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Binding Say-on-Pay and Shareholder Value

Finance Working Paper N° 500/2017
Revised October 2024

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Abstract

This paper investigates share price reactions and corporate responses to a set of policy changes regarding binding say-on-pay in Switzerland. The cross-section of stock price reactions indicates a trade-off: On the one hand, binding votes on executive compensation amounts, especially when conducted retrospectively, can help reduce agency costs by enhancing the alignment of management and shareholder interests. On the other hand, retrospective binding votes entail costs, for example, by distorting executives' incentives for extra-contractual, firm-specific investments. Corporate responses to the policy changes also reflect these trade-offs.

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

JEL Classifications: G38, G34

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Binding Say-on-Pay and Shareholder Value*

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1. Introduction

This study examines the implications of different binding say-on-pay designs for shareholder value. As pointed out by Ferri and Göx (2018), there are many ways to structure say-on-pay votes. However, existing studies (reviewed below) concern predominantly advisory votes on compensation reports or policies, while relatively little is known about binding votes. In this paper, we study two versions of binding votes on *compensation amounts*, which do not only cover the policy but the actual pay outcome. The most stringent regime is *retrospective* voting. Here, shareholders vote, in a binding manner, on compensation amounts for the elapsed year.[1] By contrast, under *prospective* voting shareholders vote on a "bonus budget" for the upcoming year, within which the board can then decide on the actual bonuses to be paid. Analyzing the cross-section of stock price reactions to the introduction of each type of rule in Switzerland, we provide evidence indicating both benefits and costs for shareholders of each type of binding vote.

Our empirical analysis is guided by three hypotheses. First, we expect that retrospective binding say-on-pay can help rein in agency problems. Specifically, *Hypothesis 1* holds that the benefits of retrospective binding shareholder votes on compensation are greater in firms where the alignment of executive compensation and shareholder value is currently poor.

Second, retrospective binding say-on-pay may entail costs for shareholders of some companies. For example, consider a CEO at the time when he decides whether to make a firm-specific investment (i.e., exerting special, non-contractible effort that only benefits this firm). Looking ahead to the time when shareholders will decide on his compensation, he may worry that he will not receive the full return on his investment, as shareholders may withhold (part of) the expected bonus. If

[1] A retrospective binding vote on compensation resembles, to some extent, a clawback (or rather, a withholding) option for shareholders. While clawbacks are generally triggered by criminal charges or intentional wrongdoing with a negative impact on the company, retrospective binding votes are driven only by the shareholders' perception of whether an executive deserves a particular compensation amount.

so, his ex-ante incentive to engage in such efforts is diminished, with a negative impact on firm value.[2] *Hypothesis 2* posits that the resulting costs of retrospective binding shareholder votes on compensation vary across companies. For example, we expect distortions of managerial behavior to be more pronounced in more changeable environments, where managerial effort and outcomes are harder to contract on ex ante and where there are more unforeseen developments. In such environments, retrospective performance measures are also more likely to be misleading. Also, only cash bonuses (but not equity-based pay) are subject to retrospective binding votes. Therefore, cash-based bonuses are easier to withhold ex post than equity-based pay (which simply goes up in value when the firm performs well). Thus, we also expect greater ex ante distortions for companies where variable pay is delivered in cash.

Third, consider what happens under a prospective regime. The benefits for shareholders are reduced relative to the retrospective case because they have less control; once shareholders have approved a budget, if they dislike the bonus decisions of the board, they cannnot directly alter compensation amounts and can only vote against the ex-post compensation report (in a non-binding fashion) or against the election of board members. The costs are also reduced, however. When the board is allowed to pay out a bonus within the range provided by the bonus budget given by shareholders, management has certainty that they can be paid according to the compensation system, reducing distortions in their ex ante incentives. It also allows the board to account for unusual or unforeseen circumstances that may not be fully reflected in the original compensation system and which requires extra efforts by management that are not easily visible to the outside when deciding on the bonus (e.g., an unexpected supply chain disruption forcing management to

[2]One way to conceptualize this expectation is as a "hold-up" problem. In general, consider two economic agents A and B, where A makes a value-improving, specific investment that creates a joint surplus for A and B but contracts are incomplete. That is, it is not possible to write a contract ex ante that divides the surplus between A and B under all contingencies. In this situation, agent A fears that agent B will "hold him up" – that is, threaten to withhold part of the surplus – when bargaining over how to address an unforeseen situation (Klein, Crawford, and Alchian, 1978; Grossman and Hart, 1986; Hart and Moore, 1990). This threat reduces agent A's incentives to invest initially, leading to lower value creation overall.

search for alternatives at short notice). Therefore, *Hypothesis 3* is that both the benefits and costs of binding say on pay are less pronounced with a prospective than with a retrospective regime.

To test these hypotheses, we exploit two sets of regulatory events in Switzerland. Events 1 and 2 are the launch, through direct-democratic action of Swiss citizens, of the *"Initiative gegen die Abzockerei"* ("Anti-Rip-Off-Initiative," "Fat-Cat-Initiative") in 2008 and the corresponding constitutional referendum in early 2013, respectively. Events 3 and 4 are the draft and final releases of the Ordinance against Excessive Compensation in mid 2013 and towards the end of 2013, respectively. Details are in Section 2.2, but the basic features of these policy changes are as follows. Under the strict regime posited by the original Initiative (Events 1 and 2), shareholders would vote retrospectively on cash bonuses for the elapsed year. The flexible regime of the final Ordinance (Events 3 and 4), by contrast, allows shareholders to choose between retrospective and prospective voting systems. An advantage of the events is that they were largely unexpected, offering an opportunity to study the causal effects of the regulation (c.f., Gow, Larcker, and Reiss (2016)). Positing that shareholders anticipate the value implications of binding say-on-pay, we can use the stock price reactions to the events to test the hypotheses.

These policy changes are unique and allow for a specific evaluation of different specifications of binding say-on-pay. For example, the US and the UK do not have binding say-on-pay on compensation amounts. In the US, holding an advisory shareholder vote on executive compensation at least once every three years has been mandatory since 2011. The UK began mandating non-binding shareholder votes on executive pay in 2002 and revised these rules in 2013 to provide shareholders with a binding vote on the companies' pay policies at least once every three years. The EU requires (in its Shareholder Rights Directive II) mandatory votes on compensation reports and at least quadrennial votes on remuneration policy. Most countries have adopted these votes on an advisory basis, but some (e.g., France and Greece) have implemented an additional binding vote

on compensation amounts. Although special, the Swiss case is still of broad interest because (i) the capital market is large, (ii) international investors are important, and (iii) the compensation levels and structure are similar to those in many non-US countries including, for example, the UK.[3]

Turning to the event study results, we find, first, that the stock prices of firms with abnormally high variable executive pay (beyond what is explained by size, performance, and other factors) tended to react more positively than their peers to the Initiative, i.e., the anticipated introduction of retrospective binding say-on-pay. *Hypothesis 1* thus receives empirical support.

In line with *Hypothesis 2*, stock prices of firms in more uncertain environments reacted more negatively to the Initiative. For example, depending on the specification, firms with a one standard-deviation higher annual volatility experienced a 0.67 to 0.77 percentage points lower abnormal return. Also in line with this hypothesis, firms using only cash bonuses performed worse, by 0.8 to 1.4 percentage points, than their peers. This result is consistent with investors anticipating that cash-based bonuses are easier to withhold than equity-based pay (which simply goes up in value when the firm performs well) and with value-destroying distortion of ex-ante incentives accompanying such a threat. Confirming this interpretation, the effect is particularly pronounced for firms with a more dispersed and arguably faster-changing shareholder base. We also find that stock price reactions were more negative for more internationally oriented firms, in line with the notion that executives of such firms arguably have more significant options outside Switzerland.

Third, as predicted by *Hypothesis 3*, we find that these cross-sectional differences in reactions partially or fully reverted after Events 3 and 4, that is, after the more flexible Ordinance was introduced. This suggests that both the costs and the benefits of prospective binding say-on-pay are smaller than those of retrospective binding say-on-pay.

[3] As for (i), according to the World Federation of Exchanges (2018), Switzerland's stock market ranks 13th worldwide in terms of market capitalization. As for (ii), according to data on investor shareholdings from Orbis, in 2008 (2018) non-Swiss investors held on average 57.5% (59.5%) of the disclosed shareholdings of the largest 100 Swiss companies, respectively. At the median, the values were 64.5% (69.8%). As for (iii), see Table 5 of Edmans, Gabaix, and Jenter (2017).

The Initiative also affected other aspects of corporate governance (e.g., it includes a provision that firms have to specify the maximum number of board mandates any board member of a firm can hold). When we control for variation across firms in these other aspects of corporate governance, our main results hold.

We also examine firms' choices of which say-on-pay regime to propose to their shareholders after Events 3 and 4 (retrospective or prospective) as well as executive compensation practices. First, companies used the flexibility offered to them by the Ordinance against Excessive Compensation in predictable ways. In particular, shareholders of firms more exposed to the costs of retrospective voting (for example, firms in more changeable environments) were more likely to adopt a fully prospective voting regime. Second, companies that awarded cash-only bonuses prior to the Initiative adjusted their variable compensation structures by reducing the cash-share of CEO pay by more than 30% on average. Conversely, companies that had paid their CEOs abnormally high variable compensation prior to the regulation reduced it substantially (on the order of 30%), especially when they chose a retrospective voting regime. This arguably improved alignment of manager and shareholder interests.

In sum, the results suggest that binding say-on-pay reduces agency costs (as might be expected from the existing literature on the benefits of advisory say-on-pay), but also induces new costs due to distortions in incentives, especially when implemented in a retrospective fashion. This trade-off should be recognized and reflected in policy design.

Our study makes three contributions to the existing literature. First, we contribute to the literature on how shareholders perceive the benefits and costs of say-on-pay regulation.[4] Overall, that literature draws a positive conclusion on how an enhancement of shareholder rights can improve the alignment of managers with shareholder interests (see, e.g., Cai and Walkling (2011), Cuñat,

[4]See Ferri and Göx (2018) and Obermann and Velta (2018) for literature surveys.

Gine, and Guadalupe (2016), and Iliev and Vitanova (2019) for the US, and Ferri and Maber (2013) for the UK). In a cross-country study, Kind, Poltera, and Zaia (2020) find that the value of voting rights increases particularly for cases of binding say-on-pay. There are also somewhat more cautious views (see, e.g., Brunarski, Campbell, and Harman (2015) and Gerner-Beuerle and Kirchmaier (2018)). While Larcker, Ormazabal, and Taylor (2011) document insignificant reactions to events relating to executive pay regulation, these reactions are significantly negative for firms with higher CEO compensation, supporting the view that efforts to limit compensation are detrimental to firm value. Our findings extend the literature by providing unique within-country evidence of how different settings of binding say-on-pay affect the perceived alignment of managers with shareholders.

