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## Putting Your Money Where Your Mouth Is: The Performance of Earnouts in Corporate Acquisitions

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PUTTING YOUR MONEY WHERE YOUR MOUTH IS:  
THE PERFORMANCE OF EARNOUTS IN CORPORATE  
ACQUISITIONS

*Brian JM Quinn\**

*This Article seeks to answer the question whether earnouts really serve to respond to adverse selection, as commonly believed, or if alternatively, they better address problems created by symmetric uncertainty. To answer this question, I conduct difference of means tests for fair value estimates of earnouts at the time of acquisition and during the post-closing period. To the extent sellers rely on earnouts during the pre-contractual period to signal unobservable information about their own quality to an acquirer, then post-closing fair value estimates should increase as acquirers confirm seller pre-signing statements. In fact, I do not find significant differences in the fair value disclosures at the time of acquisition and during the post-closing period, which suggests that parties rely on earnouts primarily to resolve problems of uncertainty rather than adverse selection.*

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I. INTRODUCTION

This Article seeks to answer the question of whether earnouts really serve to respond to adverse selection, as commonly believed, or if

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alternatively, whether earnouts better address problems created by uncertainty. To answer this question, I conduct difference of means tests for fair value estimates of earnouts at the time of acquisition and during the post-closing period. To the extent sellers rely on earnouts during the pre-contractual period to signal unobservable information about the sellers' own quality to an acquirer, then post-closing fair value estimates should increase as acquirers confirm seller pre-signing statements. In fact, I do not find significant differences in the fair value disclosures at the time of acquisition and during the post-closing period, which suggests that parties rely on earnouts primarily to resolve the problem of uncertainty rather than adverse selection.

Previous studies have identified earnout provisions in merger agreements as possible contractual responses to the problem of adverse selection in the context of corporate acquisitions.<sup>1</sup> According to this account, sellers have private information about themselves that they are unable to credibly convey to potential acquirers. In the absence of a credible information signal, a high-quality seller may be unable to overcome the buyer's presumption that there is hidden negative information about the seller. A seller's inability to verifiably demonstrate value may impede consummation of a potentially value-enhancing transaction. Financial economists suggest that high quality sellers rely on the earnout as a mechanism for sellers to signal private information about their quality to potential acquirers.<sup>2</sup> By deferring the ultimate valuation of the target until a point in time after the buyer is able to confirm the seller's pre-contractual statements, a high quality seller may be able to rely on an earnout mechanism to demonstrate her confidence in the firm's value.<sup>3</sup> Because an earnout provision is costly to sellers who know they are low quality sellers, those sellers should be

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1. See, e.g., Matthew D. Cain, David J. Denis & Diane K. Denis, *Earnouts: A Study of Financial Contracting in Acquisition Agreements*, 51 J. ACCT. & ECON. 151 (2011); Ninon Kohers & James Ang, *Earnouts in Mergers: Agreeing to Disagree and Agreeing to Stay*, 73 J. BUS. 445 (2000); Srikant Datar, Richard Frankel & Mark Wolfson, *Earnouts: The Effects of Diverse Selection and Agency Costs on Acquisition Techniques*, 17 J. L.ECON. & ORG. 201 (2001); see also ROBERT F. BRUNER, APPLIED MERGERS & ACQUISITIONS 614 (2004); Roberto Ragozzino & Jeffrey J. Reuer, *Contingent Earnouts in Acquisitions of Privately Held Targets*, 20 J. MGMT. 1 (2009). Those of us in the legal academy who teach "Deals" classes often treat earnouts as contractual responses to asymmetric information.

2. See generally Cain et al., *supra* note 1; Datar et al., *supra* note 1; Kohers & Ang, *supra* note 1; see also Raggazinno & Reuer, *supra* note 1. All of these sources endorse the adverse selection/signaling hypothesis.

3. Victor P. Goldberg, *Economic Reasoning and the Framing of Contract Law: Sale of an Asset of Uncertain Value* 11 (Ctr. for Law & Econ. Studies, Working Paper No. 164, 2000), available at [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=216649](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=216649) (making the claim that earnouts are a contractual response to adverse selection); see also VICTOR GOLDBERG, FRAMING CONTRACT LAW: AN ECONOMIC PERSPECTIVE 143 (2006) [hereinafter *Framing Contract*] (making similar claim with respect to earnouts as contractual responses to adverse selection).

expected to avoid agreeing to receive contingent payments. Thus, the earnout provision may permit a high quality seller to “put her money where her mouth is” and thus credibly convey hidden information about her quality to prospective buyers.<sup>4</sup>

A recent example illustrates the point that earnouts can help parties reach agreement on valuation issues. In April 2011, Sanofi, S.A. acquired Genzyme Corp.<sup>5</sup> During merger negotiations, the parties had a fundamental disagreement over Genzyme’s valuation. Genzyme had previously experienced a number of difficulties in the production plants for its Cerezyme and Fabrazyme products. Genzyme management believed they resolved these serious production issues. These problems, however, had a materially negative impact on the valuation of the firm.<sup>6</sup> Genzyme’s management also believed that Lemtrada, a drug in the company’s development pipeline, had the potential to be extremely profitable for the firm.<sup>7</sup> For its part, Sanofi was less sanguine about the prospects of these products to contribute to the firm’s bottom line or that Genzyme had overcome its production problems. In order to bridge these differences, the parties structured the merger consideration in this transaction in the following manner: the first component consisted of a cash payment equal to \$74 per share payable at closing.<sup>8</sup> The second component was a contingent payment of up to \$14 per share payable after the closing upon Genzyme’s achievement of certain regulatory and financial milestones.<sup>9</sup> The contingent payment in this case helped

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4. JAMES C. FREUND, ANATOMY OF A MERGER 206 (1975). *Cf.* Datar et al., *supra* note 1, at 208. Simple assertions by the seller lack credibility in the context of negotiations and may be interpreted as “cheap talk” unless the seller is able to convey the information credibly. In order to convey information credibly, the statement must come at some cost to the speaker. R. PRESTON MCAFEE, COMPETITIVE SOLUTIONS: THE STRATEGIST’S TOOLKIT 376–77 (2002).

5. *Genzym Revenues Grow in First-Quarter 2011*, GENZYME (Sept. 10, 2012, 7:10 PM), <http://www.businesswire.com/news/genzyme/20110427006998/en>.

6. *Genzyme Shares Fall on FDA Plant Inspection Plans*, ASSOCIATED PRESS, Mar. 20, 2010, available at [http://www.boston.com/business/healthcare/articles/2010/03/25/genzyme\\_shares\\_fall\\_on\\_fda\\_plant\\_inspection\\_plans/](http://www.boston.com/business/healthcare/articles/2010/03/25/genzyme_shares_fall_on_fda_plant_inspection_plans/).

7. *See Timeline: Sanofi’s Quest for U.S. Biotech Genzyme*, REUTERS, Feb. 15, 2011, <http://www.reuters.com/article/2011/02/15/genzyme-sanofi-timeline-idUSN1519571120110215>.

8. Albertina Torsoli & Meg Tirrell, *Sanofi–Genzyme Deal Worth \$20.1 Billion*, SFGATE, Feb. 17, 2011, <http://www.sfgate.com/business/article/Sanofi-Genzyme-deal-worth-20-1-billion-2474621.php>.

9. *Id.* The contingent payment took the form of a contingent value right (CVR), a registered security. The CVR adopted in the Sanofi–Genzyme transaction is a form of earnout that is more common in the sale of public companies than in the sale of private companies. Genzyme, Questions and Answers Regarding the CVR (Form 8-K) (Feb. 16, 2011) [hereinafter *Genzyme Questions*], available at <http://www.sec.gov/Archives/edgar/data/732485/000095012311017162/b85162exv99waw43.htm>. Sanofi contracted to make payments to security-holders contingent upon the following milestones:

1. \$1/CVR if specified Cerezyme and Fabrazyme production thresholds are met for 2011;
2. \$1/CVR upon final FDA approval of Lemtrada;

resolve the parties' differences about production problems and revenue expectations for drugs in the Genzyme pipeline. To the extent the production issues had been resolved—as Genzyme managers assured the acquirer they were—Genzyme shareholders would receive additional value. To the extent the pipeline drugs lived up to the expectations of Genzyme's management, that success would be reflected in an increase in the ex post valuation of the seller as demonstrated by an increase in the contingent payment obligation. If Genzyme failed to perform to expectations, Sanofi would not be required to make additional payments. By deferring the ultimate determination of value until a point in the future, both the buyer and the seller were able to proceed with the deal notwithstanding unresolved differences with respect to valuation.<sup>10</sup>

There are two competing hypotheses to explain the motivation for parties' reliance on earnouts in merger agreements. Financial economists and legal scholars commonly believe that earnouts are a contractual response to adverse selection. According to this theory, earnouts play an important role in eliciting hidden information from sellers. By deferring the final valuation until a later point in time, sellers are able to signal their unobservable quality to potential buyers and thus resolve information asymmetries. Therefore, when Genzyme's managers agreed to defer some portion of the consideration, they may be signaling private information to Sanofi. According to the competing hypothesis, earnouts do not play a role in conveying information between the parties. Rather, earnouts respond to the problem of uncertainty present in merger transactions. Earnouts resolve uncertainty by assigning the risk of a negative outcome to the seller and therefore facilitate the parties in reaching an agreement.

To date, the academic literature on the question of earnout provisions has focused largely on the adverse selection hypothesis as the best explanation for the use of earnouts.<sup>11</sup> In industries and transactional

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3. \$2/CVR if global net sales revenue total \$400 million;

4. \$3/CVR if global net sales revenue total \$1.8 billion;

5. \$4/CVR if global net sales revenue total \$2.3 billion; and

6. \$3/CVR if global net sales revenue total \$2.8 billion.

10. Earnouts and contingent compensation like the one used in the Sanofi–Genzyme transaction are relatively common provisions in merger agreements. The *2011 Private Target Deal Points Study* reports that earnout provisions are present in 38% of agreements in their sample of private company sellers. AMERICAN BAR ASSOCIATION, 2011 PRIVATE TARGET MERGERS & ACQUISITIONS DEAL POINTS STUDY 20 (2012) [hereinafter ABA]; see also Ragozzino & Reuer, *supra* note 1 (noting similarly high levels of contingent payment mechanisms when the seller is a private company). The *2011 M&A Deal Terms Study* by Shareholder Representative Services conducted a review of 196 transactions with private company targets. In that survey, 23% of the transactions included a post-closing contingent payment mechanism. SHAREHOLDER REPRESENTATIVE SERVICES, 2011 M&A DEAL TERMS STUDY 18 (2011).

11. See, e.g., Cain et al., *supra* note 1, at 13; Datar et al. *supra* note 1; Kohers & Ang, *supra* note

situations where divergences in information between buyers and sellers are expected to be more extreme, buyers and sellers are more likely to rely on earnout provisions to bridge the valuation gap.<sup>12</sup> Empirical evidence also supports the argument that the structure of earnout terms is intentionally designed to address the most critical sources of information asymmetries between buyers and sellers.<sup>13</sup> This previous work generally supports an inference that earnouts exist to signal unobservable quality in response to adverse selection. Consequently, the adverse selection hypothesis has become the dominant hypothesis in thinking about the role of contingent payments in merger agreements.

Until recently, post-closing data related to earnouts has been extremely limited. What happened to sellers during the post-closing period was not transparent to outside observers. As a result, the range of questions that earlier studies could address was relatively narrow. Gaps in the data meant that although one might be able to predict when parties are more likely to adopt contingent payment mechanisms in an acquisition, there was no reliable assessment of whether in fact parties relied on earnouts to generate credible information signals or in response to some other problem. Not surprisingly, many gaps remain in our understanding of the role of earnout provisions in resolving the problem of adverse selection in contracting.

This Article uses newly available “fair value” accounting data to help answer the question of whether sellers use contingent payment mechanisms in merger transactions to signal private information about their hidden value to potential buyers.<sup>14</sup> New fair value accounting rules require acquirers to make disclosures about the expected value of contingent payments related to merger transactions.<sup>15</sup> This new visibility into the post-closing period permits outside observers to test the power of earnouts to overcome information asymmetries and to make some inferences about the role contingent payments play in potentially resolving adverse selection problems. I conduct difference of means tests on the fair value data to determine whether acquirers report learning new positive information about sellers during the post-closing period and whether sellers appear to rely on earnouts to signal hidden information to acquirers. A significant conclusion from the fair value data, one that contradicts previous findings, is that earnouts do not appear to function as credible information signals for high quality sellers

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1; *see also* Raggazino & Reuer, *supra* note 1, at 3.

12. Datar et al., *supra* note 1, at 216–20.

13. Cain et al., *supra* note 1, at 32.

14. *See generally* FINANCIAL ACCOUNTING FOUNDATION, STATEMENT OF FINANCIAL ACCOUNTING STANDARDS NO. 141 (2007) [hereinafter *SFAS 141R*].

15. *Id.* at 67–73.

who might rely on them to overcome adverse selection.

According to acquirer disclosures, during the first eight quarters following the announcement of the transaction, the average fair value of contingent payments reported by acquirers declined from 70% of the nominal value of the earnout to just under 55% of the nominal value. Similar declines are present across a variety of industrial sectors and contracting scenarios. If sellers were relying on earnouts to signal private information, we would expect to see acquirers systematically confirm these statements during the post-closing period, thus providing a self-enforcing separating equilibrium between high and low quality sellers. The fair value data observed here suggests acquirers are not learning new information that might confirm pre-signing seller statements during the post-closing period. If earnouts do not permit high quality sellers to sort themselves from low quality sellers, earnouts lose one of the most important functions attributed to them by previous studies.

