Panacea for M&A dealmaking? Investor perceptions of earnouts

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ABSTRACT

We survey 129 investors from private equity firms, investment banks, corporate M&A and other M&A-related roles about their perception of earnouts. The results indicate that earnouts are applied to reduce information asymmetries and to bridge negative agreement zones in transactions. While these findings are largely aligned with the academic perspectives, we reveal several discrepancies to existing theory with respect to motives, valuation and associated costs. This is the first study that incorporates the view of M&A professionals and thus attempts to bridge the gap between academics and professionals. In addition, it provides impulses for further academic work on earnouts.

1. Introduction

Mergers and acquisitions are at the core of corporate strategy, and large-scale transactions, such as the recent takeover attempt of the Italian landline grid by KKR with a total value of €20 bn, receive much attention from both M&A professionals and the wider public. The deal structure, which includes an earnout amounting to €2 bn (Reuters, 2023), is less known to the broader public. Earnouts are agreements that link part of the purchase to a pre-defined performance benchmark (Kohers and Ang, 2000). Globally, the share of earnout transactions increased from 4% (Kohers and Ang, 2000) in the 1990s to 16% in the most recent study of Barbopoulos and Danbolt (2021). In parallel, scholarly interest increased in recent years, with more than 35 peer-reviewed papers since 2015, providing a profound theoretical framework regarding motives and mechanics of earnouts.

Scholars discuss motives along three dimensions. First, earnouts are a tool to mitigate risk as part of the deal value is contingent on reaching an agreed target (Barbopoulos and Sudarsanam, 2012). The underlying uncertainty in transactions comes from the information asymmetries between the target and the acquirer (Datar et al., 2001) as well as the uncertain development of the future cashflows on which the valuation is based (Battauz et al., 2021). Second, earnouts become a tool to "bridge the gap" which arises based on the divergence of the optimistic and pessimistic expectation of sellers and acquirers, respectively. Sellers value earnouts higher than acquirers and, thus, the potential valuation gap shrinks. As a positive side effect, earnouts may incentivize sellers to support a smooth transition since the promised claim is contingent on an advantageous future state of the company (Datar et al., 2001). Third, earnouts may be simply a mean to finance transactions by slicing the payment over time (Bates et al., 2018).

These motives give clear hypotheses on environments where the use of earnouts should be more likely. High information asymmetry, strong dependence on sellers and less liquid markets are expected in small- and mid-sized transactions of private and growth companies. Indeed, Reuer et al. (2004), Barbopoulos and Sudarsanam (2012) and Barbopoulos et al. (2018a) find evidence of such. However, other deal characteristics that are associated with high information asymmetry yield contradictory results, including

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cross-border and cross-industry deals and transaction size (e.g., Kohers and Ang, 2000; Datar et al., 2001). The impact of earnout deals is mostly assessed by measuring short-term abnormal returns that reveal an outperformance of earnout deals compared to non-earnout deals (e.g., Barbopoulos et al., 2018b). In a recent study by Alexakis and Barbopoulos (2020), the authors measure abnormal returns of 1.68% for earnout deals compared to 1.23% for non-earnout deals (Alexakis and Barbopoulos, 2020). In addition to the market reaction, other academics find that earnouts mitigate the negative effects of high takeover premiums and increase the incentives to conduct earnings management (Barbopoulos and Adra, 2016; Elnahas et al., 2016). Far less academic attention is directed towards the question of how earnouts are valued and designed. Both Battauz et al. (2021) and Tavares-Gärtner et al. (2018) develop an option-pricing model, as earnouts have an option-like structure. The only study focusing on the structure of earnouts, by Cain et al. (2011), finds that information asymmetries increase the relative earnout size, lengthen the earnout period and make it more likely that a sales-based performance benchmark is applied (Cain et al., 2011).

The substantial empirical and (model-)theoretical work described above is not matched by qualitative studies capturing the perspectives of investors. Yet, several qualitative surveys investigate the perception of finance professionals, for example, on convertible bonds (Dutordoir et al., 2022), private equity (Gompers et al., 2016) and capital structure (Graham and Harvey, 2001). The only survey on earnouts dates back more than 20 years and includes only two questions on the motives of earnouts and performance benchmark (Datar et al., 2001).

Hence, this survey aims at incorporating the perspectives of strategic investors, financial investors and M&A advisors in the research on earnouts. To do so, we compare the theoretical framework with survey results and identify overlaps and discrepancies. Our respondents represent the three different groups along different seniority levels. Geographically, the survey focuses on Central Europe where economic importance of small- and mid-sized companies as well as privately held firms is higher.[1] While that clearly prevents us from drawing general conclusions regarding frequencies of earnout application, it allows us to examine the most earnout-relevant market segments and draw general conclusions for those. As a result, the paper contributes in three ways. First, it is the initial study to provide a holistic picture of the expected motives, perceived impacts and applied valuation techniques for earnouts seen by finance professionals. Second, it compares theoretical findings on earnouts with the perspectives of practitioners, which holds both academic as well as managerial implications. Third, it develops an agenda for future research to expand theory based on the learnings from practice.

