his party will back the initiative.

To determine the extent to which the likely driving force of the observed stock market reaction was, in fact, the respective news announcement, we screened the data during the event-window for possible confounding events, considering the same media as in the main event search. One noteworthy event occurred on February 24, 2008, when a corporate tax reform (the “*Unternehmenssteuerreform II*”) was accepted in a referendum by the Swiss electorate. We argue in the robustness section below that this event, if at all, is likely to lead to a positive bias in the estimated abnormal

¹²We screened LexisNexis as well as some additional important newspapers (e.g., Neue Zürcher Zeitung) and data sources (e.g., Bloomberg) for news on this announcement.

returns. An additional search for other national and international news during the time frame of the event yielded no further relevant confounding event. Particular events that potentially impact single firms specifically (e.g., earnings announcements), were controlled for separately and are discussed in Section 4.3. Overall, we expect that any abnormal return during this period can be attributed to the initiative.

For the estimation-window, we also searched for news in connection to the initiative that may potentially lead to a biased event-window return estimator. For the first event, the main focus of this study, we could not identify significant news content that was directly connected to the legislation, though we comment on one possible confounding event in the robustness section. During the estimation-window of the second event (in February 2010), we identified four occurrences that were closely related to the initiative, namely the development of a so-called “indirect counterproposal” by the Federal Council. We have no indication that any of the identified four events were either unexpected or of significant importance and hence inflicting a bias. In fact, a bias in this context would likely lead to an underestimation of the impact of the initiative on the event-day, because part of the share movement was already captured in the estimation-window. Therefore, the data for the estimation-window of the second event was left unadjusted for these four events.

3.3 Data

Our sample consists of all the companies that were listed in the Swiss Performance Index (SPI), the overall Swiss market index, during the respective event-window and that had a long enough price history to cover the estimation-window. For the main analysis we ended up with 225 stocks,

covering the entire SPI universe.¹³

To calculate returns, we used data of the official daily closing prices of the SPI constituent companies as available on the Thomson Reuters Datastream database. We screened the data following the recommendations of [Ince and Porter \(2006\)](#).

Besides a single stock-by-stock consideration, we also investigate the relation between company size/compensation levels and abnormal returns by aggregating the firms into suitable portfolios. For these calculations and for the measurement of the monetary impact of the initiative, we collected data on the free-float adjusted market value (*Market Capitalization* in what follows) and the total market value of the SPI companies.¹⁴ This data as well as other price data for the Swiss Performance Index (which we used to calculate the market return), the SPI size-segment indices (each SPI stock is assigned to either the small-size, medium-size, or large-size stock index), and the long-term Swiss government bond rate, as a proxy for the safe interest rate, were also collected from Thomson Reuters Datastream.

Return data for the SPI size-segment subsidiaries was used to obtain each stock's size-index adjusted one-year performance (*Relative Performance*). Furthermore, we used monthly stock returns to calculate a risk adjusted performance measure, *CAPM Alpha*. CAPM Alpha is the residual from a one-year predicted return, based on a two year, quarterly rolling CAPM model return estimate, and the observed annual stock return.

As a consequence of the Transparency Act which came into force in 2007, detailed compensation data is now available for Switzerland. Compensation data for 2007 (which is relevant for the first event) is from [PricewaterhouseCoopers \(2008\)](#) for the largest 48 companies and expanded by

¹³During the second event-window, the number of stocks was 222 of which we cover 220 which is equal to 99.17% of the SPI market capitalization.

¹⁴In four cases where free-float adjusted market value was not available, we used total market value instead.

hand-collection to cover the 100 largest Swiss companies. In terms of market value, this equals to about 98% of the entire SPI.¹⁵ Due to the sometimes limited availability of certain data, the working sample is smaller for some parts of the analysis. [PricewaterhouseCoopers \(2010\)](#) covers compensation in 2009 (i.e., information relevant before the second event).

In the spirit of [Bebchuk, Cremers, and Peyer \(2009\)](#), we calculated abnormal compensation as difference between total compensation paid and remuneration granted by the average comparable firm (*Abnormal CEO Compensation* and *Abnormal Board Compensation*). The parameters for the prediction of normal compensation were estimated separately for CEOs and board members to account for their different status inside the firm with respect to remuneration. For CEOs, the prediction of the normal wage was mainly based on the log of market capitalization, $\ln(MCap)$, and on the one year, size-index adjusted firm performance, with a further control for executive turnover, *Months*, the number of months an executive worked in the firm during 2007, as well as *Dual*, a dummy variable in case the CEO holds the position as chairman of the board at the same time.¹⁶

$$\ln(\text{Comp})_i = \beta_0 + \beta_1 \ln(\text{MCap})_i + \beta_2 \text{Relative Performance}_i + \beta_3 \text{Months}_i + \beta_4 \text{Dual}_i + \epsilon_i \quad (1)$$

In case of board members, we further control for the number of members on the board, *Board*

¹⁵Most companies provide company reports in the period January - March of the following year. As such, at the end of February 2008, strictly speaking, information on compensation in all companies in 2007 may not yet have been publicly available. Compensation data for 2006 is not available for Switzerland, however, as firms were not required to disclose compensation data before 2007.

¹⁶The analysis was also conducted with further controls, such as industry fixed effects or leverage of the firm. Including these and other further variables did not improve the precision of the estimates which is why we chose to include only the variables with the most explanatory power.

Size.¹⁷. Thus, we used the following regression to compute normal board pay:

$$\ln(\text{Comp})_i = \beta_0 + \beta_1 \ln(\text{MCap})_i + \beta_2 \text{Relative Performance}_i + \beta_3 \text{Months}_i + \beta_4 \text{Board Size}_i + \epsilon_i \quad (2)$$

Based on the coefficient estimates from Equations (1) and (2), we predicted total normal compensation for each executive and board member individually. Abnormal compensation was then defined as the gap between predicted normal and effectively paid compensation. To construct the portfolios used in the event study, individual abnormal compensation was aggregated by firm.

We also hand-collected, from firms' annual reports, the fraction of *Management Shareholdings* in the firm, a firm's *Foreign Assets*, whether a firm has a *Staggered Board*, and which election procedure of board members a company employs (*Single Election* votes vs. in-corpore). Furthermore, we use a measure of *Voluntary Disclosure Quality*, obtained from [Eugster and Wagner \(2011\)](#).¹⁸

Data on a CEO's *Tenure* at the current firm, the *CEO Age* as well as the firm's *Leverage*, measured as total debt to total assets, was obtained from Bloomberg.

The summary statistics for the most important variables are collected in Table 2. Correlations are in Table 3.

TABLE 2 ABOUT HERE

TABLE 3 ABOUT HERE

¹⁷In the main analysis we left aside chairmen of boards. Data on chairman compensation are noisy as the chairman role is not defined as clearly as the one of board members or the CEO. It is, in particular, not clear if the compensation provided in the report only covers the job as chairman or if further tasks within the firm are compensated through this amount, too. For 12 chairmen we have no reported salary and an additional 9 chairmen hold a dual function as CEO. Including chairman data did not materially affect the results.

¹⁸The voluntary disclosure quality (VDQ) is based on a theoretically-founded assessment of each firm's annual report, based on weighted criteria such as impression (12), background information (30), important non-financials (42), trend analysis (24), risk information (12), value based management (24), management discussion of annual financial statement (18), goals and credibility (12) as well as sustainability (36). The maximum possible score is 210.

In the regression analysis, we also include a dummy variable equal to one in case firms communicated their 2007 figures to the media around the time of the event-window. The exclusion window was chosen to be five days around the event day. Previous studies found that announcement effects usually fade quickly, making our choice of window a rather prudent one. As such announcements can be accompanied by considerable share price movements, they may impact our results. The effect on the cumulative abnormal return is not clear as the reactions of these firms are diverse, yet test statistics including them are likely to be underestimated as they increase the sample's standard deviation. (Omitting the firms with earnings announcements did not materially affect the results; see Section 4.3.)

