

Fairness Opinions and Capital Markets Evidence from Germany, Switzerland and Austria

Sebastian Lobe and Nils-Christian Schenk

Abstract

This paper provides the first empirical evidence of fairness opinions in Europe. Legal requirements concerning the use of fairness opinions in mergers and acquisitions are significantly different in Germany, Switzerland and Austria. We examine the determinants of fairness opinions for target firms in these various regulatory settings, and moreover, investigate the impact of such opinions on the abnormal returns of target firms. While in Germany and Austria market participants do not deem fairness opinions important, they do create value for shareholders in Switzerland. Because conflicts of interest between the target's board and bidder are a main determinant of fairness opinions in Switzerland, we conclude that when the target's management faces such conflict, external expert advice replaces the board's opinion on the offer.

Keywords: Fairness opinions, mergers and acquisitions, target board, abnormal return

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Contents

1. Introduction.....	1
2. Variables and hypotheses.....	2
3. Sample and descriptive statistics	5
3.1 Germany.....	5
3.2 Switzerland	5
3.3 Austria.....	5
3.4 Descriptive statistics	5
4. Results.....	6
4.1 Germany.....	6
4.2 Switzerland	8
4.3 Austria.....	10
5. Abnormal bidder returns and deal success	11
6. Summary and conclusions	12
References	13
Appendix 1. List of Variables.....	14
Appendix 2. Tables.....	15

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1. Introduction

In a fairness opinion, an outside adviser deems whether a corporate transaction is financially adequate for its shareholders. In the United States, four out of five boards of directors of target firms decide to render a fairness opinion (FO) (Kisgen et al., 2007). While still comparatively infrequent in Germany, Switzerland and Austria, fairness opinions have become an increasingly popular practice during mergers and acquisitions in these countries. Boards obtain FOs for several reasons: expert reports reduce information asymmetries between shareholders and the target firm's management, thereby helping to avoid expensive management mistakes (Clements & Wisler, 2005; Parijs, 2005). FOs also provide management with additional transaction information. Boards of directors of target firms also purchase FOs in order to convince shareholders to tender their shares (Bebchuk & Kahan, 1989). We do observe, however, that in Germany the likelihood of deal *failure* is significantly higher when boards render a fairness opinion. Legal protection for boards is a further rationale for purchasing expert advice (Bebchuk & Kahan, 1989; Davidoff, 2006). Nonetheless, the *Smith vs. Van Gorkom* decision of 1985 had only a short-term impact on the number of FOs obtained by target boards in the US (Bowers, 2002). In 2005, German law also adopted the Business Judgment Rule. Since that year, we can document a significantly higher share of target boards that have decided to purchase fairness opinions.

In several empirical studies, mainly in Anglo-Saxon countries, the practice of target and acquirer FOs has been treated. Kisgen et al. (2007) show that FOs on the acquirer side are beneficial to the acquirer's shareholders, especially when two or more reports are issued, but the target's shareholders do not always profit from FOs on the target side. Chen & Sami (2006) hold that acquirers are more likely to obtain an FO when facing possible litigation risk. The authors also provide evidence for lower acquirer returns when a fairness opinion is used, in particular when litigation risk is an issue. Using a large US sample, Bowers & Latham (2004) examine the determinants of FOs on both sides. Makhija & Narayanan (2007) find that abnormal returns for both the target and the acquirer are lower when an FO is used. Yet, when a reputable adviser supplies this target opinion, value is created for the target's shareholders. In an Australian study, Bugeja (2005) observes lower abnormal returns for targets around the release of FOs when the opinion adviser has other dealings with the target, even though it is more often the case that non-independent experts do not agree with the target firm's board.

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Ohta & Yee (2006) postulate a game theoretical approach to explain the use of fairness opinions. According to their model, the board's private incentives determine whether an FO is sought. Although current and future target shareholders know that the board acts in its own interests, fairness opinions do convey credible information when they report a range for the target's fair value. These valuation ranges in FOs, we observe, are most frequently found in Switzerland. Interestingly, in this country conflicts of interest between the target's management and the bidder are an important determinant of fairness opinions.

Takeover laws in Germany, Switzerland and Austria are similar in various aspects. In all three countries, the boards of target firms must issue a written opinion on the offer in which they comment on, among other points, the type and amount of the consideration and on the consequences for the target's shareholders. The Swiss report especially addresses the position of shareholders, for example, discussion of potential conflicts of interest is mandatory. In contrast, other stakeholders play another, greater role in German and Austrian board reports. For instance, the offer's impact on employees is treated. In the three countries, especially in Germany and Austria, classification of offer types is also similar. While takeover laws in Germany, Switzerland and Austria are much the same, the legal regulation of fairness opinions is rather different. German target boards are not required to obtain and disclose FOs, whereas both actions are mandatory in Austria. In Switzerland, once having obtained an FO, disclosure is compulsory.

In this paper, incorporating a unique dataset, we are able to provide the first empirical evaluation of FO regulation in Germany, Switzerland and Austria. Our objectives are twofold: first, we examine the effects of the utilisation of FOs on abnormal target returns in different regulatory settings; second, we investigate the determinants of fairness opinions in the respective countries.

The remainder of this paper is organised as follows. In section 2, we describe variables and hypotheses, and in section 3, we outline the respective samples and provide descriptive statistics. Section 4 details the results for each country, while we examine bidder returns and deal success in section 5. In section 6, we then summarise our conclusions and findings.

2. Variables and hypotheses

By estimating multiple linear regression models, we investigate the determinants of abnormal stock market reactions around the announcement of the reasoned opinion by the board of directors or the supervisory board (or both). The target's three-day cumulative abnormal return (CAR) between one trading day prior to and one trading day after the announcement date, serves as our response variable. We use CARs based on a market adjusted returns model according to their national reference indices.¹ This method is advantageous because no estimation period is required (Brown & Warner, 1985; Bugeja, 2005). Since in Germany and Austria the board's reasoned opinion is typically released between one and three weeks after the offer document, the estimation period would contain takeover noise.