The new fair value data provides support for the competing uncertainty hypothesis. Where buyers and sellers may have different estimates for the probabilities of future events or states of the world due to uncertainty, these differences can generate transaction costs between the buyer and sellers. The existence of such transaction costs in the merger agreement may violate the basic assumptions of efficient pricing theory and thus be an obstacle to successful contracting.<sup>16</sup> Where symmetrical uncertainty rather than asymmetric information is the concern, the earnout may be an example of a contractual device that lawyers use to reduce transaction costs associated with uncertainty and create value for their clients.<sup>17</sup> By reducing symmetrical uncertainty faced by parties in a transaction and assigning the probability of a negative outcome to sellers, earnouts can improve pricing efficiency.<sup>18</sup>

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16. Gilson observed that the acquisition of a corporation is nothing more than the acquisition of a capital asset. If that is true, then an efficient price for such an asset could be obtained through the application of an asset pricing model. Ronald J. Gilson, *Value Creation by Business Lawyers: Legal Skills and Asset Pricing*, 94 YALE L. J. 239, 241–47 (1984).

17. In his well-known article on value creation by lawyers, Professor Gilson studied the earnouts as a contractual device that can be used to create value:

My hypothesis about what business lawyers really do—their potential to create value—is simply this: Lawyers function as transaction cost engineers, devising efficient mechanisms which bridge the gap between capital asset pricing theory’s hypothetical world of perfect markets and the less-than-perfect reality of effecting transactions in this world. Value is created when the transactional structure designed by the business lawyer allows the parties to act, for that transaction, as if the assumptions on which capital asset pricing theory is based were accurate.

*Id.* at 255.

18. Professor Gilson argued that earnouts assist parties in reaching efficient prices by resolving the problem of uncertainty in transactions. *Id.* at 263–64.

The earnout may thus help facilitate contracting while not necessarily generating new information or resolving any adverse selection problem. To the extent the new fair value data does not support the adverse selection hypothesis, these results also inform the nascent study of transactional law, which posits that earnouts play an important role in generating pre-contractual information.

This Article proceeds as follows: Part II describes the earnout mechanism as it is commonly used in merger agreements. Part III provides a brief overview of the competing hypotheses, adverse selection and uncertainty, to explain the reliance of parties on earnouts in merger agreements. Part IV examines the contributions of financial economists who have examined the prevalence of earnouts and the structure of consideration in merger agreements. In general, these previous studies have largely supported the proposition that earnouts are a contractual response to adverse selection in the deal making process. Part V provides an assessment of the fair value data for contingent payments using difference of means tests. Part VI draws general conclusions from the fair value data. In particular, the fair value data does not support the claim that earnouts are contractual responses to the problem of adverse selection. The competing uncertainty hypothesis is a more likely explanation for parties' reliance on the earnout provision. Finally, Part VII poses some remaining questions and alternative interpretations.

## II. THE EARNOUT MECHANISM

An earnout provision is a contractual provision in a merger agreement that creates a contingent payment obligation for the acquirer. The contingency is payable upon the seller achieving certain targets, financial or nonfinancial, during the post-closing period. From the point of view of the buyer and seller, the goal of the earnout is to overcome significant valuation differences that may come between the parties during negotiations and prevent them from reaching agreement.<sup>19</sup> Through a contingent payment structure, the parties agree to disagree and defer the ultimate valuation question until a later point in time when the uncertainties with respect to valuation have been resolved.<sup>20</sup> The earnout falls into a broader category of post-closing pricing adjustments that includes other devices like contingent value rights, escrows, indemnity funds, working capital adjustments, and bonus plans, among

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19. See, e.g., BRUNER, *supra* note 1, at 613–17 (observing that differences with respect to expectations of future performance is a source of disagreements during acquisition negotiations); *Framing Contract*, *supra* note 3; Gilson, *supra* note 16, at 241–43.

20. See generally Gilson, *supra* note 6, at 263–65; FREUND, *supra* note 4, at 203–23.



others.<sup>21</sup> All these provisions alter the structure of consideration in the merger transaction to create some opportunity for an ex post settling up.<sup>22</sup> The opportunity for an ex post settling up is a central feature of the earnout provision.

Corporate acquisitions are highly complex transactions that often involve large amounts of private information. This private information may relate to the future prospects of the seller or status of the seller's product that may be known only to the seller. Although buyers engage in significant due diligence, it may be impossible, without great effort, for a buyer to uncover all of the private information that a seller may possess. To the extent the seller's private information is negative, a seller may have an incentive to shade it or downplay its importance. Sellers may also find it difficult to convey positive information to the buyer in a way that is credible.<sup>23</sup> In addition to information problems, there may also be fundamental disagreements about the future of the seller or the seller's industry that can negatively impact the acquirer's valuation of the seller.<sup>24</sup> These fundamental disagreements often reflect the high degree of uncertainty that is present in a complex merger transaction. Consequently, buyers and sellers may find themselves unable to agree on an appropriate valuation for the seller. By providing parties with an ex post opportunity to settle up, the earnout provision helps fill the valuation gap between buyers and sellers generated either by information asymmetries or uncertainty. In effect, the parties rely on the contingent payment mechanism to come to a final determination of the sellers during the post-closing period after the acquirer has had an opportunity to learn the seller's private information or after uncertainties affecting valuation have been resolved.

The content of earnout provisions are extremely heterogeneous and

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21. BRUNER, *supra* note 1, at 610; E. THOM RUMBERGER, JR. ET AL., *THE ACQUISITION AND SALE OF EMERGING GROWTH COMPANY: THE M&A EXIT* § 5 (2009); Leigh Walton & Kevin D. Krebs, *Purchase Price Adjustments, Earnouts, and Other Purchase Price Provisions* (Dec. 2007) (unpublished manuscript) (on file with author).

22. Escrows and indemnity funds provide for clawbacks in the event it turns out at some point following closing that the seller's representations and warranties were not true when made. In their traditional CVRs use provide for additional post-closing payments to the seller in the event the acquirer's stock—its acquisition currency—is not as valuable post-closing as had been anticipated at the time of the transaction. RUMBERGER, *supra* note 21, § 9. The CVR as described here differs from the CVR described in the Genzyme/Sanofi transaction. The Genzyme/Sanofi CVR is better described as a tradable earnout security.

23. Mere statements by the seller revealing positive private information about the seller, without more, may be misinterpreted by the potential buyer as being no more than "cheap talk" and therefore not a credible source of information about the seller. See Joseph Farrell & Robert Gibbons, *Cheap Talk Can Matter in Bargaining*, 48 J. ECON. THEORY 221 (1989) (arguing however that although talk without the consequences of potential sanction is expected to be uninformative, under some circumstances, cheap talk can be useful in bargaining).

24. See generally Gilson, *supra* note 16; FREUND, *supra* note 4.

context dependent. However, earnout provisions have certain common features that can be found in all such provisions. First, earnout provisions tie the payment of additional merger consideration to the seller's accomplishment of certain specified targets or milestones during the post-closing period.<sup>25</sup> Earnout targets are often proxies for seller or seller product performance and fall into one of two general categories: financial or nonfinancial targets.<sup>26</sup> Financial targets may include some measure of top-line revenues, cash flow, EBITDA, profitability, or other costs that can be directly tied back to the financial performance of the seller.<sup>27</sup> Nonfinancial targets may include some nonfinancial proxy for revenue—for example, unit sales or licenses. Alternatively, nonfinancial targets may include market share targets, or specific customer-oriented goals. Nonfinancial targets may also include certain technological achievements or regulatory approvals, such as FDA approval for medical devices and pharmaceutical products.<sup>28</sup>

Second, parties may negotiate triggers for contingent payments in a number of forms: sliding scale, cliffs, or binary. Binary triggers are common and relatively easy to administer. Binary triggers authorize payment of the earnout only upon the meeting of the stated milestone. Nonfinancial targets, like regulatory approval, are amenable to binary payment milestones. A product either receives regulatory approval and is therefore valuable to the acquirer or it does not and is therefore less valuable. For example, one of the payment triggers in the Genzyme earnout was related to the government approval for a new drug in the Genzyme pipeline.<sup>29</sup> The uncertainty about the prospect of receiving government approval had a material effect on the acquirer's valuation of the seller. The source of that uncertainty may have been endogenous—the seller had information about the likelihood of receiving government approval that it was unable to credibly convey to the acquirer—or it may have been exogenous, a result of symmetrical uncertainty.

Though binary milestones are appropriate in some circumstances, they may not be appropriate all the time. Binary milestones may sometimes run afoul of other incentive issues. For example, if it becomes apparent to the seller that she will not be able to achieve the milestone, the seller may have little incentive to exert any efforts to meet the goal. In response to this potential problem, drafters sometimes rely on incremental milestones or sliding scale payments. Incremental

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25. RUMBERGER, *supra* note 21, § 5:60–74.

26. *See id.*; Walton & Krebs, *supra* note 21; BRUNER, *supra* note 1, at 610.

27. ABA, THE M&A PROCESS: A PRACTICAL GUIDE FOR THE BUSINESS LAWYER 147–48 (2005).

28. *See generally* Walton & Krebs, *supra* note 21; BRUNER, *supra* note 1, at 610–11.

29. *Genzyme Questions*, *supra* note 9.

milestones recognize that there may be negative incentive effects associated with a “cliff.”<sup>30</sup> The Genzyme contingent payment also included a series of incremental milestones tied to various levels of revenues achieved by the seller.<sup>31</sup> Sliding scale triggers are a further variation on the incremental milestones. Sliding scale payments do away with the potentially negative incentive effects of a cliff by acting like royalties, payable as a percentage of revenue, or profits or some other continuous variable that the parties have identified. Of course, the downside of such an approach is that it rewards satisficing behavior by sellers rather than incentivizing maximization of the threshold targets by sellers.

Third, the length of earnouts typically varies anywhere between one and five years. In general, the term of the earnout provision should be long enough to resolve the uncertainty that caused the fundamental disagreement over valuation.<sup>32</sup> Fourth, the size of an earnout relative to the total consideration in the transaction also varies. In general, the size typically reflects the degree of uncertainty between the parties with respect to the seller’s value.<sup>33</sup> To the extent the duration and the size of the earnout are long and large enough to overcome the uncertainty that gives rise to the valuation differences between the parties, the earnout mechanism is an appropriate device to address valuation disagreements.

In addition to questions of size and duration of the earnout, the degree of autonomy and control over the seller’s business during the post-closing period is often central to the negotiation of the provision. Control and autonomy are important because the likelihood that the seller’s shareholders will receive any contingent payments is tied to the ability of continuing employees to take actions that will maximize the seller’s value with respect to the earnout targets.<sup>34</sup> To the extent selling shareholders will not continue their involvement with the seller post-closing and to the degree buyers do not to keep the seller apart from the parent, buyers may face incentives to undermine the implementation of the earnout in an effort to reduce their payment obligations under the earnout provision—a moral hazard.

### III. COMPETING HYPOTHESES: ADVERSE SELECTION AND UNCERTAINTY

Practitioners often refer to the “valuation gap” that comes between

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30. See generally Walton & Kreb, *supra* note 21.

31. Genzyme Corp., Contingent Value Right Agreement (Exhibit to Form 8-K) (Mar. 6, 2010).

32. See Cain et al., *supra* note 1, at 151; Gilson, *supra* note 16, at 268–69.

33. See Cain et al., *supra* note 1, at 151–53; Gilson, *supra* note 16, at 267–69.

34. See generally Walton & Kreb, *supra* note 21; BRUNER, *supra* note 1, at 610–13; RUMBERGER, *supra* note 21, § 5:60–65.

buyers and sellers during merger negotiations.<sup>35</sup> The valuation gap refers to the pricing difference between what the seller believes itself to be worth and what the buyer is willing to pay. The earnout is a contractual response to this valuation gap and helps parties bridge their differences. There are two competing hypotheses to explain why the earnout mechanism is able to resolve the differences between parties. The dominant hypothesis is advanced by financial economists and legal scholars who believe the earnout is a contractual response to adverse selection. According to this view, by resolving information asymmetries, the earnout helps parties overcome contracting challenges that might otherwise inhibit parties coming to agreement. The second hypothesis is advanced by practitioners and legal scholars who believe the earnout mechanism resolves the problem of pre-contractual uncertainty rather than adverse selection. In this view, symmetrical uncertainty, rather than adverse selection, is the cause of the contracting challenge. By creating uniform expectations about future events, parties are able assign the costs of adverse outcomes to the party best able to accept them and proceed to agreement.

Professor George Akerlof analyzed the problem of adverse selection in his well-known paper on the “lemons market.”<sup>36</sup> A lemons market arises when, prior to contracting, it is expensive or otherwise difficult for acquirers to accurately distinguish between high quality and low quality sellers.<sup>37</sup> Because buyers are unable to distinguish between sellers, they offer only the average price for a pool including both high and low quality types. If left unresolved, high quality sellers exit the market, leaving only low quality sellers, and the lemons market collapses. Professor Akerlof illustrated this problem by proposing a thought experiment with a used car market where the sellers had information about the quality of the car they had available for sale that was unavailable to potential buyers.<sup>38</sup> Potential acquirers knew only that the pool of used cars available for sale included both low quality and high quality cars. Consequently, potential acquirers price their offers equal to the expected value of a pool of sellers that includes both low and high quality sellers. High quality sellers know their own valuations and withhold their cars from the market, leaving only low quality cars, or lemons, in the market.<sup>39</sup> In a market where high quality sellers are unable to distinguish themselves from low quality sellers, this

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35. See, e.g., FREUND, *supra* note 4, at 214–17.