Second, our analysis speaks to a long-standing theoretical prediction regarding the benefits of limits on shareholder power (Burkart, Gromb, and Panunzi, 1997; Blair and Stout, 1999; Stout, 2003). For example, in Burkart, Gromb, and Panunzi (1997), dispersed shareholdership is a positive because it reduces the probability that shareholders expropriate other stakeholders retrospectively, which in turn increases future managerial initiative and noncontractible investments. The only other study we know of that addresses potential negative ex-ante incentive effects of binding say-on-pay is Göx, Imhof, and Kunz (2014). Consistent with our empirical evidence from stock price reactions, they show in a laboratory experiment that, while advisory say-on-pay votes do not distort investment decisions, binding votes do so and may thus impair shareholder value. Moreover, we contribute by showing how affected firms choose institutional settings (in this case, preferring a flexible, prospective say-on-pay regime when it became available).

Third, we consider the real effects of say-on-pay policies on companies. Several papers address

a single regulation in a specific country, with ambiguous results.[5] In a cross-country study, Correa and Lel (2016) document that say-on-pay laws reduce the upward trend in CEO pay. We extend this literature by exploiting two different specifications of binding say-on-pay regimes within one country.

2. Institutional background, content of the Initiative, and major events

The Swiss political system has two common ways of enacting new laws (see Kloeti, Knoepfel, Kriesi, Linder, Papadopoulos and Sciarini (2007) for an overview). One way is through a consensus decision between parliament and senate. The second way is through a public Initiative, which can be started by any Swiss citizen. Switzerland has a lively tradition of direct democracy (e.g., Frey (1994)). 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. If the public vote supports the Initiative, it becomes an amendment to the Swiss constitution.

The starting point of our study is the so-called "*Initiative gegen die Abzockerei*" ("Anti-Rip-Off-Initiative," "Fat-Cat-Initiative"), launched by entrepreneur Thomas Minder in August 2006. According to the Initiative's text, it was proposed "to protect the economy, private property and the shareholders." Unlike many Swiss Initiatives that are a general call to parliament and senate for legal action, rather than original proposals, Minder's Initiative had a clear program that it aimed at turning into law. The full text of the Initiative can be found in Appendix A.

On February 26, 2008 (Event 1), the Swiss News Agency (SDA) announced that the legal threshold of 100,000 signatures in favor of the Initiative had been reached; the news was quickly

[5] While Armstrong, Gow, and Larcker (2013) and Conyon and Sadler (2010) find that shareholder votes on equity pay plans or compensation reports, respectively, have little impact on future compensation policies, Alissa (2015) and Thomas, Palmiter, and Cotter (2012) find that firms reduced compensation amounts for their executives and increased their pay-for-performance sensitivity after negative voting outcomes. Balsam, Boone, Liu, and Yin (2016) and Iliev and Vitanova (2019) find a positive correlation between the introduction of advisory say-on-pay and the overall level of CEO pay, as well as the fraction of performance-linked pay.

picked up internationally.[6] The Initiative, which affected all publicly listed Swiss limited liability companies, required a binding, retrospective annual vote on total compensation amounts (the sum of all pay components, such as fixed and variable pay) for each of three groups: the board of directors, the executive board, and the advisory council. This event was hardly predictable for market participants, as there was no publicly available signatures count. Over the next five years, the Swiss government recommended voting against the Initiative and drafted two counter proposals, but on March 3, 2013 (Event 2), 68% of Swiss voters accepted the Initiative as a constitutional amendment.[7] The news coverage of this positive outcome was large and resonated internationally, as the Initiative approved by the Swiss public was one of the most stringent frameworks in the world.

The constitutional amendment required an ordinance by the Swiss Federal Government to become actionable law. On June 14, 2013 (Event 3), a draft ordinance was released by the Federal Council. As the release date was not known by the stock market in advance, and the draft's contents were also largely unknown, its publication received great attention from the business community. Between June 14 and July 28, 2013, a total of 71 participants, ranging from political parties, listed issuers, pension funds, asset managers, lawyers, and proxy advisors, as well as various associations, voiced their opinion on how to amend the draft. The final Ordinance against Excessive Compensation, which retained the basic features of the earlier draft, was released on November 20, 2013 (Event 4). The November date was known a few weeks in advance, although the contents of the final version were, to a certain extent, unclear, considering the many inputs received. This event

[6]Bloomberg reported on the Initiative's success in the late afternoon under the headline, "Swiss May Vote to Expand Shareholder Rights Over Executive Pay."

[7]The political process from 2008 to the public vote in 2013 followed the standard procedures of such public initiatives in Switzerland. The intermediate events during this period were hardly surprising, as they followed standard compromise-seeking processes and included little additional information that would be relevant for the market. The political discussions that delayed the vote on the Initiative were similar to those in the US, where it took more than three years for the 2007 US House Say-on-Pay Bill to find its way into law in the form of the Dodd-Frank Act of 2010.

had ultimately the largest real effects, as it forced a new legal framework on the Swiss corporate landscape.[8]

As salaries do not typically vary much from year-to-year, even under the original Initiative there was little question that they would be annually approved in advance of the upcoming year. As for variable compensation, the Initiative differentiated between cash bonuses and equity plans. Cash bonus amounts, which would be handed out depending on company-wide or individual performance in the prior year, and which could not be specified in suitable detail in the articles of association, would need to be voted on at the annual general meeting following the performance year. In today's terminology, this corresponds to a *retrospective* say-on-pay regime for all Swiss firms. By contrast, equity plans would be enshrined in the company's articles of association. For example, shareholders would once (or every few years, when changes would be necessary) approve, by an amendment of the articles of association, that a certain percentage of the salary would be provided in the form of shares. Shareholders could also approve other types of equity plans; for example, performance share units, that is, equity grants that are subject to performance (and service) vesting conditions. As long as the equity plan remained the same, no extra vote would be necessary in the following year's annual shareholder meeting; the value of the equity granted to the firm's executives would simply go up or down.

Combining, the fraction of variable compensation that is conveyed in cash indicates the part of compensation that is subject to the retrospective vote. The immediate consequences of a turned-down retrospective shareholder vote are severe, as no compensation can be paid (and it must be reclaimed if already paid out).

In contrast to the original Initiative, the draft and final versions of the Ordinance (Events 3 and 4) allow shareholders to set different types of say-on-pay voting mechanisms in the articles

[8] An (unofficial) translation of the Ordinance against Excessive Compensation is available here: http://bit.ly/OaEC-E.

of association. In particular, a firm's shareholders can elect to vote on all variable compensation, including cash bonuses, for management *prospectively*. Thus, at the annual general meeting in year t (i.e., in April 2015), shareholders approve a budget for variable compensation to be available for all members of the executive committee for fiscal year t+1 (2016 in this example). The board of directors is then free to allocate from this budget within t+1 and to hand out bonuses after the end of t+1. In practice, about two thirds of Swiss companies chose to vote prospectively on all compensation elements for their executive management (sometimes combined with an advisory vote on the compensation report in the following year), while one third use retrospective voting for their short-term incentives.[9]

While the public discussion and media coverage of the Initiative and the Ordinance mostly concerned say-on-pay, we note that the Initiative also contains other provisions (see Albrecht (2015) for an overview). Our setting provides an opportunity to test whether the market reacted to these provisions. Specifically, the Initiative prohibits any kind of termination pay or advance payments to the board of directors or the executive management. Other compensation benefits (loans, pension benefits, etc.) need to be stated in the firm's articles of association. Further requirements pertain to the election procedures for members of the board of directors and the compensation committee. Appendix A tabulates these additional provisions. We control for all of these factors to the extent that the data allow.

[9] A survey of international and local institutional investors (SWIPRA, 2016) shows that 38.3% of the respondents would be willing to reject a proposed compensation amount if it was deemed excessive. Since the Ordinance was implemented, compensation packages have been voted down three times. In 2015, the majority shareholder of Sika, who felt that the board of directors had not acted in her best interests, voted against the board's compensation (in a prospective vote). Because their compensation was turned down a second time in 2016, this time in a retrospective vote, the board members did not receive any financial compensation for 2015. In 2017, shareholders at GAM prospectively voted down the amount of executive compensation. Also in 2017, the executive management of Credit Suisse announced, after the official invitation of its annual general meeting was published, that it would waive 40% of its bonus compensation. This decision came shortly after the largest proxy advisors and some investors announced they would vote against the compensation proposals at the meeting.

3. Sample and data

To study the stock price reactions to the four events surrounding the Initiative and the subsequent Ordinance, we focus on sufficiently liquid stocks, which arguably allow for a fast processing of new information into stock prices. As information is more quickly reflected in stock prices for larger firms (Hong, Lim, and Stein, 2000; Hou and Moskowitz, 2005; Peng, 2005), we restrict our sample to those firms classified as large and medium by SIX Swiss Exchange. This corresponds to 100 firms for each year, covering 97.9% of the SPI market capitalization in 2007 and 98.6% in 2014. The list of the largest 100 companies in the Swiss Performance Index (SPI) is gathered from the webpage of SIX Swiss Exchange. This classification reflects not only market capitalization, but also stock liquidity and free float, among other factors. Most of the remaining roughly 100 listed firms in the wider Swiss market are rather small and thinly traded.

Of the 100 firms we consider, three have a dual-class share structure, with both instruments listed. We include the publicly held, more liquid share class. Limited availability of some variables of interest reduces our working sample to 81, 83, 84, and 84 firms for Events 1 through 4, respectively.[10]

Table 1 defines all variables (and the key variables are discussed below as they appear in the analysis). Firm-level stock returns data come from the Compustat Global database, and some other data come from Compustat Global and Refinitiv / Thomson Reuters. All data related to management compensation, including its structure and voting regime, were hand-collected from firms' annual reports or related disclosures. When the CEO is not the highest-paid individual, his/her compensation does not need to be disclosed according to the law, resulting in missing data.

[10] Data can be missing for several reasons, including new index inclusions, limited disclosure requirements (e.g., exceptions pertaining to CEO compensation), insufficient compliance with disclosure provisions (especially in the early years), and M&A transactions.

This was the case for eight companies in 2008 and two companies in 2013.[11] Compensation numbers and ratios relate to the financial years prior to the event years.