4 Results

4.1 Overall results

In the three-day window bracketing the announcement day, the equal-weighted portfolio of all stocks in the sample showed an average abnormal return of -1.49% (see Panel A in Table 4).¹⁹ This result is significant at the 1%-level and holds for all three methods of testing, i.e., the standard cross-sectional test, the adjusted version of the [Boehmer, Musumeci, and Poulsen \(1991\)](#) test ([Kolari and Pynnönen, 2010](#)), and the generalized sign test ([Corrado and Zivney, 1992](#)). The development of the cumulative abnormal return around the event date is depicted in Figure 1. As can be seen in the Figure, on each of the three relevant days (the day before the event, the event day, and the day after the event), considerable negative abnormal returns were realized. In the days before and after the event-window, cumulative abnormal returns remained fairly stable.

¹⁹In what follows, for simplicity, we often refer to returns instead of explicitly speaking of abnormal returns.

FIGURE 1 ABOUT HERE

When looking at stocks individually, 69.8% of them reacted negatively during the event-window. Of the negative returns, 44.6% were also significant at the 10%-level; altogether, about a third of all firms showed significant negative reactions to the event. An overview of the distribution of the individual three-day cumulative abnormal returns (CARs) is provided in Figure 2, illustrating that a major fraction of all stocks fell due to the event. The effects are large, especially taking into account that the successful initiative alone does not guarantee that the proposal would ultimately become law.

FIGURE 2 ABOUT HERE

The perception of this event was, thus, negative on average. When the stock reactions are weighted according to free-float adjusted market value of equity, the weighted overall reaction was not significant and minimally positive, at +0.12%.²⁰ This result indicates that there must be a considerable difference in reaction between the few large “heavy weights” and the many small firms, a conjecture we confirm in the next section.

4.2 What explains the variation in CARs across firms?

We structure our discussion along the two main lines of argument we discussed in the Introduction: The idea that binding say-on-pay may improve alignment, but comes at interference costs; and the idea that part of the costs may be indirectly linked to a distortion of firm-specific investment incentives. These two channels are likely to overlap, and so the presentation we choose serves the

²⁰As our analysis focuses on stock market reactions on the event-day, we weight returns according to the value of the freely tradable number of shares. This avoids a possible distortion due to firms that have a high market value, but only a small free-float.

purpose of providing a framework for organizing a number of interesting empirical regularities, rather than testing one hypothesis against the other.

We use two different methods for studying the cross-sectional variation in stock price reactions:

(1) We compare mean CARs within portfolios formed according to relevant characteristics of interest (with the results in Table 4, panels A through L), and (2) we run regressions with CARs as the dependent variable (with the results in Table 5). The overall inferences with the two approaches are very similar, which is reassuring and taken as a sign of robustness of our results.

TABLE 4 ABOUT HERE

TABLE 5 ABOUT HERE

4.2.1 Direct interference costs: Company size

We first study variation in direct compliance costs. As a proxy for these costs, we use company size (Market Capitalization). The argument is that the smallest companies are unlikely to be vulnerable to excessive shareholder-activism as the major shareholders are usually tightly involved in the firm's business. (For example, the lowest quintile has an average (median) share of management shareholdings of 25.6% (16.25%) while the largest quintile only has 9.4% (0.6%).) On the other extreme, most of the very large Swiss firms had already partially conformed to an increase in shareholder power and introduced advisory say-on-pay in 2007. (Another indicator for this increased awareness of large firms is their significantly higher percentage of executive and board positions that have to be confirmed through single instead of in-corporate elections.) Furthermore, it seems reasonable to assume that fixed costs associated with binding say-on-pay will weigh less

for the largest firms which, as a result, get a comparative advantage out of this legislation.²¹ Thus, we expect the largest relative interference costs to occur for medium-sized firms.

Panel B of Table 4 shows the results for a quintile split according to Market Capitalization. The most significant jumps in average market capitalization are observed between the 1st (average market value of CHF 17.1mn) and 2nd (CHF 98.7mn) as well as the 4th (CHF 0.68bn) and 5th quintile (CHF 21.2bn).

We find that the corner quintiles were both unaffected, while the medium-sized firms lost significantly in firm value. As can be seen in the columns for the t-statistic and z-statistic, respectively, this result holds for both, the parametric and the non-parametric test. Furthermore, these results are robust and become even more pronounced if we value-weight the firms within each quintile.²² This non-monotonic pattern also explains why the overall reaction to the initiative was neutral when companies are weighted according to their market value, but significantly negative when averaged.

To test for the non-monotonic effect in the regression framework, we include both a linear and a squared term of (log) Market Capitalization. As can be seen in Table 5, we obtain a u-shaped relationship between firm-size and CARs throughout. (For regressions covering, due to data availability, only the larger firms the squared term was omitted because it does not improve the fit for these firms.)

²¹For example, large firms generally already have an established public relation department that is in constant contact with shareholders. The fixed costs may also be more subtle in the form of an increased effort by management to keep off large investors who aim at exchanging leading executive and board positions.

²²This size effect becomes even stronger if the sample is split along the lines of the SIX Swiss stock exchange size definitions. On average, the 20 largest firms in terms of market capitalization (the firms comprising the SMI index) only dropped by 0.31% while the average company in the medium-size index had a cumulative abnormal return of -2.28% which was also considerably more than the average 1.17% drop of the smallest group of stocks. That is, the medium-size shares lost significantly more than the other two groups.

4.2.2 Alignment vs. interference: Performance

If management is not working in the interest of shareholders – that is, if its goals are not aligned – firm-specific stock performance is likely to be poor. According to the hypothesis that binding say-on-pay helps improve alignment of managerial with shareholder interests, we should observe that firms with poor performance in the past benefit more from say-on-pay than those with the best performance. This alignment benefit, however, is balanced against any interference costs of say-on-pay, so that the net effect is ambiguous.

To test this hypothesis, we use the two measures of firm performance described in Section 3.3, Relative Performance and CAPM Alpha. The results presented in Panel C of Table 4 display a negative relationship between the one year Relative Performance and the cumulative abnormal return. Firms that had beaten the market on average over the past year generally dropped more than underperforming shares. This difference is significant not only if we compare the corner quintiles, but also if we compare the split of firms with positive and negative deviation from index (not shown).

As shown in Panel D of Table 4, we find similar results as before for the risk-adjusted performance measure (CAPM Alpha): The companies that lost the most were the ones that had outperformed over the previous year not only on an absolute basis, but also on a risk-adjusted one.

In Table 5, in all regressions, we find a strongly negative relation between past performance and reaction to the binding say-on-pay initiative. (The results hold for both performance measures, but for expositional reasons is only shown for one.) Notably, these results hold controlling for company size, i.e., controlling for our proxy of direct interference costs.

These findings confirm that, indeed, binding say-on-pay is relatively more attractive for shareholders of firms that have performed poorly than for those that have performed well. As such, these results are in line with the alignment hypothesis. However, the net effect is still negative even for the poor performers. Overall, this suggests that if binding say-on-pay has powerful alignment effects, these come at even greater costs.

4.2.3 Alignment vs. interference: Management Abnormal Compensation and Shareholdings

An obvious central point of interest is variation in share price reactions depending on the current pay level.²³ Due to a multitude of factors determining the absolute level of compensation, we focus on a standardized pay measure which is abnormal compensation. One interpretation of this measure is that, if a company consistently overpays or underpays its management, it suggests poor governance.

We find intriguing results: The middle 50% of firms in terms of abnormal CEO compensation on average lost in excess of a full percentage point more than the two corner quartiles, with the corner quartiles not showing a positive effect, see Panel E in Table 4. This result, even though economically relevant, is not statistically significant on a regular level, with a t-statistic of 1.49.²⁴ However, when we control for the noise coming from firms that communicate their 2007 figures to the media around the event (c.f. Section 4.3), the difference is statistically significant (untabulated, the middle two quartiles drop 1.82% more than the corner quartiles, t-statistic of 1.92).

²³Ertimur, Ferri and Muslu (2011) document that in the U.S. activists target firms with high CEO pay, but voting support is high and subsequent pay changes occur only at firms with excess CEO pay.

²⁴Moreover, while the average reaction in the lowest quartile was small, the percentage of negative reactions is relatively high, leading to a high generalized sign test statistic for this quartile.

This finding suggests a non-monotonic relationship between this governance characteristic and the impact of enhanced say-on-pay. Therefore, in the regression framework, we control for abnormal compensation with a linear and a squared term. As column (3) in Table 5 shows, the point estimates are of the correct sign, but the t-statistics indicate that these findings are not significant at conventional levels.

