“How much regulation is needed to improve the quality of fairness opinions?”

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How much regulation is needed to improve the quality of fairness opinions?

Abstract
In recent years fairness opinions have received close attention from regulatory authorities. While in most countries regulation focuses on disclosure requirements, France also bans contingent fee structures. We obtain valuation data on target companies in 232 fairness opinions and analyze the effect contingent compensation and increased disclosure have on valuation results. We find that the fee structure does not affect valuations. On the other hand, tighter disclosure requirements cause higher valuations. Our findings indicate that disclosure-based regulation is adequate in improving the quality of fairness opinions as it limits potential downward bias, while a prohibition on contingent compensation should not be pursued further.

Keywords: fairness opinions, mergers and acquisitions, regulation.

JEL Classification: G24, G34, G38.

Introduction
Fairness opinions are a prevalent component in corporate control transactions. They are typically rendered by investment banks and assess the fairness of the financial terms of a proposed transaction. In the US fairness opinions have been used by the management boards of target companies in mergers and acquisitions since the late 1970s (Essler et al., 2008), but were rarely mentioned in Delaware jurisprudence until 1985. This situation changed with the Van Gorkom decision when the court found that the board of Trans Union Corporation acted, despite a substantial merger premium, in a grossly negligent manner, because their recommendation to accept the merger offer was not the result of an informed business decision. As a consequence, the court held the board members personally liable. Since Van Gorkom, corporate boards have routinely sought fairness opinions to satisfy their fiduciary duties in order to be protected against shareholder lawsuits under the business judgment rule.

In recent years fairness opinions have become increasingly common internationally and are now used in every market-oriented economy (Essler et al., 2008). With its rising importance the fairness opinion has received close attention from regulatory authorities. The resulting legal regulation is rather heterogeneous. In France, for example, regulation is much stricter than in the US. While a fairness opinion is mandatory where there is a conflict of interests between the acquirer and the target’s board, and contingent compensation for issuing the opinion is prohibited in France (AMF, Book II, Chapter VI), disclosure of the kind of compensation is sufficient in the US (FINRA Rule 5150), and a fairness opinion is not required as a matter of law (Leddy, 2005).

In this article we analyze the effect that regulation has on fairness opinions. The question is whether the ban on contingent compensation is the way to less biased opinions or if extensive disclosure is sufficient to improve the quality of fairness opinions.

1. Theoretical background and hypotheses development

1.1. Functions of fairness opinions. Firms demand fairness opinions as they provide the management board with valuable information. A fairness opinion will be requested if the expected value exceeds the expected costs. The value for the management board obtaining the opinion lies primarily in the legal protection against shareholder litigation (Kisgen et al., 2008). Under the business judgment rule, a corporate board of directors is protected from liability to the company’s shareholders for a business decision that was made in good faith, in an informed manner and was rationally based, no matter how disastrous this decision turns out to be (Elson, 1992). In the above-mentioned “Van Gorkom decision”, a fairness opinion was acknowledged as proof of an informed business decision for the first time. Today no other specific document is as universally recognized as evidence of an informed management board as a fairness opinion (Bowers and Latham, 2004).

Beyond legal coverage for management boards, a fairness opinion provides shareholders with crucial information. Management and shareholders are in a principal-agent relationship with an asymmetric allocation of information. In many cases the board of directors and shareholders have divergent interests. The management tries to exploit its information advantage to maximize its benefits. For
individual shareholders the cost of examining the economic adequacy of a proposed transaction is prohibitively high. Thus, they are skeptical of a transaction and adopt a negative attitude as long as they are not able to form their own opinion about the transaction (Schwetzler et al., 2005). A fairness opinion helps to ease the information asymmetry and hence reduces the risk of a negative shareholder vote on the proposed transaction. The information provided by the fairness opinion is valuable in particular if the target company is small or not listed because publicly available information is very limited.