The summary statistics for all variables of interest are collected in Table 2, with correlations in Appendix Table A2. The average company in our sample has a market capitalization of CHF 12.6bn. On average, blockholders own 28% of the shares in the companies of our sample. At the time of Event 1, the average CEO received a total pay package of CHF 4.37m, of which, on average, 43% was base compensation, 18% was variable cash bonus, and 30% was equity-based compensation. The remaining 10% was other compensation. For 24% of the sample companies, all variable pay is allocated through cash bonuses. Based on summary statistics provided in Edmans, Gabaix, and Jenter (2017), compared to the levels in UK companies (base salary 48%, cash bonus 17%, and stock and options 26%) or non-US companies more generally (base salary 53%, cash bonus 18%, and stock and options 19%), Swiss companies pay a slightly lower base compensation, but allocate a higher fraction of total pay in cash bonuses and company shares. CEOs of Swiss companies generally have a higher base salary and receive less in stock and options than CEOs of S&P 500 constituents in the US. There is substantial variation in the compensation structure and compensation levels across our sample of Swiss companies.

TABLE 2 ABOUT HERE

4. Stock price reactions

This section documents the stock price reactions to the four events surrounding the Initiative and the subsequent Ordinance. The advantage of considering asset price changes is that they capture current expectations; the researcher does not need to separately trace all the future changes to cash

[11] Most companies provide business reports in January to March of the following year. As such, at the end of February 2008 information on compensation in all companies in 2007 may not yet have been publicly available. Reliable compensation data for 2006 are not available for Switzerland, as the Transparency Act requiring firms to disclose compensation data came into force in 2007.

flows and discount rates (Schwert, 1981).

In analyzing stock price reactions, we follow standard practices (Kothari and Warner, 2007; MacKinlay, 1997). Based on the four events described in Section 2, we define an event window that spans ±1 day around the event day. To calculate abnormal returns (AR), we apply the commonly used market model, using the Schmidt, von Arx, Schrimpf, Wagner, and Ziegler (2019) pan-European index. The dependent variables in our analysis, cumulative abnormal returns (CAR), are the sum of the ARs in the three-day event windows. For the length of the estimation window, we choose the well-established duration of 250 trading days, ending two days before the event. We follow the approach of Larcker, Ormazabal, and Taylor (2011) and pool the events that are expected to impact companies similarly, and we cluster standard errors at the firm level. Overall, due to the unexpected nature and the legal importance of the four regulatory events we analyze, we expect that any statistically significant abnormal returns in the event window can be attributed to the event, in line with Gow, Larcker, and Reiss (2016).

We regress cumulative abnormal returns around the events on proxies for benefits and costs of binding say-on-pay, as detailed below, and control variables and industry fixed effects. Thus, we estimate variations of the following regression:

$$\begin{aligned} CAR_i =& \alpha + \beta_1 AbnormalVariablePayRatio_i + \beta_2 FractionOtherPay_i + \\ & \beta_3 AnnualReturn_i + \beta_4 AnnualVolatility_i + \beta_5 ManagementShareholdings_i + \\ & \beta_6 FractionForeignSales_i + \beta_7 CashOnlyIncentives_i + \Gamma' Controls_i + I_i + \epsilon_i \end{aligned} \tag{1}$$

The key variables in this regression are defined as follows. Following Bebchuk, Cremers, and Peyer (2011), we calculate the abnormal variable pay ratio (*Abnormal Variable Pay Ratio*) as the ratio between the CEO's actual variable remuneration (short- and long-term incentives) and the

estimated normal variable remuneration granted by the average comparable firm. We derive the normal variable CEO compensation by regressing the log of *variable CEO compensation* on the log of *Market Capitalization*, the company's ICB-*Industry Return*-adjusted *Annual Return*, the number of months (*Months*) the CEO served the company in the year under review and whether the CEO also held the role of the Board Chair (*Dual*). *Fraction Other Pay* is the fraction of the CEO's non-regular compensation (e.g., sign-on payments, fees for extra consulting, termination benefits, etc.) relative to total CEO compensation. *Annual Return* is based on the one-year apart levels, ending the day before the event window (two days before the events), of the companies' daily total return index in the Compustat Global database.

Annual Volatility is the annualized volatility of the daily returns of the companies' total return index during the previous financial year. *Management Shareholdings* is the fraction of shares outstanding that is held by the firm's management and the board of directors. *Fraction Foreign Sales* is the fraction of company sales outside of Switzerland relative to the company's total sales. *Cash-only Incentive* is a binary indicator variable equal to 1 if the entire variable compensation is paid in cash.

Throughout, we control for the log of the free-float adjusted market value (*Market Capitalization*)[12], *Abnormal Trading Volume*, which is the difference between the trading volume in the event window and the median trading volume of the respective firm in the previous year, standardized by the median trading volume of the respective firm in the previous year, and *Company Event*, a binary indicator variable which is equal to one if a firm communicated its previous year's figures to the media within five days around the event window. Furthermore, we usually include *Fraction Blockholders*, which is the difference between issued shares and shares in free float, divided by shares outstanding, and is calculated with end-of-year data pertaining to the financial year prior to the

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

events, as obtained from Thomson Reuters Datastream. Based on the ICB industry classification, we derived the number of peer companies within the comprehensive Swiss Performance Index (SPI) and include an indicator identifying firms with fewer than seven peers (equal to the lowest quartile of this count (*Few Peers*). Further controls defined below include *CEO Loans*, *Change of Control*, *Individual Election*, *Long Notice Period*, *Termination Benefits*, and *Maximum Directorships*, which were collected from companies' public disclosures. To maximize the number of observations in all regressions, we replace missing values for the Initiative-specific control variables listed in Panel E in Table 2, the number of board seats, and the fraction of foreign sales with 0 and include a binary variable equal to 1 in case such a replacement took place. We also include industry fixed effects.

4.1. Reactions to Events 1 and 2

Table 3 analyzes stock price reactions to Events 1 and 2, the proposal and acceptance of the original say-on-pay Initiative, with retrospective binding say-on-pay. As a baseline, we begin by testing the agency hypothesis (*Hypothesis 1*), which has been the focus of much of the literature on say-on-pay. First, the positive coefficient on the Abnormal Variable Pay Ratio suggests that the market did indeed anticipate positive value effects of say-on-pay for firms with excessively high variable compensation. In this sample, the standard deviation of the abnormal variable pay ratio is about 1.78. Therefore, the estimate of .0047 in column (1) implies that a company paying its CEO a variable compensation one standard deviation above what would be in line with average market practice given the characteristics of the company had a three-day CAR that was 0.84% higher all else equal. As such, this result confirms the findings in studies of advisory say-on-pay in the US and the UK (Cai and Walkling, 2011; Ferri and Maber, 2013).[13] This finding remains mostly stable throughout Table 3, though the coefficient drops below conventional significance levels in column

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

(5).

Second, if management was not working in the interest of the shareholders before the adoption of a binding shareholder vote on compensation, a firm's stock performance was likely to be poor. Thus, we should observe that firms with poorer performance in the past benefit more from the Initiative. We find modest support for this conjecture in the data. When not controlling for industry fixed effects and the Initiative-specific control variables, we find a negative and significant relationship between the firm's one-year performance and the cumulative abnormal returns (not shown). When controlling for industry, however, as in Table 3, the significance of this finding drops.

Third, we observe only modest evidence of more positive reactions for firms having large amounts of "other CEO pay" (such as severance payments or discretionary contributions to pension funds) in the year prior to the Initiative. The coefficient is significant and positive with a limited set of control variables (not shown), but loses significance in the fuller specification we use (in particular accounting for abnormal variable compensation and volatility). Thus, shareholders at least initially appear to have given more weight to abnormal variable compensation in assessing the value consequences of binding say-on-pay.

To test *Hypothesis 2*, we consider four arguments, and their corresponding proxies, for variation among firms in the costs that shareholders anticipate from the introduction of retrospective binding say-on-pay.

TABLE 3 ABOUT HERE

First, we consider the company's stock volatility as an indication of uncertainty. When the company's business environment is more changeable, managerial effort and outcomes are harder to contract on and there are more unforeseen developments. In other words, the incompleteness of contracts becomes a major concern. Retrospective votes on compensation, as required by the Initiative, may further exacerbate the ensuing costs due to distorted managerial incentives. In more

volatile environments, retrospective performance measures are also more likely to be misleading. In line with these arguments, column (1) of Table 3 shows that the stock prices of firms with higher stock volatility exhibited more negative reactions to the Initiative. The coefficient of -0.066 implies that firms with a one standard-deviation (0.11) higher annual volatility, which are expected to suffer more from negative ex-ante incentive effects of retrospective votes, on average had 0.75 percentage points (0.066 * 0.11 = 0.0075) lower CAR. With more control variables, such as in column (5), the effect is still significant, though somewhat smaller (0.67 percentage points).

Second, executives with large shareholdings can anticipate returns on their human capital investments regardless of the outcome of the annual say-on-pay vote. Thus, concerns about distorted ex-ante incentives due to retrospective voting should play a less pronounced role for these firms. Column (2) shows that indeed these firms responded more positively to the Initiative.[14]

Third, firms with more foreign activities present management with greater outside options. The likelihood that executives of these firms might seek to "escape" the new regulatory framework introduced by the Initiative is larger; conversely, the incentive for these executives to make firm-specific investments is smaller. Column (3) shows that indeed the stock price reactions were more negative for more internationally-oriented firms.

Fourth, consider the firm's executive pay structure. In Switzerland, annual incentives play an important role. Therefore, changes in the way these annual incentives work can have profound effects on behavior. As explained in Section 2, the timing of how executive pay would be set, according to the original Initiative, could have led to distortions: Cash bonuses for the elapsed year would need to be approved at the next shareholder meeting. The problem here is that ex post, the shareholders have little incentive to approve these awards; moreover, the shareholder base may have

[14]This finding is interesting because, in principle, large management shareholdings also indicate that alignment with shareholder interests is already strong. This would suggest a negative relation between stock price reactions and managerial shareholdings if the agency channel were the only factor at work.

changed over time.[15] The CEO, in turn, may anticipate this threat and, realizing that his efforts may not be fully rewarded, will not make the firm-specific investments that maximize firm and shareholder value. We expect the resulting distortions to be greatest where executives are mostly compensated with cash bonuses. Consistent with this prediction, column (4) of Table 3 shows that the CARs were more negative in firms that use only cash bonuses as variable compensation, as compared to firms that use equity-based compensation or a mix of the two. The effect is not statistically significant on its own, but becomes significant when including all variables jointly (column 5). That regression suggests that firms using only cash bonuses experienced 1.4 percentage points lower CARs.