Importantly, when advisory say-on-pay became more likely to turn into law in the U.S., those firms with the highest abnormal pay benefited substantially, while the other companies reacted relatively neutrally (Cai and Walkling, 2011) which is consistent with the alignment hypothesis. By contrast, the evidence from Switzerland suggests that the market perceives firms currently operating under relatively efficient compensation plans, with abnormal compensation close to 0, as being potentially forced to adjust to individually inefficient corporate policies. The evidence here is, however, statistically only borderline significant. We find similar, but less significant results in terms of economic size for board compensation; see Panel F in Table 4 and column (4) in Table 5.

A direct measure of alignment may also be found in the fraction of management shareholdings. Interestingly, we also obtain a non-monotonic relationship between CARs and this variable. The results, in Panel G of Table 4 and column (5) in Table 5, suggest that firms with very little and very high managerial ownership fared relatively better than those with ownership that approximated the median. This could reflect two effects: Firms with very low ownership benefit from better alignment, which outweighs most of the interference costs of binding say-on-pay; firms with very high ownership do not benefit much, but also have very low compliance costs because managers and shareholders are often identical. The least favorable benefit/cost ratio then materializes for the firms with around median ownership. However, we caution that the optimal extent of management

shareholdings (and any other governance features) is endogenous and varies across firms (Hermalin and Weisbach, 2010). (This caveat does not apply to abnormal compensation.)

4.2.4 Alignment vs. interference: Leverage

In more highly levered companies, shareholders have a higher incentive to take asset risk, i.e., to engage in asset substitution (Jensen and Meckling, 1976). However, in such companies, CEOs may also be more reluctant to take risk because bankruptcy is very costly for a CEO in terms of reputation. Therefore, in highly levered firms, shareholders wish to grant higher incentives to take risk.²⁵ Consistent with this notion, Coles, Daniel, and Naveen (2006) document that higher leverage causes higher vega, i.e., a higher sensitivity of CEO wealth to stock price volatility. This is more easily done when shareholders have more power. In particular, from the shareholders' point of view, the board of directors may not sufficiently take the shareholders' preferences into account because the board, if it is acting according to the requirements of Swiss corporate law, is acting as a steward for the whole firm (i.e., including other stakeholders, in particular, bondholders). From this perspective, having a more direct say-on-pay may be welcomed news in particular for shareholders of highly levered companies.

Panel H in Table 4 confirms that, indeed, CARs are increasing in leverage. The difference between the highest and the lowest quartile is, however, only borderline significant. Moreover, in untabulated regression results, controlling for size and performance, leverage is insignificant, suggesting that this issue is not of primary concern to shareholders.

²⁵For companies extremely deep in debt, incentives to “gamble for resurrection” may take over even for the CEO.

4.2.5 Distortion of extra-contractual investment incentives: CEO Age, CEO Tenure, Foreign Assets

Stout (2003) develops the idea that shareholders may prefer not to be too powerful because with greater power comes a greater temptation to ex-post expropriate those stakeholders that have made firm-specific investments. She, in particular, deals with the relationship between the board and shareholders. Although she does not explicitly cover the pay-setting process, her basic intuition extends to the present case: In the context of the Swiss say-on-pay initiative, compensation packages are agreed upon at the beginning of the year. However, if the board wishes to reward a CEO for particular, unanticipated achievements during the year, it needs to put a corresponding motion to shareholders at the following year's shareholder meeting. At that point, shareholders may "hold up" the CEO if the effort the CEO made (for example, getting to know a particular, unique product line of the firm particularly well) was firm-specific. The CEO, in turn may anticipate this problem and, therefore, not make the firm-specific investments that maximize firm and shareholder value.

To test this idea, we require proxies for how worried shareholders are about their CEO's incentive to begin engaging in general (or outside) human capital investments, rather than in firm-specific investments. These proxies are not easy to come by, but we consider three possibilities.

First, CEOs who have had a long tenure at the respective company are likely to already have acquired substantial firm-specific knowledge. By contrast, CEOs who have only relatively recently joined the company face the choice whether to engage in firm-specific or general human capital investments, i.e., whether to fully contribute to their current firm's fortunes or whether to at least partially work on their outside options. In Panel I of Table 4 we find that shareholders of firms

with CEOs in the shortest tenure quartile were much more worried about the value consequences of binding say-on-pay: CARs were almost 3 percentage points lower in this quartile than in the other three quartiles. This strong result is largely confirmed in the regression analysis, see Column (6) of Table 5.

Second, younger CEOs have a relatively higher incentive, under binding say-on-pay-rules, to invest in general skills than older CEOs because young CEOs wish to retain their (real) option to secure a different position. Consistent with this argument, we find substantial evidence, both in the sample splits and in the regression analysis, that firms with young CEOs reacted much more negatively to the say-on-pay initiative than those with older CEOs; see Panel J of Table 4 and Column (7) of Table 5.

A third potential proxy is the percentage of assets a firm holds abroad. A CEO of such a firm has a relatively wide range of outside options, compared to a CEO whose firms' operations are concentrated in Switzerland. Therefore, shareholders may be worried that under binding say-on-pay rules this CEO has an incentive (and opportunity) to distort his human capital investments away from his current firm's needs. Consequently, we would expect more negative reactions for firms with important foreign assets. However, for this variable there is also a countervailing effect. In particular, not only the CEO could move altogether, but firms could move, too. Thus, firms that are more mobile in switching operations could move headquarters to countries where regulation is less strict. (This issue is widely discussed in Switzerland. For example, UBS has publicly threatened to relocate elsewhere in the light of tightening pay and capital requirements regulation in Switzerland.) We would, therefore, expect firms with a higher asset mobility to relocate in order to keep talent and be unaffected by the law. This alternative hypothesis implies that we would expect less negative effects for these firms relative to their less mobile peers.

Splitting the SPI firms according to their foreign asset levels shows that there are no consistent and significant differences between firms in this respect, see Panel K of Table 4 and Column (8) of Table 5. This possibly indicates that the two effects cancelled each other out.

4.2.6 Other governance variables

Finally, we consider cross-sectional variation according to various general governance quality attributes. These include a measure of voluntary disclosure quality, a control for whether a firm has a CEO-chairman or whether it uses staggered boards and a measure of the election procedure of board members.²⁶

The results collected in Columns (9) to (12) of Table 5 show no clear pattern. In the case of the voluntary disclosure quality measure, the results in Panel L of Table 4 suggest that the middle two quartiles lost more during the event-window than the corner quartiles. It is possible that the market judged firms clustering around the middle of these attributes to be relatively efficiently governed, in which case an external push from such an equilibrium would be value-destroying. However, this effect appears to be due to a correlation with firm size (which is 0.65). The other governance variables show no significant difference even in the sample splits; these results are, therefore, omitted. The insignificance of these findings is interesting in itself, especially in the light of significant findings for other firm characteristics: In particular, the results suggest that the market reacted specifically to the proposed say-on-pay rules, and did not interpret the initiative as a more generic push towards features often regarded as reflecting good governance.

²⁶Much as in the case of management shareholdings, however, we caution that the optimal choices of these governance features are unknown and likely to vary across firms.

4.3 Additional results and robustness

This section discusses five robustness checks and additional results. First, we control for data outliers that may drive results. Second, we reduce our sample by firms that did not trade during the three day event window. Third, we exclude from the sample the firms that had firm-specific events (for example, the media presentation of Q4 figures) during or around the considered legislative event. Fourth, we consider two events that may have led to a bias of the reported results. Fifth, we consider an event in 2010 that reaffirmed the importance of the initiative.

First, we winsorized the event-window CARs at the 5%-level to check for robustness against outliers. We find that the our main results stay unchanged and retain previous levels of significance in this winsorized setting.

Second, firms that have no completed trades during the event-window may confound our results. While a non-trade can be informative in the sense that investors did not perceive a need to alter their stock holdings due to the event, including no-trade firms may lead us to underestimate the standard deviation and therefore overestimate the test statistic. However, when excluding these firms, we find very similar results.

Third, we rerun our analysis excluding firms that had made earnings announcements within five days around the time of the event day. By excluding these firms, we reduce noise and hence improve the precision of our results. This is especially important for the variables where we have a limited number of observations, such as compensation. Most results turn more significant when reducing the sample by these firms. As already mentioned above, the most noticeable finding here concerns abnormal CEO compensation, where we now find a statistically significant difference between the middle and the corner portfolios.