To investigate the determinants of utilisation of at least one FO, we estimate (binary) logistic regression models. Most of the variables explained below are employed in both regression models.

We expect the recommendation by the target's board to have different effects on abnormal stock returns. While an 'accept' recommendation makes a successful bid more likely, offerors will

¹ For Germany this is the Composite DAX (CDAX), for Switzerland the Swiss Performance Index (SPI) and for Austria the Austrian Traded Index (ATX). All returns are total log returns.

probably not increase the offer price. In addition, the probability of a competing offer will also lessen (Bugeja, 2005). ‘Reject’ recommendations could positively influence stock returns as the board is disclosing private information that indicates that the target’s fair value is higher than the consideration (Ohta & Yee, 2006).

We then further study the impact of obtaining an FO on the target side with regard to stock performance. Such reports communicate valuable information about the target value to shareholders, which suggests a positive sign for the variable *FO*. Yet, if the information is irrelevant for shareholders because the expert is not considered independent, we expect a negative sign, which is consistent with results from the US and Australia (Makhija & Narayanan, 2007; Bugeja, 2005). *FO* therefore proxies the perceived independence of fairness opinions by the capital market.

A further group of variables proxies for asymmetric information. The target’s board has an information advantage over the target shareholders and the offeror although in the latter case it is expected to be of a smaller magnitude because of due diligence. We hypothesise that a higher degree of information asymmetry leads to higher abnormal returns as the board’s reasoned opinion reveals more private information, thus becoming a valuable resource for its recipients. Market participants are then able to discount with lower risk-adjusted rates. For the same reason, we expect information asymmetry to positively influence the probability of obtaining an FO. Owing to its positive relationship with being followed by analysts, the amount of public information increases with firm size (Bugeja, 2005). This negative influence of *Size* on both stock returns and the likelihood of rendering an FO could be compensated by the fact that the board report and the FO are more valuable in larger transactions (Bowers & Latham, 2004). Hence, we predict neither a positive nor a negative influence on both *CAR* and *FO*. Furthermore, information asymmetry between managers and the capital market is expected to be higher in concentrated industries (Bowers & Latham, 2004). We measure market concentration in the respective industry sector by the normalised Herfindahl-Hirschman Index (*nHHI*), using market shares based on sales. A third proxy for asymmetric information is the target’s market-to-book ratio. Growth companies’ boards have more inside information than their counterparts do in value firms, since a smaller part of the target’s value appears on the balance sheet. For the German sample, we also include the stock index membership of target firms. Membership in a selection index is related to stricter disclosure regulation, more media attention and analyst following, which leads to a lower degree of asymmetric information. *Index* is also a proxy for size: larger firms are more likely to be members of one of the selection indices.

Cash offers reduce the board’s incentive to render a fairness opinion; the target side only has public information about the bidding company and hence can better assess the value of a cash consideration than of share offers (Bowers & Latham, 2004). *Cash* is also expected to have a negative impact on target returns around the release of the board report because both the board recommendation and the fairness opinion convey less information than in the case of an exchange offer.

The dummy *ForeignBid* controls for incomplete information on the target side about the value of the bidding company and thus about the adequacy of the (share) offer.

We also include the variable *Leverage* in our models. Prior research shows that abnormal returns around the announcement of the offer increase with the target’s debt ratio (e.g. Billett & Ryngaert, 1997; Raad et al., 1999).

In a sample consisting of only those targets that obtained such expert reports, we investigate the capital market effects of FOs in greater detail. The fairness opinion subsample contains more information about the content and disclosure of the reports. The result of the FO is expected to influence stock performance in different ways: ‘fair’ opinions increase the probability of a

successful offer, but price adjustments become less likely (Eddey, 1993). Therefore, we do not explicitly hypothesise a positive or a negative coefficient on *Fair*. In the Swiss sample, all but two expert reports are ‘fair’ opinions. Therefore, we do not include this variable in the Swiss regression model.

The board’s willingness to fully disclose the expert’s view is proxied by the dummy variable *Disclosure*. We hypothesise that a fully disclosed fairness opinion positively influences stock returns, indicating that the board relies upon the expert’s findings, which makes both the FO and the board report more valuable.² This variable only applies to the German sample, as disclosure of the opinion is mandatory in Austria and Switzerland. *Range* indicates whether the expert reports a valuation range for the target company. Ohta & Yee (2006) identify a theoretical relationship between board incentives and valuation ranges. To control for any effect on abnormal returns, we include this variable in our models. We only use *Range* in the Swiss and Austrian samples as in Germany only a small share of FOs disclose this, which may be stem from the absence of disclosure regulation.

We further examine the type of bid (variable *TypeBid*). In Germany, there are three types of bids. ‘Normal’ voluntary offers without further specifications are used as a default group. German takeover law classifies a voluntary offer as a ‘takeover bid’ when the bidder intends to hold more than 30% of voting rights after the offer, as compared with a simple offer of buying shares. We expect a ‘takeover bid’ to have a positive influence on abnormal returns on the target side. Control premia cannot explain this, because stock prices should have reacted to the takeover announcement. Nevertheless, because of these premia more value is at stake and the reasoned opinion gains importance.³ For the same reason, we expect a negative sign for mandatory offers, the third type of bid, in which a company that has gained control of more than 30% of voting rights (not through a takeover bid) must make a bid for the remaining shares. Control premia are not an issue in these offers.

The Austrian Takeover Act classifies offers in a similar fashion including the 30% threshold. In Switzerland, there are only two types of offers: a bid must be placed if the offeror has gained a third of the voting rights (or up to 49%, depending on the target’s statutes). For voluntary offers, no further subdivision is made.