Columns (6) and (7) of Table 3 present two refined tests. First, when executives are dealing with a dispersed and often-changing shareholder base, they are more likely to worry that in a retrospective vote on their compensation, they may not see the full returns on their investment. This is less likely to occur when a large fraction of the shares is held by blockholders, who can be expected to remain with the firm.[16] Consistent with this hypothesis, in column (6) we find a strong, significantly positive interaction term between the fraction of blockholders and cash-only incentives.[17]

Second, we expect CEOs' human capital investments to be more firm-specific the fewer comparable firms there are in Switzerland (postulating that the CEO has some costs of moving). In such

[15] In particular, the shareholders' incentives to approve the bonuses are considerably smaller than the boards': Boards of Swiss companies are explicitly charged to act for the benefit of the overall corporation. Also, their benefits from expropriating management are significantly smaller than those of the shareholders. Moreover, the board is more likely than shareholders to have information about unusual or unforeseen circumstances that may not be fully reflected in the initial compensation system and which required extra efforts by management. At the same time, it may be difficult for the board to share such information in detail without compromising competitive advantages.

[16] Blockholders can arguably more easily implement the governance and compensation structures they deem most suitable for the company. As a consequence, alignment is not expected to improve further for those firms.

[17] Shareholder structure can be described in various ways and be based on different cut-offs. We conducted the analysis of Tables 3 and 4 using other shareholder structure variables, such as holdings of the largest shareholder, holdings of the largest three shareholders, and the Herfindahl measure of the total reported holdings of each company, as well as blockholder cut-offs of 30% and 50%. The main results remain unchanged.

cases, the CEO is likely to be more concerned about shareholders retrospectively voting, as his or her exit option is worse. By contrast, for example, there are quite a few financial services firms in Switzerland, so that a finance executive can relatively easily move and have his/her prior experience recognized (within the limitation of no-compete-clauses). Consistent with this idea, we find in column (7) that the negative effect for cash-only variable compensation is particularly pronounced for firms in those industries that are in the lower quartile of the number of firms in the sample.[18]

4.2. Reactions to Events 3 and 4

When the Ordinance was introduced in June 2013 (Event 3), and confirmed in November 2013 (Event 4), the Swiss business community was noticeably relieved. The Ordinance allows for a more flexible compensation voting regime and, in particular, does not require shareholders to vote on cash bonuses retrospectively; instead, it allows them to adopt a prospective, budget-based voting regime. However, there were also critical voices worrying about a dilution of the power of shareholders and a reduction of the agency benefits.

Table 4 exploits this setting to compare stock reactions across events and across firms to this new, more flexible regime. We define a binary indicator *Ordinance* that is equal to 1 for Events 3 and 4, and is equal to 0 otherwise. We then interact this dummy variable with the company characteristics of interest, as well as all control variables, to account for the two different regimes.[19]

TABLE 4 ABOUT HERE

The regression results in Table 4 overall suggest that the problem inherent in the original design of the Initiative (Events 1 and 2) was ameliorated by giving firms the possibility of choosing a more

[18] We have also tested interactions of the fraction of blockholders and the number of firms in the industry with the other proxies for expected distortions due to retrospective votes. Results are insignificant. Thus, the incentive structure, which, after all, is the proxy closest to the nature of the new regulation, is the most important factor for shareholder reactions.

[19] A less conservative specification would include the control variables without interaction terms; our results remain robust for that case as well.

flexible voting regime. Specifically, the effects on our variables of interest generally reversed, in the case of volatility and cash-only bonus quite significantly so. Conversely, however, the negative interaction effects for abnormal compensation suggest that the agency benefits of the original Initiative were modestly weakened by the Ordinance (Events 3 and 4). For the other compensation component, the Ordinance affirmed the original rules of the Initiative, that is, certain pay types remain forbidden even under the more flexible regime. As expected, we do not see any reversal in Events 3 and 4 for this variable, but if anything a modest strengthening of the effect.

In sum, the central result revealed by our analysis is a trade-off: The overall reaction of shareholders to enhanced power not only reflects the tension between reducing agency cost and incurring compliance costs, but also the tension between reducing agency costs and inducing negative incentive effects.

4.3. Other explanations

As explained in Section 2, the Initiative contains a number of other provisions in addition to binding say-on-pay votes. These are detailed in Appendix Table A1. While policy discussions and the public's reactions were almost exclusively focused on the say-on-pay component, it is possible that shareholders also reacted to these other provisions. To investigate this possibility, we compare the market's reactions to firms using a provision that would eventually be forbidden (or limited) under the Initiative with its reactions to firms without such provisions. Specifically, we consider the following six governance attributes: i) whether the board is elected through an individual or a global vote, ii) whether the CEO has a notice period longer than 12 months, iii) whether the CEO has any outstanding loans from the company, iv) whether the company has a change-in-control clause that would benefit the current management, v) whether the CEO has termination benefits, and vi) the maximum number of directorships that board members currently hold with other public

Swiss companies.

Some provisions of the Initiative were new to all firms. These rules may have heterogeneous effects, because firms with greater agency problems may respond more favorably to such rules. For example, the annual election of each member of the compensation committee, electronic distance voting, and the abolition of bonus payments to corporate executives and board members in the case of firm acquisitions / divestitures were newly introduced for all firms, but their effects can plausibly be hypothesized to be stronger for firms that, before the Initiative, showed poor pay-for-performance (high compensation relative to a firm's size, performance, and industry). Therefore, abnormal compensation may also pick up some effects due to these factors. This is a limitation of our study, but a relatively minor one, we believe, given that our main interest is in the variables proxying for potential costs of retrospective voting (volatility, cash-only incentives, management shareholders, and fraction foreign sales).

For a few of the new rules, no suitable data are available. There are no systematic data on pension fund ownership of stocks, for example, making it impossible for us to control for differences in exposure to the new provision that pension funds must disclose their voting behavior. Finally, some rules can be expected to strengthen any cross-sectional effects. In particular, the potential for board members or executives to serve prison time if compensation is paid without approval by the general assembly should make the overall effect of the rules stronger.

Table 3 controls for the proxies of the six governance provisions of the Initiative that clearly vary across firms. We find that firms where board members were potentially "busy" (with a large number of *Maximum Directorships*) and firms where CEOs held outstanding loans from the company (*CEO Loans*) reacted more positively to Events 1 and 2, indicating that the market considered alignment with shareholder interests to have been improved by the new rules. The other four governance provisions did not significantly affect stock returns. Our main results are unaffected by controlling

for these provisions.

Another potential explanation for our results is unobserved CEO skill. More highly skilled CEOs may have more outside opportunities and would, therefore, be more likely to leave a firm if their contract becomes less attractive. Skill is difficult to measure directly. However, we predict that larger firms, whose CEOs tend to have more outside opportunities because they are seen as more capable, should respond more negatively. Similarly, companies with an international CEO should react more negatively to Events 1 and 2, as their CEOs are more likely to leave than Swiss CEOs. Instead, we find a positive relation between firm size and CARs (see Table 3) and no relation between CEO nationality and CARs (not tabulated). These findings suggest that selection is not the main driving force behind our findings.

5. Real effects: voting regime choices and compensation practices

In this section, we provide evidence of real effects following the say-on-pay regime announcements. The basic idea is that if the design of the binding say-on-pay vote is consequential, we expect firms to choose voting regimes (fully prospective or partially retrospective) in a way to minimize negative impacts on firm value. We also expect firms to adjust their executive compensation practices (in terms of both structure and level) accordingly.

Note that, although two countervailing effects occurred in 2013 (Event 2 of the Initiative and Events 3 and 4 of the Ordinance), the observed real adjustments made in 2014 and 2015 are the result of the final situation at the end of 2013, i.e., the imposition of the new rules by the final Ordinance.

5.1. Voting Regime Choice: Method

We expect firms that are more exposed to the negative effects of retrospective voting due to their practice, for example, of using cash-only bonuses, to be more likely to choose a fully prospective say-on-pay voting regime. Conversely, we expect firms with greater agency problems to be more likely to choose retrospective voting. Firms were free to chose their voting regime, but needed shareholder approval, as this choice had to be included in the firm's articles of association. Because this choice happened only after the Ordinance was implemented, we include in our regression firms that were in the sample at the time of Event 3. We analyze the determinants of firm i's choice of voting regime with a cross-sectional probit regression:

$$\textit{Fully prospective vote}_i = \alpha + \beta' * \textit{(Hold-up and alignment proxies)} + \gamma' * \mathbf{X_i} + \epsilon_i, \tag{2}$$

with the dependent variable being an indicator equal to one when the firm chose a fully prospective vote (i.e., all compensation elements are approved by shareholders for future periods), and zero when some elements of compensation are subject to a retrospective vote. $\mathbf{X_i}$ is a vector of the control variables.

5.2. Voting Regime Choice: Results

Table 5 summarizes our results. Firms with greater volatility had a tendency to choose fully prospective regimes. Those paying bonuses in cash only also were more likely to choose fully prospective regimes. These findings indicate a desire to avoid the incentive costs of retrospective voting. They also fit with the findings shown in Table 4, i.e., the original negative effects of cash-only bonuses and volatility reversed when the Ordinance was implemented. Table 5 also shows that when industry fixed effects are included, the role of volatility is reduced; this finding indicates that

the choice of voting regime, as regards this variable, is mostly a between-industry phenomenon. We do not find significant results for the other two proxies. As for the agency proxies, firms with a higher fraction of other pay were more likely to choose retrospective voting, arguably because shareholders had less trust in the board and management of these firms, but we find no support for the idea that firms paying high compensation amounts were more likely to do the same.[20] Overall, our findings provide modest evidence that firms sought to choose a suitable say-on-pay regime to minimize negative incentive effects. However, the variation with respect to voting regime choice is limited, as companies naturally opted for the most flexible one, and it appears that other factors not picked up by our explanatory variables also played an important role in the choice of voting regime.

5.3. Compensation practices: Method

To analyze the adjustments firms made to compensation (in both level and structure), we follow the approach of Chhaochharia and Grinstein (2009) to empirically test whether the companies impacted the most by the Initiative also adjusted their compensation the most.