36. George A. Akerlof, *The Market for “Lemons”: Quality Uncertainty and the Market Mechanism*, 84 Q. J. ECON. 488 (1970).

37. See ROBERT COOTER & THOMAS ULEN, *LAW & ECONOMICS* 48 (6th ed. 2012).

38. Akerlof, *supra* note 36, at 489–92.

39. See *id.* at 489–97.

information asymmetry can mean that otherwise socially valuable transactions do not go forward.

Sellers understand this problem and can engage in signaling behavior to overcome adverse selection.<sup>40</sup> In order for signals to help buyers and sellers overcome the problem of adverse selection, the seller must be able to convey information about its unobservable quality to the buyer. The distinguishing feature of a credible signal is the cost to low quality types who make the statement. This cost feature creates separation in the marketplace between high and low quality types.<sup>41</sup> Because signals are costly to low quality sellers, sellers who know they are a low quality type have incentives to avoid making such statements.<sup>42</sup> High quality sellers, on the other hand, are willing and able to make relatively costly contingent statements because they know they will not likely have to incur the costs associated with incorrect statements. The relative cost differences faced by high and low quality sellers leads to a self-separation in the market as high quality sellers reveal themselves to buyers in a way that buyers can believe.<sup>43</sup> In the context of Akerlof's used cars, a seller might offer a warranty on the quality of the car as an example of a costly signal to demonstrate the seller's confidence in its unobservable quality.<sup>44</sup> A warranty would be costly to the seller if the seller had hidden information about the quality of the seller's car that indicated it was a low quality type. Therefore, low quality sellers are less likely to offer warranties and stand by their cars during the post-closing period than would a high quality seller. This commitment to a post-closing warranty obligation separates the market into high and low quality sellers in a way that buyers can easily observe.

In the merger context, costly contingent commitments by sellers may play a role similar to that of warranties in Akerlof's lemons market. Deferring payments until post-closing may permit drafters to more closely align the valuation question with the sources of potential information asymmetries. By deferring the valuation decision until

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40. See ERIC RASMUSEN, GAMES AND INFORMATION: AN INTRODUCTION TO GAME THEORY 329 (2007); see also Michael Spence, *Job Market Signaling*, 87 Q. J. ECON. 355 (1973) (modeling the hiring decision as one where there is asymmetric information with respect to the unobservable quality of applicants, with applicants investing in education in order to signal their quality to potential employers).

41. RASMUSEN, *supra* note 40, at 329; IAN MOLHO, THE ECONOMICS OF INFORMATION: LYING AND CHEATING IN MARKETS AND ORGANIZATIONS 63 (1997).

42. Cf. RASMUSEN, *supra* note 40; Spence, *supra* note 40.

43. Cf. RASMUSEN, *supra* note 40; Spence, *supra* note 40.

44. Akerlof also suggested a number of other institutional responses to overcoming adverse selection, including branding, licensing, and franchises. See Akerlof, *supra* note 36, at 499–500. In the insurance industry, which is an industry often beset by adverse selection problems, insurance companies rely on copayments and deductibles to help resolve the problem of adverse selection. COOTER & ULEN, *supra* note 37, at 49. Molho observes that advertising is a form of signaling behavior that high quality sellers can use to demonstrate unobservable quality. MOLHO, *supra* note 41 at 95.

post-closing, sellers can create credible information signals and thereby help resolve potential adverse selection problems.<sup>45</sup> On the other hand, sellers who have hidden information about their quality that suggests the seller is a low quality seller will avoid accepting contingent consideration, as such a structure is costly to the seller. Sellers with hidden information that suggests the seller is a high quality seller may be more likely to agree to accept contingent payments because they are more confident that they will receive the payments during the post-closing period when the uncertainty is resolved in their favor. By helping high quality sellers convey hidden information about the unobservable quality of the seller to potential buyers, the earnout can help separate the high quality sellers from the low quality sellers. Thus, the earnout may help resolve the problem of adverse selection.<sup>46</sup>

An alternative view on the utility of earnouts is that buyers and sellers rely on them to resolve the problem of uncertainty.<sup>47</sup> Uncertainty about future events can adversely affect the ability of buyers and sellers to reach agreement on valuation of an asset. Professor Frank Knight distinguished between “risk” and “uncertainty.”<sup>48</sup> The first represents an unknown but calculable outcome, while the second represents an outcome whose ex ante probabilities are essentially unknowable.<sup>49</sup> To the extent negative outcomes are tied to asymmetric information, including adverse selection, the ex ante probabilities of negative outcomes are calculable. Those potential negative outcomes are categorized as “risks” in a Knightian sense.<sup>50</sup> Where there are risks, the party with the structural information advantage is best positioned to accept the risks of negative outcomes because that party is in the best

45. HOWARD L. SHECTER, *Earnouts*, in ACQUIRING OR SELLING THE PRIVATELY HELD COMPANY 839 (2011) (“[W]e are worth more than you have offered and we can prove it.”).

46. Leland and Pyle observed that because entrepreneurs, or private sellers, have more information about their companies than acquirers or other outsiders, transactions with these parties are highly susceptible to the problem of adverse selection. See generally Hayne E. Leland & David H. Pyle, *Informational Asymmetries, Financial Structure, and Financial Intermediation*, 32 J. FIN. 371 (1977). Freund relies on the language of “lemons” to imply that what is at stake with respect to merger transactions is adverse selection. See FREUND, *supra* note 4, at 203.

47. BRUNER, *supra* note 1, at 615–16; see also Edward D. Herlihy et al., *Contingent Consideration in Bridging Valuation Gaps*, HARV. L. SCH. FORUM, Apr. 25, 2012, <http://blogs.law.harvard.edu/corpgov/2012/04/25/contingent-consideration-in-bridging-valuation-gaps/> (observing that earnouts are valuable contract provisions in situations of great uncertainty).

48. FRANK H. KNIGHT, RISK, UNCERTAINTY, AND PROFIT 1–10 (1921).

49. *Id.* at 1–22.

50. The finance literature has taken to use the term “ambiguity” in place of Knight’s “uncertainty” to differentiate uncertainty from more conventional risk. See, e.g., Larry G. Epstein & Martin Schneider, *Learning Under Ambiguity*, 74 REV. ECON. STUD. 1275 (2006); Zhengjing Chen & Larry Epstein, *Ambiguity, Risk, and Asset Returns in Continuous Time*, 70 ECONOMETRICA 1403 (2002); see also Peter Bossaerts, Paolo Ghirardato, Serena Guarnaschelli & William R. Zame, *Ambiguity in Asset Markets: Theory and Experiment*, 23 REV. FIN. STUD. 1325 (2010).

position to prevent the negative result from occurring. The presence of uncertainty, on the other hand, can present different obstacles to parties wishing to engage in a transaction. A characteristic of uncertainty, or ambiguity, is that neither party has an *ex ante* structural advantage with respect to knowing whether or not the adverse outcome will come to pass. In that sense, neither party is necessarily best positioned to accept the consequences of a negative outcome, as is the case when information is asymmetric.

Professor Gilson observed that where parties have fundamentally different views of the future or different preferences for risk, uncertainty may form a barrier to successful contracting because buyers and sellers may be unable to efficiently price the seller's asset.<sup>51</sup> According to Professor Gilson, asset pricing theory assumes that buyers and sellers of a capital asset, like a corporation, share joint expectations about the future.<sup>52</sup> Expectations for the future are intimately tied to risk preferences. Where parties do not share the same preferences for risk, such differences may also undermine efficient pricing. Entrepreneurs are, by their nature, more risk-loving (that is, they accept larger variances around the mean outcome) than acquirers. Where buyers and sellers do not share the same preference for risk, these differences may violate the assumption of joint expectations leading parties to find themselves unable to reach a pricing agreement. In this case, the challenge for buyers and sellers is not asymmetric information as neither side necessarily has any informational advantage with respect to the underlying probabilities of future states of the world. Rather, the challenge for parties is uncertainty and the differences between the buyer's and the seller's risk preferences.

If the parties can agree on a transaction structure that resolves uncertainty and distributes the relevant probability of an adverse event to the party with the larger preference for variation, then the parties may be able to create uniform assumptions and then generate an efficient price for the seller.<sup>53</sup> In this alternate view, uncertainty, rather than information asymmetries, presents challenges to successful contracting. Transaction structures, like earnouts, can reduce *ex ante* uncertainty and normalize joint expectations with respect to the future value of the seller.<sup>54</sup> The earnout permits buyers to reduce the likelihood that they will overpay for a seller in the event the future turns out not to be as rosy

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51. Professor Ronald Gilson argued that the role of the earnout is to resolve uncertainty and thereby permit parties to efficiently price the sale of the corporate asset. *See* Gilson, *supra* note 16, at 262–65.

52. *Id.* at 249–57.

53. *Id.* at 249–65.

54. *Id.*

as sellers predicted. Sellers bear the potential cost of their optimism. Note that sellers do not necessarily have any particular insights into future states of the world. With an earnout, the sellers simply agree to bear the costs of being wrong without generating any information for a potential acquirer.

The competing adverse selection and uncertainty hypotheses are mutually exclusive hypotheses. In order for earnouts to function as a credible information signal, earnouts have to be able to generate a separating equilibrium.<sup>55</sup> Where there is a separating equilibrium, the seller's choice of contract type, in this case, one including an earnout, conveys private information from sellers to buyers.<sup>56</sup> In a separating equilibrium, only high quality sellers should self-select into the group of sellers agreeing to earnout provisions in merger agreements. By virtue of the seller's choice of contract, buyers should be able to infer something about the unobservable quality of the seller.

If, on the other hand, the equilibrium is "pooled," with both low and high quality buyers choosing to rely on earnout provisions, the earnout loses its value as an information signal.<sup>57</sup> When *both* high and low quality sellers select the same contractual provision, potential buyers are unable to rely on that selection to infer any information about the seller's unobservable quality. Where a pooling equilibrium can be observed, contractual provisions, like earnouts, lose their signaling power. In that case, it is more likely that buyers and sellers adopting earnout provisions are doing so to resolve uncertainty. Where the parties rely on earnouts to resolve uncertainty, the parties do not intend to convey information by their choice of contractual provision. Because there is no expectation that contracts with earnouts in such case will or should reveal a separating equilibrium, a pooling equilibrium is consistent with the uncertainty hypothesis.<sup>58</sup>

#### IV. PREVIOUS EMPIRICAL RESEARCH SUPPORTS ADVERSE SELECTION HYPOTHESIS

Of the two competing hypotheses, the adverse selection hypothesis is the dominant hypothesis amongst legal scholars and financial economists.<sup>59</sup> Previous research on the prevalence of contingent

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55. See LOUIS PHILIPS, *THE ECONOMICS OF IMPERFECT INFORMATION* 122 (1988) (defining a separating equilibrium).

56. Cf. *id.*; see also RASMUSEN, *supra* note 40, at 248; ERIC A. POSNER, *LAW AND SOCIAL NORMS* 175–76 (2000) (defining a separating equilibrium).

57. See Philips, *supra* note 55 (defining a pooling equilibrium).

58. This is because the results of uncertainty are necessarily a random distribution around a mean and not necessarily weighted in favor of positive results.

59. See *Framing Contract*, *supra* note 3; Albert Choi & George Triantis, *Strategic Vagueness in*



payments in corporate acquisitions provides evidence to support the claim that contingent payment provisions may be contractual responses to the lemons problem.<sup>60</sup> Where there is unobservable information about the quality of the seller, sellers can rely on contractual devices to signal to potential acquirers the credibility of statements they make regarding their private information.<sup>61</sup> Absent a signaling mechanism like an earnout, sellers may have difficulty in credibly conveying their unobservable quality to potential buyers.<sup>62</sup> In the extreme, these difficulties might lead to otherwise valuable transactions not going forward.<sup>63</sup> Because there is evidence that parties rely on earnout mechanisms in circumstances where one expects information asymmetries to be severe, the conclusion that earnouts may be a contractual response to adverse selection seems reasonable.<sup>64</sup>

Contingent payments may act as a screening device to assist sellers to signal their unobservable quality to uninformed buyers.<sup>65</sup> Faced with the potential for adverse selection, high quality sellers cannot rely on mere statements about their underlying quality to differentiate themselves from low quality sellers in the pool of potential sellers. Such statements lack credibility. Statements can gain credibility when they are costly to the seller in the event they are incorrect.<sup>66</sup> When sellers are able to make credible statements regarding unobservable data, such statements help facilitate exchange between sellers with private information and uninformed buyers by reducing information

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*Contract Design: The Case of Corporate Acquisitions*, 119 YALE L.J. 848, 861 (2010) (observing that earnouts are a response to information asymmetries present in the merger transaction).