1.2. Criticism of fairness opinions. Fairness opinions have often been criticized for being “conflict-ridden, subjective, rubber-stamps, meaningless, and hackneyed” (Davidoff, 2006). The value added to shareholders is questioned because retail shareholders tend to look at the market price rather than trying to comprehend a valuation analysis, while sophisticated investors conduct their own evaluation and do not rely on a fairness opinion (Davidoff, 2006). The criticism is focused on the substantial discretion that investment banks possess and their lack of independence.

The problem of discretion is based on the fact that an investment bank can arrive at widely differing estimates of a “fair price”, all of which are justifiable under objective criteria (Bebchuk and Kahan, 1989). The valuation expert is free in his choice of valuation methods as there are no generally excepted valuation guidelines regarding fairness opinions. There is also no universal understanding of “fairness”. The opinion letter merely describes the takeover bid as “fair from a financial point of view” without defining this fairness. Even if a valuation expert conducts his analysis based on a genuine belief of “fair price”, a second expert could determine a rather different, but reasonable “fair price”. The discretion enables an investment bank to act opportunistically and produces a fairness opinion that serves the bank’s interests rather than reflecting their best judgment of a fair price (Bebchuk and Kahan, 1989). As the investment bank that is rendering the fairness opinion is not completely independent in many cases, they do have a strong incentive to act opportunistically.

In most US transactions the M&A advisor also delivers a fairness opinion. Even if the compensation for the fairness opinion is fixed, the advisory fee is usually contingent on the completion of the transaction. The compensation for the fairness opinion however accounts for only about 10% of the overall fees (Schoenefelder, 2008). Thus, the investment bank has a strong incentive to render a fairness opinion that abets the completion of a deal. Ben Howe, cofounder of Americas Growth Capital, once said “I’d like to see a case where an investment bank that has a huge fee contingent on a deal closing comes back with a fairness opinion that says the price is no good” (Sikora, 2004).

Besides a large success fee, a long-term business relationship with the client can induce the investment bank to write a biased opinion. A bank will not jeopardize its future business with a client by rendering a fairness opinion that is not in line with the managements’ interests.

A different point-of-view that rebuts the problem of a lack of independence is reputation. A good reputation is an essential asset to an investment bank and no bank will compromise it for a single fee (Rubenstein, 2005). But, on the other hand, no court has ever differentiated between issuers of fairness opinions. Furthermore, it is the general reputation of an investment bank that is publicly perceived, and not the reputation regarding fairness opinions. Thus an investment bank can still render biased opinions as long as the bank can maintain its general reputation. The bank should only avoid writing fairness opinions that are unjustifiable (Bebchuk and Kahan, 1989).

1.3. Approaches to increase the quality of fairness opinions and hypotheses development. The lack of independence and the substantial discretion constrain the value of a fairness opinion. Therefore, different approaches to improve the quality of fairness opinions have been discussed in the literature. The implementation of valuation guidelines could reduce discretion. Without these guidelines a valuation expert can use the valuation methods he prefers, even though they might be unsuitable for the analyzed transaction. But many authors view a valuation standard as problematic since they do not believe that a standard would capture the complexity of different valuation questions (e.g., Mihanovic, 2005).

Rubenstein (2005) argues for extended liability for investment banks. He believes that no further regulation would be necessary as extended liability should be all that is needed to keep investment banking conduct in check. On the contrary, Elson (1992) opposes extended liability as this would result in less informative, but more expensive fairness opinions. The investment bank would virtually become an insurer of the fairness of the transaction and hence charge higher fees due to the increased risk of liability exposure. Simultaneously, the opinion would contain more vague information
and be less conclusive in order to be less vulnerable to shareholder lawsuits.

