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## WHY HAVE M&A CONTRACTS GROWN?
## EVIDENCE FROM TWENTY YEARS OF DEALS

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**Why Have M&A Contracts Grown?**
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Abstract

Over 20 years, M&A contracts have more than doubled in size – from 35 to 88 single-spaced pages in this paper's font. They have also grown significantly in linguistic complexity – from post-graduate "grade 20" to post-doctoral "grade 30". A substantial portion (lower bound ~20%) of the growth consists not of mere verbiage but of substantive new terms. These include rational reactions to new legal risks (e.g., SOX, FCPA enforcement, shareholder litigation) as well as to changes in deal and financing markets (e.g., financing conditions, financing covenants, and cooperation covenants; and reverse termination fees). New contract language also includes dispute resolution provisions (e.g., jury waivers, forum selection clauses) that are puzzling not for appearing new but in why they were ever absent. A final, notable set of changes reflect innovative deal terms, such as top-up options, which are associated with a 18-day (~30%) fall in time-to-completion and a 6% improvement in completion rates. Exploratory in nature, this paper frames a variety of questions about how an important class of highly negotiated contracts evolves over time.

JEL Codes: D23; D74; D82; G13; G32; G34; G38; K12; K13; K22; K40

* Prior to teaching at Harvard, I was an M&A partner at Wachtell, Lipton, Rosen & Katz, where I negotiated over 50 completed M&A transactions involving $100 MM or more, and taught M&A at NYU Law School with David Katz. Much of the theory informing this paper derives from practice and that co-teaching experience. For disclosure of financial interests potentially relevant to this paper, see hls.harvard.edu/faculty/directory/10170/Coates. As described in the paper, a team of researchers contributed to the dataset used in this paper – Afra Afsharipour, Robert Jackson, Jeff Lipshaw, Brian Quinn, and Usha Rodrigues – to whom I extend thanks for discussions and shared labor. I also extend thanks for comments and discussions to participants in workshops or seminars at Oxford and Harvard. I received excellent research assistance from Jason Etheridge, Josh MacFarlane, June Nam, and Aaron Seong. All rights reserved.

**Why Have M&A Contracts Grown?**
**Evidence from Twenty Years of Deals**

In practical importance to the deal world, and the legal profession, merger and acquisition (M&A) ***contracts*** are understudied, especially compared to (say) fiduciary duties or hostile takeovers.[1] Applications of economic theory to such contracts are uncommon,[2] empirical studies even more so. Those that exist mainly focus on narrow categories of terms, such as material adverse change (MAC) clauses, break fees, and risk sharing terms, as well as on dispute management provisions specifically designed to manage litigation.[3] Even more uncommon are broader investigations of the overall contents of M&A contracts, and these have analyzed datasets from a year or two, or pool contracts from a larger time period but do not analyze their dynamics over time.[4]

This paper examines a large sample (n=564) of M&A contracts, and explores the ways in which they have changed over a twenty-year period. Specifically, the paper analyzes contracts for deals in Thomson's SDC database that were all-cash, over $100 million in deal value, between US buyers and non-regulated US publicly held targets. The core findings are that such contracts grew on average from 16,994 words in 1994 to 44,730 words in 2014 – an increase of 163%. Their linguistic complexity also grew, from Flesch-Kincaid grade 20 to grade 30. These core findings motivate the remainder of the analysis. What accounts for this growth in length and complexity?

Against a counterfactual no-growth null hypothesis, three alternative hypotheses are tested with the data: ***grandstanding growth***, ***reactive growth***, and ***innovative growth***. By "grandstanding" is meant the agency-theoretic idea that clients are poorly positioned to evaluate the quality of contract lawyering, but can observe whether contract lawyers engage in "effort," giving lawyers an incentive to add words to prior contract models, with little or no marginal semantic, legal or economic content.[5] By "reactive growth" is meant the idea that lawyers add contract language to prior models in reaction to external shocks – new case law, new statutes, or new financial risks. "Innovative growth," finally, is contract language that adds new ways to achieve the goals of contract parties, or to improve the speed or efficacy of doing so.[6] Such innovation has the potential not merely to preserve achievement of deal goals against a baseline of prior contracts in response to

[1] For a recent literature review, see Coates 2016.

[2] Exceptions that prove the rule include Gilson 1984; Kahan and Klausner 1997.

[3] On MACs, see, e.g. Miller 2009a; Miller 2009b; Talley 2009; on break fees, see, e.g., Coates and Subramanian 2001; Andre et al. 2007; on earn-outs and other risk-sharing terms, see, e.g., Coates 2012b; Coates 2012c; Quinn 2012; on dispute management clauses, see, e.g., Cain and Davidoff 2010; Coates 2012a.

[4] Cross-sectional studies include Coates 2010; longer period pooled samples include Karsten et al. 2015; Manns and Anderson 2013; Wulf 2004.

[5] On "grand standing" in the venture capital context, see Paul A. Gompers, Grandstanding in the Venture Capital Industry, 42 J. Fin. Econ. 133, 133 (1996); Peggy M. Lee and Sunil Wahal, Grandstanding, Certification and the Underpricing of Venture Capital Backed IPOs, 73 J. Fin. Econ. 375, 405 (2004). For discussion of prior studies arguing the evolution of contract terms should be seen as ignorant "tinkering" or substance-free "churning," see Part I.

[6] Ronald J. Gilson, Value Creation by Business Lawyers: Legal Skills and Asset Pricing, 94 Yale L.J. 239 (1984) (likening contract lawyers to "transaction-cost engineers"); for the constraints on M&A contracts, see Coates 2010.

new threats, but to improve on that baseline, by (in M&A, for example) increasing completion rates or speed to completion, or by reducing disputes.[7]

The evidence rejects any strong version of the grandstanding hypothesis in favor of a combination of reactive growth and technological innovation, while leaving room for the presence of some grandstanding. Clear evidence can be found of rational responses by contract lawyers to external events, the emergence over time of "best practices" (as opposed to meaningless variation in verbiage), and of substantively new contract clauses in the sample time period. Rational reactions range from the response to the Sarbanes-Oxley Act, which imposed new requirements and risks on public companies, to a market-driven decline in deals subject to financing conditions and the related rise in reverse termination fees and in covenants specifying and allocating the parties' obligations to obtain financing, to the diffusion and growth in complexity of dispute resolution provisions, such as forum selection clauses, in reaction to salient M&A disputes.[8] If anything, a sharper agency-theoretic critique of M&A contracting is not that later contracts are simply bloated remixes of earlier contracts, but that earlier contracts failed to address issues that would seem to be easily and efficiently addressed – perhaps reflective of the more basic agency problem of shirking.

Contract innovations can be seen in the emergence and spread of top-up options. This innovation, bundled with other contract innovations not examined here,[9] is correlated with an increase in contract length but also with sought-for outcomes: higher rates of deal completion and lower time-to-completion. Observable reactions and innovations analyzed here do not account for all (or even most) of the growth in M&A contracts, but should be understood as a putting a lower bound on the portion of contract growth that is attributable to non-controversial, non-grandstanding lawyering. While the evidence presented here cannot support a stronger claim that deal lawyer fees are justified by the contracts they draft, the facts suggest that there is more to the M&A contracting market than mere grandstanding, and more than mere "noise" in contract evolution over time, as suggested recently, at least in some contexts, by other scholars.[10]

The plan of the paper is as follows. Part I briefly reviews relevant literature. Part II describes the research design, relates the contents of a modal contract to economic

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[7] E.g., Robert E. Scott and George G. Triantis, Anticipating Litigation in Contract Design, 114 Yale L.J. 815–79 (2006) ("When the parties agree to precise terms (or rules), they invest more at the front end to specify proxies in their contract, thereby leaving a smaller task for the enforcing court."). Whether these changes are all-in socially valuable is another question, beyond the scope of this paper, as improvements in outcomes for the parties may undermine regulatory goals and generate more-than-offsetting negative externalities.

[8] As discussed below, these dispute resolution terms do not deal with shareholder litigation over M&A, which sharply increased in the sample period, and which has received academic and policy critiques. That litigation cannot be managed much if at all by a contract between two firms, to which target shareholders are not directly bound. Rather, the dispute resolution terms govern disputes between the firms that are parties to the contracts – "real" litigation over such things as breaches of representations, failure to obtain financing, what efforts are required to achieve antitrust approval, and so on.

[9] For example, see Sautter 2008 on go-shop clauses, Subramanian 2008 on go-shop clauses and match rights, and Quinn 2011 on match rights – two additional M&A contract innovations that emerged in the 2000s.

[10] Anderson and Manns 2016; cf. Choi et al. 2016. These studies are discussed in Part I below.

theory on what contracts can achieve, and develops hypotheses. Part III describes the sample, and Part IV presents the core findings that contracts have ballooned in length and complexity. The hypotheses are tested in Part V. Part VI describes limitations, presents implications and sketches avenues for future research.

## I. Prior Literature

Empirical studies of M&A contracts are rare. Empirical studies of the evolution of any type of contract are also rare.[11] Four recent papers are worth describing.

### a. Anderson and Manns 2016

A prior study close in spirit to this paper, by Professors Anderson and Manns,[12] also analyzes the evolution of M&A contracts in the public company context. They study 12,000 public company merger agreements and conclude that the evolution does not reflect "a rational process that minimizes the cost of deal documentation and risk to clients." Instead, M&A contract evolution reflects "an ad hoc process that increases billable hours and risk," reflecting a "high level of 'editorial churning,' ad hoc edits that appear to be cosmetic rather than substantive." They base this conclusion on a comparison of each agreement with a prior agreement they identify as the most-similar precedent. From these comparisons, they assert that on average "more than half" of a merger agreement is "rewritten" during the drafting process "even though the substantive provisions of the merger agreements have similar features." They argue that M&A contracts could and should be standardized, but have not been, because individual lawyers choose precedents that are familiar and ready-to-hand rather than those well matched to the deal in question.