Fourth, we assessed the robustness of our results in the light of two events, one in the event-window, the other in the estimation window.

As for the former, on Sunday February 24, 2008, the Swiss electorate accepted, in a referendum, a corporate tax reform (the “*Unternehmenssteuerreform II*”). The major points of the reform were aimed at supporting partnerships and small family businesses, both of which were not part of the universe of firms we analyzed in our sample. However, there were further elements of this reform that were also relevant for public companies: (1) a reduced federal tax on paid dividends if the receiving shareholder’s stake is at least 10% of the equity value (focus on shareholder), (2) the exemption of taxes on dividends and capital gains if the invested capital in the particular firm is at least 10% of the firm’s equity capital or bigger than one million Swiss Francs (focus on the firm), (3) the deduction of profits taxes paid from the taxes payable on invested capital, and (4) an abolition of taxes in case of a repayment of invested capital (including agios).

The benefits from the first two points were mainly relevant for large shareholders and holding companies with large stakes in individual firms, but have very limited impact on the regular firm listed on the SPI. In a untabulated comparison between financial sector firms, the ones most likely to profit from this reform, and all other SPI firms, we found no significant difference in CARs. Point (3) had been implemented by a majority of cantons already prior to this reform and is, therefore, not expected to have any impact. Finally, point (4) essentially allows some companies to pay dividends free of tax for the recipient. However, it is not clear whether market participants fully understood the benefits of this new regulation for shareholders of companies that carried large agios on their balance sheet. An indication for this uncertainty is the revived discussion on

this issue when this part of the reform was put into effect at the beginning of 2011.²⁷ To the extent that the benefits were priced in, the stock returns in the event-window would be positively biased, and we would be underestimating the negative overall effect of the say-on-pay initiative.

As for the possible confounding event in the estimation window, on February 10, 2008, a single newspaper released a short article claiming a successful end to the initiative's signatures collection. However, this claim was not officially confirmed, but rather questioned by an interview with the initiative's manager on the topic in the very same paper and day. If the news had been taken seriously by the stock market, we would expect to find significant abnormal returns on the release date of the article and presumably less significant effects on the official announcement date.²⁸ Shifting the event-day to this news release, however, provided no evidence that there was an abnormal reaction of the SPI stocks. Even though no significant impact can be found at the release day, it is still possible that the event biases the sensitivity measure of the estimation window upward. This would in turn lower our findings as described earlier. To avoid a bias of this nature, we shifted the estimation window in order that the event of this news release was not included anymore (i.e., the estimation window lasted only until February 7, 2008). The results for cumulative abnormal returns only adjusted within a negligible range and kept the level of significance entirely.

Finally, we considered an event that occurred on February 10, 2010. A major political Swiss party announced that it would back the initiative (in a slightly modified form). This again came with a somewhat unpredictable timing. The overall results for this event imply much smaller

²⁷The current discussion in the Swiss political arena is on whether the voters and market participants were properly informed about the consequences, especially the fiscal ones, of the new law at the time of the referendum.

²⁸As the release date of this article was on a Sunday, we set the event-window around the date of the next market opening which in this case was Monday, February 11, 2008.

effects. (These results are not tabulated but available in more detail on request.) The impact on the equal-weighted portfolio was -0.54%. Not only was the overall reaction small, but we also found a smaller share of firms that reacted negatively during the event-window (56.8% compared to 69.8% in the first window). Of the negative reactions, only about one third was significant at the 90%-level compared to 44.6% in the first window. We found an insignificant effect close to zero in the value-weighted total SPI portfolio. The compensation portfolios exhibit a similar reaction pattern as in event one, yet effects are smaller and turn insignificant for the most part. The most plausible explanation for this overall outcome is that the market already fully priced the impact of a say-on-pay legislation at the first event.

5 Interpretation and conclusion

We conclude by commenting on policy implications.²⁹ For this, it is helpful to compare our results with those available from the U.S. (Cai and Walkling, 2011). The contents of the proposed laws differ especially with respect to the implementation of shareholder rights (binding vs. advisory).

The overall effect in the U.S. of the proposed introduction of advisory say-on-pay was mainly neutral or slightly positive. It had significantly positive effects for the quartile of firms with the highest abnormal CEO salary (while the lowest quartile received insignificant abnormal returns), suggesting improved management-shareholder alignment through advisory say-on-pay for firms which hitherto have overpaid their CEOs.

The evidence presented in this paper instead suggests that the proposed introduction of binding

²⁹Our study focuses on the impact of say-on-pay for shareholders. Some recent reforms in the compensation area also aim to benefit other stakeholders or also society at large (for example, by limiting external effects due to poorly designed compensation systems). The analysis here is silent on these issues, and future research is needed to address them.

say-on-pay was on average greeted fairly skeptically by the very group it is supposed to give more rights, namely shareholders of Swiss companies. We do find some evidence for positive alignment effects of say-on-pay: Firms with poor performance, and firms with over- and underpaid CEOs reacted *relatively* more positively than their peers. But these firms did not gain, but simply lost less than other firms. This suggests that shareholders perceive the costs of binding say-on-pay as being significantly stronger than those of advisory say-on-pay, while they do not anticipate that the alignment benefits will increase commensurately.³⁰

Why did shareholders react so negatively to an initiative that would grant them significantly enhanced means of controlling the organization? Why is binding say-on-pay so costly in their view? Part of the effect appears to be due to interference / compliance costs. Moreover, we suggest that our findings support the argument put forward in [Stout \(2003\)](#) and [Stout \(2007\)](#) that it may, in fact, be in the best interest of shareholders *not* to maximize their power. Rather, shareholders may do well to cede control to directors (as they do under advisory say-on-pay, compared to binding say-on-pay) because this is likely to enhance incentives for executives to make extra-contractual, firm-specific investments that ultimately also benefit shareholders.

Overall, therefore, we answer the title question in the negative. The evidence is consistent with the view that shareholders rationally anticipate that say-on-pay has benefits and costs for them, and that they react most negatively where the costs are likely to outweigh the benefits.

³⁰These empirical findings on binding vs. advisory say-on-pay are consistent with the outcomes of the laboratory experiment of [Göx, Imhof, and Kunz \(2010\)](#). Their findings suggest that advisory votes do not distort investment decisions (and may expand rather than curb executive compensation), while binding rules distort management decisions and impair shareholder value

References

- BAINBRIDGE, S. M. (2008): “Remarks on Say on Pay: An Unjustified Incursion on Director Authority,” *UCLA School of Law, Law-Econ Research Paper No. 08-06*.
- BEBCHUK, L., AND J. FRIED (2004): *Pay without performance*. Harvard University Press, Cambridge.
- BEBCHUK, L. A., M. CREMERS, AND U. PEYER (2009): “The CEO Pay Slice,” *Mimeo*.
- BERNARD, V. L. (1987): “Cross-sectional dependence and problems in inference in market-based accounting research,” *Journal of Accounting Research*, 25(1), pp. 1–48.
- BOEHMER, E., J. MUSUMECI, AND A. B. POULSEN (1991): “Event-study methodology under conditions of event-induced variance,” *Journal of Financial Economics*, 30, 253–272.
- CAI, J., AND R. A. WALKLING (2011): “Shareholders’ Say on Pay: Does it Create Value?,” *Journal of Financial and Quantitative Analysis*, 46, 299–339.
- CAMPBELL, C. J., A. R. COWAN, AND V. SALOTTI (2010): “Multi-country event-study methods,” *Journal of Banking & Finance*, 34, 3078–3090.
- COLES, J., N. DANIEL, AND L. NAVEEN (2006): “Managerial incentives and risk-taking,” *Journal of Financial Economics*, 79, 431–468.
- CONYON, M. J., AND G. SADLER (2009): “Shareholder voting and directors’ remuneration report legislation: Say on pay in the UK,” *Mimeo*.
- CORRADO, C. J., AND T. L. ZIVNEY (1992): “The Specification and Power of the Sign Test in Event Study Hypothesis Test Using Daily Stock Returns,” *Journal of Financial and Quantitative Analysis*, 27(3), 465–478.
- DAVIS, S. (2007): “Does ‘Say on pay’ work? Lessons on Making CEO Compensation Accountable,” *Policy Briefing No.1, The Millstein Center for corporate governance and performance, Yale School of Management*.
- DEANE, S. (2007): “Say on Pay: Results from Overseas,” *The Corporate Board*, Vol. 28, July/August 2007(165), 11–18.
- ERTIMUR, Y., F. FERRI, AND V. MUSLU (2011): “Shareholder Activism and CEO Pay,” *Review of Financial Studies*, 24(2), 535–592.
- ERTIMUR, Y., F. FERRI, AND S. R. STUBBEN (2010): “Board of directors’ responsiveness to shareholders: Evidence from shareholder proposals,” *Journal of Corporate Finance*, 16(1), 53–72.
- EUGSTER, F., AND A. WAGNER (2011): “When and how is voluntary disclosure quality reflected in equity prices?,” *Mimeo*.