When the offer is a modification of the initial bid (*ChangedBid*), boards are reluctant to seek expert advice. Often, only those terms of the offer that are not relevant for public information are altered. When the offer price has been raised and the FO on the initial offer had already been a ‘fair’ opinion, in most cases no more information will be provided by an additional opinion letter. Thus, we expect a negative coefficient on this variable.

In Germany, the board of management and the supervisory board can choose whether to issue a joint opinion or separate reports. To control for any reactions in *CAR* and *FO*, we include the variable *TypeBoard* in the models.

² A recent example demonstrates this point: on 27 November 2006, Techem’s Board of Directors issued its reasoned opinion after a takeover bid for the company. The managers stated that they had obtained two fairness opinions and they also provided the names of the investment banks. But instead of stating the experts’ view, they only explained that “based on the financial analyses” they did not consider the offer to be fair from a financial point of view. It remains unclear if the investment banks achieved the same result.

³ In Switzerland, both the fairness opinion and the board report are published together with the offer document. Hence, control premia also have a direct effect on target returns.

3. Sample and descriptive statistics

3.1 Germany

Using the list of offers (provided by the German Federal Financial Supervisory Authority, BaFin) for publicly listed companies between January 2002 and February 2007, we manually collected data for this period. The initial sample includes 226 offers. In 16 cases, there was no published offer document. From our sample, we eliminated nine offers that were share or bond repurchases. The potential number of board reports was greater than the number of listed offers for two reasons: first, the German Securities Acquisition and Takeover Act obliges the management board and the supervisory board of the offeree to issue a reasoned opinion on the offer and modifications of the initial offer; second, the two boards issue either a joint reasoned opinion or separate opinions. In the latter case, we consider both board reports as distinct observations because they need not be published on the same day and contain distinct recommendations to the target's shareholders. Since the BaFin database does not list the board reports, for the remaining 201 offers, we collected reports from the targets' websites and obtained 133 board opinions. Where a report was unavailable, we contacted the target firm and thereby received another 26 reports. Our final sample thus contains 159 observations. Among these, 110 are joint opinions, 26 involve reports solely issued by the management board and 23 are reports produced by the supervisory board. For all three countries, we collected financial statement data and stock prices from Thomson Datastream.

3.2 Switzerland

The initial Swiss sample consists of 114 public bids from April 1998 to January 2007. We obtained the bids from a Swiss Takeover Board database. Data collection proved to be easier than for the German sample because in most cases board recommendations are part of the offer prospectus. Moreover, security buybacks are listed in a separate table and hence are not part of the initial sample. Still, 12 offers were eliminated from the sample because of missing data. The remaining 102 observations then make up the final sample.

3.3 Austria

Since all data are available in an Austrian Takeover Commission database, collecting data there was similar to the Swiss procedure. The initial sample is formed from 34 offers for publicly listed companies between April 1999 and February 2007. Four offers are the repurchases of securities, so the final sample comprises 30 observations. Unlike in Germany, only the management board has to publish a report. In five cases, the supervisory board voluntarily published an additional report. We do not treat these reports as observations because they were published on the same day and lack a separate recommendation to the shareholders.

3.4 Descriptive statistics

Table A2.1 in the appendix shows target and deal characteristics of the three samples across the respective period under review. The results are presented for the complete sample and then broken down based on whether at least one FO has been issued. In both Germany and Switzerland, transactions in which the target's board purchases a fairness opinion are characterised by a higher average target size, leverage and market-to-book ratio, as compared with those without an FO. Whereas the percentage is significantly higher in Swiss takeovers, in Germany the share of foreign bidders is smaller (but not significantly) in deals with at least one FO.

Table A2.2 presents the distribution of collected board reports over time. In addition, the number and share of transactions with at least one fairness opinion as well as the total number of such reports are presented. Since in Austria fairness opinions are mandatory, only additional voluntary opinions are displayed for the Austrian sample. The vast majority of target boards that seek expert advice on the adequacy of the consideration elicit one fairness opinion. About 60% of Swiss boards obtained at least one fairness opinion during the observation period, a markedly higher share than Germany's 36%. Such a comparison should be treated with caution, however, because in Germany the disclosure of FOs is voluntary, which differs from Switzerland. The percentage of fairness opinions in Switzerland is relatively stable over time and exceeds, with only one exception, 50% of board reports in every year. In Germany, we observe an upward trend during the period.⁴

4. Results

4.1 Germany

Legal framework

According to the German Securities Acquisition and Takeover Act, the target's board is obliged to comment on the offer and on any of its modifications. The reasoned opinion includes a mandatory report about the type and amount of the consideration offered. While a concluding recommendation to shareholders to either accept or reject the offer is compulsory, in exceptional cases boards may abstain from a recommendation while providing feedback for this decision. Nonetheless, in practice, more than half of the boards do not give a recommendation.

In contrast to the board report, there is no obligation for target boards to obtain an FO. Yet, 36% of boards state that they have rendered at least one fairness opinion. In November 2005, the Act on Corporate Integrity and Modernisation of the Right of Avoidance (UMAG) was passed in Germany. As part of this Act, the Business Judgment Rule of the US archetype was transferred into German law. Thus, board liability has become important to explain why managers commission FOs (Klafs, 2003). To measure the effect of the UMAG on obtaining fairness opinions, we add the dummy variable *BJR* to the models.

In Germany, public disclosure of FOs is not regulated by law. Boards neither have to state the expert's point of view nor must they mention *whether* they obtained a fairness opinion (Westhoff, 2006). Therefore, opinion shopping is possible, although not necessary as boards can certainly choose an expert who agrees with the board's opinion. In the period of observation, only 44% of the boards that purchased an FO published at least the opinion letter.

The board report is typically released between one to three weeks after the offer document. It is published on the target's website and since 2007 in the *Federal Bulletin*. Fairness opinions are published the same day, most commonly as an appendix to the report. Thus, we are able to separate capital market reaction to these two reports from the reaction to the offer document.