First, we consider changes in the fraction of the total variable compensation paid as a cash bonus. We expect companies with the highest cash-bonus fraction prior to Event 1 to adjust that fraction the most. To test this conjecture, we run the following regression on the pooled sample:

$$\begin{aligned} &\textit{Cash-share of CEO bonus pay}_{i,t} = \\ &\alpha + \beta_1 * \mathbb{1}(\textit{CEO}_{i,t} \textit{ received cash-only bonus pre event}) * \textit{Dummy (years post event)} \\ &+ \gamma' * \mathbf{X_{i,t}} * \textit{Dummy (years post event)} + \delta_{\mathbf{i,t}} + \eta_i + \epsilon_{i,t}.. \end{aligned} \tag{3}$$

[20] We use log total compensation in these regressions to maximize our sample size; traditionally, not all companies disclose the split of compensation into variable and fixed components. Similar results obtain when we use the abnormal compensation ratio, though with the smaller sample size the significance of the coefficient on volatility is reduced.

The indicator $\mathbb{1}$ is equal to 1 if a company pays its CEO only a cash bonus and no equity-based pay before the event. The coefficient β_1 measures whether the average change in the CEO's cash-bonus fraction following the event differs significantly between those companies that paid cash-only bonuses prior to the event and all other companies. $\mathbf{X_{i,t}}$ is a vector of further control variables, and η_i and $\delta_{\mathbf{i,t}}$ represent firm and industry-year fixed effects.

Second, we run a similar analysis for the fraction of other pay, checking whether firms paying higher amounts of other compensation before the event reduced it more.

Third, we consider changes in the level of performance-based variable compensation, defined as the ratio of actual variable pay to an estimated normal level of variable pay.[21] We estimate the following regression for the variable compensation level on the pooled sample:

$$\begin{aligned} &\textit{Abnormal variable pay ratio for } CEO_{i,t} = \\ &\alpha + \beta_1 * \mathbb{1}(\textit{CEO}_{i,t} \textit{ was over/underpaid pre event}) * \textit{Dummy (years post event)} \\ &+ \gamma' * \mathbf{X_{i,t}} * \textit{Dummy (years post event)} + \delta_{\mathbf{i,t}} + \eta_i + \epsilon_{i,t}. \end{aligned} \tag{4}$$

The indicator $\mathbb{1}$ is equal to 1 if a company overpays its CEO and (-1) if it underpays. The coefficient β_1 captures the average change in the variable pay ratio between companies that deviate from the predicted CEO pay and those that are in line with the prediction. In other words, if companies react to the events by increasing alignment, we should observe a decrease in abnormal compensation in the years following the event for companies that paid high abnormal variable pay prior to the event. Conversely, companies that underpaid their CEOs prior to the event might increase performance-adjusted pay to improve alignment. $\mathbf{X_{i,t}}$ is a vector of further control variables, and η_i and $\delta_{\mathbf{i,t}}$ represent firm and industry-year fixed effects.

[21] It is generally more straightforward for companies to adjust their variable compensation than to adjust base compensation. In unreported regressions, we find that the effects for total compensation are similar, though, as expected, they are not as pronounced.

Fourth, we refine the above analysis of performance-based variable compensation by splitting the sample according to voting regime. We expect companies selecting a retrospective voting regime to reduce their variable compensation relatively more than their prospective counterparts.

We control for changes in our control variables around the events and include firm and industry fixed effects to filter out developments that may be due to a general adjustment in the compensation systems.

Figure 1 lays out the timeline of the events and their possible effects on compensation policies. The distinction between compensation structure and compensation level has an important implication for the regression specification. The variable compensation structure is generally fixed at the beginning of a financial year. Therefore, to see the Initiative's effects on compensation structure we define the pre-event period as 2007 and 2008. Variable compensation levels are decided at the end of the year. Therefore, for compensation levels, the pre-event period is is 2007. Likewise, to see the effects of the final Ordinance on compensation structure, we define pre-event as 2012 and 2013, while for compensation levels, it is 2013.

5.4. Compensation practices: Results

We hypothesize that following events 1 and 2 those companies that paid their CEOs with cash-only bonuses would be the most concerned with distorted incentives in the future as the annual binding retrospective vote would have only applied to cash bonuses. Consequently, these companies are expected to adjust their compensation structures the most, moving away from cash-only bonuses in the years following the Initiative. No effect is expected following the implementation of the Ordinance, as cash-based variable compensation was no longer treated differently from any other variable compensation.

TABLE 6 ABOUT HERE

In panel A of Table 6, we analyze how the cash fraction of a CEO's bonus changed around the events. The baseline regressions in columns (1) and (2) show that companies that awarded cash-only bonuses prior to the Initiative reduced, on average, the cash share of the CEO's variable compensation by 31.7% to 33.4% after Event 1; the cash fraction remained unchanged following the events in 2013. These results remain robust after including additional controls for return on assets, total shareholder return, market to book, log of market capitalization, and presence of a blockholder.

Columns (1) and (2) of panel B show that companies that paid high other compensation fractions prior to the Initiative reduced the role of this compensation component already after Event 1, and this trend continued after the Ordinance.

We also hypothesize that companies that paid their CEOs the highest abnormal variable pay, arguably as a result of low shareholder alignment, will react the most, by reducing their abnormal compensation levels in the years following the events.

For the CEO abnormal variable pay ratio, the baseline regressions in columns (1) and (3) in panel C of Table 6 show that companies that paid an abnormal variable pay prior to the event adjusted it in a statistically significant way toward the expected normal variable compensation level during the two years following the event. This finding holds for Event 1 in 2008, as well as for the events in 2013. This effect suggests that, on average, previously over-/underpaying companies reduced/increased their abnormal compensation by 29.7% and 17.1%, respectively, following the regulatory steps. This effect remains unchanged for both events after we introduce various controls for other changes possibly occurring around the event year (columns (2) and (4) of Table 6). These results are also in line with the stock price reaction found earlier: Shareholders of companies with the highest-paid CEOs reacted most positively, because these companies indeed reduced excessive

variable compensation.[22]

Finally, panel D examines the effects on variable compensation by the choice of the compensation voting regime. It shows that most of the average effect seen in panel C is due to firms that choose retrospective voting. In these firms, binding say-on-pay is strongest and increases alignment the most.

6. Conclusion

Policy makers around the world are working to enhance shareholder rights, a key dimension of which concerns executive compensation or shareholder say-on-pay. Knowing how different say-on-pay schemes work is of increasing importance. Such insights can also contribute to the ongoing policy debate on how to extend shareholder rights with respect to sustainability matters.

Previous papers have shown that improving proxy access and shifting power to shareholders through various other provisions are seen positively by the shareholders of firms with pronounced agency problems (Becker, Bergstresser, and Subramanian, 2013; Cohn, Gillan, and Hartzell, 2016; Cuñat, Gine, and Guadalupe, 2016). These results, however, do not mean that extending shareholders' rights is always in their best interests. For example, SEC attempts to facilitate director nominations by shareholders generally had a negative impact on share prices (Akyol, Lim, and Verwijmeren, 2012), Cai, Garner, and Walkling (2013) find that majority (as opposed to plurality) voting in board elections does not improve firm performance, and Larcker, Ormazabal, and Taylor (2011) document negative market reactions to legal developments that suggest a higher probability of governance and executive pay regulation. In another example, while staggered and classified boards are often seen as detrimental to shareholder value and other anti-takeover protections (e.g.

[22]These findings differ from the results presented by Armstrong, Gow, and Larcker (2013) for the US and point out the significant differences that can arise from alternative calibrations of the shareholder voting regime on executive compensation. Unlike in Armstrong, Gow, and Larcker (2013), the voting regimes we consider here cover the entire compensation package (not the equity-based compensation elements alone) and come with different timing specifications (prospective and retrospective votes).

Bebchuk and Cohen, 2005; Cohen and Wang, 2013, 2017), other work shows that these governance elements may induce longer time horizons and better relations with strategic partners (e.g. Chemmanur and Tian, 2018; Cen, Dasgupta, and Sen, 2016; Cremers, Masconale, and Sepe, 2016; Cremers, Litov, and Sepe, 2017; Duru, Wang, and Zhao, 2013; Field and Lowry, 2020; Ge, Tanlu, and Zhang, 2016; Johnson, Karpoff, and Yi, 2015).

In this spirit, our paper delivers new insights for the design of say-on-pay regulations. Our results are consistent with the view that shareholders rationally anticipate that increasing their own power comes with costs, as well as benefits. Retrospective voting on compensation enhances shareholders' ability to align managerial interests with shareholder value, thus reducing agency costs. But theory also predicts that restrospective binding votes on compensation can distort managers' future extra-contractual investments in the firm. Consistent with these prediction, companies with larger agency problems reacted more positively, and companies arguably more exposed to distortion of incentives reacted more negatively when an Initiative imposing a strict retrospective binding say-on-pay rule was announced in Switzerland in 2008. When a more flexible say-on-pay voting system was permitted by the Ordinance against Excessive Compensation in 2013, including a prospective bonus budget system, however, the effects partially reversed. We find modest evidence that companies arguably most exposed to concerns emanating from retrospective voting used the flexibility afforded them by the later Ordinance to implement a prospective say-on-pay system. We find stronger evidence that companies' compensation practices changed in ways consistent with the stock price reactions. Thus, the overall picture from initial stock price reactions to the Initiative, partially reverting reactions when regulations became more flexible under the Ordinance, and real company responses is consistent.

Overall, our findings suggest that stronger and more direct shareholder power may not always be in the best interests of the shareholders themselves.