Critics postulate that only valuation experts who are completely independent and do not earn any other fees in connection with the examined transaction should be requested to render a fairness opinion (Placenti, 2007). On the other hand, the M&A advisor has the deepest knowledge of the transaction and it could be difficult to find an investment bank that is willing to render a fairness opinions as it would disqualify the bank from providing any other service related to the transaction that would generate a higher fee volume. Hence, most countries (e.g., USA, Germany, and Austria) do not require complete independence of the issuer by law. France, in contrast, has forbidden contingent compensation and the independence of the fairness opinion’s issuer is compulsory (AMF, Book II, Chapter VI). The ban on contingent compensation can be interpreted in a way that the incentive to render biased opinions in order to earn the success fee outweighs the reputational aspect. Thus an investment bank should value a target company relatively low so that the target’s shareholders will accept the take-over bid. For this reason, we propose the hypothesis as follows:

**H1: A target company is valued relatively lower when the compensation is contingent compared to a fixed fee.**

The value of a fairness opinion can be increased by disclosing relevant information. A shareholder should be able to understand the process that led to the fairness assessment. For that purpose the valuation methods, assumptions and parameters the valuation is based on must be disclosed (Bucher and Bucher, 2004). Furthermore, the possible bonus payments to management in case of a successful transaction and the compensation of the investment bank should be disclosed as well as the past, current, and the aspired business relationships to the client. Such disclosure indicates the conflict of interests between the management and the investment bank that could result in an unreasonable recommendation to accept a take-over bid. Based on this information, shareholders and courts could decide how much value they want to attach to the conclusion of the fairness opinion.

In the US disclosure requirements are defined by SEC and FINRA regulations. The SEC draws a distinction between going private and other transactions. In the case of a going private transaction the valuation memorandum must be attached to the SEC filing. This is not necessary for other transactions. With a greater amount of disclosed information the investment bank should become more reluctant to exploit its discretion in order to avoid being forced to explain the valuation. Thus, we propose the following hypothesis:

**H2: Companies are valued relatively higher in going private transactions compared with other transactions.**

FINRA considered the mandated disclosure under SEC regulations as insufficient to provide information about the subjective nature of some opinions and their potential biases. Subsequently, FINRA proposed Rule 2290 (now Rule 5150) which came into effect on December 8, 2007 and demands increased disclosure. We propose the following hypothesis:

**H3: Valuations of target companies that were conducted after December 8, 2007 are relatively higher than those that were carried out earlier.**

2. Prior research

Although there are empirical researches that analyze the fee structure or the conflict of interests faced by investment banks, none of these has attempted to link these problems to valuation results. Rau (2000) analyzes acquisitions announced between 1980 and 1994 and finds that in tender offers the post-acquisition performance of the acquirer is negatively related to the contingent fee payments charged by the investment bank.

Colomiris and Hitscherich (2005) examine the relationship between the portion of contingency-based compensation, acquisition premium for target companies and deal characteristics in acquisitions announced between 1994 and 2002. They find that greater fixity of fees is not associated with higher acquisition premiums.

Chen (2006) analyzes 215 acquirers and 740 targets that purchased a fairness opinion from investment banks during the period from 1997 through 2003. She finds that acquirers that purchase independent fairness opinions outperform acquirers that purchase non-independent opinions in the short-term window around merger announcements, and that the amount of contingent fees that acquirers pay to the issuing investment bank is negatively and significantly associated with the same returns. The amount of contingent fees paid also has a negative impact on the long-term operating performance of acquirers and targets.

Makhija and Narayanan (2007) examine 1927 M&A deals over the period from 1980 to 2004 and find that shareholders on both sides of the deal, aware of
the conflict of interests faced by the investment bank, rationally discount deals where the investment bank, acting as the advisor, provides the fairness opinion. The reputation of the investment bank serves to mitigate this discount, while the contingent nature of advisory fees appears to have no impact.

Bowers, Latham and Nedanov (2008) analyze 589 mergers and acquisitions between 1998 and 2005. They develop measures of the degree of moral hazard to which companies may have been subject to and examine post-acquisition corporate performance. Preliminary findings show a negative relationship between the level and degree of moral hazard and acquiring firm abnormal returns on the announcement of the acquisition. Furthermore, they find that SOX did not have a major effect on shareholder wealth by changing the frequency of potential moral hazards from fairness opinions.