60. See Cain et al., *supra* note 1, at 151–53; Datar et al., *supra* note 1, at 201–04; Kohers & Ang, *supra* note 1, at 445–48; Ragozzino & Reuer, *supra* note 1, at 1–5. These studies all pre-date the implementation of SFAS 141(R). See *SFAS 141R*, *supra* note 14. As a result, they are limited to collection data on the prevalence of contingent earnout provisions from publicly available sources as well as certain attributes of the transaction. The Datar et al. and Kohers & Ang studies provided some information on the prevalence of payments. This data was taken from a small sample survey and also collected from SEC filings. At the time that data was collected there was no uniform reporting methodology, so the results of these investigations may be difficult to interpret.

61. Joseph E. Stiglitz, *The Theory of “Screening,” Education, and the Distribution of Income*, 65 AM. ECON. REV. 283, 283–84 (1975).

62. *Cf. id.*

63. See Akerlof, *supra* note 36.

64. See generally Cain et al., *supra* note 1; Datar et al., *supra* note 1; Kohers & Ang, *supra* note 1; Ragozzino & Reuer, *supra* note 1; Walton & Kreb, *supra* note 21. Previous work often uses “uncertainty” and “adverse selection” interchangeably. See, e.g., Cain et al., *supra* note 1. However, here I distinguish between adverse selection where sellers have private information with respect to a particular unknown outcome and symmetrical uncertainty where neither party has an informational advantage.

65. See *Framing Contract*, *supra* note 3; Michael Spence, *Signaling in Retrospect and the Informational Structure of Markets*, 92 AM. ECON. REV. 434 (2002); cf. Spence, *supra* note 40, at 355–60; Stiglitz, *supra* note 61.

66. See generally *Framing Contract*, *supra* note 3; Spence, *supra* note 65.

asymmetries.

Previous studies of earnout provisions have examined the appearance of contingent payment devices in merger agreements and generally found their use consistent with adverse selection hypothesis for earnout provisions. For example, Professors Kohers and Ang examined the prevalence of earnout provisions in 938 completed merger transactions with earnouts over the period 1984 to 1996 and concluded that earnouts serve two pricing functions: ensure buyers do not overpay for low quality targets (adverse selection) and reduce any symmetric uncertainty with respect to valuation.<sup>67</sup> Professors Datar, Frankel, and Wolfson also examined the use of earnout provisions in a sample of merger agreements from the years 1990–1997 to study the relationship of buyer/seller characteristics and the likelihood of an earnout.<sup>68</sup> The data suggest that in situations where buyers can reasonably expect severe information asymmetries, sellers are more likely to agree to earnout provisions. Datar et al. concluded that earnouts are a contractual response to the problem of adverse selection because sellers need credible means to signal private information to buyers.<sup>69</sup>

Professors Ragazzino and Reuer studied the occurrence of contingent payments in merger agreements and concluded that contingent earnouts permit parties to proceed with an acquisition in the face of asymmetric information. In absence of the earnout provision, Ragazzino and Reuer hypothesize that parties might be required to rely on alternate transaction structures (i.e. toeholds) to overcome adverse selection problems or not to proceed with a transaction at all.<sup>70</sup> Ragazzino and Reuer find that one of the key benefits of contingent earnouts is to reduce the risk of overpayment due to adverse selection while rewarding high quality sellers by permitting them to receive higher prices.<sup>71</sup>

In a more recent study of the structure of earnout provisions, Professors Cain and Denis conclude that the structure of earnout provisions is generally consistent with the goal of resolving “adverse selection/uncertainty” problems and generating ex post incentives to mitigate the risk of moral hazard amongst continuing shareholders.<sup>72</sup>

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67. See Kohers & Ang, *supra* note 1, at 451–65. Kohers and Ang also find evidence that contingent payments provide ex post incentives for continuing managers. *Id.* at 448. Reduction of symmetric uncertainty is consistent with Gilson’s view of the role of earnouts to resolve uncertainty and improve pricing for capital assets. See Gilson, *supra* note 16 (applying the capital asset pricing model to the pricing of acquisition targets).

68. Datar et al., *supra* note 1, at 203.

69. Datar et al., *supra* note 1, at 201–03.

70. Ragazzino & Reuer, *supra* note 1, at 1–11.

71. *Id.*

72. Cain et al., *supra* note 1, at 158–59. Cain et al. conflate the concepts of adverse selection and uncertainty. For example Cain et al. describe uncertainty in a way that is easily interpreted as

They find that the size of earnouts is correlated with certain proxies for the risk involved.<sup>73</sup> For example, they find that private targets, where information asymmetries are presumably larger, accept larger earnouts than publicly traded targets that accept earnouts, though they do not find differences in the size of earnouts where the acquirer and the target cross industries.<sup>74</sup> They also find that the earnout period is longer where a time might be helpful in resolving the uncertainty in question.<sup>75</sup> Finally, they find that when parties select particular earnout targets or triggers, parties tend to use triggers that are associated with lower information asymmetries (i.e. sales over profits).<sup>76</sup>

In general, this previous empirical work suggests that where one expects severe information asymmetries between buyer and seller, buyers and sellers rely on earnouts to overcome these problems. For example, although earnouts tend to be present in a relatively small percentage (3–7%) of the overall pool of acquisition transactions, earnouts are much more common in transactions where the seller is a private firm.<sup>77</sup> Consistent with that observation, the American Bar Association's *2011 Deal Point's* study of merger agreements involving private sellers observes that earnouts are present in 38% of transactions in its sample.<sup>78</sup> Professors Kohler and Ang found contingent earnouts to be more common in sellers with fewer shareholders where presumably selling shareholders have more private information about the seller.<sup>79</sup> Professors Datar et al. also found earnouts to be more prevalent in sales

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adverse selection when they state, "only targets who truly believe they are valued higher will be willing to accept contracts in which large portions of their payoffs are contingent on future performance. Thus, uncertainty-based models predict that earnouts will be larger when there is more uncertainty regarding target value." *Id.* at 158.

73. *Id.* at 158–160.

74. *Id.* at 159.

75. *Id.* at 158–62.

76. *Id.*

77. Datar et al., *supra* note 1, at 220 (earnouts present in 5% of private company transactions while in less than 1% of public company transactions). *See also* Kohers & Ang, *supra* note 1, at 454 (observing that 66% of their earnout sample involved private company sellers, while earnouts involving public company sellers were less than 5% of the entire sample) Ragozzino and Reuer found earnouts present in 5% of private company transactions in their sample. Ragozzino & Reuer, *supra* note 1, at 8. Cain et al. observe earnouts in 3.9% of transactions in their sample. Cain et al., *supra* note 1, at 153. Bruner provides a summary of a number of studies which surveyed the prevalence of earnouts in transactions as a whole. *See* BRUNER, *supra* note 1, at 612. In transactions involving public company targets contingent payment provisions are rare. To the extent contingent payments are present in the public company seller context, parties tend to rely on CVR rather than earnouts. If registered, the CVR can be publicly traded. Of course, a publicly traded contingent payment device may have less incentive power than an earnout because the seller can immediately dispose of the risk of adverse consequences through sales of the CVR in the public markets.

78. *See* ABA, *supra* note 10.

79. Kohers & Ang, *supra* note 1, at 446.

of corporate subsidiaries or divestitures of product lines.<sup>80</sup> The prevalence of earnout transactions in smaller, privately-held firms and divestitures of subsidiaries of public companies is consistent with a view that earnouts respond to potential adverse selection. In sales of private companies or subsidiaries, shareholders are more likely to have access to private information about the seller than in transactions involving public company sellers, where there is no reason to suspect that the widely dispersed shareholder base of the typical public company has any access to private information about the seller.

In other situations where potential acquirers presumably have less access to information about the sellers, sellers are more likely to agree to earnouts. For example, where the acquirer and the target are from two different industrial sectors, and the information hurdles are likely greater for the acquirer, one finds buyers and sellers relying more heavily on earnout provisions.<sup>81</sup> This finding is consistent with arguments that adverse selection is the motivating factor for the earnout. In certain sectors subject to rapid technical and economic growth, one might also expect there to be a significant amount of private information. In fact, transactions involving high technology and business services sector targets have a higher tendency to include earnouts than banks and other old line businesses where information about industry participants and the sector is better-known.<sup>82</sup>

On the other hand, one would expect where the acquirer has significant information about the seller, and where one expects there to be less private information about the seller, that parties would tend not to rely on transaction structures with contingent consideration. In fact, earnouts are less prevalent in transactions in industrial sectors that are characterized by larger numbers of mergers and acquisitions, suggesting that where acquirers can evaluate the seller in comparison to a large number of other recent acquisitions in the same sector, the acquirer is

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80. Datar et al., *supra* note 1, at 217–18 (rejecting the null hypothesis that the prevalence of earnouts in transactions involving subsidiaries is equal to the prevalence of earnouts in all transactions in the sample).

81. Datar et al., *supra* note 1, at 227; *see also* Reuer & Ragozzino, *supra* note 1, at 17.

82. 12.96% of computer and software (SIC 5045) in their sample employed earnouts, while 0.00% of transactions involving savings institutions (SIC 6035) employed them. Datar et al., *supra* note 1, at 222. Approximately one-quarter of the transactions employing earnouts in Kohers and Ang's sample involved private company sellers in the high-technology sector. Kohers & Ang, *supra* note 1, at 454. Ragozzino and Reuer found that approximately 50% of transactions in their sample involved earnouts with firms engaged in services, 26.5% in manufacturing and less than 10% engaged in finance, insurance, and real estate. Ragozzino, *supra* note 1, at 8. Cain et al. make a similar observation with 33% of targets with earnouts in only five industries computer programming and data processing, management and public relations services, pharmaceuticals, electronic components, and medical devices. Cain et al., *supra* note 1, at 153.

less concerned about the possible presence of hidden information.<sup>83</sup>

Finally, one would expect that in transactions that involve insiders (i.e. management buyouts) there would be fewer earnout provisions than in other types of transactions. With management on both sides of the transaction, representatives of the acquirer have as much—if not more—information than the sellers. As a result, there is little benefit or reason for the acquirer to rely on an earnout. Consistent with this, Datar et al. found that where managers participate with the acquiring group, there are very few earnouts present.<sup>84</sup>

These previous studies all support the hypothesis that parties use contingent earnouts in their merger agreements to respond to the problem of adverse selection. However, because of data limitations, the focus of these previous studies has generally been limited to claims about the profiles of acquirers and sellers who might be expected to rely on earnouts and when one might expect these provisions to appear in merger agreements. Because sellers are typically small, privately-held firms, there has been little or no information from the post-closing period about earnouts and earnout payments until recently. The next Part of this Article outlines recent changes in disclosure rules related to earnouts. These new rules require the disclosure of the expected value of all contingent payments in connection with corporate acquisitions. The additional transparency provided for by these new rules creates an opportunity to analyze the use and performance of earnouts in ways that were previously impossible.

#### V. THE FAIR VALUE DISCLOSURE OF CONTINGENT PAYMENTS

Until recently, observers have had relatively little information about the performance of earnouts post-closing. Whether earnouts helped reveal private information, resolved uncertainty, or whether earnouts were ever actually paid largely escaped analysis for lack of data. The FASB recently implemented changes in the rules governing the accounting for acquisitions, including adoption of the SFAS 141(R), which went into effect for all companies reporting according to Generally Accepted Accounting Principles (GAAP), beginning with acquisitions made after December 15, 2008.<sup>85</sup> These recent changes

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83. Datar et al., *supra* note 1, at 223, 232.

84. *Id.* at 212.

85. SFAS 141R, *supra* note 14, at vi. For a discussion of the implementation of these rules see Peter Woodlock & Gang Peng, *How Will Valuation Changes Affect M&A Deals?*, 20 J. CORP. ACC. & FIN. 49 (2009); see also PAMELA YANAKOPOULOS & RETO MICHELIZZI, *Mergers & Acquisitions—A Snapshot: Accounting For Contingent Consideration—Don't Let Earnouts Lead To Earnings Surprises*, in MERGERS & ACQUISITIONS 2010: WHAT YOU NEED TO KNOW NOW (2010); Elaine Henry, Oscar J. Holzmann & Ya-wen Yang, *Business Combinations: Accounting Standards Converge*, 19 J. CORP.

make it possible for the first time to gain insight into the post-closing performance of earnout provisions.<sup>86</sup>

Under previous accounting rules, contingent payments, like earnouts, were not required to be disclosed at the time of the acquisition. Rather, contingent payments were only accounted for at some later point in the time when the contingency became due or was written off through an adjustment to the acquirer's accounting for goodwill.<sup>87</sup> Because such adjustments were not directly tied to the merger transaction, the acquirer's financial statements were not transparent with respect to the treatment of the contingent payments. The lack of transparency in the acquirer's financial statements made it difficult for outsiders to observe the actual performance of earnouts (whether acquirers paid them or wrote them off) since contingent payments were only recorded if and when they were actually earned.<sup>88</sup> The lack of transparency sometimes made it difficult to identify whether a particular transaction included any component of contingent consideration at all.

Under the new SFAS 141(R), contingent consideration must now be disclosed separately in the footnotes of the acquirer's financial disclosures (Forms 10-Q and 10-K) and recognized at its "fair value" on the acquisition date.<sup>89</sup> The fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date.<sup>90</sup> Acquirers are required to reevaluate that fair value periodically until the contingency is resolved. When the acquirer revisits its valuation of the earnout obligation, the fair value must represent the expected value to the acquirer of the earnout obligation coming due. Gains or losses in the fair value of contingent payments are recognized explicitly on the acquirer's income statement.<sup>91</sup> Contingencies may be resolved either by making payment on the earnout, writing off the earnout, or some

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ACCT. & FIN. 73 (2008); Christine Andrews et al., *SFAS 141(R): Global Convergence and Massive Changes in M&A Accounting*, 7 J. BUS. & ECON. RES. 125 (2009); Jack T. Ciesielski & Thomas R. Weirich, *Business Combinations: New Accounting Guidance*, 20 J. CORP. ACCT. & FIN. 69 (2009).