Anderson and Mann's conclusions are untenably strong, given how vague they are in describing their empirical methods and notable holes in their analysis. They are not explicit in how they choose the "single" precedent for their comparisons. In the version of their study that was publicly available as of this writing, they do not address what they call the "possibility" that any agreement will reflect a blend of sources — at least one for buyer counsel and one for target counsel, for example. In fact, in my experience that possibility was, and in my interviews of currently practicing counsel that possibility is, a standard reality in contract negotiations.

Their analysis also seems to weigh minor variations (e.g., commas versus semi-colons; breaking up long sentences into shorter ones) equally with entirely new clauses.

[11] As noted by Florencia Marotta-Wurgler and Robert Taylor, Set in Stone? Change and Innovation in Consumer Standard-Form Contratcs, 88 N.Y.U. L. Rev. 240 (2013) at n. 6: "Frame & White review the existing empirical literature on financial innovation and find only twenty-three studies since 1998. Just a handful of these involve contract terms. See W. Scott Frame & Lawrence J. White, Empirical Studies of Financial Innovation: Lots of Talk, Little Action?, 42 J. Econ. Lit. 116, 135 (2004); see also Zev J. Eigen, Empirical Studies of Contract, 8 Ann. Rev. L. & Soc. Sci. 291, 293 (2012) (discussing how little is known about contract change and innovation)."

[12] Robert Anderson and Jeffrey Manns, The Inefficient Evolution of Merger Agreements, Working Paper ( June 9, 2016), Geo. Wash. L. Rev. (forthcoming); available at SSRN: http://ssrn.com/abstract=2793550.

Each change, however trivial, is an "edit," based on how they describe their methods. If slight punctuation or stylistic edits boost dissimilarity scores, their statistics would have different implications than if the data reflect the rewriting of whole paragraphs, with attendant execution risks. Nor do they discuss how they control for the fact that a linguistic compression technique they use (to improve computational speed) by design boosts apparent dissimilarity. In their Table 1, a limited subset of "full documents" they analyze shows fewer than 4% of agreements were less than 10% similar, while their "compressed documents" analysis, which constitutes the bulk of their sample, returns the statistic that 83% of agreements are less than 10% similar.[13]

Directly relevant to this paper, Anderson and Mann's conclusions are subject to a another critique. Oddly for a study of the "evolution" of anything, they do not present data on or control for changes in the average length of M&A contracts over time – indeed, they present no data on contents, organization or any substance in the contracts they analyze, at a point in time or over time. They do not discover or engage the central findings of this paper – that merger contracts have grown in size and linguistic complexity in the same period they study. By ignoring growth in M&A contracts, Anderson and Manns neglect one reason that later-in-time contracts might differ from earlier-in-time contracts: the addition of new contract language addressing substantively new issues. Their charge of churning rests on the strong and unverified assumption that the substance of the contracts remains constant.

If contracts are generally growing in size, as shown below to in fact be the case, their thesis would at least have to be modified to count as "churn" changes that involve saying the same substantive thing at greater length. Under their method, any new language would count as an "edit," even if most of the other language were preserved intact. Still, the fact of new language might be reconciled with their overall dim view based view of lawyers. For example, lawyers might not simply "churn" but might grandstand by adding substance-free verbiage, saying the same thing at greater length. The evidence will be used to test this possibility below.

b. Cain, Macias and Solomon 2015

One other recent study includes some data on the evolution of M&A contracts. Cain, Macias and Solomon 2015 study 227 private equity buyouts of US public companies, including contract provisions during the period 2004 to 2010, a period that

[13] Another problem with their analysis is that they pool all types of merger and reorganization contracts – control acquisitions, freeze-out mergers, companies emerging from bankruptcy via merger or reorganization, stock-for-stock mergers, all-cash mergers, cash election mergers, mergers in regulated and unregulated industries, cross-border and domestic mergers. As a result, they likely identify many pairs of nominal precedent/downstream contracts that are highly similar in some ways, but highly different in others. For example, the same buyer might use a cash merger contract as a precedent for a stock merger, which would then require re-writing the pricing and consideration sections of the contract entirely. But if those sections were pulled from another stock merger contract (but otherwise unchanged), there would in reality be little churn – really just combining two different but otherwise fixed contracts - but their methods would imply the opposite, because the entire pricing section would appear new. They might argue that deal lawyers should not mix and match this way, but they present no analysis to compare the efficiency loss of that method from having to adapt distinct forms to similar but different types of transactions.

encompassed a boom and bust in such transactions.[14] Although not the focus of their paper (which is estimating the reputational loss to private equity firms that walked away from buyouts in the bust of 2007-08), the authors provide descriptive data on a few contract provisions relating to remedies.

They report that the incidence of reverse termination fees – break fees payable by buyers to targets in the event of deal failure for specified reasons, here typically including financing failure – rose from 50% in 2004 and 35% in 2005 to over 80% from 2006 through 2010, and that the median value of such fees also rose from 2% to over 5% during that period. Specific performance clauses, in contrast, were varied in their use. As a remedy for buyers, such clauses were and remained common throughout their sample period, over 85% in each year. As a general remedy for buyout targets, however, they remained relatively uncommon, fluctuating between 15% and 30% with no clear time trend. A particular type of specific performance clause – allowing a target to force a deal to completion only if financing was available – declined from roughly 50% of buyouts to less than 10% in 2010.

The changes the authors describe in contract terms are clearly substantive in nature. Their findings thus run contrary to the Anderson and Manns thesis. Their findings are discussed further below in the context of other contract changes in financing terms over the longer time period studied in this paper.

c. Wurgler and Taylor 2013; Choi, Gulati and Scott 2016

Two other studies empirically explore evolution of contracts in other contexts. Wurgler and Taylor 2013 study end-user license agreements from 2003 to 2010, and Choi, Gulati and Scott 2016 study pari passu clauses in sovereign bond indentures from 2011 to 2016. The studies analyze significantly different types of contracts from those studied here, but the contrasts, results and theories tested there are worth briefly noting.

Wurgler and Taylor's focus is take-it-or-it-leave contracts written by software firms companies, which are unnegotiated and generally unread by consumers.[15] Their firms create short and linguistically simple[16] contracts as part of potentially complex software product offerings. Each contract is individually low-stakes for firms but

[14] Matthew Cain, Antonio J. Macias and Steven Davidoff Solomon, Broken Promises: The Role of Reputation in Private Equity Contracting and Strategic Default, 40 J. Corp. L. 565 (2015).

[15] See Yannis Bakos, Florencia Marotta-Wurgler & David R. Trossen, Does Anyone Read the Fine Print? Testing a Law and Economics Approach to Standard Form Contracts 3 (NET Institute, Working Paper No. 09-04, 2009), available at http://ideas.repec.org/p/net/wpaper/0904.html (surveying the actual shopping behavior of over 45,000 Internet users and finding that only about 0.01% read standard terms).

[16] Their overall sample average contract word length in 2010 is roughly 5% of the average word length of the contracts from 2010 in this paper's sample. Their average 2010 Flesch-Kinkaid readability scores of roughly 33 are measured differently than the Flesch-Kinkaid grades reported in this paper, but are roughly 10x simpler than the Flesch-Kinkaid readability scores of the contracts studied here (average score of 3, where scores range from 0 to 100, and lower scores indicate greater linguistic complexity). For more detail on Flesch-Kincaid grade level, see note 25 infra.

because firms are repeat players the contracts potentially are collectively important,[17] and in principle, companies can directly benefit from contract innovation.

In that setting, Wurgler and Taylor find significant evolution and innovation in contract terms. Changes and innovations are more common in new, large and growing firms. They find these effects sharpest at firms with full-time in-house counsel, who may invest in contract innovation to exploit technological changes in the underlying software market. The contracts they analyze grow in size over their sample, with their average sample contract had a compound annual growth rate of roughly 3.5% (growing from 1,517 words in 2003 to 1,938 words in 2007). In contrast, the linguistic complexity of their contracts did not change over their sample period.

Choi et al. 2016's sample is much narrower in focus – a single clause out of a bond indenture – but the contract setting is more similar to that in this sample. It consists of pari passu clauses from large bond offerings by sovereign states, offered through banks and underwriting syndicates. While publicly offered bonds offer fewer opportunities for bargaining than one-on-one deals between firms, due to the constraints of the marketing process,[18] they involve large dollars per deal, more specialized and expensive lawyers, and potentially greater two-sided incentives for valuable innovation.

However, Choi et al. challenge the view that contracts reflect "intelligent design" in which lawyers "tailor" boilerplate to deal specifics. They find that after a pair of salient judicial decisions, pari passu clauses in subsequent indentures converged on one of several pre-decision variants, instead of being re-written so as to preserve the nominal pre-decision variation in language. This, they argue, shows that (at least in the case of these clauses) apparently different indenture language had "lost its meaning" over time – in their case, over two centuries – due to rote usage, lawyer-client agency costs, and what they call "encrustration" of minor variations, leading to misinterpretations.

Similar in spirit to Anderson and Manns, they argue that the nominal contract evolution over time that led to different versions of clauses with the same legal intent reflected mere "tinkering" by young, untrained, and unsupervised lawyers ignorant of the origin or function of boilerplate. Uninformed marginal modifications in contract language can be incorporated in later indentures, which are drafted based on prior indentures. Apparent variation over time, in other words, is just apparent. The variations do not reflect any true intent by the contract parties, nor do the variations have economic purpose. Could that also be true of the evolution of M&A contracts?

[17] Florencia Marotta-Wurgler, Are "Pay Now, Terms Later" Contracts Worse for Buyers? Evidence from Software License Agreements, 38 J. Legal Stud. 309, 311 (2009)

[18] See John C. Coates IV, Fair Value as an Avoidable Rule of Corporate Law: Minority Discounts in Conflict Transactions, 147 U. Penn. L. Rev. 1251, 1296-1310 (1999) (discussing costs of modifying contract terms in public company context).

## II. Research Design, M&A Contract Contents, and Hypothesis Development

The focus of this paper is on M&A contracts as a decision-relevant tool, and not merely as a mechanical reflection of standard deal processes. The research goal is to look for changes over time in potentially value-increasing or value-destroying roles of lawyers in developing the "technology" of M&A contracts. To do that, the following research design is employed.