2. Survey methodology and descriptive statistics

In terms of comprehensiveness, style and adequacy, the survey design is guided by recent surveys in the field of finance, including the works of Dutordoir et al. (2022), Gompers et al. (2016) and Graham and Harvey (2001).[2] Hence, the questions are motivated by the latest research in the field of earnouts covering motives, characteristics, valuation and costs. In order to ensure an efficient survey design, we pretest the survey with scholars in the field of corporate finance and experts in qualitative research as well as investors.[3] The final survey comprises six sections with a total of 19 questions, resulting in an estimated processing time of 15–20 min. The survey is focused on finance professionals working on mergers and acquisitions and has a geographic concentration on Central Europe in consequence of two points. First, we expect a high earnout share in Central Europe and especially Germany, due to its economic structure. Second, we used multiple channels to maximize the number of respondents and assure representativity including our own professional network, the alumni database of our university, LinkedIn and the German Federal Association Mergers & Acquisition (BVMA).[4]

We sent out the survey to 365 professionals and received 129 responses, equaling a response rate of 35% over the time frame of June to September 2023.[5] After excluding incomplete responses and experts who are not familiar with earnouts, 125 responses remain.[6] Both the absolute and relative response rates are sufficient given the limited number of experts in this field and are in line with similar studies, such as Dutordoir et al. (2022) and Gompers et al. (2016).[7]

Following the initial idea of Graham and Harvey (2001), who compare the theoretical foundation of capital structure with the perspectives of practitioners, we survey investors to compare their view of earnouts with the theoretical foundation. Our analysis focuses on four elements: (1) Motives, (2) Characteristics, (3) Valuation, and (4) Costs and disadvantages of earnouts. To do so, we ask the respondents to answer on a scale from 1–5 (1 = very unimportant and 5 = very important).[8] In addition to this, we

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[1] The economic structure of Germany is largely defined by its strong focus on small- and medium sized companies. There are only 438 listed companies while there are numerous "Hidden Champions" that are privately owned (Statista, 2023). Similarly, Germany has one of the highest absolute and relative number of patents highlighting the importance of high-tech sectors (European Patent Office, 2023). This is reflected in the earnout share which is predicted to reach up to 27% in Germany (CMS, 2023) compared to 10% in the US (Barbopoulos and Danbolt, 2021).

[2] Other recent surveys taken into consideration include Graham et al. (2022), Trahan and Gitman (1995), Bancel and Mittoo (2004), Brown et al. (2019).

[3] After pretesting, we adjusted the survey, mostly clarifying the wording, adding descriptions and shortening its length.

[4] As an additional source, we contacted finance professionals working for leading private equity investors or investment banks with openly accessible contact details.

[5] We conducted individual follow-ups after initial contact. Three attempts to contact each person were made before the potential respondent was removed from the pool.

[6] To ensure that the recipients can adequately answer the questions, we included a screening question in the beginning that excluded professionals who have not worked with earnouts.

[7] Gompers et al. (2016) survey 79 private equity investors with a response rate of 50%. Dutordoir et al. (2022) survey 20 respondents. Graham and Harvey (2001) survey 392 CFOs with a response rate of 9%. Brown et al. (2019) survey 154 institutional investors. Trahan and Gitman (1995) include 84 participants in their survey.

[8] The description of the scale was adjusted based on the question e.g. to 1 = Very rarely, 5 = very often.

Table 1
Descriptive statistics - This table presents the demographic data of our respondents, including job title and geographic region. Respondents who do not have experience with earnouts are not included in this sample. Additional information about the sample is available upon request.

	Total sample		Financial investor		Strategic investor		M&A advisor	
Position distribution								
Analyst	10	(8.0%)	2	(2.9%)	0	(0.0%)	8	(34.8%)
Associate	23	(18.4%)	16	(23.5%)	2	(5.9%)	5	(21.7%)
Investment Manager	33	(26.4%)	22	(32.4%)	11	(32.4%)	0	(0.0%)
VP	13	(10.4%)	5	(7.4%)	4	(11.8%)	4	(17.4%)
Director	27	(21.6%)	11	(16.2%)	13	(38.2%)	3	(13.0%)
Partner/Managing Director	11	(8.8%)	6	(8.8%)	2	(5.9%)	3	(13.0%)
Not mentioned	8	(6.4%)	6	(8.8%)	2	(5.9%)	0	(0.0%)
Geographic distribution								
Germany	82	(65.6%)	50	(73.5%)	15	(44.1%)	17	(73.9%)
Other Europe	28	(22.4%)	14	(20.6%)	11	(32.4%)	3	(13.0%)
Other Asia	2	(1.6%)	0	(0.0%)	2	(5.9%)	0	(0.0%)
United States	4	(3.2%)	1	(1.5%)	3	(8.8%)	0	(0.0%)
Not mentioned	9	(7.2%)	3	(4.4%)	3	(8.8%)	3	(13.0%)

also include open-ended questions to ensure that the respondents have the chance to include their views beyond the pre-defined choices. We follow the approach of the above-mentioned surveys (e.g., reporting the mean score per answer) to analyze our survey results. Furthermore, we applied two statistical tests to check for significance, comparing the answers themselves and comparing investor types (financial investors vs. strategic investors).[9] As we cannot assume normal distribution in our survey responses, we choose non-parametric tests (Wilcoxon signed-rank test and Mann–Whitney-U test). Table 1 illustrates the descriptive statistics of our sample.

Most respondents work for financial investors (54%), followed by strategic investors (27%). In addition, 75% are in a senior position (investment manager or higher). The survey has a geographic focus on Europe with 87% of respondents being located there.[10]

Further, participants show a high level of earnout proficiency with 48% applying earnouts in more than every second transaction (see Table 6).

3. Comparing practice and theory—two sides of the same coin?

3.1. Motives of earnout use

Scholars have identified nine distinct motives to use earnouts — mainly within the three dimensions introduced in chapter 1. Finance professionals clearly prioritize bridging valuation differences (4.46) and overcoming information asymmetries in order to protect acquirers from overpayment (4.18) over all items related to financing the deal (see Table 2). Increasing the takeover premium is the only item with connection to the purchase price that scored above 3 (mid of scale). These motives are also the ones that have received the most support from academia. The remaining motives, including the financing of transactions, received a score of less than 3 and are not perceived as important by investors. This partly contradicts the hypothesis of Bates et al. (2018) considering earnouts as a financing tool. The responses also show that investors do not use earnouts as a tool to leverage potential tax or accounting advantages. Comparing the answers of financial investors to those of strategic investors shows that both groups answer with the same tendency but different magnitudes. The motive to increase the takeover premium is significantly more important for strategic investors than financial investors. Similarly, the protection against overpayment receives a 0.28 higher score for financial investors than strategic investors.