The mentioned research projects have in common that in each case the influence of fairness opinions subject to potential bias, due to conflicts of interests or fee structure, on the market reaction has been analyzed. However, although such an approach explores the effect of conflicted fairness opinions, it disregards one important question: Are conflicted opinions actually biased? Thus, we use a different approach and concentrate on the valuations underlying the fairness opinions.

3. Data and methodology

For our analyses we manually collected data from US M&A transactions with a deal value of at least $1 billion that were publicly announced between October 2006 and June 2008. We used such a short period of time to limit potential trend effects.

We classified the transactions into going private and other public transactions because going private transactions have higher disclosure requirements. Other transactions were sub-divided into cash transactions and stock transactions. Deals with a mixed offer were assigned to stock transactions. Furthermore, transactions related to the real estate and financial industries were excluded from the analyses.

3.1. Data for going private transactions. We used the SEC “EDGAR” database as our source of information, where all SEC filings since 1994 are publicly available. In the case of a going private transaction form SC 13E-3 and the enclosed valuation memorandum must be filed with the SEC. Thus, we searched the archive for this form within the relevant time frame. We identified 115 cash transactions with 141 fairness opinions and 29 stock transactions with 60 fairness opinions as indicated in Table 1.

<table>
<thead>
<tr>
<th>Total</th>
<th>Going private</th>
<th>Cash transactions</th>
<th>Stock transactions</th>
</tr>
</thead>
<tbody>
<tr>
<td>164</td>
<td>20</td>
<td>115</td>
<td>29</td>
</tr>
</tbody>
</table>

Table 1. Analyzed fairness opinions

<table>
<thead>
<tr>
<th>Total</th>
<th>Going private</th>
<th>Cash transactions</th>
<th>Stock transactions</th>
</tr>
</thead>
<tbody>
<tr>
<td>189</td>
<td>25</td>
<td>122</td>
<td>42</td>
</tr>
</tbody>
</table>

Table 2. Analyzed transactions by industry

<table>
<thead>
<tr>
<th>Total</th>
<th>Going private</th>
<th>Cash transactions</th>
<th>Stock transactions</th>
</tr>
</thead>
<tbody>
<tr>
<td>232</td>
<td>31</td>
<td>141</td>
<td>60</td>
</tr>
</tbody>
</table>
3.3. Methodology. To test our hypotheses H1-H3, we use significance tests with two independent samples in each case. With H1 we differentiate fixed and contingent compensations. With H2 we distinguish between going private and cash transactions and exclude stock transactions since all going private deals comprised a cash consideration. Finally, with H3 we separated fairness opinions that were rendered before FINRA Rule 2290 came into effect from those that were rendered afterwards. The dependent variable is the “total deviation” from the offer price (OP) in each case. Total deviation is calculated as follows: In a fairness opinion multiple valuation methods are used. The result of each method is usually a range rather than a point value. The mean of this spread is to be interpreted as the expected value. This approach seems likely, if we look at the way a range is calculated. Often point estimates for the input parameters are used to calculate a point value. The spread results from varying parameter-values within a range constructed around the point estimates (Schoenefelder, 2008). The aggregate valuation is the result of averaging the means of all valuation methods used. The average is used since no fairness opinion weighted the results of the individual valuation methods. Underneath a valuation summary a statement of the following kind is usually made: “In arriving at its fairness determination, [name of issuer] considered the results of all of its analyses and did not attribute any particular weight to any factor or analysis considered by it”\textsuperscript{1}. The deviation of the aggregate valuation from the offer price describes our dependent variable.

We test each hypothesis twice. The first test is conducted with the whole sample. The second test is executed with a modified subsample. We use a matching technique in order to construct two subsamples with the same size and a comparable composition. Based on the smaller subsample, we select transactions for the other subsample that are most similar in terms of the industry, transaction value and transaction premium. This approach should limit potential bias due to a heterogeneous sample structure.