⁴ In the next step, outliers are eliminated from all samples. In linear regressions, we identify outliers by use of externally studentized residuals and CovRatios. In logistic regressions, we use Pearson residuals. Owing to missing data, the number of observations varies in the respective regression models. In the Swiss sample, some board reports are published after the offer prospectus. To avoid distortions, we also eliminate these observations in the multiple linear regression models.

Empirical results

Table A2.3 presents the determinants of abnormal target returns around the release of the board report. Models 1-3 show the outcome for the full sample.

BoardRec is insignificant for ‘accept’ recommendations, indicating that the opposite effects cancel each other, as hypothesised. For ‘reject’ recommendations, the sign is significantly positive in Model 1, consistent with the theory that boards convey information about the fair value being higher than the offer price.

The use of fairness opinions does not affect stock performance per se. Market participants seem to consider these reports unimportant. The impact of two information asymmetry variables is as expected; the coefficients for *nHHI* and *MB* are significantly positive. Where information asymmetry is high, the board report conveys more private information to the market. In addition, we observe a negative and highly significant sign for *Size*, indicating that the value of information provided in the board report decidedly *decreases* with the increasing size of the target firm. We interpret the result as follows: market participants regard the report as an instrument to reduce information asymmetries and do not consider the information provided to be more valuable when there is more ‘at stake’. *Index* has no significant impact on stock market returns.

Cash has a positive influence on target returns around the release of the board report, which contradicts our hypothesis. Furthermore, abnormal returns increase with higher leverage in the target company. The results for *TypeBoard* show that investors do not attach importance to the management’s choice of either issuing a joint opinion or separate reports. As hypothesised, abnormal returns are higher when the bidder intends to gain a controlling stake in the target (Model 2).

Models 4 and 5 examine the stock market effects of fairness opinions in greater detail. For information asymmetry regressors and transaction size, variable results do not differ from the full sample. The coefficient on *Fair* is not significant in these models; capital markets do not consider the information conveyed by the FO valuable. Furthermore, *Disclosure* is highly insignificant, which shows that recipients of the report do not attribute importance to the board’s willingness to fully disclose the expert’s view. The market does not deem FOs to be more objective and credible when fully issued to the public.

Models A-C in Table A2.4 display the drivers for utilisation of at least one FO by the target’s board in Germany. Most information-asymmetry variables are insignificant; neither market concentration in the target’s industry (*nHHI*) nor growth prospects of the offeree (*MB*) can explain why fairness opinions are obtained. Furthermore, FOs are not sought more often when the bidder is a foreign firm. The coefficient on *Cash* is significantly negative in two models; German boards of directors rely on external experts when it is more difficult to assess the adequacy of the consideration. In addition, the coefficient on *ChangedBid* is, as expected, significantly negative. *TypeBid* has a positive and significant sign when the offer is a takeover bid; boards solicit FOs to have certified whether the magnitude of the control premium is adequate. The probability of obtaining a fairness opinion is higher in the case of the board of management issuing a separate report rather than when a joint opinion is presented by both boards (Model B). Apparently, the target’s management considers its report more objective when the viewpoints of both boards are stated.

Legal protection plays an important role in the board’s decision to render an FO, as indicated by the positive and significant sign on *BJR*. Before the Business Judgment Rule was passed into German law, 29% of boards issued such reports. Since the law has come into effect, the share has increased to 44%. The positive and significant coefficient on *Size* shows that the likelihood of buying fairness opinions increases with deal size, which is consistent with results in the US

(Kisgen et al., 2007). As the extent of asymmetric information is expected to decrease with increasing firm size, this result demonstrates that target boards attach more importance to the value of the transaction than to information asymmetries when deciding whether to render an FO. Using *Index* instead of *Size* leads to the same result.

Robustness

Size is also proxied by the natural logarithm of the target's market capitalisation and total assets at the end of the fiscal year prior to the offer year. As an alternative formula for *Leverage*, we use the market value of equity instead of the book value. Moreover, the normalised Herfindahl-Hirschman Index is also calculated using market shares based on the book value of common stock rather than on sales. Signs and statistical significance of the three modified variables remain unchanged in all linear and logistic regression models.

Conclusion

The decision whether to obtain an FO does not have a significant impact on capital market returns. Most notably, market participants deem the results and the actual disclosure of an FO unimportant. 'Reject' recommendations by the boards, however, have a positive impact on abnormal returns. Yet only 9% of target boards recommend that their shareholders reject the offer while more than half of the boards withhold a final recommendation. Capital markets consider board reports to be important when asymmetric information is an issue, whereas greater transactions do not increase the value of such reports. In contrast to this, the likelihood of obtaining a fairness opinion increases with transaction size while information asymmetries only play a secondary role. Legal protection of the target's management is an important determinant in the use of FOs: since Germany passed the Business Judgment Rule, a significantly higher share of target boards has obtained at least one fairness opinion.

4.2 Switzerland

Legal framework

The legal basis for FOs in Switzerland differs from Germany in several aspects. According to the Stock Exchange Act, the target's board of directors must outline its response to the offer. The Takeover Ordinance, which describes the board's rights and duties, explicitly allows boards to withhold a recommendation by stating the advantages and disadvantages of the offer. Only 12% of the managers in our sample utilise this practice, however.

The Takeover Ordinance treats at length the regulation of conflicts of interest between the target's management and the bidder. The board report must not only declare whether board members or senior management are exposed to such conflict, it must also describe the measures taken to prevent this conflict of interest. With the issuance of an FO, the board of directors fulfils this obligation. Thus, it can be seen that FOs play an important role (Westhoff, 2006). We include the dummy *Conflict* in the models to verify whether the probability of using fairness opinions is higher in a conflict-of-interest situation. We also hypothesise that *Conflict* negatively affects *CAR*, as those managers who face a conflict of interest might withhold a recommendation on the offer that is in the best interests of the target's shareholders.

FOs, part of the board report, must be fully disclosed. Boards can publish a summary in their report but then they have to make the fairness opinion available elsewhere (Westhoff, 2006).