### a. Research Design

The paper intentionally focuses on a subset of M&A transactions that can be expected on a priori grounds to be similar over time on a number of economic and legal dimensions. This focus abstracts from time-varying aspects of deal activity that are typically beyond the control or even influence of the lawyers involved. These include the home (headquarters) country of the parties, whether the parties are incorporated or listed in different countries, whether the deal size is large enough to warrant investment in contract, whether the target is publicly held (i.e., has dispersed ownership), whether the deal is intended to convey control (as opposed to a less-than-controlling stake), whether the buyer can and does use exclusively cash as the deal currency, and whether the target is in a heavily regulated industry.

The share of deals with varying features on these dimensions varies over time, and these features predictably influence what goes into a deal contract. For example, cross-border deals must address multiple regulatory approval requirements, and stock-funded deals must address the process for registering and/or listing stock. As a result, without conditioning on these features, a sample will generate time-varying contract contents (including potentially length and complexity) for reasons having nothing to do with the choices of contract lawyers. While it is interesting and useful to compare contracts across these dimensions (see, e.g., Coates 2010, 2016), the comparisons have more to do with exogenous changes in economic fundamentals, legal requirements, trade flows, and financing markets than with anything directly at stake when contract are being negotiated.

One other core feature of the deals studied here is that after deal completion, shareholders continue to be dispersed and hard to sue effectively. As shown below, the result is that M&A contracts for public targets rarely contain ongoing post-closing covenants. The types of risk that can be shifted or shared within an M&A contract for a public company target are limited to those that can plausibly uncovered prior to closing (i.e., typically within four to months of signing). The "remedy" for unexpectedly different values discovered during that period is simply for a bidder to walk away from the deal. In the public target M&A context, contracts cannot feasibly rely on standard methods of shifting risks related to value in other contexts – including M&A for privately held targets – such as warranties linked to post-closing indemnities or to earn-outs. Tax liabilities or risks likewise cannot be shared after the closing, rendering contract provisions allocating tax attributes or burdens much less important.

b. M&A Contract Contents

If many significant deal characteristics are beyond the control of the lawyers, what do M&A contracts do, and how might they evolve over time? At the highest level of generality, for the kinds of deal studied in this paper, an M&A contract is used by the parties to specify and commit to a deal which, because of legal requirements, requires a delay between signing and closing, or about which subsequent disputes may arise as new facts are discovered after the closing. Typical M&A transactions of any size require delay for antitrust review, securities disclosures, and decisions by dispersed shareholders under corporate and/or property law. In the period of delay, public target deals are exposed to risks, such as the risk of topping bids, antitrust intervention, shocks to target value, and financing failure.

The contract, then, specifies the "form" or "structure" of the deal – essentially, a "technology" for transferring ownership of one business to another firm. The contract also allocates risks related to deal completion, as well as the risk that value-relevant information may be discovered prior to closing, or that the value of the target or the deal will decline prior to closing. Finally, the contracts specify how the parties will share the burdens associated with pursuing the deal. Stated in this very abstract way, the goals of M&A contracts have not changed over the sample period. But the devil of most contracts is not in the high-level goals, but in the details ways these goals are pursued.

To pursue those goals, a typical M&A contract is formally organized into a number of "**articles**," each containing a number of "**sections**." In a common sequence, articles cover (1) parties, (2) price, currency and structure, (3) representations and warranties,[19] (4) covenants, (5) conditions, (6) termination provisions ("outs"), and (7) miscellaneous clauses, including defined terms.[20] This sequence reflects a sensible practical set of concerns: it puts up front key business terms of most interest to business clients, followed by terms requiring the parties to gather responsive information. Next come covenants covering conduct prior to closing, then a list of conditions necessary to get to closing. Termination – not a hoped-for outcome – comes late, rounded out by miscellaneous provisions only lawyers could like.

This organization was already in place at the beginning of the sample analyzed below, with one exception. As detailed below, the one change has been that "defined terms" sections became increasingly common over the sample period. Even at this level of generality, then, the only change over the past 20 years in M&A contracts in their internal organization is that special terminology being collected in one place in the

[19] Formally, a representation is a statement of fact, including actions that can be so interpreted, such as giving someone a set of financial statements, whereas a warranty is a promise that a representation is true and reliable. M&A contracts do not typically distinguish between them, but include them together without identification.

[20] Some M&A contracts omit separate definitions sections, instead distributing defined terms throughout, and then sometimes including an index of defined terms instead. In contracts for privately held targets, two additional articles – addressing indemnification and tax – are inserted before the last miscellaneous article.

contract, rather than appearing throughout. But again, the value of an M&A contract is at one more level of specificity than this thumbnail overview.

As a preliminary step in the design of a sample suitable for this paper's topic, **Table 1** summarizes data on the average length of formal articles in a cross-sectional, representative sample of **all** M&A contracts involving **any** US public company (whether buyer or target) in the period 2007-08. Table 1 also breaks down the 2007-08 sample by whether the target is public or private, and shows that M&A contracts are strongly shaped by target ownership. To be clear, this sample is **not** the one analyzed below, but is meant to help explain why the sample studied in this paper was chosen the way it was.[21]

[Insert Table 1 about here]

Table 1 makes clear some of the kinds of contract differences that appear across different kinds of M&A deals.[22] The sample chosen for further study below is in some sense the simplest possible choice of M&A deal, for contracting purposes. Because post-closing obligations are rare, and deal structures are simpler, public target deal contracts are economically simpler than other M&A contracts. By construction, the sample contracts should be even simpler than public target contracts overall, as they only include all-cash deals and full control bids, and not more complex pricing terms. Also by construction, the contracts need not address issues unique to the cross-border context.

c. Hypothesis Development

With these restrictions on types of deals, the resulting goals for any M&A contract are greatly simplified. Still, they remain modestly complex. The laws governing the transactions, and the potential for disputes over contract language, are neither simple nor straightforward. Clients will be dependent on their lawyers for advice about how to draft and negotiate the contracts. Lawyer-agents possess specialized information and must engage in hard-to-monitor research and writing tasks as part of drafting a contract, and then must provide hard-to-evaluate advice and negotiation services to take the draft to a final binding agreement.

As a starting point, lawyer-agents can be expected seek to minimize effort – to "shirk," in the language of economic theory. The author's personal experience, numerous interviews, and other scholarship confirm that M&A contracts are drafted

[21] See Coates 2010 and Coates 2012a for a description of this sample. To be even more clear, the sample analyzed in Table 1 includes a small number of deals that also appear in the sample studied in this paper.

[22] As shown in Coates 2010, public target deals are less likely to involve "simultaneous" signing/closings, and take longer to complete, on average. Longer completion periods make addressing the "deal process" more important, especially fiduciary outs and break fees. Deal structures and pricing provisions are simpler, commonly involving either a one-step triangular merger or a tender offer followed by such a merger, and 100% stock or 100% cash, rather than a mix of currencies or seller financing, as typical in private target deals. Most public target deals do not include price adjustment clauses or earn-outs. Private target deals, by contrast, commonly involve asset purchases, as well as block stock purchases, more use of complex pricing and post-closing risk sharing. These differences are not absolute: some public target deals include contingent value rights (equivalent to earn-outs) or mixed consideration, and some private target deals are structured as simple one-step triangular mergers for 100% cash.

using one or more prior contracts as a starting point. A simple agency-theoretic possibility, then, would be that M&A contracts for comparable deals would remain roughly constant in size and linguistic complexity over time, as that would follow from effort minimization by agents in the face of high costs of monitoring and evaluation by principals. This "***no growth***" null hypothesis is also consistent with Anderson and Manns 2016 and Choi et al. 2016, because in their telling, lawyers "remix" or "tinker" with substantively equivalent language from past deals, and add no substance. This would result in (meaningless) change, but not growth.

Null Hypothesis — M&A contracts will, c.p., remain constant in size and linguistic complexity over time.

The market for lawyers, however, is at least somewhat competitive, especially in the M&A context, where legal fees and profit margins are high, even adjusting for time, skill, effort, and risk. To prove their worth, lawyers may seek to demonstrate knowledge or skill by adding language to M&A contract drafts. Even if this new language has no substantive importance, such additions can be made observable to clients, which may help lawyers "prove" their value. They can justify changes by referring to case law decisions from contract disputes generally, from corporate law (which is relevant to M&A contracts involving public companies), or from M&A disputes specifically. Because these bodies of law are complex, contestable, and extensive, clients – even large firms those with in-house counsel – will not be able to rapidly or cheaply evaluate the changes, unless the changes are transparently non-substantive.

The result of this set of assumptions is an incentive to add language over time. Newly added language will tend to increase the linguistic complexity of a contract, particularly if the additions are made to existing sentences rather than through the addition of new stand-alone sentences. (Deletions, by contrast, will be harder to observe, even with "black-lining" technology, and will not as straightforwardly demonstrate (to a naïve reader) knowledge or skill.) Since the additions are by hypothesis non-substantive, and since only some amount of extra language need be added to achieve a cosmetic effect, the result should be a relatively constant rate of growth, with words and provisions being added throughout the contract, in a more or less random way.

An alternative to the shirking-based "no change" hypothesis, then, is that M&A contracts will grow in size and complexity over time, at a roughly constant rate. This hypothesis would be consistent with a reformulated version of the Anderson and Manns / Choi et al. perspective, in which lawyers do more than simply remix language, and in fact add to it, but add no substance. This growth can be called "***grandstanding growth***."

Alternative Hypothesis 1A. — M&A contracts will, c.p., grow in size and complexity at a roughly constant rate, with additions occurring throughout the contract form, not by not adding any new substantive content, but by simply saying the same thing at greater length.

In contrast to these lawyer-skeptical hypotheses, a more benign view of lawyering is that contract lawyers do possess greater knowledge about many kinds of risks addressed by a contract than non-specialists. Over time, lawyers observe new risks manifest in their (or others lawyers') deals, deal disputes or (unexpected) judicial resolution of deal disputes generated by standard contract terms. They seek to clarify the contract in response to these events, and so avoid disputes, reduce litigation generated by ambiguous language, and address the newly discovered contingencies. All of this leads them to add language to contracts.