Ultimately, 63% of respondents assume that earnouts deals materialize in the form of a strong or very strong increase of post-merger performance.[11]

3.2. Characteristics of earnout transactions

The results in Table 3 confirm that earnouts are used in situations of high information asymmetry. Still, investors appear to perceive only a few characteristics as triggers for high information asymmetries. Investors especially use earnouts for private targets and growth firms, which is shown in the mean response of above 4. Seven additional characteristics with a rating of more than 3.1 indicate that investors use earnouts more often, for example, in transactions in the high-tech industry. Eight characteristics do not find strong support, including cross-border and cross-industry deals. This is also reflected in the ambiguous results of several empirical studies (e.g., Kohers and Ang, 2000; Reuer et al., 2004). Comparing the responses of financial and strategic investors

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[9] We categorized the investor types into financial investors (private equity), strategic investors (corporate M&A) and M&A advisors (investment banking, advisors and other finance professionals).

[10] Additional details about the sample are available upon request.

[11] Only 3% expect a decrease or strong decrease, remaining respondents assume a neutral effect.

Table 2

Motives to use earnouts - This table presents the responses regarding the motives of earnout use. Investors were asked to rank their responses to "How important are the following motives to use earnouts?" on a 5-point Likert scale, ranging from 1 = very unimportant to 5 = very important. We used the Wilcoxon signed-rank test to compare the individual responses of the total sample (e.g., comparison of answers for "bridge valuation differences [...]" and "Protect acquirer from overpayment"). Additionally, we performed a Mann–Whitney U-test to assess whether the answers of financial investors and strategic investors differ significantly. Statistical significance at the 1%, 5% and 10% levels is denoted by ***, ** and *. We summed the number of respondents who choose 4 or 5 (important or very important) and show the percentage compared to the total sample or subgroup. In the last three columns, we contrast the survey findings with the existing theory. The final column lists references for the theoretical foundation.

Motives to use earnouts	Total sample		Financial investor	Strategic investor	M&A advisor	Financial investor	Strategic investor	M&A advisor	Comparison investor vs. theory		
	Mean	% important or very important	Mean			% important or very important			Investor view (survey)	Theory	Reference (exemplary)
Bridge valuation difference of acquirer & target	4.46***	92.0%	4.46	4.59	4.30	91%	97%	87%	✓	✓	Battauz et al. (2021)
Protect acquirer from overpayment	4.18***	81.6%	4.34	4.06	3.91	87%	76%	74%	✓	✓	Caselli et al. (2006)
Decrease other information asymmetries	3.36	53.6%	3.56**	3.03**	3.26	59%	44%	52%	✓	✓	Kohers and Ang (2000)
Increase takeover premium (deal value)	3.23**	47.2%	3.06**	3.53**	3.30	43%	62%	39%	✓	✓	Barbopoulos and Adra (2016)
Other value generation in post-acqui.	2.84**	34.4%	2.87**	2.71**	2.96	35%	38%	26%	☒	Not explored	
Finance deal (fin. constrained acquirer)	2.54***	20.0%	2.59	2.12	3.00	22%	9%	30%	☒	Ambiguous	Bates et al. (2018)
Finance deal (prerequisite for banks)	1.99	5.6%	1.94	1.85	2.35	3%	6%	13%	☒	Not explored	
Generate positive capital market reaction	1.96	5.6%	1.99	1.76	2.17	4%	6%	9%	☒	✓	Barbopoulos and Sudarsanam (2012)
Exploit other accounting and tax advantages	1.94	4.8%	1.97	1.79	2.04	6%	6%	0%	☒	✓	Allee et al. (2011)

shows high conformity. Strategic investors yield a slightly higher response of 4.38 for private targets than the 4.19 score provided by financial investors.

3.3. Valuation of earnouts

Whereas both the motives and characteristics have received much scholarly attention, this is not the case for the valuation of earnouts. Recently, Battauz et al. (2021) propose an option-pricing approach to include both the default and litigation risk in earnout valuation. Even though academics point out the option-like structure of earnouts, research remains in its early stages (Battauz et al., 2021) Hence, the perspective of investors offers valuable insights into valuation approaches currently being used and, therefore, potential future areas of research. The responses reveal three main findings. First, multiples are the predominantly used approach, with a score of 3.55 for the full sample and a slightly higher score of 3.68 for financial investors, which is in line with the findings of Gompers et al. (2016) (see Table 4). Second, more advanced valuation approaches, such as option pricing or simulations, are rarely applied by investors even though academics advocate for the utilization of those models. Ultimately, the approaches applied by financial and strategic investors differ. Strategic investors apply discounted cashflows significantly more often than financial investors.

3.4. Costs and adverse effects

Scholars have largely disregarded the associated costs of earnouts, which is likely driven by the difficulty to empirically measure those costs. Still, academics such as Erel (2018) point out the need to reach a net benefits view of earnouts. Three potential costs are discussed in literature: initial set-up cost (e.g., Bates et al., 2018), auditing and monitoring cost (Allee and Wangerin, 2018) and litigation cost (Battauz et al., 2021). Interestingly, while researchers and media points towards the risk of legal disputes, 82% of the respondents expect legal disputes in less than 25% of cases and investors rank it rather low with a mean score of 2.95. Costs related to auditing and monitoring are perceived as the most important costs to be considered both by strategic and financial investors. Further, academics hypothesize that earnouts might trigger adverse behavior, as shown in Table 5. Most studies in the field focus on the Chinese market, and authors find support for their hypothesis, such as the application of earnings management. This is supported by the views of investors, which show that especially earnings management and short-term profit maximization is perceived as a potential adverse effect. Strategic investors are especially concerned about short-term profit maximization, with a score of 3.70 (compared to 3.29 for financial investors).