- EUROPEAN COMMISSION (2010): “Report on the application by Member States of the EU of the Commission,” Discussion Paper COM(2010) 285 final, European Commission.
- (2011): “Green Paper - The EU corporate governance framework,” Discussion Paper COM(2011) 164 final, European Commission.
- FERRI, F., AND D. A. MABER (2009): “Say on pay vote and CEO compensation: Evidence from the UK,” *Mimeo*.
- FREY, B. S. (1994): “Direct Democracy: Politico-Economic Lessons from Swiss Experience,” *The American Economic Review*, 84(2), pp. 338–342.
- GÖX, R. F., F. IMHOF, AND A. H. KUNZ (2010): “‘Say on Pay’ and its repercussion on CEO investment incentives, compensation, and firm profit,” *Mimeo*.
- GREENSTONE, M., P. OYER, AND A. VISSING-JORGENSEN (2006): “Mandated Disclosure, Stock Returns, and the 1964 Securities Acts Amendments,” *Quarterly Journal of Economics*, 121(2), pp. 399–460.
- GRUNDFEST, J. A. (1993): “Just Vote No: A Minimalist Strategy for Dealing with Barbarians inside the Gates,” *Stanford Law Review*, 45, pp. 857–937.
- HERMALIN, B. E., AND M. S. WEISBACH (2010): “Information Disclosure and Corporate Governance,” *Journal of Finance*, forthcoming.
- INCE, O. S., AND R. B. PORTER (2006): “Individual equity return data from Thomson Datastream: Handle with care!,” *Journal of Financial Research*, 29(4), pp. 463–479.
- JENSEN, M., AND W. H. MECKLING (1976): “Theory of the firm: Managerial behavior, agency costs, and ownership structure,” *Journal of Financial Economics*, 3, 305–360.
- KLÖTI, U., P. KNOEPFEL, H. KRIESI, W. LINDER, Y. PAPADOPOULOS, AND P. SCIARINI (2007): *Handbook of Swiss Politics*. Neue Zürcher Zeitung NZZ Libro, Zurich, 2nd edition edn.
- KOLARI, J. W., AND S. PYNNÖNEN (2010): “Event Study Testing with Cross-sectional Correlation of Abnormal Returns,” *The Review of Financial Studies*, 23(11).
- KOTHARI, S. P., AND J. B. WARNER (2007): “Econometrics of event studies,” in *Handbook of Corporate Finance: Empirical Corporate Finance*, ed. by B. E. Eckbo, vol. 1, pp. pp. 3–35. Elsevier, Oxford, UK.
- LARCKER, D. F., G. ORMAZABAL, AND D. J. TAYLOR (2011): “The Market Reaction to Corporate Governance Regulation,” *Journal of Financial Economics*, 101(2), 431–448.
- LO, K. (2003): “Economic consequences of regulated changes in disclosure: The case of executive compensation,” *Journal of Accounting and Economics*, Vol. 35, Issue 3(3), pp. 285–314.
- MACKINLAY, A. C. (1997): “Event Studies in Economics and Finance,” *Journal of Economic Literature*, Vol. 35, No. 1(1), pp. 13–39.

- PATELL, J. (1976): "Corporate Forecasts of Earning Per Share and Stock Price Behavior: Empirical Tests," *Journal of Accounting Research*, 14, 246–276.
- PRICEWATERHOUSECOOPERS (2008): "Executive Compensation & Corporate Governance 2009," *PricewaterhouseCoopers Zurich*.
- (2010): "Executive Compensation & Corporate Governance 2010," *PricewaterhouseCoopers Zurich*.
- STOUT, L. A. (2003): "The Shareholder as Ulysses: Some Empirical Evidence on Why Investors in Public Corporations Tolerate Board Governance," *University of Pennsylvania Law Review*, 152, 1–47.
- (2007): "The Mythical Benefits of Shareholder Control," *Virginia Law Review*, 93, 789–809.
- THOMAS, R. S., AND J. F. COTTER (2007): "Shareholder proposals in the new millennium: Shareholder support, board response, and market reaction," *Journal of Corporate Finance*, Vol. 13, Issues 2-3(2-3), pp. 368–391.
- VIMENTIS (2007): "Politische Meinung des Schweizer Volks: Wirtschaft / Wirtschaftswachstum Frage: Die Saläre des Verwaltungsrats und der Geschäftsleitung eines Unternehmens müssen zur Genehmigung der Aktionärsversammlung vorgelegt werden.," online.

A Initiative

The Initiative proposes a concrete legal text. Specifically, it reads:

”The federal constitution of April 18, 1999 is amended as follows:

Art. 95 Par. 3 (new): To protect the economy, private property and the shareholders and in the spirit of sustainable corporate management, this law regulates Swiss companies, listed nationally and internationally, according to the following principles: a) The general assembly votes annually on the total compensation (monetary and in-kind) of the board of directors, the executive board, and the advisory board. It elects annually the chairman of the board and, individually, the members of the board, the members of the compensation committee, and the independent vote representative. Pension funds vote in the interest of the insured and disclose their voting behavior. Shareholders can use electronic / distance voting. There is no proxy voting by company representatives or depository institutions. b) The board of directors and the executive board receive no severance or any other payment upon their leaving the firm, no advance compensation, no bonus payments in the case of firm acquisitions / divestures, and no additional consulting or employment contract by another company of the group. Executive management cannot be delegated to another firm. c) The articles of association contain provisions for the amounts of credit, loans, and retirement pensions to corporate executives and board members, their performance and share / participation plans, and the maximum number of external mandates as well as the duration of their employment contracts. d) Violation of these provisions is punishable by a jail sentence of up to three years and a fine of up to six times annual compensation.”

B Methodology

As discussed in the main text, we used OLS-regressions to estimate the parameters of the market model for each stock during the length of the estimation-window which was 250 trading days. Based on the parameter estimates ($\widehat{\alpha}_i$ and $\widehat{\beta}_i$), we predict stock i 's normal return during the event-window:

$$\widehat{R}_{i,t} = \widehat{\alpha}_i + \widehat{\beta}_i(R_{m,t}).$$

The difference between the predicted normal return on the event-day and the effectively observed return of the stock is, by definition, the abnormal return (AR_i) of stock i :

$$\widehat{AR}_i = R_{i,t_0} - \widehat{R}_{i,t_0}, \quad (3)$$

where t_0 is the event-day. The cumulative abnormal return (CAR_i) of stock i is just the sum of the abnormal returns during the event-window:

$$\widehat{CAR}_i(0, T) = \sum_{t=0}^T \widehat{AR}_{i,t}$$

To test for the statistical significance of the abnormal return, we applied sample standard deviations (thus being more conservative than with population standard deviations). Under the H_0 -Hypothesis of no effect, the abnormal return during the event-window is normally distributed with zero mean:

$$H_0 : \widehat{AR}_i \sim N(0, \sigma_i^2(\widehat{AR}_{i,t}))$$

The test statistic for the cumulative abnormal return of a single stock can then be calculated as follows:

$$t_{\widehat{CAR}_{i,T}} = \frac{\widehat{CAR}_i(0, T)}{\sqrt{T}\sigma_i(\widehat{AR}_{i,t})} \sim N(0, 1). \quad (4)$$

To test for an overall impact of the initiative within different percentiles of a portfolio, we aggregated the CARs over the cross-section:

$$\widehat{CAR}(0, T) = \frac{1}{N} \sum_{i=1}^N \widehat{CAR}_i(0, T),$$

with the variance according to:

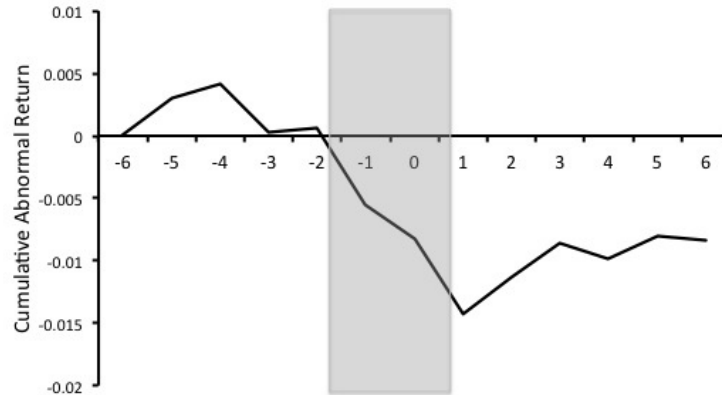
$$\sigma^2_{\widehat{CAR}(0, T)} = \frac{1}{N^2} \sum_{i=1}^N \hat{\sigma}^2_{i, \widehat{CAR}_i(0, T)}.$$

The test statistic is then derived as follows:

$$t_{\widehat{CAR}_{0,T}} = \frac{\widehat{CAR}(0, T)}{\sigma^2_{\widehat{CAR}(0, T)}} \sim N(0, 1). \quad (5)$$

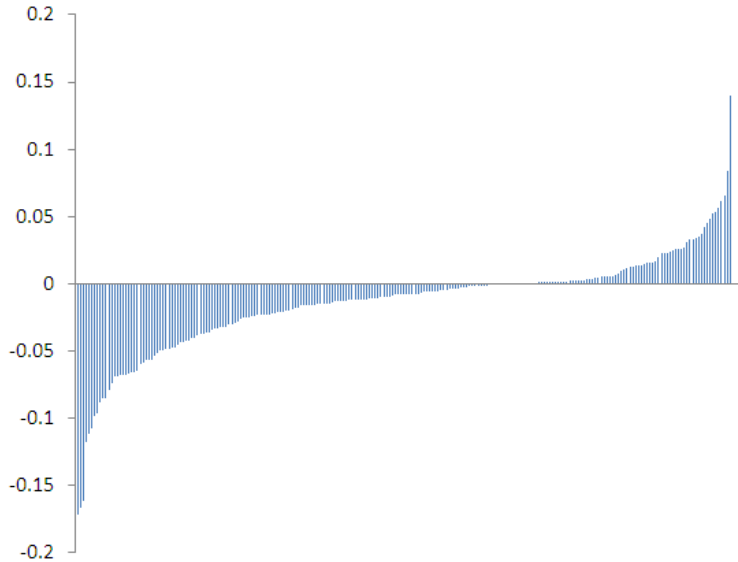
The aggregation was done either by assuming equal weights for all stocks or by weighting the CARs with the free-float adjusted market value of the companies.

Figure 1. Sample cumulative abnormal returns around event day



Note: The observed cumulative abnormal returns are from the first event-window. The vertical axis represents the level of the cumulative abnormal return while the horizontal axis is measured in days relative to event ($t=0$). The event-window is marked by the shaded area representing a cumulated abnormal return of -1.49%. This cumulated abnormal return is the sum of the daily abnormal returns on day $t=-1$ (-0.61%), $t=0$ (-0.28%) and $t=1$ (-0.60%).

Figure 2. Cumulative abnormal returns as a result of binding say-on-pay



Note: The observed cumulative abnormal returns are from the first event-window. The individual cumulative abnormal returns over the three day event-window are not winsorized in this graph.

Table 1. Timeline of say-on-pay legislative efforts in Switzerland

Date	Legislative events	Possible confounding events
July 31 - August 6, 2006	A “Sonntags-Zeitung” article (08/06/2006) mentions that Trybol owner Thomas Minder has submitted the wording of the text of his “Fat Cat Initiative” that week.	a) On 08/03/2006 the Associated Press reports that the European Central Bank (ECB) raised its interest rate by a quarter point to 3% as anticipated by analysts. However the Bank of England (BoE) gave a surprise by raising its interest rate by the same margin to 4.75%. b) As reported in various headlines the oil price was under turmoil that week because of war in Lebanon and uncertainty of the severeness of the Caribbean hurricane “Chris”. c) AWP Premium Swiss News informs that the net increase in employment in the US is below expectations which lead to believe that The Federal Reserve will not change interest rates after 17 increases in a row.
October 17, 2006	The Federal Chancellery verifies the initiative complies with legal requirements.	On 10/18/2006 the Associated Press reports that the Federal Council of Switzerland had announced it entrusted five known experts the task to establish a federal audit supervisory authority.
October 31, 2006	Thomas Minder begins collecting signatures for a federal initiative.	Economic Committee of the National Assembly agrees to establish a Swiss Financial Market Supervisory Authority (FINMA) with 14 to 4 votes.
February 26, 2008 = Main event	Initiative Committee submits the 100’000 needed signatures.	On 02/24/2008, a corporate tax reform (implying lower taxation of dividends in some cases, among other benefits) is accepted by the Swiss electorate.
April 2, 2008	”The Federal Chancellery verifies the initiative as valid.”	On 04/02/2008 the Swiss Market Index (SMI) gains 1.4% due to the extraordinary increases of the shares of the two major banks and in Tokyo the Nikkei reports a plus of 4.2%.
December 5, 2008	The Federal Council of Switzerland advises to reject the initiative and makes an indirect counterproposal with an addition to the ongoing revision of the Swiss Code of Obligations.	On 12/05/2008 the Swiss Market Index (SMI) loses partially more than 3% and closes minus 2.09%. The German Stock Index (DAX) even loses 4%.
May 12, 2009	Judiciary committee of the Council of States tightens the indirect counterproposal and accommodates to the demands of the initiative committee.	No relevant confounding event found.
June 11, 2009	Council of States finishes debate over details of the counterproposal which is now less tight than the proposed form of the judiciary committee. The issue now returns to the national council.	The Associated Press reports that the US budget deficit has ascended to a new high in May and is expected to peak at the record high of 1.84 trillion dollar at the end of the fiscal year.
February 10, 2010 = Event 2	The initiative receives backing from one of the largest political parties of Switzerland, namely the SVP.	a) Germany mentions for the first time that it is potentially willing to participate in a coordinated financial help to Greece. b) UBS and Swatch release their Q4-report.

Table 2. Summary statistics

Variable	Mean	Std. Dev.	Min.	Max.	N
Firm characteristics					
Market Capitalization (in Mio. CHF)	4460.04	19944.24	0.63	196044.91	225
Event-window Stock Return (%)	0.29	1.25	4.77	-5.09	225
Foreign Assets (in % of total assets)	0.35	0.30	0	0.99	180
Leverage (debt to total capital in %)	0.31	0.26	0	0.97	187
Total compensation					
CEO (in Mio. CHF)	4.22	4.52	0.46	22.28	90
Board (in Mio. CHF)	2.88	3.82	0.192	25.41	93
Abnormal compensation					
CEO (in Mio. CHF)	0.66	2.62	-2.67	11.61	90
Board (in Mio. CHF)	0.55	1.85	-1.1	11.29	93
Past performance					
Relative Performance (in annual %)	0.05	0.52	-0.75	6.23	217
CAPM Alpha (in annual %)	-0.13	0.3	-0.72	1.74	201
CEO attributes					
Tenure (years)	8.89	7.75	0.49	39.58	83
CEO Age (years)	54.02	7.58	39	82	81
Governance					
Management Holdings (in %)	0.17	0.24	0	0.92	216
Voluntary Disclosure Quality (% of max)	0.51	0.10	0.29	0.81	133
Dual (dummy)	0.15	0.36	0	1	93
Staggered Board (dummy)	0.56	0.5	0	1	104
Single Election (dummy)	0.5	0.5	0	1	103

Note: The summary statistics cover the data for the first event. Market Capitalization measures the value of the free float on event day. Event-window Stock Return is the overall stock return during the three day event-window. Foreign Assets measure the percentages of total assets a firm holds outside Switzerland. Leverage is measured as total debt to total capital. A leverage level of zero is due to accounting reasons. Total compensation is the sum of fixed and variable pay for the year 2007. Abnormal CEO/Board Compensation is measured as the difference between paid compensation and estimated normal compensation in terms of firm size and performance. All statistics for the board are reported including its Chairman. Relative Performance measures the gap between observed stock return and the return of the size-appropriate index over a one year period prior to the event. CAPM Alpha measures the gap between observed stock return and an estimated stock return based on CAPM. Tenure is the number of years a CEO has been with the current company. Management Holdings is the percentage of equity held by the management and board. Voluntary Disclosure Quality measures comprehensiveness and depth of information provided by a firm. Dual is a control for CEO-Chairs. Staggered Board is a dummy equal to one if the board is staggered. Single Election is a dummy equal to one if board members have to be elected one-by-one.