There is also regulation with regard to the FOs' content. Besides the basis of the valuation and valuation method, applied parameters such as the discount rate must be disclosed.⁵

The board report and the FO are published on the website of the Swiss Takeover Board as a part of the offer document. Thus, in contrast to Germany, it is not possible to separately analyse capital market reaction to the reports from the reaction to the release of the offer document.

Empirical results

Models 6 and 7 in Table A2.3 examine the determinants of abnormal target returns around the release of the board report in the full sample. Neither 'accept' nor 'reject' recommendations significantly affect abnormal target returns. The positive and significant coefficient on *FO* confirms the hypothesis that fairness opinions contain valuable information for investors when they consider the information source to be independent and objective. This result is not in line with the evidence from the German sample. In contrast to the use of FOs, market participants do not attach importance to reported conflicts of interest (Model 7).

The significantly negative influence of *Cash* on stock performance (although only in Model 6) is consistent with the hypothesis that the board report gains in importance when it is more difficult for the market to assess the adequacy of the offer price – typically the case when the consideration is the offeror's stock. Yet, as the board report is published as part of the offer document, the result is inconsistent with evidence from the US where cash offers positively affect stock returns around the time of the takeover announcement (Huang & Walking, 1987).

Size has a negative and significant sign, consistent with evidence from Germany. Information asymmetries are more important than transaction size in explaining the value of information for investors obtained by the report. That being stated, two other proxies for asymmetric information, *nHHI* and *MB*, are not significant.

Unlike in Germany, the type of bid does not explain abnormal target returns. Indeed, a direct comparison of the two countries is not easy because voluntary offers in Switzerland are not further subdivided as to whether the bidder wants to gain a controlling share of the target.

Models 8 and 9 show the determinants of *CAR* in the fairness opinion subsample. Notably, in transactions in which an FO is obtained, both 'accept' and 'reject' recommendations by the board lead to significantly lower abnormal returns compared with the default group (no recommendation). To understand why these parameters are significantly negative only in the FO subsample, we investigate the rationale for rendering a fairness opinion in Swiss transactions.

These determinants of fairness opinions are presented in Table A2.4, Models D and E. As Model E demonstrates, the likelihood of rendering an FO is significantly higher when there is a potential conflict of interest between the target's management and the bidder. Boards often make use of this instrument to comply with the Takeover Ordinance.⁶ Furthermore, cash offers significantly increase the probability of obtaining an FO – not only in conflict with theory but also with the German findings. The sign of *MB* is significant and positive, supporting the hypothesis that FOs are more often rendered when the degree of information asymmetry between the target's board and the capital market is high. The influences of *ChangedBid* and

⁵ The Swiss Takeover Board gives recommendations with reference to every offer. In its recommendation on the offer by Alpine Select AG to EIC Electricity SA, the Takeover Board explicitly states these mandatory components of a fairness opinion.

⁶ In some cases, the board even explicitly states that a fairness opinion has been obtained because there is a conflict of interest. An example is the report of Aare Tessin AG für Elektrizität on the offer by Motor-Columbus AG.

Size correspond with the German sample. As presumed, FOs are less likely to be purchased when the offer is mandatory. The sign of *ForeignBid* is significantly positive, which shows that boards are more likely to make use of expert advice when it is more difficult to obtain information about the bidder.

Robustness

In the linear regression models, the coefficient on *Size* is not significant when the variable is defined as the natural logarithm of the target's assets and applied to the complete sample. In the fairness opinion subsample, *Leverage* loses its statistical significance when based on market values and *nHHI* is not significant when common stock is used in the formula. Thus, the Swiss models are less robust against variable modifications than the German ones.

Conclusion

The boards of target firms are more likely to conduct a fairness opinion when facing a conflict of interest for two reasons. First, although FOs are not mandatory in Switzerland, the law obliges boards to take action in such a situation of conflict. Second, managers have the adequacy of the consideration certified by a third party, which is very important when the market fears that management is not acting in the interest of its shareholders. The significantly positive impact of *FO* on abnormal returns supports this explanation. In the FO subsample alone, 'accept' and 'reject' recommendations by the board lower target returns, which might be owing to the perceived lack of objectivity in these recommendations when conflicts of interest are an issue. To verify this, we created a subsample consisting of only those observations in which a conflict of interest is reported. The result supports our view: in this subsample, both recommendations lead to significantly lower returns as compared with reports that only list the advantages and disadvantages of the offer. FOs thus replace the managers' recommendation and are perceived to be objective by market participants. Although conflicts of interest do not directly affect stock returns, as the insignificant coefficients on *Conflict* in both the full sample and the fairness opinion subsample indicate, they do reduce the quality of board recommendations unless a credible FO is obtained.

4.3 Austria

Legal framework

The target's board of directors must issue a statement on the offer. In contrast to German law, Austrian supervisory boards have the right, but not the duty, to issue an additional report. Only one in six supervisory boards comments on the offer and in every observed case they agree with the board of directors. These reports are excluded from our sample. According to the Austrian Takeover Act, a recommendation to shareholders is not mandatory but the board of directors must provide an outline of the arguments for accepting or rejecting the bid. In the period under review, as many as 60% of the boards exercised this right.

This high percentage must be understood in the context of mandatory fairness opinions. The board has to appoint an expert of its choice to evaluate the bid and the board's report. Thus, in contrast to Germany and Switzerland, the FO is issued after the board's report. The expert must be either an audit company or a credit institution but only one target firm in the period under review chose the latter. No more than two target boards obtained an additional fairness opinion before commenting on the offer, which suggests that these two types of FOs substitute each other. This is further highlighted by the fact that in one case the issuer of the mandatory opinion partly refers to the voluntary opinion without providing its own analysis (Westhoff, 2006).

The board has to fully disclose the mandatory opinion, which is then published on the Austrian Takeover Commission's website. On average, the board's report and the FO are published 10 days after the offer document, making it possible to analyse capital market response to these reports separately from the reaction to the offer.