Table 3

Characteristics of earnout deals - This table presents the responses regarding the characteristics of earnout deals. Investors were asked to rank the characteristics on a 5-point Likert scale, ranging from 1 = very unlikely to 5 = very likely, in response to "Are earnouts more/less likely to be used in following transactions?" For the total sample, we conducted the Wilcoxon signed-rank test to compare the individual responses of the total sample (e.g., comparison of answers for "Growth firms [...]" and "Private company (target)"). Additionally, we performed a Mann–Whitney U-test to assess whether the answers of financial investors and strategic investors differ significantly. Statistical significance at the 1%, 5% and 10% levels is denoted by ***, ** and *. We summed the number of respondents who choose 4 or 5 (likely or very likely) and show the percentage compared to the total sample or subgroup. In the last three columns, we contrast the survey findings with the existing theory.

Characteristics of earnout deals	Total sample		Financial investor	Strategic investor	M&A advisor	Financial investor	Strategic investor	M&A advisor	Comparison investor vs. theory		
	Mean	% important or very important	Mean			% important or very important			Investor view (survey)	Theory	Reference (exemplary)
Growth firms/not mature firms (target)	4.28*	85.6%	4.19	4.38	4.39	82.4%	91.2%	87.0%	✓	↗	Datar et al. (2001)
Private company (target)	4.11***	80.8%	4.04	4.32	4.00	77.9%	88.2%	78.3%	✓	↗	Kohers and Ang (2000)
High-tech industries (target)	3.55	52.8%	3.37	3.71	3.87	42.6%	55.9%	78.3%	✓	↗	Reuer et al. (2004)
Small targets (in terms of market value)	3.38	46.4%	3.43	3.44	3.13	47.1%	50.0%	39.1%	✓	Ambiguous	Kohers and Ang (2000)
Transactions that do not fully integrate target	3.35	41.6%	3.35	3.62	2.96	41.2%	58.8%	17.4%	✓	Not explored	
Financially constrained acquirer	3.32	45.6%	3.25	3.41	3.39	39.7%	52.9%	52.2%	✓	↗	Bates et al. (2018)
Service industries (target)	3.29	40.8%	3.40	3.18	3.13	44.1%	35.3%	39.1%	✓	↗	Datar et al. (2001)
Transactions w/high cultural distance	3.19	34.4%	3.31	3.00	3.13	36.8%	26.5%	39.1%	☒	Ambiguous	Ewelt-Knauer et al. (2021)
Other intangible-asset rich industries (target)	3.18**	30.4%	3.10	3.38	3.13	26.5%	35.3%	34.8%	☒	Ambiguous	Ewelt-Knauer et al. (2011)
Transactions with high deal volume	2.97	24.8%	2.99	2.94	2.96	26.5%	20.6%	26.1%	☒	Ambiguous	Tao et al. (2022)
First-time acquirer	2.92	23.2%	3.06	2.91	2.52	25.0%	32.4%	4.3%	☒	↗	Reuer et al. (2004)
Cross-border deals	2.90	17.6%	2.93	2.91	2.83	13.2%	20.6%	26.1%	☒	Ambiguous	Viarengo et al. (2018)
Cross-industry deals	2.89	16.0%	3.00	2.76	2.74	16.2%	14.7%	17.4%	☒	Ambiguous	Datar et al. (2001)
High enforcement quality	2.86*	16.8%	2.99	2.82	2.57	20.6%	17.6v	4.3%	☒	↗	Viarengo et al. (2018)
Large acquirer (in terms of market value)	2.71	8.0%	2.68	2.71	2.83	5.9%	8.8%	13.0v	☒	↘	Kohers and Ang (2000)
Old acquirer	2.70	5.6%	2.78	2.68	2.52	2.9%	11.8%	4.3%	☒	↘	Kohli and Mann (2013)
High political stability	2.66	7.2%	2.77	2.74	2.26	7.4%	11.8%	0.0%	☒	↗	Viarengo et al. (2018)

Table 4

Valuation of earnouts - This table presents the responses regarding the applied valuation technique. Investors were asked to rank the applied valuation technique on a 5-point Likert scale, ranging from 1 = very rarely to 5 = very often, in response to "What types of valuation techniques do you apply most often for earnout deals?" For the total sample, we use the Wilcoxon signed-rank test to compare the individual responses of the total sample (e.g., comparison of answers for "Last transactions[...]" and "Leveraged buyout (LBO)"). Additionally, we performed a Mann–Whitney U-test to assess whether the answers of financial investors and strategic investors differ significantly. Statistical significance at the 1%, 5% and 10% levels is denoted by ***, ** and *. We summed the number of respondents who choose 4 or 5 (often or very often) and show the percentage compared to the total sample or subgroup. In the last three columns, we contrast the survey findings with the existing theory.

Valuation approach	Total sample		Financial investor	Strategic investor	M&A advisor	Financial investor	Strategic investor	M&A advisor	Comparison investor vs. theory		
	Mean	% important or very important	Mean			% important or very important			Investor view (survey)	Theory	Reference (exemplary)
Last transactions in the market/comparables	3.55**	63.2%	3.68	3.41	3.39	69.1%	55.9%	56.5%	✓	Not explored	
Leveraged buyout (LBO)	3.22	50.4%	3.85***	2.03***	3.13	70.1%	14.7%	45.5%	✓	Not explored	
Discounted cashflow (DCF)	3.07	47.2%	2.72***	3.68***	3.22	35.3%	67.6%	52.2%	✓	✓	Caselli et al. (2006)
"Rule of thumb"	3.00***	38.4%	2.97	3.12	2.91	38.2%	41.2%	34.8%	☒	Not explored	
No explicit valuation applied	2.18	21.6%	2.17***	1.82***	2.74	19.1%	17.6%	34.8%	☒	Not explored	
Option pricing	1.94***	12.8%	1.74*	2.17*	2.17	7.4%	20.6%	17.4%	☒	✓	Allee et al. (2011)
Simulation (e.g. monte carlo)	1.57	5.6%	1.57	1.50	1.65	4.4%	8.8%	4.3%	☒	✓	Caselli et al. (2006)