If this theory is true, then, as in a "Whiggish" view of history,[23] contracts exhibit progressive improvement through time. They are repositories of wisdom developed in prior deals, and lawyers rationally if marginally add to that wisdom over time with new language. Because these additions respond to specific, real events in the world, the additions will not occur smoothly, but will cluster in time, exhibit spikes, and add substantive content not previously addressed in the contract form.

In addition, some contingencies can be expected to relate to pre-existing language. Some modifications will make more complex the existing contract language, with the addition of exceptions, provisos, and similar complications.[24] Such additions could in principle be added with language that is (linguistically) simple. But it may often be faster to add qualifying phrases to existing sentences, increasing linguistic complexity. The resulting growth in length and complexity could be fairly called "***reactive growth***."

Alternative Hypothesis 1B1. M&A contracts will, c.p., grow in size and complexity over time, at time-varying rates, and additions occurring at different times in different places in the contract, with new substantive content responding to newly observed risks, contingencies, ambiguities, and disputes.

A final possibility exists. Lawyers may not only respond to observed (past) events, but may innovate. M&A contracts, in particular, are largely aimed at completing a deal process in as efficient and timely manner as possible, while respecting regulatory and other constraints. Lawyers may develop new ways to achieve the basic goal of deal completion subject to law. These innovations may then be reflected in the contracts, adding to length and/or complexity. These additions can be fairly called "***innovative growth***."

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[23] See Ernst Mayr, When is Historiography Whiggish?, 51 J. Hist. Ideas 301-399 (1990).

[24] "Complexity" is complex. Throughout, this paper adds the word "linguistic" to emphasize that it is that type of complexity being measured, and not legal complexity. *Linguistic* complexity has to do with the average length (in words) of sentences, and the average length (in syllables) of words. *Legal* complexity has to do with how many legal or legally relevant factual elements of a potential dispute under the contract would need to be evaluated by a court. See Alan Schwartz and Joel Watson. 2004. The Law and Economics of Costly Contracting. Journal of Law, Economics, and Organization 20:2–31 at 16 ("Complex contracts – those having a greater number of clauses or requiring a court to evaluate information from many different sources – are assumed to be more expensive to write than simple contracts."). As a result, a linguistically complex sentence may in fact be legally simpler, or at least more clear, than a linguistically simple sentence, and vice versa. See **Annex A** for an example. Operationalizing, measuring and quantifying legal complexity are daunting tasks not undertaken here.

(To be sure, there may not always be a clean separation between reactive and innovative growth. Each is a form of what Choi et al. 2016 call "intelligent design." An existing clause may address a contingency in a crude way. A spate of realizations of that contingency may generate disputes, inducing investment in innovation. The resulting change would be both reactive and innovative. Alternatively, a true innovation may address a major contingency in a short, simple way, but leave open many ambiguities and potential sub-contingencies. These may then be addressed reactively over time. When taking the innovative growth hypothesis to the data, the goal will be to limit confirming evidence to instances in which both the contract language and the "deal technology" it reflects are new, and to classify as "reactive growth" instances where clauses are expanded in response to contingencies, where innovative clauses are expanded and clarified, and where old contract technologies are inserted into M&A contracts.)

Alternative Hypothesis 1B2. M&A contracts will, c.p., grow in size and complexity over time, at time-varying rates, and additions occurring at different times in different places in the contract, with new substantive content reflecting new methods of achieving the basic contract goal of deal completion.

## III. Sample, Data-Gathering and Analyses

The sample of M&A contracts analyzed in the remainder of this paper reflects the research design discussed above. All all-cash bids for US public targets by US bidders were extracted from Thomson's M&A database, for the period from January 1, 1994 through December 31, 2014. This period matches the period during which the SEC's EDGAR database has been publishing company filings.

Transactions were limited to control acquisitions (51% or more sought in bid), involving at least $100 million in transaction value, for which Thomson indicated a definitive agreement was available. The deals were also limited to those for which Thomson indicated that data to calculate a four-week pre-bid premium was available. The last screen was to insure targets were in fact public companies – Thomson's own "public target" screen count as "public" targets that are subsidiaries of public companies, which makes them "private" for the contract enforcement and corporate law purposes discussed above. These search criteria generated 804 deals.

Data on various deal characteristics coded by Thomson was used. In some instances, these data were corrected by hand during the contract coding described below. For example, the use of tender offers is coded by Thomson, but turns out to only about 90% accurate, which is surprising, since the use of a tender offer is readily identifiable from a number of public documents.

Deals involving targets in regulated industries – two-digit SIC codes 48, 49, 60 and 63 – were then dropped, leaving 662 deals. The omitted industries are banking, insurance, utilities and telecom. Each of those industries are subject to lengthy regulatory

delays, regulatory constraints (e.g., on deal currency) and liability risks that might tend to generate the need for different M&A contract terms. By constraining deals to the remaining industries, contract goals should a priori be more homogeneous.

The SEC's database was then searched by date and target / bidder names to locate contracts. Contracts for 586 (86%) of Thomson's sample were located. Contracts were typically filed as exhibits to target Forms 8-K, target Schedules 14A, bidder Schedules 14D-1 (or later in time T-O), or occasionally a Form 10-Q or 10-K. Especially in earlier years, many contracts were "embedded" in full disclosure filings; later in time, the EDGAR filing protocols separate out contracts filed as exhibits as distinct documents. For the former, the contracts were separated from the remainder of the documents for coding purposes. Links to the SEC filings containing the contracts are available from the author on request.

To speed the exploration of identifying plausible candidates for new categories of language in the sample contracts, two subsamples were drawn from the overall sample – an ***early subsample*** of 50 contracts from the early part of the sample period (1994 to 1997), and a ***late subsample*** of 50 contracts from the end of the sample period (2011 to 2014). Each of these contracts was reviewed in detail for its basic organization and content. Distinct sections of these contracts were identified and compared. As discussed below, this subsample comparison provided the basis for identifying more precisely for, and analyzing emergence or disappearance of new substantive provisions in, the full sample.

The full sample of contracts was coded by computer algorithm for length and complexity. Outliers on either metric were reviewed manually, and nine observations were dropped because the agreement nominally identified in the initial search had been identified by error, typically because the agreement located was actually only a brief amendment to an agreement filed elsewhere. In an additional 12 contracts, the length/complexity data was dropped because the contracts included lengthy exhibits, rather than just the contracts themselves (most filers do not include contract exhibits in their SEC filings), but the contracts were retained for substantive analysis.

Finally, the full set of contracts was reviewed for the presence or absence of specific subset of sections or clauses identified by prior research or the early vs. late comparison above as likely candidates for contributing to overall growth in contract size. The early vs. late comparison generated a list of 145 discrete sections that appear in one or both of the subsamples. Of those, 34 appeared in the late subsample, and 38 appeared in substantially more contracts in the late subsample. Of these, data on a subset of 19 are presented below, including provisions from each of the major articles of a standard contract, and a lower bound on the source of new contract language is derived from that subset of 19 sections. Nine of those 19 are analyzed in detail using the full dataset, to determine the degree to which the new sections are substantive, and two of those nine are analyzed in detail, to assess how contract language changes on the same substantive topics changes over time.

## IV. Summary Statistics and Core Findings: Growth in Length and Complexity

Aggregate summary statistics for the deals and contracts in the sample are presented in Table 2. The deal sample averages $719 million in equity value, with targets having an average enterprise value of $1.1 billion. Most deals are smaller, ranging from the sample cut-off of $100 million up to the median of $277 million, and about 15% (85) are over $1 billion. Most (89%) are bids for 100% of the target, which the rest ranging from the sample cut-off of 51% up to a full ownership bid. Consistent with other studies of deal completion, nine out of deals close, taking an average of 90 days (median of 79) to do so. Half (50%) of bidders are in the same digit 1-digit SIC class as their targets, and a quarter (23%) are in the same 4-digit SIC class. One in five (21%) are leveraged buyouts, and roughly a third include a tender offer as part of the deal structure.

How have these M&A contracts changed over time? How does their length and complexity change over the sample? Table 3 presents summary data and Figures 1 through 4 illustrate. The core findings of the paper are that M&A contracts have more than doubled in size, on average, and increasingly significantly in linguistic complexity, from 1994 to 2014. The average M&A contract in 1994 for the relatively simple types of M&A transactions in this sample were roughly 17,000 words in length – about 35 single-spaced pages using the same font and margins as this paper. By 2014, they had grown to more than 44,000 words per contract, on average – about 88 single-spaced pages. This reflects an average compound annual growth rate (CAGR) of just under 5%, significantly higher than the CAGR reported by Wurgler and Taylor 2016 for consumer contracts.

In linguistic complexity, as measured by the Flesch-Kincaid grade level measure,[25] the same contracts increased from an average of ~20 in 1994 to ~30+ in the 2010s. The increases over the sample period occur at the short end (the shortest contract for any given year) and the high end (the longest contract), as well as at the medians (not reported). Again, this contrasts the Wurgler-Taylor finding of no change in linguistic complexity from 2003 to 2010 in one type of consumer contract.

The increase in average annual length in M&A contracts found here was not monotonic – there were some modest dips and peaks. But visually (Figures 1 and 2) and statistically contract length is highly correlated with time. A regression of word length on contract year has a goodness-of-fit measure of over 93%. That "model" implies lawyers add 1,200 words (2.5 pages) to M&A contracts each year. The fit of linguistic complexity with time is not quite as strong as for length, and there is fall-off in the last

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[25] The Flesch-Kincaid grade level equals 0.39 (total words / total sentences) + 11.8 (total syllables / total words) – 15.59. It increases with polysyllabic words, and with long sentences, and the specific parameters are intended to result in a number that roughly corresponds to a U.S. public school grade level in reading competency. The measure was developed for use by the U.S. military for use in evaluating the difficulty of technical manuals. See J.P. Kincaid, R.P. Fishburne, R.L. Rogers and B.S. Chissom, Derivation of new readability formulas (automated readability index, fog count, and flesch reading ease formula) for Navy enlisted personnel, Research Branch Report 8–75 (Chief of Naval Technical Training: Naval Air Station Memphis 1975). Microsoft's Word application has, built into its spell checking tool, an automated word and sentence count feature that purports to return Flesch-Kincaid statistics, but because the tool does not count syllables, the resulting grade levels (or scores) are not consistent with standard estimates.

year of the sample. But the fit is still strong, with a R-squared over 83%, and even with the drop-off in 2014, the overall increase is large (~50%).