Table 3. Cross-correlation of explanatory variables

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14
ln(Market Capitalization)	1.00													
Relative Performance	0.07	1.00												
CAPM Alpha	-0.27	0.89	1.00											
Abnormal CEO Compensation	0.07	-0.05	-0.12	1.00										
Abnormal Board Compensation	0.18	-0.06	-0.13	0.17	1.00									
Management Shareholdings	-0.26	-0.05	0.03	0.28	0.00	1.00								
Leverage	0.01	-0.08	-0.01	0.10	0.26	-0.23	1.00							
Tenure	0.19	-0.06	-0.04	0.09	-0.06	0.24	-0.04	1.00						
CEO Age	0.23	-0.14	-0.13	0.04	-0.02	0.25	-0.17	0.38	1.00					
Foreign Assets	0.31	0.04	-0.11	0.22	0.15	-0.08	-0.09	0.00	0.12	1.00				
Voluntary Disclosure Quality	0.65	0.08	-0.13	0.11	0.19	-0.18	0.27	0.04	-0.04	0.38	1.00			
Dual	0.24	-0.02	0.07	0.11	-0.04	0.19	-0.29	0.39	0.30	0.21	0.04	1.00		
Staggered Board	0.16	-0.10	-0.03	-0.01	-0.01	-0.05	-0.13	0.12	0.17	0.16	0.04	0.20	1.00	
Single Election	0.22	0.10	-0.08	-0.01	0.15	-0.07	0.12	0.01	-0.05	0.12	0.25	-0.12	0.05	1.00

Note: The correlation table covers the data for the first event. ln (Market Capitalization) measures the log value of the free float on event day. Relative Performance measures the gap between observed stock return and the return of the size-appropriate index over a one year period prior to the event. CAPM Alpha measures the gap between observed stock return and an estimated stock return based on CAPM. Abnormal CEO/Board Compensation is measured as the difference between paid compensation and estimated normal compensation in terms of firm size and performance. The statistics for the board are reported including its Chairman. Management Holdings is the percentage of equity held by the management and board. Leverage is measured as total debt to total capital of each firm. Tenure is the number of years a CEO has been with the current company. Foreign Assets measure the percentages of total assets a firm holds outside Switzerland. Voluntary Disclosure Quality measures comprehensiveness and depth of information provided by a firm. Dual is a control for CEO-Chairs. Staggered Board is a dummy equal to one if the board is staggered. Single Election is a dummy equal to one if board members have to be elected one-by-one.

Table 4. Market reaction to binding say-on-pay, analysis by portfolio-splits

Panel A: Overall effect				
	Obs.	CAR (%)	t-value	z-stat
Total	225	-1.49%	-5.90	5.38

Panel B: Company Size									
Market Capitalization									
Quintile	Obs.	(Mio. CHF)	CAR (%)	t-value	% neg	z-stat	Quintile	Obs.	(Mio. CHF)
1 Lowest	45	17.1	-0.65%	-1.10	62.22%	1.22	1 Lowest	23	-1.48
2	45	98.7	-1.59%	-3.26	68.89%	2.31	2	22	-0.47
3	45	276.3	-1.77%	-3.14	82.22%	4.11	3	23	0.34
4	45	678.1	-2.95%	-4.31	80.00%	3.80	4 Highest	22	4.35
5 Highest	45	21'230.0	-0.47%	-1.22	55.56%	0.58	Corner - Middle Quintiles		1.30%
Corner - Middle Quintiles			1.55%	3.07					-1.51

Panel C: Relative Performance									
Quintile	Obs.	Alpha (%)	CAR (%)	t-value	% neg	z-stat	Quintile	Obs.	(Mio. CHF)
1 Lowest	44	-30.0%	-1.19%	-2.30	70.45%	2.98	1 Lowest	24	-0.55
2	43	-13.3%	0.19%	0.32	51.16%	-0.22	2	23	-0.11
3	44	-3.8%	-1.26%	-3.11	72.73%	2.67	3	23	0.23
4	43	11.2%	-1.31%	-3.39	72.09%	2.53	4 Highest	23	2.68
5 Highest	43	63.0%	-3.54%	-4.63	79.07%	3.40	Corner - Middle Quintiles		1.08%
Q5 - Q1			-2.35%	-2.56					1.29

Panel D: CAPM Alpha									
Quintile	Obs.	Alpha (%)	CAR (%)	t-value	% neg	z-stat	Quintile	Obs.	Mgmt (%)
1 Lowest	41	-43.9%	-0.41%	-0.84	53.66%	0.53	1 Lowest	52	0.15%
2	40	-27.3%	-0.91%	-1.52	62.50%	1.55	2	35	0.57%
3	40	-16.6%	-0.48%	-1.33	70.00%	2.00	3	43	3.86%
4	40	-6.1%	-1.82%	-4.18	87.50%	4.56	4	43	22.97%
5 Highest	40	28.7%	-2.35%	-3.35	70.00%	1.99	5 Highest	43	58.93%
Q5 - Q1			-1.93%	-2.25			Corner - Middle Quintiles		1.27%
									2.47

Panel E: Abnormal CEO Compensation									
Abnormal Comp.									
Quintile	Obs.	(Mio. CHF)	CAR (%)	t-value	% neg	z-stat	Quintile	Obs.	(Mio. CHF)
1 Lowest	23	-1.48	-1.21%	-2.37	69.57%	1.73	1 Lowest	23	-1.48
2	22	-0.47	-2.28%	-2.33	77.27%	2.48	2	22	-0.47
3	23	0.34	-2.85%	-2.79	73.91%	2.12	3	23	0.34
4 Highest	22	4.35	-1.33%	-1.50	59.09%	0.72	4 Highest	22	4.35
Corner - Middle Quintiles			1.30%	-1.51			Corner - Middle Quintiles		1.30%

Panel F: Abnormal Board Compensation									
Abnormal Comp.									
Quintile	Obs.	(Mio. CHF)	CAR (%)	t-value	% neg	z-stat	Quintile	Obs.	(Mio. CHF)
1 Lowest	24	-0.55	-1.02%	-1.54	54.17%	0.22	1 Lowest	24	-0.55
2	23	-0.11	-2.81%	-2.53	86.96%	3.32	2	23	-0.11
3	23	0.23	-2.14%	-2.49	69.57%	1.79	3	23	0.23
4 Highest	23	2.68	-1.79%	-2.59	73.91%	2.24	4 Highest	23	2.68
Corner - Middle Quintiles			1.08%	1.29			Corner - Middle Quintiles		1.08%

Panel G: Management Holdings									
Quintile	Obs.	Mgmt (%)	CAR (%)	t-value	% neg	z-stat	Quintile	Obs.	Mgmt (%)
1 Lowest	52	0.15%	-1.16%	-3.16	71.15%	2.78	1 Lowest	52	0.15%
2	35	0.57%	-1.12%	-2.04	65.71%	1.61	2	35	0.57%
3	43	3.86%	-2.70%	-3.58	72.09%	2.55	3	43	3.86%
4	43	22.97%	-2.06%	-2.83	81.40%	3.93	4	43	22.97%
5 Highest	43	58.93%	-0.24%	-0.66	58.14%	1.08	5 Highest	43	58.93%
Corner - Middle Quintiles			1.27%	2.47			Corner - Middle Quintiles		1.27%

Continued on Next Page ...