Table 5

Adverse behavior and costs - This table presents the responses regarding adverse behavior and cost in earnout transactions. Investors were asked to rank adverse behaviors on a 5-point Likert scale, ranging from 1 = very rarely to 5 = very often, in response to "How often do you experience the following behavior in earnout deals?" and "How important do you see following costs in transactions involving earnouts?". For the total sample, we used the Wilcoxon signed-rank test to compare the individual responses of the total sample (e.g., comparison of answers for "Earnings management" and "Short-term profit maximization"). Additionally, we performed a Mann–Whitney U-test to assess whether the answers of financial investors and strategic investors differ significantly. Statistical significance at the 1%, 5% and 10% levels is denoted by ***, ** and *. We summed the number of respondents who choose 4 or 5 (often or very often) and show the percentage compared to the total sample or subgroup. In the last three columns, we contrast the survey findings with the existing theory. The final column lists references for the theoretical foundation.

	Total sample		Financial investor	Strategic investor	M&A advisor	Financial investor	Strategic investor	M&A advisor	Comparison investor vs. theory		
	Mean	% important or very important	Mean			% important or very important			Investor view (survey)	Theory	Reference (exemplary)
Adverse behavior											
Earnings management	3.56	60.0%	3.62	3.44	3.52	60.3%	58.8%	60.9%	✓	↗	Hou et al. (2015)
Short-term profit maximization	3.46***	53.6%	3.29**	3.70**	3.57	48.5%	61.8%	56.5%	✓	Not explored	
Cut of discretionary spendings (e.g. R&D)	2.85***	24.0%	2.88	2.74	2.91	26.5%	20.6%	21.7%	⊠	↗	Caselli et al. (2006)
Other (long-term) value-destroying actions	2.54***	11.2%	2.54	2.56	2.52	13.2%	8.8%	8.7%	⊠	Not explored	
Goodwill impairment	2.21	4.8%	2.16	2.18	2.39	5.9%	2.9%	4.3%	⊠	↗	Yuan et al. (2020)
Cost related to earnout											
Costs related to auditing and monitoring of performance target	3.25**	50.4%	3.19	3.59	2.91	48.5%	61.8%	39.1%	✓	✓	Allee and Wangerin (2018)
Litigation cost in case of non-convergence	2.95	29.6%	2.84	3.03	3.17	26.5%	35.3%	30.4%	✓	✓	Battauz et al. (2021)
Initial set-up costs (e.g. involved lawyers)	2.94	33.6%	2.99	2.97	2.78	35.3%	35.3%	26.1%	✓	not explored	

4. Research agenda for earnouts: What to learn from the practitioner perspectives?

Based on the survey responses and theory, we see the following three research themes as most promising to advance the field. First, new studies should include private acquirers to uncover additional motives and characteristics for earnout transactions. Even though researchers are aware of differences between public and private acquirers (e.g., Bargeron et al., 2008), so far, all empirical studies are based on listed acquirers. Second, looking at the responses of investors regarding the applied valuation techniques shows that simple techniques such as multiples dominate. This contrasts the recommendation of academia to account for option-like features of earnouts (e.g., Caselli et al., 2006). Hence, future research should further investigate the decision-making process of investors and, in particular, dissect the reasons and obstacles for not applying an established technique such as option pricing. Finally, in line with previous empirical studies which yielded ambiguous results on cross-industry and cross-border, investors in our survey do not apply earnouts more often in those transactions. This is surprising as we expect high information asymmetries and limited integration which should foster earnout application. Future research should investigate the underlying reasons for these counterintuitive results.

5. Conclusions

Scholarly work on earnouts has increased over the past decade, synchronous to its application in practice. Still, most work focuses on empirical studies that do not include the perspective of investors. In this study, we shed light on this research gap by surveying investors regarding their motives and assessments of earnout transactions. Based on the responses of 125 investors, we find support for the central theoretical idea that earnouts are a tool to mitigate information asymmetries and bridge valuation gaps. Deal financing is not an important motive. Furthermore, we strongly confirm to practitioners that the majority of financial and strategic investors see a positive impact of earnouts on the future performance of the target company. Earnouts are considered particularly useful in situations with high information asymmetry and low target integration.

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Niklas Dahlen: Conceptualization, Methodology, Software, Writing – original draft, Writing – review & editing, Software, Validation, Formal analysis, Visualization, Data curation, Project administration. **Alexander Lahmann:** Conceptualization, Supervision, Writing – review & editing. **Maximilian Schreiter:** Conceptualization, Methodology, Supervision, Writing – original draft, Writing – review & editing, Formal analysis, Visualization.

Declaration of competing interest

The authors certify that they have no affiliations with or involvement in any organization or entity with any financial interest or non-financial interest in the subject matter or materials discussed in this manuscript.

Data availability

The authors will provide an anonymized version upon request.

Appendix

A.1. Frequency of earnout use and legal disputes

See Table 6.

A.2. Survey documentation

A.2.1. Section 1 — Demographic data and screening questions
See Tables 7 and 8.

A.2.2. Section 2 — Motives and rationales for using earnouts
See Tables 9 and 10.

Table 6
Frequency of earnout use and litigation — This table presents the responses regarding the frequency of earnout use and expected legal disputes. Investors were asked to select a percentage on the shown scale with regards to the question "How often do you use earnouts?" and "How often do you expect legal disputes?".