Empirical results

Since FOs are mandatory, we only investigate the determinants of abnormal target returns around the release of the board report. Model 10 in Table A2.3 presents the results. The coefficient on *TypeBid* 'Control' is positive and significant. When the bid is a voluntary offer in which the offeror might gain a controlling stake in the target company, both the board's report and FO contain information about the adequacy of the control premium. As predicted, market participants consider this information useful. The significantly positive sign of *nHHI* supports the hypothesis that the board's report is more valuable when public information about the target is scarce as is the case in concentrated industries. The result for *Size* is inconsistent with evidence from Germany and Switzerland, which may be the result of the small sample size. *MB* as a third proxy for asymmetric information is not statistically significant. The most important result, however, is that both the recommendation by the board of directors and the FO fail to explain abnormal target returns. Furthermore, valuation ranges for the target company in the FO do not have an impact on stock returns.

Robustness

The variable *nHHI* remains significantly positive when market shares are based on common stock. *Size* and *Leverage* are insignificant for both the initial and modified variable definitions.

Conclusion

Since the mandatory FO is prepared after the board's report, the target's managers do not seek an objective third-party opinion unless they render an additional, voluntary FO. This might be perceived as problematic, especially when managers face a conflict of interest. Moreover, the expert's obligatory assessment of the board report is of limited value as the target's managers can mandate an expert of their choice.⁷ Market participants therefore do not attach value to the reports, as our empirical results indicate.

5. Abnormal bidder returns and deal success

Abnormal bidder returns

The percentage of bidders with listed shares is significantly higher in Switzerland (42%) than in Germany (28%) or in Austria (20%).⁸ Prior evidence on bidder returns finds that acquirers' shareholders do not gain in takeovers (e.g. Jensen & Ruback, 1983). Because in Switzerland the board's report is part of the offer prospectus, both the release of the offer document and the board's opinion influence the observed bidder returns. We observe positive but insignificant abnormal returns in Switzerland. We estimate multiple linear regression models to analyse the determinants of abnormal stock performance (results not reported). None of the variables described in section 2 significantly influence bidder returns in this small sample. In the German sample, bidder returns are significantly lower when the target's management obtains an FO,

⁷ Although according to the Austrian Takeover Act, the expert must be independent of the target, none of the experts in our sample consider the board report incorrect, inappropriate or incoherent.

⁸ Owing to the small sample size, we neither investigate bidder returns around the release of the board report nor deal success in the Austrian sample.

indicating that the acquirer's shareholders perceive an improvement in the target board's bargaining power. All other variables are insignificant.

Deal success

We define a deal as 'successful' either when the bidder gains a stake in the target that exceeds 50% or when the acquired share allows the bidder to initiate a squeeze-out of minority shareholders. Otherwise, the deal is 'unsuccessful'. The default group is comprised of offers with no reported final result and of those in which the bidder's stake in the offeree exceeds the squeeze-out threshold before the offer. The most striking result in the German sample is that the use of a target FO significantly increases the likelihood of deal failure. In theory, FOs identify 'bad' transactions. By making 'not fair' recommendations, the probability of deal failure increases. Yet, this proposition does not hold when in reality these recommendations are scarce (Kisgen et al., 2007). In support of an alternative view is the fact that in Germany only 5% of fairness opinions state that the consideration is not fair; managers of target firms purchase FOs with 'fair' recommendations to convince their shareholders to tender their shares to the bidder. This is especially the case when the transaction is a bad deal for a target's shareholders and management does not act in their interest. The empirical evidence from Germany suggests that FOs identify bad transactions even while recommending the consideration as fair and reasonable. In Switzerland, neither the use of FOs nor conflicts of interest affect the probability of deal success or deal failure.

6. Summary and conclusions

In this paper, we provide the first empirical evidence of fairness opinions in Europe. Despite some similarities among the takeover laws in Germany, Switzerland and Austria, the legal frameworks concerning fairness opinions are rather different. We examine the determinants of fairness opinions in the respective countries. We also investigate whether the use of fairness opinions and other deal characteristics such as information asymmetries and transaction size make the board report more valuable for shareholders.

In Switzerland, fairness opinions create value for the target's shareholders. Moreover, conflicts of interest positively influence the likelihood of purchasing a fairness opinion. Because in a conflict of interest, board recommendations are not perceived to be credible by the capital market, we conclude that fairness opinions replace board reports as a source of objective information. In Germany, legal protection is an important aspect in explaining the rationale behind obtaining fairness opinions. The use of fairness opinions does not influence the abnormal returns of the target, but failure of the deal does become more likely. Thus, we conclude that fairness opinions identify 'bad' transactions. Fairness opinions are mandatory in Austria. Since the boards of target firms choose the expert, market participants do not consider these reports to be objective.

In Germany, an acquirer's returns are lower when a fairness opinion is obtained on the target side.

Overall, our empirical results indicate that boards do not obtain fairness opinions with the intention of intervening in capital markets or improving their negotiating position during the offer period. Board reports and fairness opinions do convey information from the target's management to the public, however, especially when asymmetric information is present. The main determinants of fairness opinions include issues of accountability and legal requirements for boards. Switzerland is the only country in our study where, at least when conflicts of interest are an issue, fairness opinions simultaneously fit the needs of the target's management and shareholders.