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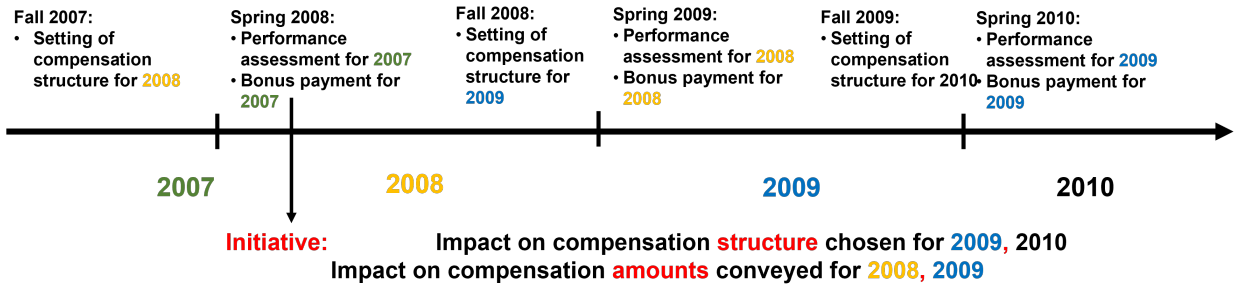
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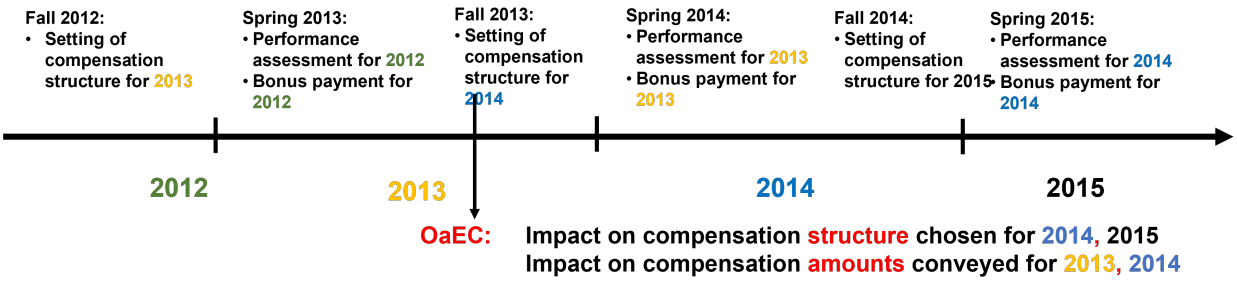
Figure 1. Time line and impact of events

Panel (a) shows how the announcement of the Initiative impacted the compensation-setting process in a typical sample company. With the announcement of the Initiative prior to the 2008 AGM season, it likely impacted the setting of compensation amounts for financial year 2008, as well as the compensation structure for financial year 2009. Panel (b) shows how the announcement of the Ordinance against Excessive Compensation impacted the compensation-setting process in a typical sample company. With the announcement of the Ordinance's content in Q3 2013, it likely impacted the setting of compensation amounts for financial year 2013, as well as the compensation structure for financial years 2013/14. ///

Alt Text: This figure shows along a timeline how the announcement of the Initiative and the announcement of the Ordinance against Excessive Compensation, respectively, impacted the compensation-setting process in a typical sample company.



(a) **Impact of the Initiative**



(b) **Impact of the Ordinance against Excessive Compensation**

Table 1. Variable descriptions

Variable	Description
Abnormal Trading Volume	Ratio of the difference between the trading volume in the three-day event window and three times the median trading volume of the respective company in the previous year, standardized by the median trading volume of the same company in the previous year. Information about trading volume was obtained from Refinitiv / Thomson Reuters Datastream.
Abnormal Variable Pay Ratio	Ratio of the actual variable remuneration (short- and long-term incentives) and the estimated normal variable remuneration granted by the average comparable company. The prediction of the normal variable CEO compensation is based on log(market capitalization), one-year ICB-industry-adjusted return, a control for the number of months the CEO served for the company in the year under review and whether the CEO was also appointed Chairperson of the Board. Data on compensation are hand-collected from annual statements, all other data as described in this table.
Annual Return	Annual return is based on the company's one-year (250 trading days) apart daily total return index levels, ending two days before each event, using data from the Compustat Global database.
Annual Volatility	Annualized volatility of daily returns of the company's total return index over the prior financial year, based on the Compustat Global database.
Cash-only Incentives	Indicator variable equal to 1 if the entire variable compensation is paid in cash. Compensation data are hand-collected.
CEO Loans	Indicator variable equal to 1 if the CEO has outstanding loans provided by the company. Data are hand-collected from companies' annual reports.
Change of Control	Indicator variable equal to 1 if the company has a specific change-of-control clause, with respect to executive compensation. Data are hand-collected from companies' annual reports.
Company Event	Indicator variable equal to one if a company communicated results to the media within five days around the event window. This information was hand-collected from the companies' websites.
Cumulative Abnormal Return (CAR)	Abnormal returns calculated on the basis of the market model, using a European benchmark index as described in Section 4.
Few Peers	Dummy variable equal to 1 if the company's number of peers is within the lowest quartile (lower than 7). Number of peers is derived from ICB industry segments within the Swiss Performance Index.
Fraction Blockholders	Difference between issued and free float shares relative to issued shares, divided by shares outstanding, calculated with data from Refinitiv / Thomson Reuters Datastream.
Fraction Foreign Sales	Fraction of a company's sales taking place outside of Switzerland. Data obtained from Refinitiv / Thomson Reuters Datastream.
Fraction Other Pay	Sum of non-standard CEO compensation, such as sign-on payments, payments for consulting services, social security contributions, termination benefits, etc., relative to total CEO compensation. All compensation data are hand-collected from companies' annual reports.
Fully Prospective Vote	Dummy variable equal to 1 if all management compensation is subject to an ex-ante, prospective shareholder vote.
Individual Election	Indicator variable equal to 1 if each member of the board of directors is elected individually. Data are hand-collected from companies' annual reports and AGM invitations.
Industry Return	Annual return based on the development of the total return index of the ICB-classified industry segments of the SPI® index of the SIX Swiss Stock Exchange, obtained from Refinitiv / Thomson Reuters Datastream.
ln(Market Capitalization)	Log of a company's free-float adjusted market capitalization, obtained from the Compustat Global database.
Long Notice Period	Indicator variable equal to 1 if the CEO has a notice period longer than the regular 12 months. Data are hand-collected from companies' annual reports.
Major Shareholder	Indicator variable equal to 1 if a single investor holds at least 20% of a company's outstanding shares. Data are hand-collected from information published by SIX Swiss Stock Exchange.
Management Shareholdings	Management shareholdings is the fraction of outstanding shares held by management and the board of directors. Data on management shareholdings are hand-collected from annual reports, data on outstanding shares obtained from Refinitiv / Thomson Reuters Datastream.
Maximum Directorships	Highest number of directorships in listed Swiss companies held by the members of a board.
Number of peers	Count of the number of sample companies belonging to the same ICB-industry classification.
Termination Benefits	Indicator variable equal to 1 if the company's compensation framework allows for above-standard termination benefits. Data are hand-collected from companies' annual reports.

Table 2. Summary statistics

This table displays summary statistics for the largest 100 companies in the Swiss Performance Index (SPI); these constitute the base sample. Panel A shows the statistics for each event; in Panels B to F, statistics are shown for Event 1. Limited availability of some variables of interest reduces the working sample in the event study regressions (Panel 1) to 81, 83, 84, and 84 companies for Events 1 through 4, respectively. Variable definitions are provided in Table 1.

	Mean	Std. Dev.	Min.	p25	Median	p75	Max.
Panel A: CAR by Event							
CAR Event 1	.0079	.0416	-.1471	-.0069	.0150	.0290	.0927
CAR Event 2	.0028	.0204	-.0558	-.0080	.0016	.0116	.1109
CAR Event 3	.0016	.0153	-.0342	-.0077	.0016	.0097	.0496
CAR Event 4	-.0086	.0172	-.0627	-.0165	-.0091	.0004	.0468
Panel B: Firm Characteristics							
Abnormal Trading Volume (ratio)	1.55	1.51	.35	.83	1.18	1.61	10.67
Annual Return	-.07	.45	-.65	-.26	-.09	.03	3.56
Annual Volatility	.29	.13	.04	.22	.27	.36	.71
Company Event (binary indicator)	0.20	0.41	0.00	0.00	0.00	0.00	1.00
Fraction Blockholders	.28	.25	.00	.05	.22	.50	.98
Fraction Foreign Sales	.36	.34	0	0	.34	.55	1
Industry Return	.08	.20	-.44	.04		.20	.26
Management Shareholdings	.13	.20	.00	.00	.01	.18	.70
Market Capitalization (in M CHF)	12'642	31'013	313	1'068	2'871	6'864	196'045
Maximum Directorships (#)	2	1	0	2	2	3	4
Number of peers (#)	17.0	9.6	1	6	25	26	26
Panel C: CEO Compensation Amounts							
Base Pay (in CHF)	1'350'365	1'455'338	193'488	574'750	825'000	1'659'600	9'429'724
Variable Cash Pay (in CHF)	585'757	927'626	0	0	264'731	650'000	4'334'100
Variable Equity Pay (in CHF)	1'965'716	3'541'626	0	57'000	593'913	1'738'417	20'100'000
Abnormal Variable Pay Ratio	1.92	2.08	0.06	0.72	1.22	2.05	10.45
Other Pay (in CHF)	472'248	1'858'601	0	94'564	173'500	252'917	16'500'000
Total Pay (in CHF)	4'371'790	4'811'828	629'000	1'417'000	2'416'834	5'455'985	22'300'000
Panel D: CEO Compensation Structure (Fraction of Total Pay)							
Base Pay	.43	.25	.03	.23	.40	.58	1.00
Variable Cash Pay	.18	.19	0	.00	.14	.28	.86
Variable Equity Pay	.30	.27	0	.06	.26	.42	.90
Other Pay	.10	.12	0	.03	.08	.12	.86
Cash-only Incentives (binary indicator)	0.24	0.43	0	0	0	0	1.00
Panel E: Compensation Governance							
CEO Loans (binary indicator)	0.14	0.35	0.00	0.00	0.00	0.00	1.00
Change of Control (binary indicator)	0.23	0.42	0.00	0.00	0.00	0.00	1.00
Individual Election (binary indicator)	0.52	0.50	0.00	0.00	1.00	1.00	1.00
Long Notice Period (binary indicator)	0.05	0.23	0.00	0.00	0.00	0.00	1.00
Termination Benefits (binary indicator)	0.12	0.32	0.00	0.00	0.00	0.00	1.00

Table 3. Market reactions to binding say-on-pay, Events 1 and 2

This table presents the results of pooled regressions of Cumulative Abnormal Returns (CAR) during the three-day windows of Events 1 and 2. The regressions capture reactions to the original Initiative, requiring retrospective shareholder approval of compensation. The explanatory variables pertain, if not characterized differently in Section 3, to the financial year prior to the event and are defined in Table 1. As an example of the quantitative interpretation, the coefficient of -0.066 on volatility in column (1) means that firms with a one standard-deviation (in this regression 0.11) higher annual volatility on average had 0.75 percentage points (0.066 * 0.11 = 0.0075) lower CAR following Events 1 and 2 than otherwise similar firms. t-values, reported in parentheses, are calculated based on standard errors clustered at the firm level. Significance levels: * 0.10, ** 0.05, *** 0.01.