	How often do you use earnouts?				How often do you expect legal disputes?			
	Total sample	Financial investors	Strategic investors	M&A advisors	Total sample	Financial investors	Strategic investors	M&A advisors
<10%	7%	6%	9%	9%	26%	28%	18%	26%
>10%	14%	9%	29%	9%	29%	29%	24%	26%
>25%	30%	34%	9%	52%	26%	28%	35%	21%
Cumulative - less than 50%	52%	49%	47%	70%	82%	85%	76%	74%
>50%	31%	31%	35%	26%	13%	10%	12%	21%
>75%	14%	18%	15%	0%	5%	4%	6%	6%
>90%	3%	3%	3%	4%	1%	0%	6%	0%
Cumulative - more than 50%	48%	51%	53%	30%	18%	15%	24%	26%

Table 7
Demographic questions — This table lists the demographic and introductory questions of the survey. To improve readability, following answer options are changed: "Not to disclose" is named "Choose not to disclose" in the original survey. Respondents were able to specify their answer when they select "Other" (text box with option for clarification appears). All questions in the table allowed for single answer selection.

Demographic questions	Answer options								
How do you identify yourself?	Female	Male	Not to disclose	Other					
What is your age group?	30 and younger	31–40	41–50	51–60	61 and older	Not to disclose			
What is your highest degree (completed)?	High-school	Bachelor	Master	MBA	PhD	Not to disclose	Other		
Which type of investor are you?	Private equity	Corporate M&A	Investment banking	Venture capital	Inst. investors	Not to disclose	Other		
On which region are you focussing your activities?	Germany	France	UK	Other Europe	United States	Other NA	South America	China	Other Asia
What is your role in the company?	Analyst	Associate	Invest. Mgr.	VP	Director	Partner or MD	Other		
How many year of experience do you have?	*Numeric entry*								

Table 8

Screening questions — This tables shows the key screening questions. Participants who are not familiar with earnouts are excluded.

Screening questions	Answer options	
Have you previously worked on transactions that involved earnouts or contingent payments?	Yes	No
If answered with "No" — next question		
Still, are you familiar with the use of earnout and can share some insights about its application?	Yes	No
If answered with "No" — end of survey/exclusion		

Table 9

Motives of earnout use — This table lists questions relating to the motives to use earnouts. All motives in the table allowed for single answer selection.

How important are the following motives to use earnouts?	Very un- important (1)	Unimportant (2)	Neutral (3)	Important (4)	Very important (5)
Increase takeover premium (transaction value)	☐	☐	☐	☐	☐
Bridge valuation difference of acquirer and target	☐	☐	☐	☐	☐
Protect acquirer from overpayment	☐	☐	☐	☐	☐
Finance transaction (esp. for financially constrained acquirer)	☐	☐	☐	☐	☐
Finance transaction as a pre-requisite of banks/debt issuer	☐	☐	☐	☐	☐
Exploit other accounting and tax advantages	☐	☐	☐	☐	☐
Generate positive capital market reaction	☐	☐	☐	☐	☐
Other value generation in post-transaction period	☐	☐	☐	☐	☐
Decrease other information asymmetries	☐	☐	☐	☐	☐

Table 10

Motives of earnout use — This table lists questions relating to the motives to use earnouts and extends the previous questions by allowing respondents to add comments and clarifications. The final question allowed for a single answer.

Additional questions on motives	Answer options				
What is the single most important motive for using earnouts?	*Text box in which respondents can enter their answer*				
Is there a motive that was not listed but which you would like to add? If so — please indicate the importance	*Text box in which respondents can enter their answer*				
As far as you can evaluate	Strong increase	increase	Neutral	Decrease	Strong decrease
How does the earnout use effect post-merger performance?					

Table 11

Deal type and frequency — This table lists questions relating to the type of earnout deals and frequency. The first question allowed for multiple answers while the second allowed for a single selection.

Deal type and frequency	Answer options						
In which kind of transactions do you usually use earnouts?	Distressed M&A	LBOs	MBOs	Mergers	Carve-outs	Standalone acqui.	Other
How often do you use earnouts?	>90%	>75%	>50%	>25%	>10%	<10%	

A.3. Section 3 — Characteristics of earnout transactions

See Tables 11–13.

A.3.1. Section 4 — Valuation and design of earnouts
See Tables 14 and 15.

A.3.2. Section 5 — Costs and disadvantages of earnouts
See Tables 16–18.

A.3.3. Section 6 — Conclusion
See Table 19.

Table 12
Characteristics of earnout use — This table lists questions relating to the characteristics of earnout deals. All questions in the table allowed for single answer selection.

Are earnouts more/less likely to be used in following transactions?	Much less likely (1)	Less likely (2)	Neutral (3)	More likely (4)	Much more likely (5)
Increase takeover premium (transaction value)	☐	☐	☐	☐	☐
High-tech industries (target)	☐	☐	☐	☐	☐
Service industries (target)	☐	☐	☐	☐	☐
Other intangible-asset rich industries (target)	☐	☐	☐	☐	☐
Growth firms/not mature firms (target)	☐	☐	☐	☐	☐
Transactions that do not fully integrate target	☐	☐	☐	☐	☐
Small targets (in terms of market value)	☐	☐	☐	☐	☐
Transactions with high deal volume	☐	☐	☐	☐	☐
Cross-industry deals	☐	☐	☐	☐	☐
Cross-border deals	☐	☐	☐	☐	☐
Transactions w/high cultural distance (target & acquirer in very different cultures)	☐	☐	☐	☐	☐
Large acquirer (in terms of market value)	☐	☐	☐	☐	☐
Financially constrained acquirer	☐	☐	☐	☐	☐
First-time acquirer	☐	☐	☐	☐	☐
Old acquirers	☐	☐	☐	☐	☐
High enforcement quality	☐	☐	☐	☐	☐
High political stability	☐	☐	☐	☐	☐

Table 13
Effect of market cycles — This table lists questions relating to the impact of market cycles on earnout deals. It allowed for a single answer selection.