We use Mann-Whitney-U tests to test our hypotheses since normality tests indicated that the requirements for a t-test were not met for any pair of subsamples.

4. Results

We find that valuations in fairness opinions with fixed compensation have an average deviation from the offer price of -9.9% compared to contingent compensations with -10.84%. The results of the Mann-Whitney-U test are shown in Tables 3 and 4. The test indicates that H1 must be rejected at a 95% significance level. There seems to be no difference between the valuations of fairness opinions with fixed and contingent compensation.

<table>
<thead>
<tr>
<th>Deviation from OP</th>
<th>Compensation</th>
<th>N</th>
<th>Mean rank</th>
<th>Sum of ranks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contingent</td>
<td>194</td>
<td>114.24</td>
<td>22163.50</td>
<td></td>
</tr>
<tr>
<td>fixed</td>
<td>38</td>
<td>4864.50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>232</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 3. H1 – ranks: full sample

<table>
<thead>
<tr>
<th>Deviation from OP</th>
<th>Mann-Whitney U</th>
<th>Wilcoxon W</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3248.50</td>
<td>22163.50</td>
</tr>
<tr>
<td>Z</td>
<td>-1.156</td>
<td></td>
</tr>
<tr>
<td>Asymp. sig. (2-tailed)</td>
<td>0.248</td>
<td></td>
</tr>
</tbody>
</table>


The result is supported by the second test with the constructed subsample (-11.07% average deviation from the offer price) as shown in Table 5.

<table>
<thead>
<tr>
<th>Deviation from OP</th>
<th>Mann-Whitney U</th>
<th>Wilcoxon W</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>542.00</td>
<td>1245.00</td>
</tr>
<tr>
<td>Z</td>
<td>-1.541</td>
<td></td>
</tr>
<tr>
<td>Asymp. sig. (2-tailed)</td>
<td>0.123</td>
<td></td>
</tr>
</tbody>
</table>


For going private transactions we find that the valuations deviate from the offer price by -8.12% on average, compared to -14.05% when the deal is a cash transaction. The test results for H2 (Tables 6 and 7) indicate that at a 99% significance level valuations in going private transactions are different from those in cash transactions. The ranks show that going private deals are valued higher than cash transactions. Since all valuations are lower than the offer price, a higher mean rank indicates a lower negative deviation. Hence, H2 is confirmed.

<table>
<thead>
<tr>
<th>Deviation from OP</th>
<th>Deal-type</th>
<th>N</th>
<th>Mean rank</th>
<th>Sum of ranks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Going private</td>
<td>31</td>
<td>111.58</td>
<td>3459.00</td>
</tr>
<tr>
<td></td>
<td>Cash transaction</td>
<td>141</td>
<td>80.99</td>
<td>11419.00</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>172</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 6. H2 – ranks: full sample

\textsuperscript{1} E.g., fairness opinion to Dow Jones & Co Inc, SEC File Number: 001-07564
Table 7. Test statistics\textsuperscript{a} for H2: full sample
\begin{tabular}{|l|c|c|}
\hline
Deviation from OP & Mann-Whitney U & Wilcoxon W & Z & Asymp. sig. (2-tailed) \\
\hline
\hline
Deviation from OP & 1408,000 & 11419,000 & -3,097 & 0,002 \\
\hline
\end{tabular}

Note: \textsuperscript{a} Grouping variable: deal-type.

The test with the constructed subsample (on average -17.05% lower than the offer price) in Tables 8 and 9 confirms our findings.

Table 8. H2 – ranks: subsample
\begin{tabular}{|c|c|c|}
\hline
Deviation from OP & N & Mean rank & Sum of ranks \\
\hline
Going private & 31 & 38,23 & 1185,00 \\
Other transactions & 31 & 24,77 & 768,00 \\
Total & 62 & & \\
\hline
\end{tabular}

Table 9. Test statistics\textsuperscript{a} for H2: subsample
\begin{tabular}{|l|c|c|}
\hline
Deviation from OP & Mann-Whitney U & Wilcoxon W & Z & Asymp. sig. (2-tailed) \\
\hline
\hline
Deviation from OP & 272,000 & 768,000 & -2,935 & 0,003 \\
\hline
\end{tabular}

Note: \textsuperscript{a} Grouping variable: going private.