Dependent variable:	Cumulative Abnormal Returns						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Annual Volatility	-0.066**	-0.064**	-0.068**	-0.063*	-0.059*	-0.068**	-0.067**
	(-2.04)	(-2.09)	(-2.07)	(-1.91)	(-1.91)	(-2.11)	(-2.25)
Management Shareholdings		0.026**			0.029**		
		(2.05)			(2.16)		
Fraction Foreign Sales			-0.013*		-0.012*		
			(-1.86)		(-1.70)		
Cash-only Incentives				-0.008	-0.014**	-0.025**	-0.004
				(-1.42)	(-2.22)	(-2.56)	(-0.70)
Fraction Blockholders * Cash-only Incentives						0.051**	
						(2.40)	
Few Peers * Cash-only Incentives							-0.019*
							(-1.86)
Abnormal Variable Pay Ratio	0.005*	0.004*	0.005*	0.004*	0.003	0.004*	0.004*
	(1.92)	(1.79)	(1.92)	(1.70)	(1.38)	(1.72)	(1.97)
Fraction Other Compensation	0.005	0.005	0.004	0.004	0.004	0.004	0.007
	(0.55)	(0.62)	(0.52)	(0.53)	(0.52)	(0.53)	(1.08)
Annual Return	-0.011	-0.011	-0.009	-0.012	-0.011	-0.013	-0.011
	(-0.95)	(-0.95)	(-0.81)	(-1.03)	(-0.98)	(-1.11)	(-0.94)
ln(Market Capitalization)	0.005**	0.005**	0.005**	0.004	0.004	0.003	0.004
	(2.13)	(2.24)	(2.27)	(1.62)	(1.63)	(1.39)	(1.63)
Company Event	0.020**	0.019**	0.020**	0.019**	0.018**	0.022**	0.020**
	(2.04)	(2.11)	(2.09)	(2.04)	(2.15)	(2.30)	(2.22)
Abnormal Trading Volume	-0.004	-0.004	-0.004	-0.004	-0.004	-0.004	-0.005
	(-0.93)	(-0.98)	(-0.91)	(-0.96)	(-1.03)	(-0.90)	(-1.04)
Fraction Blockholders	-0.011	-0.016	-0.009	-0.011	-0.014	-0.023**	-0.008
	(-1.17)	(-1.60)	(-0.96)	(-1.15)	(-1.41)	(-2.17)	(-0.91)
Few Peers	0.016	0.022	0.016	0.019	0.030*	0.008	0.018***
	(0.97)	(1.31)	(1.00)	(1.26)	(1.95)	(0.40)	(2.82)
Individual Election	-0.004	-0.004	-0.004	-0.004	-0.005	-0.005	-0.000
	(-0.58)	(-0.67)	(-0.65)	(-0.62)	(-0.85)	(-0.85)	(-0.07)
CEO Loans	0.019*	0.019**	0.020**	0.019*	0.019**	0.019*	0.018**
	(1.96)	(2.03)	(2.04)	(1.96)	(2.11)	(1.93)	(2.04)
Long Notice Period	-0.005	-0.006	-0.006	-0.003	-0.005	-0.005	-0.002
	(-0.62)	(-0.73)	(-0.87)	(-0.40)	(-0.66)	(-0.61)	(-0.32)
Change of Control	0.010	0.011	0.012	0.008	0.010	0.006	0.009
	(1.06)	(1.16)	(1.27)	(0.92)	(1.20)	(0.74)	(1.08)
Termination Benefits	-0.006	-0.003	-0.004	-0.005	-0.000	-0.005	-0.001
	(-0.56)	(-0.33)	(-0.40)	(-0.48)	(-0.02)	(-0.47)	(-0.11)
Maximum Directorships	0.009***	0.009**	0.009**	0.009***	0.009**	0.008**	0.009***
	(2.68)	(2.56)	(2.60)	(2.66)	(2.44)	(2.37)	(2.85)
Constant	-0.056**	-0.063**	-0.054**	-0.044	-0.040	-0.035	-0.034
	(-2.14)	(-2.43)	(-2.06)	(-1.62)	(-1.57)	(-1.04)	(-1.41)
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes	Yes	Yes	No
Observations	161	160	161	161	160	161	161
Adjusted R-squared	0.270	0.301	0.274	0.273	0.321	0.290	0.308

Table 4. Market reactions to binding say-on-pay, comparing strict and flexible regimes

This table presents the results of pooled regressions of Cumulative Abnormal Returns during the three-day windows of all four events. Events 1 and 2 capture reactions to the original Initiative, requiring retrospective shareholder approval of compensation. Events 3 and 4 capture reactions to the Ordinance against Excessive Compensation, allowing for a more flexible compensation voting regime. This switch in voting regimes is captured by the variable *Ordinance*, which is equal to 1 for Events 3 and 4 (flexible regime) and 0 for Events 1 and 2 (strict regime). The explanatory variables pertain, if not characterized differently in Section 3, to the financial year prior to the event and are defined in Table 1. *Controls* indicate that the regressions include, besides the indicated interacted variables, all explanatory variables used in Table 3, as well as their **Ordinance* cross-terms. t-values, reported in parentheses, are calculated based on standard errors clustered at the firm level. Significance levels: * 0.10, ** 0.05, *** 0.01.

Dependent variable:	Cumulative Abnormal Return						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Annual Volatility	-0.079***	-0.079***	-0.080***	-0.071**	-0.069**	-0.074**	-0.073**
	(-2.69)	(-2.75)	(-2.71)	(-2.39)	(-2.39)	(-2.61)	(-2.61)
Annual Volatility	0.070**	0.069**	0.070**	0.055*	0.051*	0.059**	0.069**
* Ordinance	(2.39)	(2.43)	(2.34)	(1.83)	(1.75)	(2.00)	(2.14)
Management Shareholdings		0.018			0.022*		
		(1.43)			(1.69)		
Management Shareholdings		-0.024			-0.029*		
* Ordinance		(-1.56)			(-1.90)		
Fraction Foreign Sales			-0.011*		-0.011*		
			(-1.80)		(-1.80)		
Fraction Foreign Sales			0.005		0.006		
* Ordinance			(0.76)		(0.75)		
Cash-only Incentives				-0.011*	-0.016***	-0.030***	-0.007
				(-1.96)	(-2.75)	(-3.67)	(-1.15)
Cash-only Incentives				0.015**	0.019***	0.032***	0.013*
* Ordinance				(2.57)	(2.94)	(3.45)	(1.72)
Fraction Blockholders						-0.055***	
* Cash-only Incentive						(-2.84)	
Fraction Blockholders						0.022**	
* Ordinance						(2.05)	
Fraction Blockholders						-0.056***	
* Cash-only Incentives * Ordinance						(-2.80)	
Few Peers							-0.019*
* Cash-only Incentives							(-1.86)
Few Peers							-0.018**
* Ordinance							(-2.21)
Few Peers							0.008
* Cash-only Incentives * Ordinance							(0.69)
Abnormal Variable Pay Ratio	0.005**	0.004*	0.005**	0.004*	0.003	0.004*	0.004*
	(2.04)	(1.97)	(2.01)	(1.75)	(1.50)	(1.80)	(1.86)
Abnormal Variable Pay Ratio	-0.005	-0.004	-0.005	-0.004	-0.003	-0.004	-0.003
* Ordinance	(-1.54)	(-1.48)	(-1.50)	(-1.17)	(-0.88)	(-1.15)	(-0.99)
Fraction Other Pay	0.010	0.012	0.010	0.010	0.012*	0.008	0.007
	(1.28)	(1.46)	(1.29)	(1.49)	(1.79)	(1.29)	(1.02)
Fraction Other Pay	0.019	0.018	0.023	0.008	0.009	0.014	0.021
* Ordinance	(1.28)	(1.21)	(1.61)	(0.60)	(0.64)	(0.88)	(1.51)
Fraction Blockholders	-0.009	-0.011*	-0.008	-0.009	-0.009	-0.028***	-0.005
	(-1.59)	(-1.81)	(-1.29)	(-1.50)	(-1.53)	(-3.05)	(-0.91)
Few Peers	-0.001	0.000	0.000	0.002	0.006	-0.007	0.018***
	(-0.07)	(0.04)	(0.00)	(0.12)	(0.45)	(-0.47)	(2.82)
Ordinance	-0.012	-0.005	-0.012	-0.013	-0.008	-0.019*	-0.013
	(-0.95)	(-0.38)	(-0.97)	(-1.24)	(-0.62)	(-1.90)	(-1.14)
Constant	-0.019	-0.020	-0.015	-0.012	-0.005	0.002	-0.011
	(-1.12)	(-1.25)	(-0.92)	(-0.73)	(-0.28)	(0.08)	(-0.79)
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes	Yes	Yes	No
Observations	329	328	329	329	328	329	329
Adjusted R-squared	0.231	0.242	0.235	0.241	0.266	0.261	0.265

Table 5. Choice of compensation voting regimes

This table summarizes the probit regressions explaining the choice of the compensation voting regime. The dependent variable is an indicator equal to one when the company chose a fully prospective vote, that is, all compensation elements are approved by shareholders for future periods, and zero when some elements of the compensation are subject to a retroactive vote. The sample consists of companies for which data are available for Event 3. The explanatory variables pertain, if not characterized differently in Section 3, to the financial year prior to the event and are defined in Table 1. *Controls* indicate that the regressions include, besides the variables of interest shown in the table, all other explanatory variables used in Table 3 (except the company event indicator). t-values, reported in parentheses, are calculated based on standard errors clustered at the firm level. Significance levels: * 0.10, ** 0.05, *** 0.01.