Figures 3 and 4 are scatterplots of each contract by announcement date, arranged from left to right. The scatterplots reveal substantial heterogeneity of length and complexity in M&A contracts at any given point in time. But they also show that the trends in increased size and complexity are not artifacts of annual averaging. The sloped lines depict a simple ordinary least squares regression line, and the flat lines show that the maximum length and complexity of contracts in the early period is below the mass of contracts in the late period. Figure 4 shows that many contracts in the end of the sample period have significantly higher levels of linguistic complexity than the most complex contracts prior to (roughly) 2008.

Perhaps these contract changes are driven by changing deal characteristics, and are neither responses to external legal or market shocks, nor reflective of innovation. To investigate how sample deals may be changing over time, Table 4 presents summary data by year. Average bid value fluctuates, peaking in the 2006-2008 M&A boom that preceded the financial crisis. Bid premia also fluctuate, peaking in the 2000-2001 telcom/internet boom that preceded the Enron-era crisis. The share of deals coded as LBO by Thomson varies over the period, with peaks in 1999 (33%) and 2006-07 (25%); LBOs also peak in 2009 (38%) and 2013 (42%), but each of those years saw a relatively small number of deals overall. Peaks in the use of tender offers coincided with peaks in bid premia (2000, 65% of sample deals and 2008, 60% of sample deals), but fall off in the last five years of the sample. Diversifying bids at the 4-digit SIC classification level predominate throughout the period (all years over 60%), while those at the 1-digit SIC level show some fluctuation, peaking in 1997 (63%), 2002 (68%) and 2009 (62%).

However, even with standard case-controls for each of these variables, contracts and linguistic complexity have grown over time. Table A1 in the appendix shows that a regression of either of those measures is highly related to time, even with controls for target industry, deal premium, deal size, the use of a tender offer, a diversifying bid, or whether the deal is an LBO, with and without industry fixed effects. We can safely reject the null hypothesis of no growth in length or linguistic complexity. Each of character count and Flesch-Kincaid grade level grew from 1994 to 2014, even in a sample constrained to include similar deals, and even after controlling for these deal and party characteristics. The explanatory power of the resulting models is reasonably high (25 to 30%), and most of the power comes from the time variable. Contracts for deals including tender offers are longer ($p<0.01$) and more linguistically complex ($p<-0.06$), and contracts for larger deals are less linguistically complex ($p<0.06$). Other controls are not strongly related to length or linguistic complexity.

Finally, we can also see in Table 4 summary data on the outcomes of the sample contracts. Recall that part of the goal of an M&A contract for a deal of the type studied here is to improve completion rates. Over time, completion rates have varied, generally trending up over time. The lowest annual average of 63% for the small number (n=8) of deals in the post-crisis year of 2009 to 100% completion rates in 2002 and in each of the

last five years of the sample. In contrast, mean deal durations have been trending down, with some fluctuations: the average for the first ten years of the sample was 93 days, versus 79 days for the last ten. These two time series are consistent with the possibility, although they do not show, that M&A contract evolution has had meaningful effects on deal outcomes. We return to these outcome variables in our analysis of top-up options below.

## V. Explaining the Growth

How can we explain the growth in M&A contracts? To answer this, we can first examine how early and late subsample contracts compare in their contents. Hypothesis 1A (no growth) would suggest that the substantive sections should remain unchanged. Of 37 sections in one but not the other subsample, all but one appeared late but not early. Of 40 sections that appear in 30% fewer contracts in one but not the other period, 35 appeared more often in the late subsample, and five more often in the early subsample. Table 5 lists contrasting sections that show the greatest percentage change from early to late subsamples.

What do the entirely new sections address? Hypothesis 1B1 (grandstanding growth) suggests that either that no new sections would be added (with growth only appearing within older substantive sections), or that new sections would be non-substantive. Table 5 shows that in fact new sections appear throughout a typical contract. An example of a novel deal structure innovation is a ***top-up option***, a novel representation addresses ***disclosure control systems***, a novel covenant requires "***financing cooperation***," and a novel termination provision requires payments of a ***reverse termination fee***.[26] Among terms not wholly novel but appearing far more often in the late subsample are sections addressing ***dilution***, ***unlawful payments*** (bribes), ***shareholder litigation***, and ***financing***, as well as ***disclaimers*** and ***disclaimer acknowledgements***, ***specific performance clauses***, ***jury waivers***, and ***forum selection clauses***. Demonstrating that contract evolution does not always consist simply of adding more language, one section appears in the early subsample but not in the late subsample – ***financing conditions*** – a change that is discussed more below.

As explained below, the new or more frequent sections are substantive – neither "tinkering" nor trivial remixes of longer versions of older contract language. They account for a large fraction of the growth in M&A contracts. Together, on average, the sections that are new or far more frequent in the late subsample add 8,591 words, representing an average of 20.7% of the words in the contracts in that period. These totals are a lower bound on what portion of the growth in contract length can be explained with rational responses or innovations, as they do not include words used to include other innovations, such as go-shop clauses and match rights, nor do they include the defined terms that are used in the new sections analyzed but defined elsewhere.

[26] "Novel" here means new within the dataset, using the early subsample as the baseline. It is probable that many of these provisions were newly invented in the sample period: reverse termination fees, for example, were certainly used in the early 1990s, particularly in all-stock mergers, and top-up options in all likelihood were as well. They were, however, non-standard in agreements for these types of deals.

These data are inconsistent with the null hypothesis (no growth) and the grandstanding growth hypothesis.

Space constraints and reader patience bar a comprehensive discussion of each new section. Instead, the changes will be discussed in groups, with the goal of assessing how much change reflects reactive growth and how much innovative growth. New reps on disclosure control systems and unlawful payments, as well as litigation covenants reflect different kinds of legal risks that emerged over the sample period. Growth in the use of jury wavers, forum selection and specific performance clauses reflect deal-specific litigation risks that changed in the sample period. The changes in financing conditions, financing covenants and financing cooperation covenants all relate to changes in capital markets affecting M&A. The last new section to be discussed – top-up options – is a clear innovation in deal technology. Forum selection clauses and top-up options will also be explored for change ***within*** sections over time.

1. Reactions to New Legal Risks

One novel section relates to a legal risk that emerged in the sample period: reps regarding disclosure control systems. Those reps are not found in the early subsample, but are very common (83%) in the late subsample. Those reps vary in details, but generally require a target company to represent that, for example, it "has established and maintains a system of disclosure controls... as required by [SEC] Rule 13a-15," and that "the controls ... are designed to ensure that information required to be disclosed" in reports under the federal securities laws are:

> recorded, processed, summarized and reported, within the time periods specified in [SEC] rules ... and is accumulated and communicated to ... management, including its [CEO] and its [CFO], as appropriate to allow timely decisions regarding disclosure.[27]

Such reps also commonly require a target representation that since some prior date, its CEO and CFO:

> have disclosed, based on their evaluation of internal control over financial reporting ..., to the Company's auditors and the audit committee of the board of directors ... all significant deficiencies and material weaknesses in the design or operation of internal controls over financial reporting that are reasonably likely to adversely affect the ... ability to record, process, summarize and report financial information and ... any fraud, whether or not material, that involves management or other employees who have a significant role in ... internal control over financial reporting.[28]

[27] https://www.sec.gov/Archives/edgar/data/891178/000119312511090368/dex21.htm#ex2_1toc171347_28 at 17.

[28] Id.

Anyone familiar with the Sarbanes-Oxley Act (SOX) will recognize this language as very similar to that required to be included in officer certifications and auditor attestations under Section 404 of that law.[29] Indeed some but not all of the reps refer explicitly to that statute. This new type of rep reflects the fact that after SOX, targets – and post-merger, buyers – had a newly heightened and/or salient set of legal risks related to their control systems.

It is interesting to note that the underlying obligation to have a set of control systems long pre-dated SOX, and indeed, pre-dated the sample period, having been imposed in 1977 by the Foreign Corrupt Practices Act (FCPA). What SOX both reflected and reinforced was a heightened focus on how those control systems were functioning (or not) in the Enron era that preceded it. The new reps reflect not simply a new legal obligation, but enforcement or market-driven efforts to enforce an existing obligation. The combination of disclosure and attestation requirements increased the need for companies to maintain or develop control systems that auditors would bless as adequate, and that would reduce the risk of accounting mis- or restatements.

Another new section addressing a preexisting legal risk that increased in severity over the sample period is a target rep addressing unlawful payments (i.e., bribes) to government officials. While these reps are present in small number of contracts (3%) in the early subsample, they rise significantly over the sample period, to 38% in the late subsample. The rise in the use of unlawful payments reps tracks the rise in prosecutions of bribery cases under the FCPA, particularly in the M&A context. Large FCPA enforcement actions followed closely on the heels of the Cardinal Health/Syncor deal in 2002, the ABB/Vecogray and Lockheed/L3 deals in 2004, and the GE/Invision deal in 2005. Even though the M&A sample here is restricted to deal between US companies, US companies control ever-increasing assets and operations in other countries. US-enforcement of FCPA against US companies after acquiring other US companies an increased risk between the mid-1990s and the mid-2000s. To a lesser extent, the adoption of FCPA-like laws in the UK and by an increasing number of other countries has added to that risk.