- Continued

Panel H: Leverage						
Quartile	Obs.	Leverage	CAR (%)	t-value	% neg	z-stat
1 Lowest	47	2.87%	-1.98%	-3.73	80.85%	3.78
2	47	18.10%	-1.61%	-3.11	70.21%	2.73
3	47	37.09%	-1.11%	-2.15	55.32%	0.69
4 Highest	47	67.98%	-0.95%	-2.47	74.47%	2.89
Q4 - Q1			1.03%	1.57		

Panel I: Tenure						
Quartile	N	Years	CAR	t-value	% neg	z-stat
1	21	2.3	-3.88%	-4.15	90.48%	3.58
2	21	5.5	-1.11%	-1.11	52.38%	0.07
3	22	8.3	-1.08%	-1.73	59.09%	0.67
4	19	20.5	-0.81%	-1.75	73.68%	2.01
Q4 - Q1			3.07%	2.94		

Panel J: CEO Age						
Quartile	Obs.	Age	CAR (%)	t-value	% neg	z-stat
1 Lowest	23	46	-2.94%	-2.91	73.91%	2.07
2	21	52	-3.07%	-2.66	71.43%	1.90
3	17	56	-0.53%	-0.78	58.82%	0.62
4 Highest	20	64	-0.64%	-1.13	70.00%	1.66
Q4 - Q1			2.30%	1.99		

Panel K: Foreign Assets						
Quartile	Obs.	Foreign (%)	CAR (%)	t-value	% neg	z-stat
1 Lowest	45	0.7%	-1.91%	-3.07	71.11%	2.72
2	45	19.4%	-0.42%	-0.69	66.67%	3.23
3	45	44.3%	-0.89%	-2.23	57.78%	2.81
4 Highest	45	78.2%	-2.86%	-4.20	82.22%	1.70
Q4 - Q1			-0.94%	-1.03		

Panel L: Voluntary Disclosure Quality						
Quartile	Obs.	Score	CAR (%)	t-value	% neg	z-stat
1 Lowest	37	82	-0.54%	-1.19	62.16%	1.29
2	30	98	-1.61%	-2.00	66.67%	1.77
3	33	114	-1.84%	-4.24	78.79%	3.08
4 Highest	33	136	-0.37%	-0.72	54.55%	0.42
Q4 - Q1			0.17%	0.25		

Note: The table shows announcements effects in the first event-window. Stocks within percentiles are equal-weighted. *Panel A:* Average cumulative abnormal return of all stocks in the Swiss Performance Index. *Panel B:* Quintiles are based on average free-float adjusted market value of equity during the event-window. Market Capitalization is the average free-float adjusted value of equity in the respective quintile. *Panel C:* Quintiles are based on the return relative to the corresponding size-index in the year prior to the event. *Panel D:* Quintiles are based on CAPM Alpha. *Panel E:* Quintiles are based on Abnormal CEO Compensation, a measure relating a firm's paid remuneration to an estimated normal level in terms of firm size, performance and within year tenure. *Panel F:* Quintiles are based on Abnormal Board Compensation, a measure relating a firm's paid remuneration to an estimated normal level in terms of firm size, performance, within year tenure and board size. The firms analyzed in Panels E and F cover a market capitalization within the SPI of almost 97%. *Panel G:* Quintiles are based on Management Holdings which are the percentage of stocks held by management. *Panel H:* Quintiles are based on Leverage which is the percentage of debt to total capital. *Panel I:* Quintiles are based on a CEO's Tenure within the current company. *Panel J:* Quintiles are based on CEO Age. *Panel K:* Quintiles based on a firm's asset holdings outside of Switzerland relative to total assets. *Panel L:* Quintiles are based on the Voluntary Disclosure Quality index. Averages of the sorting variable for each portfolio are given in the third column. CAR is the total abnormal reaction during the three day event-window. The t-statistic is calculated based on the variance of the unadjusted CARs as described in Appendix B. % negative is the share of negative CAR-stocks in the respective portfolio. The z-statistic is the standardized test statistic of the generalized sign test and is asymptotically normally distributed. Corner quintiles are defined as top and bottom quartile/quintile while middle quintiles cover the leftover percentiles.

Table 5. Market reaction to binding say-on-pay, regression analysis

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
$\ln(\text{Market Capitalization})$	-0.007** (-2.11)	-0.006* (-1.82)	0.005*** (2.74)	0.007*** (3.47)	-0.010* (-1.75)	0.005** (2.28)	0.005*** (2.81)	-0.006 (-1.10)	-0.015** (-2.06)	0.006*** (3.38)	0.005*** (2.91)	0.005*** (2.91)
$\ln(\text{Market Capitalization})^2$	0.001** (2.28)	0.001** (2.02)	0.001** (1.99)	0.001** (1.99)	0.001** (1.99)	0.001** (1.99)	0.001** (1.99)	0.001** (1.46)	0.001** (2.22)	0.001** (2.22)	0.001** (2.22)	0.001** (2.22)
Relative Performance	-0.023*** (-5.61)	-0.023*** (-5.61)	-0.025*** (-6.09)	-0.025*** (-6.09)	-0.022*** (-5.77)	-0.026*** (-7.61)	-0.024*** (-6.12)	-0.025*** (-6.80)	-0.038*** (-2.91)	-0.025*** (-6.24)	-0.026*** (-6.35)	-0.026*** (-6.55)
Abnormal CEO Compensation			-0.0024 (-1.09)									
(Abnormal CEO Compensation) ²			0.0004 (1.42)									
Abnormal Board Compensation				-0.0048 (-1.31)								
(Abnormal Board Compensation) ²				0.0005 (1.39)								
Management Shareholdings					-0.032 (-1.04)							
(Management Shareholdings) ²					0.077* (1.78)							
Tenure (Quartile 2)						0.026** (2.27)						
Tenure (Quartile 3)						0.017 (1.26)						
Tenure (Quartile 4)						0.020** (2.05)						
CEO Age (1 if above median, 0 otherwise)							0.014* (1.87)					
Foreign Assets								-0.007 (-0.74)				
Voluntary Disclosure Quality									-0.063 (-0.30)			
(Voluntary Disclosure Quality) ²									0.067 (0.34)			
Dual										0.001 (0.20)		
Staggered Board											0.003 (0.48)	
Single Election												0.001 (0.12)
Company Event	0.015* (1.79)	0.015* (1.73)	0.016* (1.69)	0.016 (1.58)	0.015* (1.71)	0.018* (1.69)	0.017 (1.60)	0.016* (1.74)	0.015* (1.67)	0.018* (1.77)	0.018* (1.74)	0.018 (1.63)
Constant	0.002 (0.23)	0.002 (0.18)	-0.060*** (-3.64)	-0.068*** (-4.13)	0.012 (0.62)	-0.069*** (-4.01)	-0.080*** (-3.56)	-0.003 (-0.16)	0.048 (1.09)	-0.064*** (-4.09)	-0.059*** (-4.12)	-0.058*** (-4.01)
Observations	225	217	90	93	208	83	81	176	133	93	104	103
R ²	0.03	0.14	0.32	0.32	0.17	0.36	0.34	0.17	0.19	0.31	0.31	0.30

Note: The dependent variable is the cumulative abnormal return of the three day event-window around the first event. t-values are reported in brackets, with significance levels: * 0.10, ** 0.05, *** 0.01. $\ln(\text{Market Capitalization})$ measures the log value of the free float on event day. Relative Performance measures the gap between observed stock return and the return of the size-appropriate index over a one year period prior to the event. Abnormal CEO/Board Compensation is measured as the difference between paid compensation and estimated normal compensation in terms of firm size and performance. The statistics for the board are reported including its Chairman. Management Holdings is the percentage of equity held by the management and board. Leverage is measured as total debt to total capital of each firm. Tenure is the number of years a CEO has been with the current company. Foreign Assets measure the percentages of total assets a firm holds outside Switzerland. Voluntary Disclosure Quality measures comprehensiveness and depth of information provided by a firm. Dual is a dummy equal to one if board members have to be elected one-by-one. Company Event is a dummy equal to one if the board is staggered. Single Election is a dummy equal to one if board members have to be elected one-by-one. Company Event is a control variable for firms that communicated past year's accounting figures during a 10 day window around the event day.

swiss:finance:institute

c/o University of Geneva
40 bd du Pont d'Arve
1211 Geneva 4
Switzerland

T +41 22 379 84 71
F +41 22 379 82 77
RPS@sfi.ch
www.SwissFinanceInstitute.ch