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Appendix 1. List of Variables

1. **CAR:** Cumulative abnormal return for the target from one trading day prior to the release of the board report until one trading day after.
2. **FO:** Dummy variable equal to 1 if the target's board obtains at least one fairness opinion.
3. **BoardRec:** Dummy variable coded as 'accept' if the target's board recommends acceptance of the offer; it is coded as 'reject' if the board recommends not accepting the offer. The default is no recommendation. In Austria, we observe no 'reject' recommendations.
4. **Size:** The natural logarithm of the target's net sales or revenues at the end of the fiscal year prior to the offer year.
5. **nHHI:** The normalised Herfindahl-Hirschman Index in the target's industry, using market shares based on sales; we use the sectoral allocation by Deutsche Börse Group and we adopt the same classification in the Austrian sample. In the Swiss study, we apply the Industry Classification Benchmark that the Swiss Exchange utilises for sectoral allocation.
6. **Leverage:** The target's debt-to-equity ratio based on book value.
7. **MB:** The target's market-to-book ratio.
8. **Cash:** Dummy variable equal to 1 if the consideration is all cash; Germany and Switzerland only.
9. **Index:** In German sample only – the dummy is equal to 1 if the target is part of one of the Deutsche Börse selection indices on the day of the board report. We consider five indices: DAX, MDAX, SDAX, TecDAX and Nemax50. Membership in broader selection indices such as CDAX or no membership in any index is coded as zero.
10. **TypeBid:** In Germany and Austria, the dummy variable is coded as 'Control' if the bidder intends to hold a controlling stake in the target after the offer (30% of voting rights in both countries) and coded as 'Mandatory' if the offer is such; the default is a voluntary bid without the intention to gain a controlling stake. In Switzerland, the dummy variable is coded as 'Mandatory' when the offer is mandatory whereas the default is a voluntary bid.
11. **ForeignBid:** Dummy variable equal to 1 if the bidder is a foreign firm.
12. **ChangedBid:** Dummy variable equal to 1 if the bid is a modification of the initial bid; German and Swiss samples only.
13. **Fair:** Dummy variable equal to 1 if the fairness opinion states that the consideration is 'fair'; German and Austrian samples only.
14. **Disclosure:** This dummy variable is coded as 1 when the target's board publishes at least the opinion letter and as 0 when the fairness opinion is only mentioned in the board report; German sample only.
15. **Range:** Dummy equal to 1 if a range for the target's fair value is reported in the fairness opinion; German and Austrian samples only.
16. **Success:** Dummy variable coded as 'success' when the bidder gains a stake in the target that exceeds 50% or when the acquired share allows the bidder to initiate a squeeze-out of minority shareholders. Squeeze-out thresholds are 95% of initial capital in Germany and 98% of voting rights in Switzerland. The variable is coded as 'no success' if neither threshold is exceeded. The default group is comprised of offers with no reported final result and of those in which the bidder's stake in the offeree exceeds the squeeze-out threshold before the offer. Results are not reported. Applies to the German and Swiss samples only.
17. **TypeBoard:** Dummy variable coded as 'Directors' ('Supervisory') if the board of directors (supervisory board) issues the reasoned opinion; the default is a joint opinion; German sample only.
18. **BJR:** Dummy variable equal to 1 if the offer prospectus is dated after the Act on Corporate Integrity and Modernisation of the Right of Avoidance (UMAG) has come into effect; German sample only.
19. **Conflict:** Dummy variable that takes the value of 1 if the target's board is exposed to a conflict of interest; Swiss sample only.

Note: Financial statement data is quoted in EUR for the German and Austrian samples and in CHF for the Swiss sample.

Appendix 2. Tables

Table A2.1 Target and deal characteristics

Variable	Germany			Switzerland			Austria
	Full sample	FO subsample	No FO subsample	Full sample	FO subsample	No FO subsample	Full sample
n	159	57	102	102	61	41	30
Size	18.9158 (18.8016)	19.9437 (19.9614)	18.3808*** (18.3909)***	19.6365 (19.7934)	20.1707 (20.0539)	18.8610** (19.1892)***	19.2176 (18.7636)
Leverage	8.6830 (1.1380)	9.05237 (1.7608)	8.47377 (1.0703)*	5.1253 (1.7710)	5.9514 (2.4429)	4.0868 (1.2936)	29.2977 (2.6996)
MB	12.1767 (6.9910)	16.4815 (10.0000)	9.7373** (5.6361)***	22.0229 (7.9826)	33.8127 (11.5162)	7.2014* (4.3321)***	5.3211 (3.1093)
ForeignBid	0.2956	0.2456	0.3235	0.4314	0.5246	0.2927**	0.3000

Notes: Table A2.1 shows target and deal characteristics of the three samples. The results are presented for the full sample as well as broken down according to the use of at least one fairness opinion. In Austria, such expert reports are mandatory, so only one column is provided for this sample. The respective periods under review are January 2002–February 2007 (Germany), April 1998–January 2007 (Switzerland) and April 1999–February 2007 (Austria). Financial statement data is quoted in EUR for the German and Austrian samples and in CHF for the Swiss sample. In the German and the Swiss samples, ***, ** and * indicate significant differences in the means (medians)/proportions between the two respective subsamples, at the 0.01, 0.05 and 0.1 levels respectively. All tests are two-sided. Means (medians) are reported for *Size*, *Leverage* and *MB*. Proportions are reported for *ForeignBid*.

The sample size reported is smaller in the respective rows when data is missing for the variable. Outliers are not eliminated.

Source: Authors' calculations.

Table A2.2 Distribution of board reports and fairness opinions by year

Year	Germany			Switzerland			Austria	
	Number of board reports	At least one FO (%)	Number of FOs	Number of board reports	At least one FO (%)	Number of FOs	Number of board reports	At least one voluntary FO (%)
1998	–	–	–	1	1 (100.0%)	1	–	–
1999	–	–	–	12	11 (91.7%)	11	3	0 (0.0%)
2000	–	–	–	10	6 (60.0%)	6	5	0 (0.0%)
2001	–	–	–	8	4 (50.0%)	4	2	0 (0.0%)
2002	13	2 (15.4%)	2	8	4 (50.0%)	4	6	0 (0.0%)
2003	20	7 (35.0%)	7	15	10 (66.7%)	12	6	0 (0.0%)
2004	31	8 (25.8%)	8	15	5 (33.3%)	5	4	1 (25.0%)
2005	32	10 (31.3%)	11	18	10 (55.6%)	10	3	1 (33.3%)
2006	48	24 (50.0%)	27	14	9 (64.3%)	9	0	0 (0.0%)
2007	15	6 (40.0%)	6	1	1 (100.0%)	1	1	0 (0.0%)
Total	159	57 (35.8%)	61	102	61 (59.8%)	63	30	2 (6.7%)

Notes: Table A2.2 shows the distribution of board reports and fairness opinions across the total period in each of the three samples. The number (share) of transactions with at least one fairness opinion as well as the total number of such reports are presented. Since in Austria expert opinions are mandatory, only additional voluntary opinions are displayed for this sample. The respective periods under review are January 2002–February 2007 (Germany), April 1998–January 2007 (Switzerland) and April 1999–February 2007 (Austria).