A third section addressing increased legal risk is not a representation but a covenant committing the parties to notify and cooperate about deal-related litigation initiated by target shareholders. They increase from 21% in the early subsample to 75% in the late subsample. As documented by Cain and Davidoff 2012, M&A litigation by shareholders exploded after 2005, becoming nearly ubiquitous by the late 2000s. By contrast, Krishnan et al. 2014 report that such litigation was relatively uncommon in 1999 and 2000. Both buyer and target managers are at risk from such litigation. To the extent settlements are not insured, buyers inherit the lost value due to settlements paid by targets, and target directors and officers bear the brunt of depositions and reputational risk. Ex ante, both buyer and target managers share an interest in presenting a unified front in response to such suits, even if ex post their interests may diverge. Cooperation

[29] See Coates 2007; Coates and Srinivasan 2013.

covenants help assure that the parties will maintain a unified front and maximize their collective goals in responding to shareholder litigation.

Some of the changes just described may not have had significant downstream legal impacts on how the risks addressed would directly change deal outcomes. For example, if a target had failed to comply with SOX, then it would have failed to comply with its legal obligations generally, and M&A contracts had long included (and continue to include) reps addressing legal compliance generally. Because public target deals do not include post-closing indemnification, as discussed above, the only remedy for breach of a legal compliance rep is for a buyer to refuse to close. The contract mechanism allowing that refusal is a "bring-down" condition that requires a target's reps to still be true before the buyer is obliged to complete the deal. That rep is nearly always qualified by the phrase "material adverse effect" (MAE), so that if a rep breach is not important, it will not give the buyer even that remedy. The greater specificity imposed by the new reps on SOX and unlawful payments are not likely to change the result of a deal were breaches to be discovered: with the rep, if a SOX rep was breached, and the breach would have no MAE, then the buyer could not refuse to close, and if the breach would have had an MAE, then the same breach would also be likely cause the general compliance with law rep to be false, giving the buyer the same right to not close. It is possible that the greater specificity of the reps may slightly alter the risks if a dispute arose, but the effect would be small at best.

However, even if the additional reps were unnecessary to protect buyers from SOX or FCPA risks, the new reps serve an additional practical purpose. They specify issues about which targets are to engage in self-analysis and to provide information to buyers as part of the customary "due diligence" process. In addition to the refusal-to-close remedy described above, buyers generally did (and do) have the contract right to obtain an "officer's certificate" regarding the truth of the target's reps. Individual officers do not generally have enough wealth to backstop contract liability for large M&A deals. However, they do face potential fraud liability – even criminal liability, which can focus the mind even if the risk is low, given underenforcement and difficulties of proof. Officers obtain advice about specific reps, and oversee an information production effort to satisfy themselves (and the buyers) that the reps are not knowingly false. The mechanical steps to obtain information typically rely on the specific words in the reps. More specificity in the reps generally elicits better information.

In sum, as new legal risks emerged in the 1990s and 2000s, M&A contracts were augmented to address those risks. For some, the new language shifted the parties' incentives; for others, they had plausible practical benefits. These changes cannot be fairly characterized as tinkering or grandstanding, even if they were also not radical innovations.

### 2. Reactions to Shifts in Market Conditions and Financing Terms

Unlike the other changes reflected in Table 5, one contract provision that was common in the early subsample (67%) but disappeared entirely by the late subsample are

financing conditions. As recounted by practitioners, the decline was driven by several factors:

> LBO funds' willingness to [take on financing risk by dropping financing conditions was] be a function of the need for such firms to be competitive with strategic players in the M&A marketplace or that global deals outside of the US have forced funds to become accustomed to doing transactions without financing conditions; that experience coupled with the ability to share risk with a greater number of participants in larger bidding consortia could be leading these firms to accept a higher level of risk.[30]

This summary proved somewhat inaccurate in 2007-08. As a spate of litigated disputes demonstrated in the wake of the crisis,[31] buyout contracts continued to be structured so to leave much of the financing risk with the targets. That is because it was not private equity funds (or the fund advisory companies) that were signatories to the M&A contracts, but instead shell entities, with zero or limited financial resources, and thus resistant to a lawsuit seeking to compel them to complete unfinanced deals. The disappearance of financing conditions thus did not in fact shift legal (as opposed to reputational) risk from targets to buyers.

Cain et al. 2015 focus on the then-largest-ever Sungard buyout in 2005 as the first deal in which private equity buyers began to take on more risk. Nugent notes, however, several other multibillion buyouts in 2005 also were done without financing conditions. In fact, the decline in financing conditions began earlier. In the sample studied here, the contracts for Blackstone's buyouts of Extended Stay and Prime Hospitality in 2004 did not contain financing conditions, nor did the buyout of Exco in 2002. Still, consistent with Cain et al. 2015's narrative, the data in Table 6 confirm 2005 as an inflection point. Financing conditions were present in 80% of deals prior to 2005, 33% in 2005, and 3% thereafter.

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[30] Eileen Nugent, Record Year Brings More Risk in Deal Terms, Int'l Fin'l L. Rev. Guide to Mergers and Acquisitions (Apr. 1, 2006). In the UK and elsewhere in the EU, bids be fully financed before they are launched, with cash on hand or fully committed agreements from lenders, subject to "very limited" conditions. Takeover Code, Rule 2.7; Slaughter and May, When Will a Commitment Letter Constitute a Firm Commitment?, Financing Briefing (July 2008). As a result, as US private equity funded deals did more deals outside the US, they had no choice but to accept financing risk in those deals, as Nugent notes. Having become experienced in managing that risk, they then competed with each other and with strategic buyers in the US, and began to agree to take on the same risk in US deals. In a globalizing world, mandatory deal term in one market can have a spillover on negotiated terms in a related market.

[31] E.g., United Rentals v. RAM Holdings, Inc. et al., C.A. No. 3360-CC (Dec. 21, 2007).

| Table 6. Shift from Financing Conditions to Reverse Termination Fees | | |
|---|---|---|
| Cash deals overall | **Financing conditions** | **Reverse Termination Fees** |
| **Early deals (n=50)** | 67% | 8% |
| **Late deals (n=50)** | 0% | 42% |
| Buyouts (n=119) | | |
| **Pre-2005 buyouts** | 80% | 6% |
| **2005 buyouts** | 33% | 17% |
| **Post-2005 buyouts** | 3% | 51% |

A narrow focus on financing conditions alone might suggest that if competitive pressure had shifted financial risk to buyers in the buyout boom, financing conditions would have returned after buyout bust in 2007-08, when financing was scarce and targets no longer could count on robust bidding by multiple buyout sponsors.

But the data show the opposite: they remain absent in post-crisis buyouts. Instead, as described by others,[32] and confirmed here, they were replaced with reverse break fees. In the overall sample (including buyouts and non-buyouts), reverse termination fees rose from 8% in the early subsample to 42% in the late subsample. In buyouts, they rose from 6% in the pre-2005 period, to 17% in 2005, to 51% after 2005. Such fees were backstopped by limited guarantees and/or varying equity commitments by buyout sponsors, effectively sharing financing risk rather than allocating it all to either fund sponsor or target – provisions not included in Table 5 but which would add more words to typical late subsample contracts.

As parties to buyouts began to focus on how to share financing risk, rather than to leave it all with the target, they increased their use of ever-longer financing-related covenants. In the early subsample, sections explicitly labeled "financing" were present in only 5% of the buyouts, but by the late subsample, they are included in 68% of buyouts. Such covenants primarily spell out the buyer's specific obligations to carry out the financing process.

Even more strikingly, "financing cooperation" covenants, which generally impose obligations on the target, were entirely absent as discrete stand-alone sections in the early period, but were found almost as often as financing covenants (65%) in the late period. Early contracts were not entirely silent on a target's obligations to cooperate, but those obligations were typically implicit in a more general "efforts" clause, or were conclusory short statements in a financing covenant, with significant ambiguities in how to apply that language to specific financing tasks. (Financing representations also became much more detailed, further adding to contract length, although those changes are not reflected in

[32] Cain et al. 2015; Afsharipour 2010.

Table 5.) To illustrate the changes, a typical example of early financing-related covenants embedded in general access and efforts covenants is contrasted with a typical example of late stand-alone financing and financing cooperation covenants in Annex B. As shown, the late covenants are almost seven times longer than the early covenants, and address such details as liens, offering memos, projections, customer information and expenses generated by financing cooperation.[33]

In sum, as market conditions shifted more financing risk from targets to a sharing of risk among the parties to buyouts, the related M&A contract provisions became longer, more complex and more specific. They now typically address precisely how financing is to be carried out, which party has what precise burdens (e.g., to produce information) and when, and how their obligations relate to each other. As with the reactions to increased legal risk described above, these changes cannot be reconciled with the "grandstanding" hypothesis, but instead represent rational responses by deal participants to a changed deal environment.

3. Reactions to Deal Disputes

A third category of M&A contract changes occurred in a collection of sections best understood as "dispute management provisions."[34] Unlike shareholder litigation, which however anxiety-producing to deal participants generally results in settlements involving no more than modest payments to plaintiff attorneys, litigation between corporate parties to an M&A contract can result in massive verdicts or settlements.[35] A number of provisions addressing disputes appear in the "miscellaneous" article at the end of an M&A contract – including severability clauses, specific performance clauses, jury waivers, choice of law, contra preforendum clauses and choice of forum. These clauses are only relevant if a dispute between the parties arises, which they may seek to litigate.

The risk of deal litigation between contract parties was not always salient. In contrast to litigation with shareholders, which did occur in the early 1990s, and between contract parties and third parties (such as potential over-bidders or regulators), litigation between buyer and target in a public target deal was not as common as it became.[36] Among the scores of deals on which the author worked in the 1990s, none resulted in litigation between buyer and target. But in both the post-Enron crisis and even more in the financial crisis of the late 2000s, and resulting period of volatility, many high-profile

[33] Consistent with these shifts in deal structure, allocation of financing risk, and contract evolution, when I left in 1997 there were no partners at Wachtell Lipton who specialized in deal financing per se. Since that time the firm has made partners of Eric Rosof (2007), Joshua Feltman (2010) and Gregory Pessin (2014), who specialize in that area.