Finally, we find that valuations in fairness opinions that were rendered before FINRA Rule 2290 came into effect deviate by -11.6% from the offer price, compared to -6.64% for fairness opinions that were written since the rule came into effect. The test results (Tables 10 and 11) show that at a 95% significance level H3 can be confirmed. The mean rank indicates that valuations are higher since Rule 2290 came into effect as the higher rank indicates lower negative deviations.

Table 10. H3 – ranks: full sample
\begin{tabular}{|l|c|c|}
\hline
Deviation from OP & FINRA 2290 & N & Mean rank & Sum of ranks \\
\hline
before Rule 2290 & 189 & 111,47 & 21067,00 \\
since Rule 2290 & 43 & 138,63 & 5961,00 \\
Total & 232 & & \\
\hline
\end{tabular}

Table 11. Test statistics\textsuperscript{a} for H3: full sample
\begin{tabular}{|l|c|c|}
\hline
Deviation from OP & Mann-Whitney U & Wilcoxon W & Z & Asymp. sig. (2-tailed) \\
\hline
\hline
Deviation from OP & 3112,000 & 21067,00 & -2,395 & 0,017 \\
\hline
\end{tabular}

Note: \textsuperscript{a} Grouping variable: FINRA 2290.

Once again our results are confirmed by testing the subsamples as shown in Tables 12 and 13.

Table 12. H3 – ranks: subsample
\begin{tabular}{|l|c|c|c|}
\hline
Deviation from OP & FINRA 2290 & N & Mean rank & Sum of ranks \\
\hline
before Rule 2290 & 43 & 37,91 & 1630,00 \\
since Rule 2290 & 43 & 49,09 & 2111,00 \\
Total & 86 & & \\
\hline
\end{tabular}

Table 13. Test statistics\textsuperscript{a} for H3: subsample
\begin{tabular}{|l|c|c|}
\hline
Deviation from OP & Mann-Whitney U & Wilcoxon W & Z & Asymp. sig. (2-tailed) \\
\hline
\hline
Deviation from OP & 684,000 & 1630,00 & -2,077 & 0,038 \\
\hline
\end{tabular}

Note: \textsuperscript{a} Grouping variable: FINRA 2290.

Conclusion

The test results for H1 indicate that a ban on contingent compensation would not have any effect on the quality of fairness opinions, since valuations are not affected by the kind of compensation. It seems that reputation is such a valuable asset to an investment bank that the bank is not willing to risk it by rendering biased fairness opinions in order to earn a success fee. The result is surprising since one could have expected that due to the high level of discretion that valuations generally adhere to, investment banks would try to exploit the valuation scope in their favor. If the results of US fairness opinions can be applied to other countries, the French regulation of legally mandated complete independence and a ban on contingent compensation will not improve the quality of fairness opinions. The quality could even worsen if the most qualified valuation experts were to withdraw from the fairness opinion market in order to avoid disqualifying themselves from providing other services related to the transaction that generate higher revenues.

Our findings for H2 and H3 concerning disclosure imply that increased disclosure of the valuation process that led to the fairness evaluation and the potential conflicts of interests that the issuer of the opinion might have, diminishes a potentially intentional bias of valuations and, hence, improves the quality of fairness opinions. The assumption that valuations are adequate when the disclosure requirements are low and that a target is overvalued in case of increased disclosure is unrealistic, since no investment bank would abolish the opportunity to earn a success fee on purpose.

Based on our findings we conclude that legally mandated full disclosure of all relevant information should ensure the adequacy of fairness opinions. Further requirements regarding the selection process...
used by the valuation expert when rendering the fairness opinion are not necessary in this case.