Source: Authors' calculations.

Table A2.3 Abnormal returns around the release of the board report

Variable	Germany					Switzerland				Austria
	Full sample	Full sample	Full sample	FO Sub-sample	FO Sub-sample	Full sample	Full sample	FO Sub-sample	FO Sub-sample	Full sample
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9	Model 10
BoardRec 'Accept'	-0.0021	-0.0031	-0.0019	-0.0142**	-0.0100	-0.0162	-0.0157	-0.0657**	-0.0637***	0.0072
BoardRec 'Reject'	0.0106*	0.0084	0.0098	-0.0084	-0.0008	-0.0151	-0.0108	-0.1235***	-0.0887**	–
Cash	0.0190***	0.0194***	0.0166**	0.0251**	0.0121	-0.0224**	-0.0136	-0.0296**	-0.0187	–
FO	-0.0025	-0.0050	-0.0062	–	–	0.0169*	–	–	–	–
Leverage	0.0005***	0.0005***	0.0003**	0.0005***	0.0003*	-0.0001	-0.0002	-0.0009**	-0.0009**	-0.0002
Size	-0.0027***	-0.0029***	–	-0.0036*	–	-0.0039**	-0.0035**	0.0029	0.0017	-0.0015
MB	0.0007***	0.0007***	0.0004***	0.0009***	0.0006***	-0.0001	0.0000	0.0002	0.0003	-0.0026
nHHI	0.0134*	0.0133*	–	0.0349***	–	-0.0058	-0.0016	-0.0651***	-0.0591***	0.0639*
TypeBoard 'Directors'	-0.0029	-0.0021	-0.0011	0.0049	0.0051	–	–	–	–	–
TypeBoard 'Supervisory'	-0.0059	-0.0054	-0.0039	-0.0024	0.0032	–	–	–	–	–
TypeBid 'Control'	–	0.0081*	–	0.0119*	–	–	–	–	–	0.0501**
TypeBid 'Mandatory'	–	-0.0007	–	0.0033	–	-0.0078	-0.0104	–	-0.0106	0.0055
ForeignBid	–	0.0006	–	0.0133	–	–	0.0180**	–	0.0201**	0.0038
Fair	–	–	–	-0.0073	-0.0066	–	–	–	–	0.0061
Disclosure	–	–	–	0.0008	-0.0020	–	–	–	–	–
Range	–	–	–	–	–	–	–	0.0086	0.0109	0.0116
Index	–	–	0.0021	–	0.0015	–	–	–	–	–
Conflict	–	–	–	–	–	–	0.0086	-0.0077	-0.0130	–
Intercept	0.0206	0.0205	-0.0208***	0.0189	-0.0183*	0.1048***	0.0853**	0.0565	0.0621	0.0091
n	133	133	133	46	46	57	57	34	34	19
Adjusted R ²	0.1778	0.1944	0.1262	0.5286	0.3411	0.1312	0.1703	0.5202	0.5940	0.5779

Notes: In Table A2.3, we estimate multiple linear regression models. The target's three-day cumulative abnormal return (CAR) between one trading day prior to and one trading day after the announcement date serves as a response variable. In the table, ***, ** and * indicate that the regression coefficient is significantly different from zero at the 0.01, 0.05 and 0.1 levels respectively.

Source: Authors' calculations.

Table A2.4 Determinants of fairness opinions

Variable	Germany			Switzerland	
	Model A	Model B	Model C	Model D	Model E
Cash	-1.6106*	-1.8007**	-1.6096	1.6660**	1.9802**
ChangedBid	-3.6652***	-3.8306***	-4.1934***	-2.4915*	-3.1913**
ForeignBid	-0.7314	-0.5467	-0.5365	1.4405**	2.0989***
Leverage	0.0067	-0.0042	0.0062	-0.0732	–
Size	0.2467*	0.2529*	–	0.4755**	0.4167**
MB	0.0102	-0.0007	-0.0050	0.1140**	0.1098*
nHHI	-1.1601	-1.5690	–	–	–
TypeBid ‘Control’	1.2138**	1.3921**	1.0944*	–	–
TypeBid ‘Mandatory’	-1.1115	-1.0407	-1.1695	-1.5741*	–
TypeBoard ‘Directors’	–	1.5169**	–	–	–
TypeBoard ‘Supervisory’	–	0.1528	–	–	–
BJR	0.8558*	0.9551*	1.4613***	–	–
Index	–	–	2.3370***	–	–
Conflict	–	–	–	–	2.3098***
Intercept	-4.1751	-4.2955	-0.6330	-11.0601***	-12.6760***
n	139	139	139	71	71
Pseudo R ²	0.3348	0.3359	0.4121	0.4398	0.4656

Notes: In Table A2.4, we estimate (binary) logistic regression models to investigate the determinants of the utilisation of at least one fairness opinion by the target’s management. In the table, ***, ** and * indicate that the regression coefficient is significantly different from zero at the 0.01, 0.05 and 0.1 levels respectively. For statistical reasons (quasi-complete separation), *nHHI* was not included in Models D and E and *Leverage* was not included in Model E.

Source: Authors’ calculations.

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