[34] Coates 2012a.

[35] E.g., George Stahl, Boston Scientific to Pay J&J $600 million to Settle Guidant Suit, Wall St. J. (Feb. 17, 2015), available at http://www.wsj.com/articles/boston-scientific-to-pay-j-j-600-million-to-settle-guidant-suit-1424212177 (last visited Oct. 27, 2016); Huntsman Settles with Apollo, N.Y. Times (Dec. 14, 2008) available at http://dealbook.nytimes.com//2008/12/14/huntsman-to-settle-with-apollos-hexion-over-failed-deal/ (last visited Oct. 27, 2016) (dispute settled for more than $1 billion).

[36] This is an assertion from a former practitioner, but only that. It could be tested with data from court dockets – one of many tasks for future work, as discussed more below.

deals collapsed in high-profile litigation. A typical fact pattern involved a buyer refusing to close, and the target suing to compel the buyer to close, or alternatively suing for significant damages.[37] Alternatively, a target may attempt to facilitate a competing bid in violation of covenants restricting such facilitation.[38]

The result of these disputes is evident in Table 5. Whereas a minority of M&A contracts included jury waivers (5%), forum selection clauses (21%), or specific performance clauses (46%) in the early subsample, nearly all (>98%) include all three in the late subsample. These changes are substantive. It is intuitive that choice of forum can have a significant potential effect on dispute resolution. As between a buyer based in Texas and a target based in Nevada, the difference in expected litigation outcomes between a state court with a jury in either state is commonly expected to be large, particularly if the dispute involves an M&A transaction that is likely to impact local employment. It should also be recalled that a majority of state court judges in the US are elected, that judicial elections involve fund-raising, and that sudden large donations have been known to occur shortly before major M&A disputes are resolved by elected judges, in line with the outcome of those disputes.[39]

Not only did forum selection clauses change grow significantly more common, they also increased in length. The growth was due not to mere verbiage, but to substantive additions and clarifications. To illustrate the changes, a typical example of an early forum selection clause is contrasted with a typical mid-period and a typical late period example of such clauses in Annex C. Each makes the same choice of forum – Delaware courts. But from the early example (1996) and the mid-period example (2007), substantial new language is added. The new language reflects the recognition (among other things) that it is the Delaware Chancery Court (and not the Delaware trial court of general jurisdiction, known as the Delaware Superior Court) that is the highly regarded corporate law court that is an apt choice for a merger contract.[40] Not all contracts choose Delaware – some continue to designate other states, or remain silent, or to choose whole-contract arbitration under the American Arbitration Association. But more choose Delaware as time passes, such that Delaware is the designated forum in 75% of contracts from 2011 to 2016.[41]

However, Delaware's emerging dominance as designated forum is subject to a new, late period wrinkle. Contrary to the overall expansion of contract language in the sample, the basic forum selection clause in 2007 is actually twice as long as the comparable clause in 2012, in part due to simple editing for brevity. But the overall jurisdictional choice in 2012 is longer, because the choice of Delaware is complicated by

[37] E.g., Huntsman, supra note 35.

[38] E.g., J&J, supra note 35.

[39] See, e.g., Thomas Petzinger, Oil and Honor (1999) (detailing campaign contributions in Texaco v. Pennzoil dispute).

[40] See Coates 2012a for discussion of why the Delaware Chancery Court is suited for such contracts.

[41] This finding confirm that previously reported in Cain and Davidoff 2010. Delaware's dominance is limited to deals of the sort studied here – public company target mergers – and does not extend even as late as 2008 to private target deals or deals structured as asset purchases. See Coates 2012a.

increasing use of an agreement to consign financing-related disputes to New York courts, while retaining Delaware Chancery Courts for other disputes under the deal contract. Of the contracts designating Delaware as the primary forum for dispute resolution in the period 2012 to 2016, just under half (49%) also designate New York as a forum for disputes over financing. This presumably reflects, on the one hand, the recognition during the financial crisis that banks and other financing parties could be dragged into deal-related disputes,[42] and, on the other hand, the greater familiarity with the New York courts by primarily New York based banks and their lawyers and perhaps the greater influence of banks over those courts and the New York legislature.[43]

The overall result is that by 2011, sample M&A contracts had evolved from not addressing forum at all, or addressing it briefly and with some lack of clarity, to addressing it at greater length, to addressing it with a complex provision choosing different courts for different potential kinds of disputes arising out of the same deal.

#### 4. Deal Structure Innovation: Top-Up Options

The final novel section in late subsample M&A contracts that will be discussed are top-up options.[44] To understand top-ups, a more basic deal structuring choice must be briefly reviewed: one-step merger vs. tender offer plus second-step merger.

##### a. Deal Structures in All-Cash Bids for US Public Companies

In the US, the modal deal structure for public companies is the merger, a cheap and transaction-cost efficient method of legally combining two businesses. A standard ("long-form") merger may not occur without a target shareholder vote at a meeting. A shareholder meeting may not be held before distributing a proxy statement. A proxy statement may not be finalized until the SEC is given a chance to review it. The process takes – based on the data in this sample – 104 days, on average. During that time, the deal is exposed to the risk of topping bids and financing shocks, the buyer loses franchise value due to customer and employee uncertainty, and the buyer is delayed in starting any hoped-for flows of cost savings and other deal synergies.

A second deal structure – that in some deals can reduce time-to-completion – is the tender offer. Tender offers do not require a shareholder meeting. An SEC form must be prepared and distributed to shareholders, but no pre-filing or clearance is necessary. All else equal, tender offers take less time than long-form mergers. In this paper's sample, deals relying on tender offers took 68 days to close, on average – more than 50% faster than mergers. Not all deals rely on tender offers, however. They increase

[42] E.g., Z. Kouwe, Huntsman Settles Dispute with Banks Over Failed Bid, N.Y. Times (June 23, 2009).

[43] Geoffrey P. Miller and Theodor Eisenberg, The Market for Contracts, 30 Cardozo L. Rev. 2073 (2008-09).

[44] Others have studied market reactions to deals that include top-up options, but have not related their emergence to M&A contract evolution. See E. Devos, W. B. Elliott, and H. Songur, Top-up Options and Tender Offers, Working Paper (Aug. 2014).

transaction costs, trigger SEC rules requiring equal treatment of target shareholders and constraining side-payments, and will not speed time-to-completion if other tasks (e.g., financing, antitrust approval) take longer than the ~100 day process for a long-form merger.

Tender offers also fail to deliver 100% ownership, as not all target shareholders tender. To achieve 100% ownership, a tender offer must be followed by a merger, which "crams down" the deal on dissenting or abstaining shares. If a bidder acquires more than 90%, a "short-form" merger may occur without a shareholder meeting. However, if the bidder holds less than 90%, the second-step merger must must go through the same lengthy process applicable to one-step mergers.

### b. The Emergence, Spread and Effects of the Top-Up Option

So things stood until 1998: in the sample, most deals were structured as one-step mergers, and a smaller number of deals (about 15%) were structured as a tender offer followed by a second-step merger. Beginning in 1999, a new structure began to appear. The parties would agree to use a tender offer, but the target would also grant the bidder an option to buy more shares directly from the target at the same price included in the tender offer.

That "top-up" option was typically contingent upon closing of the tender offer, and could be exercised only to permit the bidder to acquire 90% of the target's shares – to "top-up" from some lower ownership. The option could be exercised quickly after the tender offer, and permit the buyer to use the equally fast short-form merger to acquire 100% ownership. The top-up option would also obviate the need to extend a tender offer in an effort to solicit more shareholders to tender, so long as bidder obtained the relevant lower threshold – initially 70% or 85% or, increasingly over time, 50% – in the tender. Annex D provides examples of early (2000), mid-period (2007) and late (2012) top-up options, with the later examples compared to the earlier ones with bolded language.

Top-up options represent a clear example of a contract innovation. As shown in Table 7, they do not appear at all until 1999. They increase slowly until the mid-2000s, then become standard (if not universal) from 2004 on.[45]

[45] In a related paper with Brian Quinn, I explore the vectors along which top-ups spread, as well as more closely examine the evolution of the detailed components of top-up options over time.

| **Table 7. Growth in the Use of Top-Up Options** | | | |
|---|---|---|---|
| Cash deals overall | **N** | **Tender Offers as % of Sample Deals** | **Top-Up Options as % of Tender Offers** |
| **Early subsample tender offers** | 21 | | 0% |
| **Late subsample tender offers** | 8 | | 100% |
| | | | |
| **1994-1998** | 101 | 53% | 0% |
| **1999-2003** | 166 | 43% | 19% |
| **2004-2008** | 211 | 21% | 73% |
| **2009-2014** | 97 | 34% | 80% |

Consistent with their goals, top-up options appear to have sped up the deal process, and made deal completion more likely, as shown in Table 8.

| **Table 8. Deal Structures, Time-to-Completion and Deal Completion Rates** | | | |
|---|---|---|---|
| N = 575 | **One-step merger** | **Tender offer, no top-up option** | **Tender offer with top-up option** |
| **Share of deals** | 65% | 27% | 8% |
| **Time to completion** | 104 days | 71 days | 56 days |
| **Completion rate** | 87% | 94% | 100% |

Table 8 shows that tender offers cut a month from the time necessary for a long-form merger. Top-up options lop off an additional 15 days. Tender offers increase completion odds by seven percentage points. Strikingly, none of the deals with top-up options failed.

The data presented are simple correlations, and do not prove causation – it is at least theoretically possible that top-up options were included in deals that were more likely to be completed more rapidly and with greater certainty for other reasons – the evidence is consistent with top-up options (and tender offers more generally) being a faster method to complete a deal. Table A2 in the appendix presents regression analysis to confirm that other observable deal, party, or contract characteristics intended to improve completion rates – deal premiums, deal size, LBOs, target break fees, reverse break fees, industry overlap, or industry fixed effects – cannot alone explain the results in Table 8. The other significant results in Table A2 are sensible: deals are more likely to be completed if they are not LBOs and if they include higher deal premiums; and deals take less time if they are not LBOs (which require financing time), if they include tender offers, and if they larger target-side break fees, which presumably deter or truncate competitive topping bids, which can stretch out the deal process).