86. In their 2001 study, Kohers & Ang collected data from the public filings on earnout payments. They recognized their data were limited by the opacity of disclosure requirements with respect to contingent payments. See Kohers & Ang, *supra* note 1. Cain et al. note that accounting changes will make a study like this one possible. See Cain et al., *supra* note 1.

87. See *SFAS 141R*, *supra* note 14; Andrews et al., *supra* note 85, at 127.

88. See Marc Asbra & Karen Miles, *The Valuation of Earn-outs and Acquired Contingencies under SFAS 141(R)*, 79 CPA J. 38 (2009).

89. See *SFAS 141R*, *supra* note 14, at 2.

90. *Id.* This approach to establishing the fair value of an earnout is consistent with fair value accounting for other intangible (Level III) assets. It relies on an acquirer's forward looking estimate of probable cash flows associated with the earnout in order to determine a fair value for the contingent liability.

91. *Id.* at 8.

combination of the two.

To the extent acquirers receive new information about the seller in the post-closing period, SFAS 141(R) creates some degree of transparency into the performance of earnouts and the acquisition of information by the acquirer. For example, after the closing of a transaction with an earnout, when the acquirer learns private information that causes the seller to change its estimation about the likelihood of the earnout becoming payable, this new information must be incorporated into the then-current fair value of the earnout. If the new information received during the measuring period indicates an increased likelihood of payment—because the target is meeting its objectives under the earnout provision or is otherwise in line to meet those objectives—the acquirer is required to increase the fair value of the earnout to reflect the increased likelihood that the acquirer will have to make payment. When the acquirer raises the fair value estimate, it must reduce its goodwill by an equivalent amount. On the other hand, if the acquirer receives information following the closing of a transaction that indicates the target is less likely to meet the earnout objectives, thus decreasing the likelihood that the acquirer will be required to make payment on the earnout, then the acquirer must reduce the fair value estimate of the earnout. When the acquirer reduces the fair value of a contingent obligation, the acquirer records an equivalent increase in earnings, or a “bargain purchase” on its income statement.<sup>92</sup> The result of these rule changes is to require acquirers to disclose to the marketplace whether they receive positive or negative information related to the seller’s progress in achieving the earnout during the post-closing period.

The example of OptionsXpress and Optionetics demonstrates how these rules are put into practice.<sup>93</sup> In 2009, OptionsXpress acquired Optionetics in a merger transaction for \$18.4 million plus contingent payments of up to \$35 million, payable in the event Optionetics met certain financial, technical, and other performance targets during the two year period following closing. Under previous accounting rules, the acquisition of Optionetics would be the kind of transaction that might receive little or no visibility. The general upfront price terms of the acquisition would be disclosed, but there may not be a disclosure of any contingent portion of the payment unless and until the contingency becomes payable. Even in the event a contingency were to become payable, it would be accounted for through an adjustment to OptionsXpress’ goodwill and not obviously tied to the Optionetics

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92. Andrews et al., *supra* note 85, at 130. The prospect that an acquirer might be able to engage in strategic behavior post-closing to undermine the seller’s ability to meet earnout targets and thereby generate accounting profits is a real one. *See* text accompanying notes 122–26, *infra*.

93. *See supra* Part II.

acquisition. The accounting for the transaction lacked transparency.

With SFAS 141(R), the accounting treatment of the transaction is more transparent, and it is easier to observe the performance of the earnout term. For example, at the time of the acquisition, OptionsXpress valued the likelihood that it would be required to make payment on earnout at \$14.5 million, or 41% of the nominal earnout amount. During the course of the first eight quarters following the initial disclosure, OptionsXpress regularly updated its fair value measurements. By the end of the first year, the fair value of the earnout had declined to \$12.13 million. As a result, one year after the merger, OptionsXpress recorded an increase in earnings on its income statement equal to the \$2.04 million decrease in the fair value of the contingent payment obligation from the initial estimate of the fair value at the time of acquisition. By the end of the second year, the fair value of the earnout declined to \$4.81 million and OptionsXpress recorded an additional increase in earnings of \$7.32 million. Ultimately, no earnout payment was made. One might infer from the decline in the fair values found in the disclosures that OptionsXpress learned information about the seller and its business during the course of the first year. This new information reduced OptionsXpress' estimate of the seller's ability to achieve the earnout goals and thereby trigger a payment.

**Figure 1**  
**OptionsXpress fair value disclosures for acquisition of Optionetics**

	E.O.	FV at Acq.	FV at Q1	FV at Q2	FV at Q3	FV at Q4
Optionetics	\$35.0	\$14.5	\$14.16	\$11.9	\$12.13	\$12.04
+/-	-	(\$20.5)	(\$0.34)	(\$2.26)	\$0.23	(\$0.09)

	FV at Q5	FV at Q6	FV at Q7	FV at Q8	E.O. Pmt	FV + Pmt
Optionetics	\$8.75	\$8.88	\$4.81	\$4.81	\$ -	\$4.81
+/-	(\$3.29)	\$0.13	(\$4.06)	\$ -	\$ -	(\$9.69)

By examining the fair value disclosures of a larger number of transactions, one can develop a near real-time assessment of the performance of contingent earnout provisions. This assessment can provide insights into the adequacy of earnouts as contractual responses to information asymmetries. If sellers are using earnouts as information signals, as new, positive information is learned during the post-closing period, one expects to see an increase in the fair value. This increase would reflect a confirmation of the seller's optimistic pre-signing statements. On the other hand, if sellers are not using the earnout mechanism to signal information to acquirers, then the pattern of post-



closing fair values should not reflect the separation pattern one expects with a credible signal.

In assessing the role played by earnout provisions, ideally one would like to be able to directly observe a seller's private information. Of course, this is not possible. However, the new disclosure rules provide a reasonable, if imperfect, approximation of the acquisition of private information during the post-closing period. Changes in the fair value of earnouts over time permit observers to make some assessments about the extent of private information present in transactions, and the role of the earnout provision as a contractual response to adverse selection. For example, if high quality sellers are using earnouts to signal to potential acquirers their unobservable value, then after closing, one would expect the acquirer to confirm the seller's statements through the acquisition of private information during the earnout's measuring period. Confirmation of the seller statements can be observed by outsiders through regular increases in the fair value of the contingent payment. On the other hand, if acquirers are unable to confirm pre-signing statements about the seller's hidden information during the measuring period, then fair values should not generate an obvious separating equilibrium.

Fair value data is a better proxy for assessing the role played by earnouts than simply payment data alone.<sup>94</sup> Fair value data includes two kinds of information. First, any payments made pursuant to the earnout provision are included in the fair value of the earnout. This payment data is usually a backward-looking assessment of whether the seller achieved the targets under the earnout provision. However, payment data alone can be misleading because the payment data by itself does not indicate whether the acquirer learned any previously hidden seller information prior to making the payment or even if the target achieved the stated earnout targets.<sup>95</sup> The mere fact that a backward-looking payment has been made does not confirm one way or the other the hypothesis that earnouts are contractual responses to the problem of adverse selection.

The second component of fair value data is a forward-looking estimate of the seller's future performance. Fair value estimates require a determination by the acquirer of the future likelihood that the seller might achieve earnout targets. Accurate estimates about the future

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94. Two previous studies have assembled some partial payment data from public filings. See Kohers & Ang, *supra* note 1; Cain et al, *supra* note 1.

95. Where a large number of the earnout recipients remain with the acquirer as continuing employees of the seller, the acquirer may have an incentive for morale reasons and others to make earnout payments even if they have not been earned. Where continuing employees have developed an expectation of receiving the earnout the cost to the acquirer of not making payment and discouraging continuing employees may be high relative to the cost of simply making a payment.

likelihood of an earnout payment becoming payable depend on information. As the acquirer learns more information about the seller, including assimilating the seller's private information during the post-closing period, the acquirer is in a better position to revise and make a more accurate estimate of the seller's likelihood to achieve the earnout targets. When positive information is added to the acquirer's total mix of information, the fair value estimate of the earnout payment should increase to reflect the addition of new, positive information. When the acquirer learns new, negative information, the acquirer lowers the fair value estimate to reflect the new estimate of the true likelihood of the seller meeting the earnout targets. As a result, changes to forward-looking fair value data are a reasonable, if not perfect, proxy for post-closing private information.

#### *A. The Sample*

In order to create the sample for this study, I conducted a search of the SDC Platinum M&A Database for acquisition transactions (mergers, asset sales, stock purchase agreements, and tender offers) involving public and private targets announced during the period from 2006 to 2009.<sup>96</sup> Because earlier work confirms that earnouts are more prevalent in transactions involving private firms, I did not include a lower dollar threshold on the transaction size for my search. I also excluded any transactions where the seller was in bankruptcy proceedings. This broad search generated an initial set of 22,000 transactions.

I narrowed this pool further to include only those transactions that disclosed an earnout component as part of the overall consideration. This reduced the pool of transactions to 738 transactions. The overall incidence of earnouts in my sample (3.35%) was consistent with those of previous studies of earnouts.<sup>97</sup> I then discarded any transactions that were announced prior to implementation of SFAS 141(R) on January 1, 2009. The total number of transactions announced during the calendar year of 2009 with earnouts for which acquirers were required to make fair value disclosures was 140.

Finally, I reduced the pool even more by eliminating transactions with foreign (47) or private (27) acquirers who were not required to make public filings. I also eliminated from the pool those transactions with U.S. acquirers who, for whatever reason, did not comply with the disclosure requirements (10). This produced a final pool of fifty-six

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96. SDC Platinum Database (available through subscription with Thomson Reuters Financial Securities Data).

97. Cain et al., *supra* note 1, at 153; Datar et al., *supra* note 1, at 220; Ragozzino & Reuer, *supra* note 1, at 8.

transactions for which the acquirers made public disclosures of the fair value of contingent payments during each of the quarterly measuring periods following announcement of the transaction. The fair value data for this sample was hand-collected from corporate 10-K and 10-Q filings.

The composition of the resulting sample is largely consistent with samples in previous studies. As with previous studies, the targets identified are predominantly private firms or divisions of public companies. Eleven transactions (19.3%) involve divestitures of subsidiaries. Only one target in the sample of fifty-six firms was a publicly traded firm.<sup>98</sup> Statutory mergers are the predominant transaction form (54%) with asset purchases and stock purchase agreements (33% and 12%, respectively) also represented.

Again, largely consistent with previous studies, 41% of transactions with an earnout involve cross-industry pairings where one might expect acquirers to be at an information disadvantage with respect to sellers. The use of earnouts is concentrated in a small number of sectors, as defined by their two-digit Standard Industrial Classifications (SIC). Just five sectors (business services (SIC73), medical devices and instruments (SIC38), engineering and management services (SIC87), pharmaceuticals and chemicals (SIC28), as well as electronics and other equipment (SIC36)) account for more than 75% of all transactions in the sample with earnouts.

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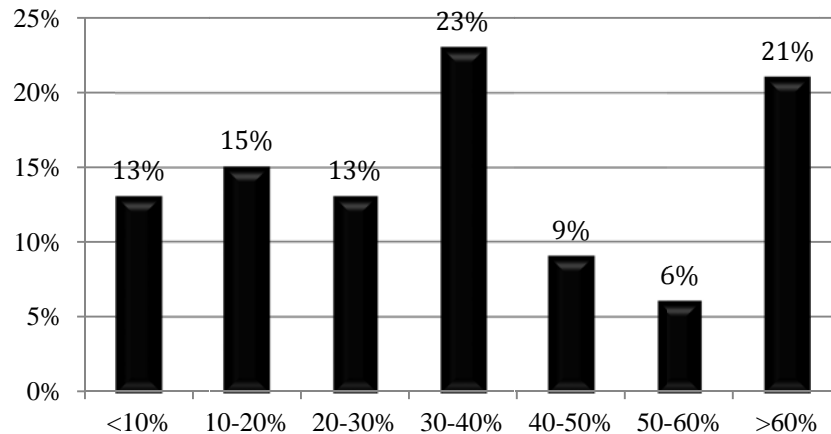
98. The single instance of a publicly traded firm using an earnout from the data set was Edwards Lifesciences Corp.