Dependent variable:	Fully Prospective Vote					
	(1)	(2)	(3)	(4)	(5)	(6)
Annual Volatility	4.251*	4.143*	4.405*	3.853*	3.850*	1.529
	(1.87)	(1.84)	(1.91)	(1.73)	(1.71)	(0.66)
Management Shareholdings		0.617			0.940	0.748
		(1.10)			(1.28)	(1.21)
Fraction Foreign Sales			0.098		0.511	0.275
			(0.17)		(0.85)	(0.40)
Cash-only Incentives				0.753*	0.959*	0.910*
				(1.73)	(1.92)	(1.66)
Ln(Total Compensation)	0.001	-0.069	-0.005	0.104	-0.025	0.671
	(0.00)	(-0.19)	(-0.01)	(0.30)	(-0.07)	(1.46)
Fraction Other Compensation	-2.124**	-2.014**	-2.187**	-2.646**	-2.884**	-4.407*
	(-2.29)	(-2.16)	(-2.31)	(-2.31)	(-2.11)	(-1.90)
Annual Return	-1.204*	-1.204*	-1.220*	-1.142*	-1.181*	-0.812
	(-1.78)	(-1.81)	(-1.79)	(-1.73)	(-1.83)	(-1.10)
ln(Market Capitalization)	0.120	0.164	0.129	0.156	0.271	-0.032
	(0.60)	(0.79)	(0.62)	(0.76)	(1.18)	(-0.13)
Fraction Blockholders	-0.983	-1.101	-0.988	-1.011	-1.316*	-1.839**
	(-1.48)	(-1.62)	(-1.45)	(-1.53)	(-1.81)	(-2.26)
Industry Performance	2.046	1.867	2.130	2.029	1.948	
	(0.92)	(0.85)	(0.94)	(0.97)	(0.93)	
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Observations	91	91	91	91	91	88
Industry FE	No	No	No	No	No	Yes

Table 6. Adjustments in compensation following the events

Regressions in this table are based on Events 1 and 2 (Initiative) and Events 3 and 4 (Ordinance). In Panel A, the dependent variable is the fraction of the CEO's variable compensation that is paid in cash for a given year. Cash-only is a dummy variable equal to 1 if a company paid the entire bonus in cash prior to the Initiative (2007/2008) and the Ordinance (2012/2013), respectively. Post event is a dummy variable equal to 1 for 2009 and 2010 (Initiative) and for 2014 and 2015 (Ordinance). In Panel B and C, the dependent variable is the Abnormal Variable Pay Ratio and Fraction Other Pay, respectively, as defined in Table 1. Pre and post refer to the year of the event considered in the regression (2008 for the Initiative and 2013 for the Ordinance). For the Initiative, pre event is equal to 1 for 2007 and 0 otherwise, while post event is equal to 1 for 2008 and 2009 and zero otherwise. For the Ordinance, pre event is equal to 1 for 2012 and 0 otherwise, while post event is equal to 1 for 2013 and 2014 and zero otherwise. $\mathbb{1}$(Pre AVP) is an indicator variable equal to (1) if abnormal variable pay (AVP) is positive and (-1) if AVP is negative. Pre positive (negative) AVP is the actual value of AVP if AVP>0 (<0). Panel D replicates the regression of columns (3) and (4) of Panel B, splitting the sample companies according to their choice of voting regime (retrospective for an ex-post vote and prospective for an ex-ante vote). The differences in pre/post event definitions between Panel A and Panel B/C/D derive from a difference in the timing of compensation setting and payout (see Figure 1b). Controls are return on assets, total shareholder return, market to book, log of market capitalization, and presence of a major shareholder controlling $\geq$20% of a company's shares. t-values, reported in parentheses, are calculated based on standard errors clustered at the firm level. Significance levels: * 0.10, ** 0.05, *** 0.01.

Panel A: Changes in Cash-share of CEO Incentive

Event:	(1) Initiative	(2) Initiative	(3) Ordinance	(4) Ordinance
CEO Cash-only Incentives pre event	-0.317***	-0.334***	-0.040	-0.082
* dummy(post event)	(-5.11)	(-3.66)	(-0.60)	(-1.31)
Pre/Post Controls	No	Yes	No	Yes
Industry-year fixed effects	Yes	Yes	Yes	Yes
Observations	340	333	356	351
R-squared	0.19	0.233	0.105	0.1

Panel B: Changes in Fraction Other Pay

	(1)	(2)	(3)	(4)
CEO Fraction Other Pay pre event	-0.088***	-0.062***	-0.046	-0.064*
* dummy(post)	(-2.76)	(-2.76)	(-1.58)	(-1.94)
Pre/Post Controls	No	Yes	No	Yes
Industry-year fixed effects	Yes	Yes	Yes	Yes
Observations	340	333	355	350
R-squared	0.206	0.243	0.081	0.177

Panel C: Changes in Abnormal Variable Pay (AVP) Ratio

	(1)	(2)	(3)	(4)
$\mathbb{1}$(Pre AVP)*dummy(post event)	-0.297**	-0.321**	-0.171***	-0.170**
	(-2.53)	(-2.64)	(-2.70)	(-2.36)
Pre/Post Controls	No	Yes	No	Yes
Industry-year fixed effects	Yes	Yes	Yes	Yes
Observations	340	333	356	351
R-squared	0.188	0.229	0.119	0.197

Panel D: Changes in Abnormal Variable Pay (AVP) Ratio by voting regime

Voting Regime Event:	(1) Retrospective Ordinance	(2) Prospective Ordinance	(3) Retrospective Ordinance	(4) Prospective Ordinance
1(Pre AVP)*dummy(post event)	-0.208*	-0.103	-0.163*	-0.159
dummy(post)	(-2.29)	(-1.06)	(-1.71)	(-1.48)
Pre/Post Controls	No	No	Yes	Yes
Industry-year fixed effects	Yes	Yes	Yes	Yes
Observations	108	212	108	212
R-squared	0.288	0.221	0.378	0.360

Appendix

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."

Apart from the main focus of the paper, the say-on-pay rules, we categorize the Initiative's other postulates in four categories, as presented in Table A1:

Type 1 rules are those which some firms already fulfill before the initiative, or which apply to firms to different extents. Thus, we can control for the possible heterogeneous effect on firms by including appropriate control variables. For example, the Initiative requires each board member to be elected individually and annually. Many, but not all firms already had such a rule. We control for these differences by including the corresponding binary indicator.

Type 2 rules are those which are new to all firms. Nonetheless, these rules may have heterogeneous effects, because firms with greater agency problems can be hypothesized to respond more favorably to them. For example, the rule requiring an annual election for each member of the compensation committee was new to all firms, but its effect can plausibly be hypothesized as stronger for firms with poor pay-for-performance (high abnormal variable pay) before the Initiative. Thus, the agency proxies partially pick up these other effects. Given that our main focus is not on agency, we consider this to be a relatively minor drawback of our setting.

A few rules, while in principle of Type 1, cannot be directly controlled for because of missing data. These are Type 3 rules.

Finally, Type 4 rules are those that can be expected to strengthen any effect. In particular, the potential for board members or executives to go to prison if compensation is paid without approval by the general assembly should make the overall effect of the rules stronger.

Table A1. Categorization of Initiative demands (see Appendix A for Type definitions)

	Vote of the general assembly on the total remuneration of the board, the executive board, and the advisory council	Main focus of the paper
Type	Other aspects	
1	Annual election of each board member	Control for whether firms already had one
1	Annual election of the chairman of the board	Control for whether firms already had one
2	Annual election of each member of the compensation committee	New for all firms, strengthens alignment benefits
2	Annual election of the independent vote representative	An independent proxy had to be named since 1992. Until 2014, this person was selected by the board. The Initiative requires this person to be elected by shareholders.
1	No proxy voting by company representatives	Control for manager ownership
1	No proxy voting by depository voting rights	Control for shareholder structure
2	Electronic distance voting	New for all firms, strengthens alignment benefits
1/2/3	Mandatory vote by pension funds in the interest of the insured, and disclosure of their voting behavior	Control for fraction of blockholders. New for all firms, strengthens alignment benefits. No systematic data on pension fund holdings available unless they cross the 3% minimum disclosure threshold, a rare occurrence.
1	Articles of incorporation: Number of external mandates that corporate executives and board members can have	Control for the current maximum number of board mandates any board member of a firm holds
1	Articles of incorporation: Amount of retirement pensions to corporate executives and board members	Other compensation (payments towards pension) relative to total comp
1	Articles of incorporation: Amount of credit and loans to corporate executives and board members	Control for loans
1	Articles of incorporation: Duration of the employment contract with corporate executives and board members	Control for long notice period
1	No severance or any other payment to corporate executives and board members upon their leaving	Control for termination payment
1/3	No advance payments to corporate executives and board members	Other compensation (payments toward pension) relative to total compensation. No systematic data on advance payments available.
2	No bonus payments to corporate executives and board members in the case of firm acquisitions / divestures	Captured by other agency proxies
2	No multiple work contracts for corporate executives and board members	Captured by other agency proxies
4	No delegation of the executive management to another firm	Strengthens the event. (Delegation never happens in practice in large firms, though.)
4	Legal sanctions: Prison sentence (up to 3 years) and fine (up to 6 times the annual salary)	Strengthens the event

Table A2. Correlations of explanatory variables

This table displays the average correlations of the explanatory variables of the sample firms over all four events considered in the analysis. Variables are defined in Table 2.

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Annual Volatility	1.00																	
Management Shareholdings	0.09	1.00																
Fraction Foreign Sales	0.19	0.01	1.00															
Cash-only Incentives	0.05	0.10	-0.04	1.00														
Fraction Blockholders	-0.10	0.15	-0.01	0.15	1.00													
Few Peers	0.11	0.00	0.06	0.07	0.04	1.00												
Abnormal Variable Pay Ratio	0.40	0.29	0.14	-0.16	0.00	0.20	1.00											
Fraction Other Pay	-0.26	-0.05	-0.05	0.31	0.18	0.15	-0.27	1.00										
Annual Return	0.17	-0.01	0.12	-0.09	-0.11	-0.08	0.04	-0.09	1.00									
ln(Market Capitalization)	-0.20	-0.14	-0.02	-0.41	-0.22	-0.18	-0.10	-0.18	0.08	1.00								
Company Event	0.17	0.10	0.08	0.01	-0.02	-0.03	0.27	-0.12	-0.08	-0.03	1.00							
Abnormal Trading Volume	-0.05	0.15	0.11	0.09	0.18	0.01	0.12	0.04	-0.04	-0.15	0.14	1.00						
Individual Election	0.13	-0.05	0.02	-0.09	0.00	-0.06	0.03	0.08	-0.18	0.18	0.03	0.05	1.00					
CEO Loans	-0.02	-0.03	-0.07	0.00	0.09	-0.14	-0.03	-0.01	-0.16	-0.02	-0.01	0.07	0.23	1.00				
Long Notice Period	-0.02	0.00	-0.04	-0.03	0.01	0.08	0.09	-0.05	-0.06	0.11	-0.05	-0.01	0.17	0.13	1.00			
Change of Control	0.13	-0.03	-0.03	-0.02	0.00	0.02	0.07	-0.07	-0.21	0.05	0.11	0.00	0.11	0.00	0.06	1.00		
Termination Benefits	0.06	-0.07	0.08	-0.01	-0.05	0.01	0.02	-0.02	-0.10	0.11	-0.04	0.06	0.17	0.04	0.14	0.37	1.00	
Maximum Directorships	0.09	-0.12	0.07	-0.23	-0.20	-0.05	0.13	-0.16	-0.01	0.54	0.11	-0.16	0.22	-0.02	-0.03	0.10	0.05	1.00

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