Are earnouts more/less applied in different market cycles?	Much less likely (1)	Less likely (2)	Neutral (3)	More likely (4)	Much more likely (5)
Downturn	☐	☐	☐	☐	☐
Boom	☐	☐	☐	☐	☐
Sideways trend	☐	☐	☐	☐	☐

Table 14
Valuation approach — This table lists questions relating to the valuation approach in earnout deals. Questions relating to the frequency of the respective earnout use allowed for a single answer selection. The final question gives respondents the chance to add additional valuation approaches that are not shown in the pre-selection.

What types of valuation techniques do you apply most often for earnout deals?	Very rarely (1)	Rarely (2)	Sometimes (3)	Often (4)	Very often (5)
Option pricing	☐	☐	☐	☐	☐
Discounted cashflow (DCF)	☐	☐	☐	☐	☐
Rule of thumb	☐	☐	☐	☐	☐
Last transactions in the market/comparables	☐	☐	☐	☐	☐
No explicit valuation applied	☐	☐	☐	☐	☐
Simulation (e.g. monte carlo)	☐	☐	☐	☐	☐
Leveraged Buyout (LBO)	☐	☐	☐	☐	☐
Are there other valuation approaches that are not mentioned?	*Text box in which respondents can enter their answer*				

Table 15
Structure of earnout deals — his table lists questions relating to the structure of earnout deals. The first question allows for a single selection while the second question allows for multiple selections.

Earnout structure questions	Answer options					
What is the most commonly used earnout trigger/performance benchmark?	Sales-related	Profitability-related	Non-financial	Other		
What parameters are usually negotiated in earnout deals (beside of valuation)?	Length	Performance benchmark	Payment method	Clauses to retain mgmt.	Exit return	Other

Table 16

Adverse behavior — This table lists questions relating to potential adverse behavior triggered by earnout transactions. All listed adverse behavior effects in the table allowed for single answer selection.

How often do you experience following behavior in earnout deals?	Very rarely (1)	Rarely (2)	Sometimes (3)	Often (4)	Very often (5)
Earnings management	☐	☐	☐	☐	☐
Goodwill impairment	☐	☐	☐	☐	☐
Short-term profit maximization	☐	☐	☐	☐	☐
Cut of discretionary spendings (e.g. R&D)/comparables	☐	☐	☐	☐	☐
Other (long-term) value-destroying actions	☐	☐	☐	☐	☐

Table 17

Cost of earnout deals — This table lists questions relating to potential costs involved in earnout transaction. All potential cost items in the table allowed for single selection. The final question allowed respondents to add comments and clarifications.

How important do you see following costs in transactions involving earnouts?	Very un-important (1)	Unimportant (2)	Neutral (3)	Important (4)	Very important (5)
Costs related to auditing and monitoring of performance target	☐	☐	☐	☐	☐
Initial set-up costs (e.g. involved lawyers)	☐	☐	☐	☐	☐
Litigation cost in case of non-convergence	☐	☐	☐	☐	☐
Do you see any other disadvantages for using earnouts?	*Text box in which respondents can enter their answer*				

Table 18

Frequency of legal disputes — This table lists questions relating to the frequency of legal disputes and actual earnout payout. Both questions allowed for single selection.

Frequency of legal disputes	Answer options					
How often do you expect legal disputes?	>90%	>75%	>50%	>25%	>10%	<10%
How often do you expect earnouts to be paid out (fully)?	>90%	>75%	>50%	>25%	>10%	<10%

Table 19

Concluding questions — This table allows respondents to add final comments and remarks.

Concluding questions			
As far as you can evaluate — do you expect that earnout use will stay flat/increase or decrease?	Stay flat	Increase	Decrease
Do you have any additional points which you would like to share?	*Text box in which respondents can enter their answer*		

References

Alexakis, D., Barbopoulos, L.G., 2020. Incentive-compatible contracts in merger negotiations: The role of acquirer idiosyncratic stock return volatility. Financ. Mark. Inst. Instrum. 29 (1), 3–40.

Allee, K.D., Hamm, S.J., Wangerin, D.D., 2011. Have Accounting Standards Affected Deal Structures in Mergers and Acquisitions? Evidence from Earnouts. Technical Report, Working Paper, Michigan State University.

Allee, K.D., Wangerin, D.D., 2018. Auditor monitoring and verification in financial contracts: Evidence from earnouts and SFAS 141 (R). Rev. Account. Stud. 23 (4), 1629–1664.

Bancel, F., Mittoo, U.R., 2004. Cross-country determinants of capital structure choice: a survey of European firms. Financ. Manag. 103–132.

Barbopoulos, L.G., Adra, S., 2016. The earnout structure matters: Takeover premia and acquirer gains in earnout financed M&As. Int. Rev. Financ. Anal. 45, 283–294.

Barbopoulos, L.G., Danbolt, J., 2021. The real effects of earnout contracts in M&As. J. Financ. Res. 44 (3), 607–639.

Barbopoulos, L.G., Danbolt, J., Alexakis, D., 2018a. The role of earnout financing on the valuation effects of global diversification. J. Int. Bus. Stud. 49 (5), 523–551.

Barbopoulos, L.G., Paudyal, K., Sudarsanam, S., 2018b. Earnout deals: Method of initial payment and acquirers' gains. Eur. Financial Manag. 24 (5), 792–828.

Barbopoulos, L., Sudarsanam, S., 2012. Determinants of earnout as acquisition payment currency and bidder's value gains. J. Bank. Financ. 36 (3), 678–694.

Bargeron, L.L., Schlingemann, F.P., Stulz, R.M., Zutter, C.J., 2008. Why do private acquirers pay so little compared to public acquirers? J. Financ. Econ. 89 (3), 375–390.