**Figure 2**  
**Two Digit SIC (Top five)**

	<u>Target</u>	<u>Acquirer</u>
Business Services (73)	16	17
Engineering & Management Services (87)	7	5
Instruments & Related Products (38)	8	6
Chemicals & Allied Prod. (28)	6	9
Electronic & Other Equipt. (36)	5	6

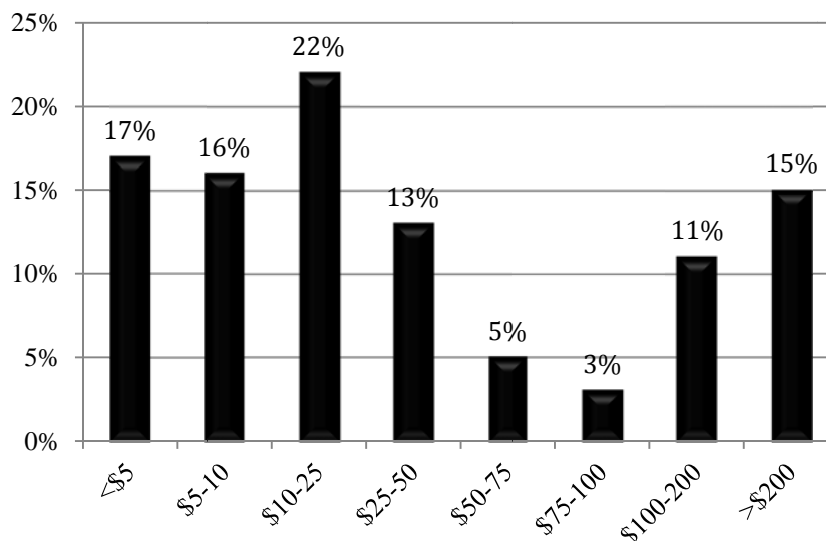
On average, the earnout component of the merger consideration is significant, comprising approximately 34.6% of the total consideration available in the transaction. In 20% of the transactions, the amount of consideration theoretically available to sellers as part of the earnout is larger than the initial consideration available in the transaction. These outsized earnout amounts are concentrated in the pharmaceuticals sector (6 of 11). There are a small number (5) of larger transactions (greater than \$200 million in total transaction value) with earnouts. Of those five transactions, four are in the pharmaceuticals sector with an earnout milestones tied to FDA approval of the target drug. In the pharmaceuticals sector in particular, the average value of transactions with earnouts is \$334 million with the size of the average earnout in that sector equal to \$229 million (68.5% of the total consideration). Reliance on the earnout in the pharmaceutical sector is consistent with an understanding that the future value of the seller is tied to events that are not yet known or where there is still hidden information with respect to the viability of the seller's product to achieve government approval. Outside of the pharmaceuticals sector, the magnitude of contingent consideration is significantly lower, representing only 30.5% of total consideration.

**Figure 3**  
**Stated Earnouts as % of Total Consideration**



While the pharmaceutical sector may rely on relatively large earnouts, the majority of earnouts are concentrated in relatively small transactions. More than 30% of transactions in the sample have a transaction value of less than \$10 million, with more than 50% of transactions having a transaction value of less than \$25 million. Approximately 75% of all transactions in the sample are less than \$100 million. This is consistent with previous observations that earnouts are present in small and private company transactions where there is presumably more private information about the seller.

**Figure 4**  
**Size of Transactions with Earnouts**



With respect to the payment triggers or milestones for earnout payments, 54% are tied to seller revenue targets. Fourteen percent are tied to FDA and/or regulatory approvals of the seller's main product or drug. An additional four percent are tied to technical targets. The balance of earnout milestones (29%) are tied to performance targets, which include some combination of revenue, profitability, technical, and other market performance targets. The average disclosed length of earnouts in the sample is 2.19 years, with approximately 39% of earnouts lasting only one year. Regulatory earnouts tend to have slightly longer durations, averaging 2.28 years. Revenue earnouts, on the other hand, tend to be shorter, with 65% of them lasting no more than one year.

In only a small number of transactions (5%) did the acquirer disclose any target management compensation as a component of the earnouts. The paucity of earnouts for continuing managers may be explained by new accounting rules that require any contingent payments tied to managers' continuing employment with the seller—and not to status as a former shareholder—be allocated as a compensation expense.<sup>99</sup> Consequently, the fair values of earnouts as currently disclosed remove any component that might be reasonably intended to resolve seller moral hazard problems. Of course, it is possible that where there are

99. See SFAS 141R, *supra* note 14.

continuing employees, a significant number of them are also shareholders. However, their status as continuing employees does not affect their ability to receive a payment pursuant to the terms of the earnout provision; therefore as compared to an employment contract with a performance bonus, the earnout is not an efficient mechanism for managing potential seller moral hazard.<sup>100</sup>

### *B. Post-Closing Performance of Fair Value Disclosures*

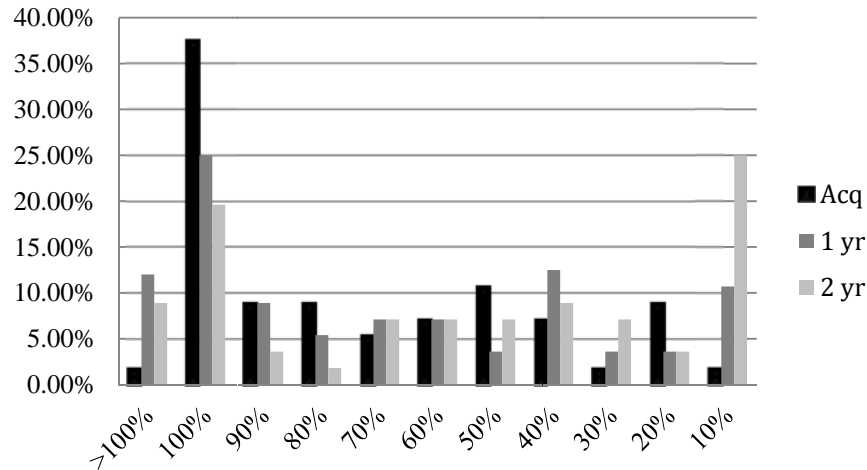
Examining the fair value disclosures may help resolve whether sellers are relying on earnouts to signal private information to potential acquirers and thus whether earnouts act as a contractual response to the problem of adverse selection, or, if in the alternative, earnouts simply resolve the problem of pre-contractual uncertainty. High quality sellers using the earnout to signal private information should exhibit a pattern of increases in fair value estimates as acquirers confirm the sellers' information during the post-closing period. Such a pattern would be evidence of a separating equilibrium and suggest that high quality sellers rely on earnouts to signal hidden information. In the alternative, if acquirers and sellers are relying on earnouts for reasons other than to signal private information—for instance, to resolve symmetrical uncertainty—then one should not observe a separating equilibrium. If uncertainty motivates the reliance on earnouts, then the post-closing performance of fair value disclosures should be similarly stochastic to reflect that motivation.

A histogram of the fair value data shows the development of fair values over time. In general, acquisition acquirers tended to be relatively optimistic about the likelihood of the seller to meet the stated earnout targets and thus trigger payments under the earnout provision. Nearly 40% of acquirers estimated that the target would be able to meet or exceed the stated value of the earnout. By the end of the second year during the post-closing period, however, acquirers were decidedly more pessimistic, with 25% of acquirers essentially writing off the entire earnout payment. To the extent one is concerned whether sellers rely on earnouts to signal private information about their unobservable quality, this large increase in write-offs following closing suggests that acquirers learn negative information in the post-closing period that does not confirm seller pre-contractual statements.

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100. See *infra* notes 122–26.

**Figure 5**  
**Fair Value Estimates as % of Nominal Earnout**



I conducted a series of difference of means tests on the fair value estimates to determine whether there are significant differences in the fair value means over time. In general, significant positive differences in fair value estimates over time would suggest that acquirers have learned positive information about the seller during the post-closing period. In fact, I do not find patterns consistent with an interpretation that acquirers are confirming positive hidden information during the post-closing period. Rather, the results are consistent with the alternate interpretation of the role of earnout. The data supports an interpretation that parties rely on earnouts to resolve pre-contractual uncertainty and not to signal information in response to adverse selection.

For example, at the time of acquisition, the average fair value of the contingent payments was estimated by acquirers to be 70.1% of the nominal earnout available. The mean fair value estimate over the course of the first year of the earnout declined to 67.8% of the nominal earnout available, including any payments made pursuant to the earnout. By the end of the second year of the earnout, the mean fair value estimate (including any payments) declined to 52.98% of the nominal earnout available.<sup>101</sup> The median fair value (including any payments) also

101. The fair value estimates include all reported payments pursuant the earnout. Almost forty percent (39.3%) of all transactions in the sample disclosed some payments pursuant to the earnout provision first four quarters following announcement of the transaction. By the end of the second year following announcement, 64.3% of all transactions report at least some payments pursuant to the earnout provision. Where there was a payment, the average payment was equal to 41.6% of the nominal earnout available during the first year and 68% of the nominal earnout available during the second year.



declined from 79.3% to 43.5% over the same time period. Had sellers been relying on the earnout to signal hidden information then one would expect the difference in means from the fair value at announcement and two years following announcement to be significant and positive. Instead, the *t*-statistic is significant (*p* value=0.006) and the mean estimate has declined over the two year measuring period.<sup>102</sup>

**Figure 3**  
**Fair Value Disclosures, All Transactions**

	Fair Value at Acquisition	Fair Value + Payments at 1 Year	Fair Value + Payments at 2 Years
Mean (All transactions)	70.1%	67.8% ( <i>p</i> value 0.618)	52.98%** ( <i>p</i> value 0.006)
**indicates significance at the 95% level.			

Although the difference in means is significant, one cannot claim that sellers are using the earnout to signal unobservable positive information about the seller. Rather than suggest that the acquirer has learned new hidden information that reveals the seller not to be a lemon, the decline in fair values may be attributed to new negative information received by the acquirer over the course of two years following closing. This result is inconsistent with an interpretation that buyers and sellers rely on earnouts to signal hidden information to potential acquirers. On the other hand, it is consistent with an interpretation that buyers and sellers rely on earnouts to resolve symmetrical uncertainty. Although earnouts may play a role in reducing uncertainty and distributing the risk of adverse outcomes, one cannot claim from the fair value data that earnouts play a role in signaling positive hidden information to acquirers prior to contracting.

Previous studies posited that information asymmetries are more extreme where acquirers and sellers come from different industrial sectors.<sup>103</sup> These studies concluded that adverse selection thus accounts for the increased likelihood of parties relying on earnout provisions in

102. Using a Wilcoxon signed rank test for small samples yields similar results: the *z* statistic for a two tailed Wilcoxon signed rank test is 2.95 (*p* value: 0.0032, *Ns/r*: 51).

103. See Datar et al., *supra* note 1; Ragazzino & Reuer, *supra* note 1.

such transactions.<sup>104</sup> Where the acquirer is from a different SIC than the seller, the acquirer may have little or no basis to make a reasonable assessment of the seller's value or its prospects prior to the acquisition. In 41.1% of transactions in the sample, the acquirer and the seller did not share the same two-digit SIC. In these transactions, the average fair value of contingent payments at the announcement of the acquisition was 71.1% of the nominal earnout available. By the end of four quarters of disclosures, the average fair value of contingent payments (net of any payments) fell to just 55.0% of the nominal earnout available. At the end of eight quarters, the fair value of contingent payments for transactions across industrial groups declined to just 40.3% of the nominal earnout available.

A two sided *t*-test for the difference in means for the fair value of earnout payments two years after announcement permits us to reject the null hypothesis that sellers from different industrial sectors as their acquirers rely on earnouts to signal hidden information. Rather than exhibit an increase in the fair value of the earnout, acquirers from different industrial sectors discounted the fair values. The *t*-statistic for the decline in the mean fair value two years after acquisition is significant and negative (*p* value 0.0004). This result suggests that acquirers received *negative* information about the seller during the post-closing period, and, to the extent acquirers were relying on earnouts to resolve adverse selection, they were unable to confirm any seller pre-signing statements.

On the other hand, where acquirers and sellers are from the same industrial code, the declines in the fair values of contingent payments are not as significant, although they do decline from 69.3% to 61.8% over the first two years. The *t*-statistic for the mean fair value for transactions in which the acquirer and the seller shared the same SIC was not significant (*p* value 0.359). This result suggests that acquirers received no information, either positive or negative, during the two years following announcement of the acquisition that would affect its initial valuation of the earnout contingency. This result is consistent with an interpretation that parties rely on earnouts to resolve uncertainties rather than adverse selection.

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104. See Datar et al., *supra* note 1; Ragazzino & Reuer, *supra* note 1.

**Figure 4**  
**Fair Value Disclosures, SIC**

	Fair Value at Acquisition	Fair Value at 1 Year	Fair Value at 2 Years
All transactions	70.1%	67.8%	52.98%**
Acquirer Same SIC	69.3%	76.7% ( <i>p</i> value 0.161)	61.8% ( <i>p</i> value 0.359)
Acquirer Difference SIC	71.1%	55.0%** ( <i>p</i> value 0.037)	40.3%** ( <i>p</i> value 0.0004)
** indicates significance at the 95% level.			

Where buyers acquire sellers from different industrial sectors, one expects there to be more information asymmetries. If the earnout played a role in helping resolve those asymmetries, one would expect to see acquirers confirm pre-signing seller statements during the post-closing period through an increase in the fair values of contingent payments. The observed decline in fair values is not consistent with an interpretation that parties rely on earnouts to overcome adverse selection. Earnouts do not appear to generate the additional positive information during the post-closing period that one might expect if the earnout were intended to signal hidden information across industrial sectors. The decline in observed fair values is consistent with the alternative theory that parties rely on earnouts to resolve uncertainty rather than signal information.