This is the first empirical analysis concerning the effect that regulation has on valuations within fairness opinions. To validate our results further analyses with larger samples extended to a greater number of countries should be conducted in order to generalize our conclusion. We assumed that all valuation methods are equally important for the evaluation of the fair value since investment banks stated that they did not attribute any particular weight to the methods. An uneven weighting of the individual results could have an impact on our findings, hence it should be further investigated whether this statement corresponds to reality or whether it is just a phrase to avoid justifying the weighting.

References

Appendix

H1: Tests of normality – full sample

<table>
<thead>
<tr>
<th>Deviation from OP</th>
<th>Compensation</th>
<th>Kolmogorov-Smirnov*</th>
<th>Shapiro-Wilk</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Statistic</td>
<td>df</td>
<td>Sig.</td>
</tr>
<tr>
<td>Contingent</td>
<td>0.103</td>
<td>194</td>
<td>0.000</td>
</tr>
<tr>
<td>Fixed</td>
<td>0.105</td>
<td>38</td>
<td>0.200'</td>
</tr>
</tbody>
</table>

Notes: a. Lilliefors's significance correction. * This is a lower limit for true significance.
### H1: Tests of normality – subsample

<table>
<thead>
<tr>
<th>Deviation from OP</th>
<th>Compensation</th>
<th>Kolmogorov-Smirnov</th>
<th>Shapiro-Wilk</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Statistic</td>
<td>df</td>
</tr>
<tr>
<td>Contingent</td>
<td></td>
<td>0.201</td>
<td>38</td>
</tr>
<tr>
<td>Fixed</td>
<td></td>
<td>0.078</td>
<td>38</td>
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</tbody>
</table>

Notes: a. Lilliefor’s significance correction. * This is a lower limit for true significance.

### H2: Tests of normality – full sample

<table>
<thead>
<tr>
<th>Deviation from OP</th>
<th>Compensation</th>
<th>Kolmogorov-Smirnov</th>
<th>Shapiro-Wilk</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Statistic</td>
<td>df</td>
</tr>
<tr>
<td>Going Private</td>
<td></td>
<td>0.102</td>
<td>31</td>
</tr>
<tr>
<td>Cash Transactions</td>
<td></td>
<td>0.138</td>
<td>141</td>
</tr>
</tbody>
</table>

Notes: a. Lilliefor’s significance correction. * This is a lower limit for true significance.

### H3: Tests of normality – subsample

<table>
<thead>
<tr>
<th>Deviation from OP</th>
<th>Compensation</th>
<th>Kolmogorov-Smirnov</th>
<th>Shapiro-Wilk</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Statistic</td>
<td>df</td>
</tr>
<tr>
<td>Going Private</td>
<td></td>
<td>0.102</td>
<td>31</td>
</tr>
<tr>
<td>Other transactions</td>
<td></td>
<td>0.221</td>
<td>31</td>
</tr>
</tbody>
</table>

Notes: a. Lilliefor’s significance correction. * This is a lower limit for true significance.

### H3: Tests of Normality – full sample

<table>
<thead>
<tr>
<th>Deviation from OP</th>
<th>Compensation</th>
<th>Kolmogorov-Smirnov</th>
<th>Shapiro-Wilk</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Statistic</td>
<td>df</td>
</tr>
<tr>
<td>Before Rule 2290</td>
<td></td>
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<tr>
<td>Since Rule 2290</td>
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<td>0.115</td>
<td>43</td>
</tr>
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</table>

Note: a. Lilliefor’s significance correction.

### H3: Tests of Normality – subsample

<table>
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<tr>
<th>Deviation from OP</th>
<th>Compensation</th>
<th>Kolmogorov-Smirnov</th>
<th>Shapiro-Wilk</th>
</tr>
</thead>
<tbody>
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<td>Statistic</td>
<td>df</td>
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<tr>
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<tr>
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<td>0.115</td>
<td>43</td>
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</tbody>
</table>

Note: a. Lilliefor’s Significance Correction.