Bates, T.W., Neyland, J.B., Wang, Y.Y., 2018. Financing acquisitions with earnouts. J. Account. Econ. 66 (2–3), 374–395.

Battauz, A., Gatti, S., Prencipe, A., Viarengo, L., 2021. Earnouts: The real value of disagreement in mergers and acquisitions. Eur. Financial Manag. 27 (5), 981–1024.

Brown, S., Dutordoir, M., Veld, C., Veld-Merkoulova, Y., 2019. What is the role of institutional investors in corporate capital structure decisions? A survey analysis. J. Corp. Financ. 58, 270–286.

Cain, M.D., Denis, D.J., Denis, D.K., 2011. Earnouts: A study of financial contracting in acquisition agreements. J. Account. Econ. 51 (1–2), 151–170.

Caselli, S., Gatti, S., Visconti, M., 2006. Managing M&A risk with collars, earn-outs, and CVRs. J. Appl. Corp. Finance 18 (4), 91–104.

CMS, 2023. CMS European M&A Study 2023: Record number of deals last year despite challenging economic backdrop. https://cms.law/en/deu/publication/cms-european-m-a-study-2023. (Last accessed 10 November 2023).

Datar, S., Frankel, R., Wolfson, M., 2001. Earnouts: The effects of adverse selection and agency costs on acquisition techniques. J. Law Econ. Organ. 17 (1), 201–238.

Dutordoir, M., Merkoulova, Y., Veld, C., 2022. How do investors perceive convertible bond issuing decisions? Finance Res. Lett. 44, 102035.

Elnahas, A.M., Hassan, M.K., Ismail, G.M., 2016. Religion and mergers and acquisitions contracting: The case of earnout agreements. J. Corp. Financ. 42, 221–246.

Erel, I., 2018. Discussion: Financing acquisitions with earnouts. J. Account. Econ. 66 (2–3), 396–398.

European Patent Office, 2023. Innovation stays strong: patent applications in Europe continue to grow in 2022. URL: https://www.epo.org/en/news-events/press-centre/press-release/2023/403558. (Last accessed 10 November 2023).

Ewelt-Knauer, C., Gefken, J., Knauer, T., Wiedemann, D., 2021. Acquirers' cultural background and the use of earnouts. J. Account. Auditing Financ. 36 (1), 30–55.

Ewelt-Knauer, C., Knauer, T., Pex, S., 2011. Ausgestaltung und Einsatzbereiche von Earn-Outs in Unternehmenskaufverträgen. Schmalenbachs Z. betriebswirtschaftliche Forschung 63 (4), 371–400.

Gompers, P., Kaplan, S.N., Mukharlyamov, V., 2016. What do private equity firms say they do? J. Financ. Econ. 121 (3), 449–476.

Graham, J.R., Grennan, J., Harvey, C.R., Rajgopal, S., 2022. Corporate culture: Evidence from the field. J. Financ. Econ. 146 (2), 552–593.

Graham, J.R., Harvey, C.R., 2001. The theory and practice of corporate finance: Evidence from the field. J. Financ. Econ. 60 (2–3), 187–243.

Hou, Q., Jin, Q., Yang, R., Yuan, H., Zhang, G., 2015. Performance commitments of controlling shareholders and earnings management. Contemp. Account. Res. 32 (3), 1099–1127.

Kohers, N., Ang, J., 2000. Earnouts in mergers: Agreeing to disagree and agreeing to stay. J. Bus. 73 (3), 445–476.

Kohli, R., Mann, B.J.S., 2013. Analyzing the likelihood and the impact of earnout offers on acquiring company wealth gains in India. Emerg. Mark. Rev 16, 203–222.

Reuer, J.J., Shenkar, O., Ragozzino, R., 2004. Mitigating risk in international mergers and acquisitions: the role of contingent payouts. J. Int. Bus. Stud. 35 (1), 19–32.

Reuters, 2023. Telecom Italia says KKR has agreed to govt request to extend bid for grid. URL: https://www.nasdaq.com/articles/telecom-italia-says-kkr-has-agreed-to-govt-request-to-extend-bid-for-grid. (Last accessed 31 July 2023).

Statista, 2023. Anzahl der boersennotierten Unternehmen in Deutschland in den Jahren von 1975 bis 2020. URL: https://de.statista.com/statistik/daten/studie/1203613/umfrage/anzahl-der-boersennotierten-unternehmen-in-deutschland/#:~:text=Anzahl%20der%20b%C3%B6rsennotierten%20Unternehmen%20in%20Deutschland%20bis%202020&text=Im%20Jahr%202020%20waren%20438%20Unternehmen%20in%20Deutschland%20an%20der%20B%C3%B6rse%20gelistet. (Last accessed 10 November 2023).

Tao, Q., Liu, M., Hu, S., Zhang, Y., 2022. Is a promise a promise? Analyzing performance commitment in acquisitions and target firm performance. Eur. J. Finance 28 (4–5), 487–513.

Tavares-Gärtner, M., Pereira, P.J., Brandão, E., 2018. Optimal contingent payment mechanisms and entrepreneurial financing decisions. European J. Oper. Res. 270 (3), 1182–1194.

Trahan, E.A., Gitman, L.J., 1995. Bridging the theory-practice gap in corporate finance: a survey of chief financial officers. Q. Rev. Econ. Finance 35 (1), 73–87.

Viarengo, L., Gatti, S., Prencipe, A., 2018. Enforcement quality and the use of earnouts in M&A transactions: International evidence. J. Bus. Financ. Account. 45 (3–4), 437–481.

Yuan, H., Gao, C., Shi, H., 2020. Failure in performance commitment and goodwill impairment: evidence from M&As. China J. Account. Stud. 8 (2), 183–213.