Previous studies posited that there may be particular industries (i.e. high growth technology industries or services) where information asymmetries may be more extreme. Those studies found that earnouts are more prevalent in industries where information asymmetries are thought to be more extreme.<sup>105</sup> For example, earnouts are more prevalent in transactions involving sellers in business services, high technology, medical devices and the pharmaceutical industry. In those industries, there is a plausible argument that sellers have hidden information that they might have difficulty credibly conveying to an

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105. See Datar et al., *supra* note 1; Ragazzino & Reuer, *supra* note 1.

acquirer.<sup>106</sup> With the exception of earnouts in the pharmaceuticals sector (SIC 28), the estimated fair values of earnouts declined in transactions across all sectors. *T*-tests on the fair value means of earnouts two years following announcement of the transaction permit us to reject the null hypothesis that sellers rely on earnouts to signal hidden information. With respect to all sectors represented, except the pharmaceuticals sector, the fair value data suggests that acquirers did not learn private information in the post-closing period that confirmed pre-signing seller statements. These results are consistent with an alternate hypothesis that earnouts play a role in reducing uncertainty and distributing the risk of adverse outcomes, but do not necessarily facilitate the credible transmission of hidden information between the parties prior to contracting.

**Figure 5: Fair Value Disclosures, by Two Digit SIC**

	<u>At Acquisition</u>	<u>At 1 Year</u>	<u>At 2 Years</u>
All transactions	70.1%	67.8%	52.98% **
<u>Target SIC</u>			
73. Business Services	66.8%	68.41% ( <i>p</i> value 0.813)	47.7% ( <i>p</i> value 0.154)
87. Engineering & Management Services	94.8%	81.2% ( <i>p</i> value 0.373)	52.7% ( <i>p</i> value 0.084)
38. Instruments/Medical Devices	76.4%	67.6% ( <i>p</i> value 0.526)	47.9% ( <i>p</i> value 0.064)
28. Pharmaceuticals/Chemicals	51.3%	58.2% ( <i>p</i> value 0.096)	51.8% ( <i>p</i> value 0.975)
**indicates significance at the 95% level.			

Earlier studies have also posited that transactions involving the acquisition of divisions or product lines from sellers would also be

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106. The rationale for business services having large numbers of earnouts is not likely related to adverse selection, but rather more closely related to moral hazard.

susceptible to severe information asymmetries.<sup>107</sup> Because such sales involve businesses that do not stand alone and are often highly integrated into other associated businesses, it may be difficult for potential acquirers to disaggregate and identify sources of value in these targets. As a result, sellers may have private information about the sellers' prospects that are difficult to convey credibly to buyers. The changes in the mean fair value of earnouts associated with division sales are not statistically different from zero ( $p$  value 0.904). This is consistent with an interpretation that the acquirer has not learned any information during the post-closing period that would affect the acquirer's estimate of the likelihood of the seller to meet the earnout objectives. It is also consistent with the alternate hypothesis that earnouts reduce uncertainty and distribute risk, rather than convey hidden information from sellers to buyers prior to contracting.

**Figure 6: Fair Value Disclosures, Divestiture/Not Divestiture**

	<u>At Acquisition</u>	<u>At 1 Year</u>	<u>At 2 Years</u>
All transactions	70.1%	67.8%	52.98%**
<u>Divestiture</u>	73.5%	72.7% ( $p$ value 0.955)	68.6% ( $p$ value 0.904)
<u>Not Divestiture</u>	69.2%	66.6% ( $p$ value 0.582)	49.2%** ( $p$ value 0.008)
**indicates significance at the 95% level.			

It is possible that sellers rely on particular earnout milestones to signal private information to acquirers. For example, sellers may use technical or regulatory milestones to signal their relative confidence about unobservable attributes of the seller's value. During post-closing periods, as acquirers are able to confirm seller pre-signing statements with respect to technical capacity or regulatory progress, then the fair value of contingent payments should rise to reflect this new information. However, the observed fair value data (including any payments) tied to nonfinancial milestones does not suggest the acquirers learned positive, new information during the post-closing period. The observed declines

107. See Datar et al., *supra* note 1; Ragazzino & Reuer, *supra* note 1.

suggest it is consistent with the alternate hypothesis that earnouts resolve post-closing uncertainty.

**Figure 7: Fair Value Disclosures, by Targets**

	<u>At Acquisition</u>	At 1 Year	At 2 Years
Revenue Targets	68.5%	59.2% ( <i>p</i> value 0.201)	50.5%** ( <i>p</i> value 0.023)
Performance <u>Targets</u>	66.0%	75.0% ( <i>p</i> value 0.282)	61.7% ( <i>p</i> value 0.441)
Regulatory <u>Targets</u>	70.2%	79.3% ( <i>p</i> value 0.413)	48.1% ( <i>p</i> value 0.073)
Technical <u>Targets</u>	98.9%	98.2% ( <i>p</i> value 0.500)	39.9% ( <i>p</i> value 0.298)
**indicates significance at the 95% level			

As neither party has any inherent advantage in predicting the future of the economy, targets tied to revenue performance may be better understood as resolving the problem of symmetrical uncertainty rather than adverse selection. When general economic conditions are weak, as was the case during the sample period, one expects that sellers may be unable to meet earnout targets. Thus the data is consistent with an interpretation that earnouts do not generate valuable signals but rather permit parties to shift exogenous uncertainty to one party or the other. Thus, rather than address adverse selection, earnouts tied to revenue of the seller are probably better understood as resolving uncertainty.

## VI. IMPLICATIONS

The conventional wisdom amongst the academy with respect to earnout provisions is that these provisions help guard acquirers against adverse selection in the context of an acquisition. The alternate view, common amongst practitioners, is that earnouts are a device to manage uncertainty. Although earlier studies found that earnouts are more likely to be employed by dealmakers in situations where one expects information asymmetries to be more severe, the data above suggest that sellers do not rely on earnouts to signal their unobservable quality to

acquirers.

There are two important conclusions one can draw from the fair value accounting data. First, to the extent sellers might intend to rely on earnouts to respond to the problem of adverse selection in pre-signing negotiations, earnouts appear to do a poor job of sorting high quality sellers from low quality sellers. During the post-closing period, acquirers do not systematically report receiving private information to confirm the pre-signing optimism of sellers. Because acquirers are not able to confirm pre-signing seller statements systematically, we do not observe a separating equilibrium. Without a separation between high and low quality sellers, earnouts cannot function as a credible information signal in response to adverse selection.<sup>108</sup> Consequently, the post-closing disclosure data does not support the adverse selection hypothesis.

Second, although earnouts may fail to serve a useful signaling function, this does not necessarily mean they are not valuable in the contracting process. Sellers may be relying on earnouts for reasons other than sending signals about their private information. Rather than resolve adverse selection, parties may be relying on earnouts to resolve problems of uncertainty that present themselves during the process of pricing an acquisition consistent with the uncertainty hypothesis. Resolving symmetrical uncertainty, or “bridging the valuation gap,” during the pre-contractual phase can assist parties in overcoming an important contracting challenge.<sup>109</sup> To the extent contingent payment provisions do not elicit new information but simply allocate adverse costs of uncertain events to the seller, they undertake an important distributive function that permits parties to move forward and create joint value.<sup>110</sup> By creating uniform expectations with respect to any one of a number of uncertainties, the earnout mechanism permits parties to normalize their joint expectations about the future and thus agree on a pricing formula for the seller where, in the absence of uniform joint expectations, parties might not be able to reach agreement.<sup>111</sup>

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108. In order for a signal to be valuable, sellers must all uniformly use the signal in the same manner. If sellers are not uniformly using the earnout mechanism to convey private information to potential acquirers, the earnout is unable to generate a separating equilibrium and loses its potential value as a credible information signal due to acquirer confusion. *See infra* notes 14–18.

109. *Memorandum from Arthur Wright, Jennifer Avery, and Melissa Deal on Analysis and Guidance for Use of Earnouts*, Judicial Interpretations Working Grp. of the ABA M&A Committee (Aug. 3, 2010) (on file with author).

110. Resolving distributive challenges to transactions is important. Distributive challenges can often result in parties not pursuing what are otherwise socially valuable transactions. ROBERT H. MNOOKIN ET AL., *BEYOND WINNING: NEGOTIATING TO CREATE VALUE IN DEALS AND DISPUTES* 17–23 (2000) (discussing how distributive challenges can prevent otherwise socially valuable transactions from going forward).

111. *See* Gilson, *supra* note 16.

Although essentially distributive in nature, a contingent payment that resolves pre-contractual uncertainty permits parties to engage in a value enhancing transaction. The earnout distributes the consequences of adverse outcomes to the party with the higher tolerance for it and in that way helps facilitate pricing and accomplishment of the transaction. Because sellers may have a higher tolerance for risk during the sale process, due perhaps to an optimism bias, they may be more willing to defer some portion of their compensation and accept the risk of adverse outcomes in order to accomplish the transaction.<sup>112</sup> Buyers are protected from potentially overpaying in the event the future state of the world is not as rosy as portrayed by the sellers, and sellers receive some upside in the event that they are. By resolving uncertainty in the pre-contractual phase in favor of the acquirer, earnouts can help both parties reach an efficient price without necessarily eliciting any private information about the seller.<sup>113</sup>

A key implication of these results is a suggestion for modesty in claims made of those of us who study transactional law.<sup>114</sup> The essence of the nascent study of transactional law is that economic incentives drive the contracting process, including the structure of the transaction and the content of the contracts.<sup>115</sup> By understanding these incentives

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112. Bruner notes that earnouts might also have an option value for sellers. See BRUNER, *supra* note 1, at 615–16. It may be that some sellers treat an earnout like an option. In the option model, a low quality seller may accept an out-of-the-money earnout option because it is valuable to the seller given the seller's risk tolerance, even if the probability of the earnout becoming payable is small. For a risk-loving seller there may little downside to accepting an earnout and there is potentially a large upside. My colleague, Renee Jones, calls this the "lottery effect" of the earnout.

113. See Gilson, *supra* note 16.

114. Interest by legal academics in transactional law has been growing in recent years as demonstrated by the growth of "Deals" courses as well as the establishment of a provisional transactional lawyering section by the AALS. For instance, I teach a "Deals" course at the Boston College Law School that is based on similar courses offered at Columbia Law School, Stanford Law School, as well as at a growing list of law school across the United States. In 2010, Drexel Law School sponsored the first ever transactional lawyering moot court as part of more general effort to formalize transactional lawyering skills development. In 2011, the AALS started a new section on Transactional Lawyering and Skills as part of the broader move to recognize and develop a normative approach to the teaching of transactional lawyering.

115. An approach to the study of transactional lawyering heavily influenced by the field of transaction cost economics has been taken up by many, including myself, in the years since Professor Gilson's article was first published. See, e.g., *Framing Contract*, *supra* note 3 (describing the "Deals" project); Victor Fleischer, *Regulatory Arbitrage*, 89 TEX. L. REV. 227 (2010) (proposing a theory of regulatory arbitrage based largely in transaction cost economics); Ronald J. Gilson, Charles F. Sabel & Robert E. Scott, *Braiding: The Interaction Of Formal and Informal Contracting In Theory, Practice, and Doctrine*, 110 COLUM. L. REV. 1377 (2010) (considering the effects of combining formal and informal contracting on transaction structures); Brian JM Quinn, *Asset Specificity and Transaction Structures: A Case Study of @Home Corporation*, 15 HARV. NEGOT. L. REV. 77 (2010) (analyzing the information problems that influenced the structuring of the @Home Corp.); Lisa Bernstein, *The Silicon Valley Lawyer as Transaction Cost Engineer?*, 74 OR. L. REV. 239 (1995) (applying Gilson's transactional lawyering approach to the work of lawyers in the venture capital industry); Albert Choi &



and transaction costs, economics lawyers can improve the ability of lawyers to design contractual provisions and transaction structures that will create value for clients.<sup>116</sup> In part, it is this perspective that motivates the adverse selection hypothesis for earnouts.

However, the results from the fair value data with respect to the reported performance of earnouts suggest that we should approach the transactional lawyering project with some degree of modesty. Although earnouts may be prevalent in circumstances where one might expect adverse selection to be a potential problem, there is little evidence to suggest that earnouts actually function to sort high quality sellers from low quality sellers. Rather, contingent payment provisions are more likely to resolve questions of uncertainty. Though the resolution of uncertainty can be critical to ensuring parties are able to price transactions efficiently, where unknown future states of the world may make it impossible for parties to otherwise accomplish a transaction, it may appear less analytically ambitious than the prospect of contingent payments resolving information problems that might present challenges to transactions. While this result does not suggest that an approach to the study of transactions based on transaction cost economics is unworthy, it does suggest there may be real limits to relying exclusively on this approach when thinking about contracting.<sup>117</sup>

Of course, there is power in using the transaction cost model to analyze complex transactions, but the model has its limits. Economic models are not intended to be precisely predictive of real-world behavior. Their power comes from the ability of models to help us break down complex, real-world transactions into their essential components. This is not always a simple task and there is ample room

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George Triantis, *Strategic Vagueness in Contract Design: The Case of Corporate Acquisitions*, 119 YALE L. J. 848 (2010) (analyzing the effects of information problems on contract design); D. Gordon Smith & Brayden G. King, *Contracts as Organizations*, 51 ARIZ. L. REV. 1 (2009) (arguing that lawyers add value by doing much more than simply minimizing transaction costs).

116. For a detailed discussion of the motivation behind the various “Deals” courses and how transactional lawyering can generate value for clients, see Victor Fleischer, *Deals: Bringing Corporate Transactions into the Law School Classroom*, 2002 COLUM. BUS. L. REV. 475 (2002). For a discussion of a normative approach to corporate lawyering and the education of deal lawyers, see Steven L. Schwarcz, *Explaining the Value of Transactional Lawyering*, 12 STAN. J. L. BUS. & FIN. 486 (2007); Karl S. Okamoto, *Reputation and the Value of Lawyers*, 74 OR. L. REV. 15 (1995); Tina L. Stark, *Thinking Like a Deal Lawyer*, 54 J. LEGAL EDUC. 223 (2004); George W. Dent, Jr., *Business Lawyers as Enterprise Architects*, 64 BUS. LAW. 279 (2009). The development of “Deals” courses over the past decade dovetails with recent recognition that law schools have an obligation to train “client-ready” lawyers and the fact that firms, and more importantly their clients, are less willing to pay for the years of apprenticeship-like training that gave earlier generations of legal professionals the space to develop deal-making instincts. See WILLIAM M. SULLIVAN ET AL., *EDUCATING LAWYERS: PREPARATION FOR THE PROFESSION OF LAW* (2007).

117. Of course, the challenge of translating economic models to real life is not solely a problem of transactional lawyering.

for specification error.<sup>118</sup> In this case, the new disclosure data suggests a specification error in the analysis of the role of earnouts in merger agreements. Rather than resolve adverse selection, the disclosure data suggests we specify the role of contingent payments as one of resolving uncertainty, and not one of a credible signal for private information. To the extent earnouts respond to uncertainty, the ex ante distribution of outcomes with respect to the fair values is indeterminate. The presence of the earnout itself generates no particular information for a third party. When specified in that way, the fact that the fair value of earnouts declines over time and that earnouts are not paid out does not necessarily raise any concern about the efficacy of earnout provisions. These results are merely stochastic ex post results that reflect the uncertainty of contracting. The earnout may be better understood as a risk allocation tool. The difference is subtle, but significant, during the contracting phase.

#### VII. REMAINING QUESTIONS AND ALTERNATIVE INTERPRETATIONS

Although the fair value data is generally at odds with the view that contingent payments are a contractual response to adverse selection, there may be alternative ways to explain the disclosure data that do not wholly discount the adverse selection hypothesis. First, it is possible that the reason for the relatively poor performance of contingent earnouts relative to acquirer expectations is related to some exogenous variable, such as overall economic performance. According to this explanation, parties rely on earnouts to signal private information about their underlying quality, but poor economic conditions generally have made it impossible for sellers to meet the earnout targets. Of course, it is true that general economic conditions following the financial crisis of 2008 may have negatively impacted both seller and acquirer performance. Therefore, the fact that sellers are unable to achieve the thresholds required to trigger contingent payments might be wholly unremarkable. However, the transactions included in this sample were all announced following the onset of the 2008 financial crisis and subsequent recession. Consequently, the initial estimates of earnout values disclosed by acquirers in this sample were made at a time when acquirers had an opportunity to incorporate the effects of the poor economic environment into their expectations for the target's performance. Indeed, in early 2009 when the first of the sample's transactions were announced, the economic crisis and economic future

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118. See, e.g., Cain et al., *supra* note 1 (conflating the concepts of "uncertainty" and "adverse selection").

appeared most dire. It was in that environment that many of the initial estimates of seller performance were made. One expects that acquirers would have already incorporated that poor economic outlook into their estimates of seller performance at the time the transactions were announced.

In any event, if it were the case that general economic conditions were the cause of sellers' inability to meet earnout milestones, and if earnouts were nevertheless relied upon by parties to signal private information, then one would still expect to see a separating equilibrium with respect to the performance of earnouts with nonfinancial targets. If parties are using nonfinancial targets to signal private information, the fair values of those earnouts should be unrelated to exogenous economic conditions. However, one does not observe a significant increase in performance in earnouts with nonfinancial targets. If sellers were relying on earnouts to signal private nonfinancial information during poor economic times, we still would expect to see a separating equilibrium confirming private information. We do not observe that result, however. Thus, it is more likely that earnouts are intended to protect to acquirers precisely from the kind of unexpected negative economic performance that we have experienced in recent years (symmetrical uncertainty) and not to signal private information.

Second, it is still early with respect to disclosure data. This study is the first of its kind to be conducted following implementation of SFAS 141(R). It is possible that firms may not yet be adequately or even accurately complying with the disclosure requirements. For example, in the original sample of 140 transactions, a number of observations (9) were dropped because the acquirers failed for some reason to comply with their disclosure obligations under SFAS 141(R). As firms gain more experience over time with fair value estimates of contingent payment obligations, they may become more adept at generating accurate estimates, which may influence future interpretations of the data, including the possible observation of a separation equilibrium related to earnouts. Of course, firms have had at least five years of experience with fair value accounting in other contexts so the extent of additional learning may be limited. For example, fair value accounting for Level 3 Assets already requires firms to make similar quarterly assessments with respect to the impairments to goodwill following acquisitions.<sup>119</sup> Firms were able to implement those standards successfully before the implementation of contingent consideration accounting.

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119. See FIN. ACCOUNTING FOUND., STATEMENT OF FINANCIAL ACCOUNTING STANDARDS NO. 157 (2010), available at <http://www.fasb.org/pdf/fas157.pdf>.

Third, it may be possible that the inability to observe a separating equilibrium is simply the result of overly conservative accounting practices by acquirers. Accounting determinations are necessarily judgment calls by managers based upon information in hand at the time of the estimate. Managers of acquirers may have internal motivations, not related to the seller's performance, to discount the likelihood of an earnout obligation becoming due. In this critique, buyers may overestimate the true fair value of the contingent payment at acquisition—essentially taking an earnings bath at the time of the acquisition. Then, as time goes on, the acquirer adjusts the fair value of the earnout obligation to more realistic levels. Because this overly conservative approach almost always means that buyers over-estimate the likelihood of making payments, it suggests that fair values of contingent payments will always decline over time. It also suggests that buyers use contingent payments to store “cookie jar reserves,” adjusting fair values as required in order to generate accounting profits.<sup>120</sup> This critique has some merit. However, if it is true that fair value disclosures are not a fair and accurate representation of an earnout's expected value, but simply a function of the acquirer's requirement for cookie jar reserves, then fair value accounting rules fail to provide the transparency originally intended by rulemakers. If these rules do not provide additional transparency into the real risks facing businesses, then it raises larger questions across a variety of areas beyond contingent payments where investors rely on fair value standards for their investment decision making and raises doubts more generally about the efficacy of the FASB's fair value accounting project.<sup>121</sup>

Finally, it is possible that although sellers attempt to use earnouts to signal hidden information, these attempts are not reflected in the fair value data because of confounding information asymmetries affecting the acquirer. In particular, acquirers face a well-known moral hazard during the post-closing period that may overwhelm the signaling effect of an earnout.<sup>122</sup> This moral hazard may lead to disagreements between the parties over the proper fair value of the earnout and the ability of sellers to achieve the earnout. Anecdotal accounts suggest that earnouts generate many disputes or litigation among the parties. For example, in the 2009 Delaware Chancery Court case, *Aveta, Inc. v. Bengoa*, Vice

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120. CHARLES W. MULFORD & EUGENE E. COMISKEY, *THE FINANCIAL NUMBERS GAME: DETECTING CREATIVE ACCOUNTING PRACTICES* 51 (2002) (defining “cookie jar” reserves as an overly aggressive accrual of operating expenses and the creation of liability accounts done in an effort to reduce future-year operating expenses).

121. In this Article, I do not intend to call into question the efficacy of the fair value accounting project. I merely take it at face value.

122. See Victor P. Goldberg, *In Search of Best Efforts: Reinterpreting Bloor v. Falstaff*, 44 ST. LOUIS U. L. J. 1465, 1476 (2000).

Chancellor Travis Laster noted that “[e]arn outs frequently give rise to disputes.”<sup>123</sup> In another recent case in the Chancery Court, *Airborne Health, Inc. v. Squid Soap*, the same jurist observed:

[A]n earnout . . . typically reflects [a] disagreement over the value of the business that is bridged when the seller trades the certainty of less cash at closing for the prospect of more cash over time . . . But since value is frequently debatable and the causes of underperformance equally so, an earnout often converts today’s disagreement over price into tomorrow’s litigation over the outcome.<sup>124</sup>

Searches of public records uncover few complaints related to contingent payments. This paucity of lawsuits is not necessarily evidence that the conventional wisdom with respect to the propensity of earnouts to generate disputes is incorrect.<sup>125</sup> Indeed, the cases found in the opinion and docket searches suggest why there is little evidence in the public record of earnout disputes. Earnout provisions, like the one negotiated in the *TRS Institute v. Transcend Services*, tend to require that disputes be brought to private arbitration rather than through the courts.<sup>126</sup> Consequently, it is likely that the public records drastically undercount the true rate of disputes related to the implementation of earnout provisions. Where the nature of the disputes is made public, disputes between parties are consistent with the notion that once having completed an acquisition, the acquirer faces a moral hazard with respect to the degree of effort it places behind helping the seller achieve targets

123. 986 A.2d 1166, 1173 (Del. Ch. 2009).

124. 984 A.2d 126, 132 (Del. Ch. 2009).

125. I conducted two searches in an attempt to uncover the underlying rate of disputes with respect to contingent earnout provisions. First, I conducted a search of both the Westlaw and Bloomberg Law databases for court opinions in the Federal courts and Delaware courts related disputes over earnouts, milestone payments, or other contingent payments. This search revealed very few opinions. Over the period 2009–2010, Delaware generated only three court opinions. The Federal courts, for their part, generated just eighteen earnout-related opinions over the same period. To the extent courts issued written opinions, five of the twenty-one earnout-related opinions involved attempts by plaintiffs to avoid contractually-mandated arbitration to resolve disputes over earnout payments. In those cases, the courts uniformly denied them access to the court and ordered the parties back to arbitration. The balance of the cases related to claims by sellers that acquirers were unfairly withholding earnout payments due to them. In those claims, former shareholders of the seller generally make allegations that the acquirer took actions to frustrate the ability of the seller to achieve the earnout targets (i.e. acquirer moral hazard). A similar review of the SEC filings and Delaware and Federal court dockets with respect to transactions in the study sample during the study period turns up only one disclosure of earnout-related litigation with similar allegations against the acquirer. Complaint, *TRS Inst., LLC v. Transcend Servs.*, No. 10-362 (M.D.N.C. May 6, 2010).

126. *TRS Inst., LLC v. Transcend Servs.*, No. 10-362 (M.D.N.C. May 6, 2010). Coates finds that private arbitration provisions are common in transactions involving private company sellers and price-adjustment clauses. John C. Coates IV, *Managing Disputes Through Contract: Evidence from M&A* (Feb. 27, 2012) (unpublished manuscript), available at <http://ssrn.com/abstract=1915135>. Goldberg notes that his personal experience suggests that earnout related disputes are under-represented in the formal legal system. See Goldberg *supra* note 122.

pursuant to the earnout provision.<sup>127</sup>

To the extent acquirer moral hazard is a problem, this could lead to what appears to outside observers to be a pooling equilibrium. Sellers may nevertheless attempt to signal their high quality, but such signaling is systematically undermined during the post-closing period by acquirers with incentives to engage in opportunistic behavior with respect to the seller. Although the signal is overwhelmed by the confounding effect of acquirer moral hazard and thus unobservable to outside observers, it still may be possible that acquirers interpret the seller's offering to accept an earnout as a costly *ex ante* signal. If, however, the confounding effects of acquirer moral hazard are sufficiently large, one might also expect to observe sellers avoiding the earnout mechanism altogether. The fact that sellers nevertheless agree to earnout provisions suggests that either that acquirer moral hazard is not a significant concern or that uncertainty, rather than information asymmetries, are more central to seller motivations in accepting earnout provisions.

#### VIII. CONCLUSION

This study calls into question the conventional academic wisdom with respect to the role played by earnouts in corporate acquisitions. Previous empirical works claim that earnouts are prevalent in circumstances where information asymmetries are severe. In such situations, earnouts are thought to play a role in signaling hidden information to potential acquirers. However, recently available fair value accounting data suggests that earnouts do not permit high quality sellers to sort themselves out from low quality sellers. If sellers are not able to rely on earnouts to signal private information about their hidden value to prospective buyers, then earnouts lose one of the most important functions attributed to them by earlier studies and are thus not

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127. According to the complaint in *TRS Institute v. Transcend Services*, immediately upon closing the transaction, the acquirer was alleged to have engaged in strategic behavior intended to reduce the likelihood that the acquirer would be required to make payment on the earnout. The Complaint states:

Based on the performance of TRS and their conversations with Transcend's management, TRS executives believed TRS revenues would exceed the milestones necessary to generate the maximum Earn-Out of \$3,000,000. Beginning almost immediately after closing, however, Transcend engaged in a series of actions deliberately designed to minimize the amount of the Earn-Out while maximizing Transcend's revenues. These actions—including the allocation of resources away from TRS customer accounts, delays in implementation of new TRS accounts, and discouraging the development of TRS's relationship with its most valuable customer and referral source—breached the express terms of the Asset Purchase Agreement between TRS and Transcend and violated the implied covenant of good faith and fair dealing inherent in all contracts.

Complaint, *TRS Inst., LLC v. Transcend Servs.*, No. 10-362 (M.D.N.C. May 6, 2010).

as useful as expected in overcoming the problem of adverse selection. Instead of signaling, earnouts appear to resolve the question of pre-contractual uncertainty. In resolving uncertainty rather than adverse selection, earnouts may facilitate the parties in reaching agreement on pricing without necessarily engaging in any information signaling. These results should urge modesty on scholars of transactional law who posit that buyers and sellers rely on earnouts to resolve problems of asymmetric information in the deal setting.