The analysis in Table A2 does not convincingly show that top-up options are alone causally responsible for the increase in completion rates or the decrease in deal duration.[46] A different and perhaps infeasible research design would be needed to do that, as it would theoretically require controls for all other simultaneously chosen contract terms that might affect either outcome – in essence for nearly all contract terms. Needless to say, including all possible combinations of contract terms would vastly outstrip the number of observed deals, making empirical inferences not feasible. At a minimum, however, one can say that the correlations shown in Table 8 and Table A2 are inconsistent with a pure grandstanding theory of contract evolution, while being consistent with the innovation hypothesis.

c. The Evolution in Top-Up Option Contract Language

One final point can be made about top-up options: not only did they emerge as an innovation in the sample period, but (as with forum selection clauses) they also evolved internally over time. As shown in Annex D, a typical top-up option in the early years in which they were used contained fewer than 250 words. By 2007, a typical top-up option had tripled in length. By 2012, it had grown a further 50%.

Was this intra-sectional growth fairly characterized as "tinkering" or "churning"? A close reading of the exemplars shows that it was not. From early to mid-period, the terms were modified to include the following new substantive components:

- Capping shares subject to option at the number authorized in the target company's charter but not yet issued or reserved for issuance – eliminating potential disputes if the option conflicted with other obligations;

- Giving a bidder the right to use a note rather than cash to exercise, a potentially useful means for a buyer to reduce cash management costs; and

- Adding notice requirements for the buyer to exercise and the target to give share information to assist in the mechanical elements of any exercise.

From 2007 to 2012, the new substantive components included:

- Adding detailed terms of a note used to exercise, and giving a buyer flexibility to exercise in part and to use varying portions of cash or notes to do so;

[46] As a matter of statistical methods, the models in Table A2 are more straightforward for deal duration, where the dependent varaible is continuous and amenable to linear regression. The models for deal completion – a binary outcome – would normally be tested using a logit or probit model, but those models cannot be calculated when the explanatory variable (top-up options) perfectly fits the outcome variable, as here. So-called "exact logistic" models are computationally intractable for anything more than a simple model that adds little to the "eyeball" significance of the data in Table 8, and the somewhat arbitrary Firth logit method – developed to manage the lack of "separation" between right- and left-hand side variables in a binary outcome produces results qualitatively similar to those presented in Table A2.

- Adding a protocol requiring the target to obtain share data from its transfer agent to assist in determining how many shares were covered by the option upon exercise; and

- Clarifying that 90% should be on a fully diluted basis, and defining that concept, addressing latent ambiguities about how to count existing convertibles and options.

Overall, none of this is rocket science or transformative innovation. It is all an order of magnitude less important than the top-up option itself, which in turn is an order of magnitude less important than the contract's specification of price and cash as deal currency. Consistent with the Anderson and Manns and Choi et al. perspectives on contract evolution, there is also some grandstanding evident. It clearly does not matter if the contract says that the target "irrevocably grants" or that the option so granted is "irrevocable." The details on the terms of a note used to exercise appear to be window-dressing, since a note will in expectation become an intercompany note, subject to modification or forgiveness at the direction of the buyer. Why the buyer would ever want to use the note to pay for optioned shares "in part" is hard to envision.

Nonetheless, as with the changes to financing covenants and forum selection clauses reflected in Annexes B and C, most of the changes to the top-up options are sensible, non-trivial, normal, and rational if minor lawyering. The new language clarifies and eliminates latent ambiguities about the parties' expectations and obligations, curtailing the scope for disputes. If one just compared the agreements in sequence over time, one would calculate a great deal of change – as in the Anderson and Manns paper – in part because the words get moved around, but more because of clarifying additions. Yet this substantive comparison and analysis shows that the changes are mostly not grandstanding.

## VI. Summary, Implications and Possible Topics for Future Research

This paper has examined a large sample of M&A contracts from relatively simple and similar deals from a twenty-year period. The core findings are that such contracts have more than doubled in size and grown significantly in linguistic complexity. The findings are inconsistent with both a no-growth null hypothesis and any strong version of a hypothesis positing that growth is attributable solely to lawyers' ***grandstanding***. While grandstanding – as well as "remixing" and "tinkering" – is found to occur in some minor respects, clear evidence is also found of rational responses by contract lawyers to external events, the emergence over time of "best practices," and of substantively new contract clauses in the sample time period. Contracts evolve in rational ways to new legal risks (SOX, FCPA enforcement, shareholder litigation) as well as to changes in both deal and financing markets (the decline of financing conditions, the expansion of financing covenants, and the growth in reverse break fees).

The data does not support anything like a strong conclusion that all is well in the legal market. Much of lawyering remains a credence good, incapable of being precisely evaluated even after it is consumed. Most of the growth in contracts remains unexplained. The growth in linguistic complexity seems on its face to be a bad shift,

since most long words can be replaced with short words, most long sentences can be replaced with short sentences, and (all else equal) linguistically simpler language can be more easily interpreted by non-specialist judges than linguistically complex language.

One task for future analysis is uncovering more precisely the reasons for growth in linguistic complexity reported here. Linguistic complexity as measured here reflects long sentences and long words, but does not increased simply because contracts are longer. The use of defined terms, the breaking of long sentences into multiple shorter sentences can reduce linguistic complexity while preserving legal content. In principle, there is no clear reason that the evolution of contracts might be towards linguistic simplification in the face of general growth in legnth. Perhaps some of the changes described here do not lend themselves to such simplification. For example, it may be that some innovative terms are inextricably dependent on long words and long sentences. As reflected in Annexes B through D, observed new contract provisions become both longer and more linguistically complex over time. That suggests that complexity growth is generated in large part by lawyers adding provisos, exceptions, and notwithstanding clauses to older, shorter sentences. Perhaps the incentives to simplify – even if that would reduce the number of potential disputes, in expectation – are not as strong as they are to complexify. If so, the finding of growth in linguistic complexity would be consistent with the grandstanding hypothesis, even if the overall growth in contract length were not.

Also unexplored here are closely related questions. What are the pathways along which contract innovations move? Why are some innovations rapidly diffused, while others take a longer period of time? How do bright-line rule-like provisions and fuzzy standard-like provisions relate to each other over time? What sets of contract provisions are closely interrelated, as this paper has shown for financing conditions, financing covenants, financing cooperation covenants, and reverse termination fees? Even a basic mapping of such interrelationships remains a future task of practical and research interest.

There is also no research technology known to this author that would allow even a rough guess at whether the changes documented here were beneficial on net, much less whether they were cost-justified for the economic principals (shareholders of corporate clients), and still less whether they are socially beneficial. (A contract provision that speeds up the deal process truncates ex post competition and may worsen managerial agency costs; it may also truncate the antitrust review process and generate negative externalities for consumers; and an efficient deal process may generate more deals, many of which appear to destroy value – all contested topics beyond the scope of this paper.)

But any critique of M&A lawyers should not consist of the accusation that they charge giant fees to re-arrange words. If anything, the sharper agency-based critique of M&A contracts consistent with the data is not that later contracts are simply remixes of earlier contracts, but that earlier contracts failed to address issues that are addressed in the later contracts. In other words, the findings suggest not primarily a problem of "overtreatment," in the language of the medical profession, but one of underdiagnosis and/or undertreatment. The data, then, suggest a puzzle for other scholars to explore:

why did not lawyers (including the author!) include such relatively straightforward contract provisions as forum selection clauses in the early 1990s? The analysis above has suggested salience of deal disputes as an explanation for the rise of such clauses in the sample period, but it would be worth more space than available here to explore why low-salience but non-zero risks that could be addressed easily and efficiently addressed.

One possibility is that in the past, there was no obvious neutral forum for the parties to choose, as between a buyer based in state X and a target based in state Y. Delaware, the modal choice that eventually emerged, had not yet begun to compete for such designations. Instead, Delaware previously had focused on fiduciary duties disputes, including those triggered by M&A. With the decline of hostile takeovers in the early '90s, M&A activity entered a period of relative calm, Delaware's big-ticket litigation docket declined, and Delaware's judges and lawyers began to promote Delaware courts as a natural forum for resolution of M&A contract disputes, neutral as between a buyer located in state X and a target located in state Y. This shift is reflected in the partial relaxation of the jurisdictional limits on the Delaware Chancery Court in 2003 and 2016, which enabled that highly regarded court to displace the more ordinary Delaware Superior Court as the relevant forum in a wider array of M&A disputes.[47] The shift is also reflected in the failed 2010 attempt to create a hybrid public judge-supervised but private and confidential arbitration process in the 2000s.[48] But this is only one possibility, and can explain only a subset of the changes discussed above.

[47] For the 2003 change, which brought deals structured as stock purchases within the Chancery Court's jurisdiction, see delcode.delaware.gov/sessionlaws/ga142/chp084.shtml; for the 2016 change, which brings deals strutured as asset purchases within the Chancery Court's jurisdiction, see delcode.delaware.gov/sessionlaws/ga148/chp265.shtml.

[48] See http://lawprofessors.typepad.com/mergers/2010/01/delawares-arbitration-rules.html; for the decision striking down the Delaware arbitration process, see http://www2.ca3.uscourts.gov/opinarch/123859p.pdf.

## Annex A Examples of Linguistic vs. Legal Complexity

Compare the following clauses:

1. "At closing, X will receive Y% of Z's fully diluted shares."
   - 11 words, 50 characters, F-K grade 5.8

2. "At closing, X will receive Y% of Z's fully diluted shares, where 'fully diluted' means taking into account shares that are not yet issued but are subject to outstanding options, provided that the options are currently exercisable."
   - 37 words, 196 characters, F-K grade 19.3

3. "At closing, X will receive Y% of Z's Fully Diluted shares. 'Fully Diluted" means shares outstanding plus shares that are not yet issued but are subject to currently exercisable outstanding options."
   - 31 words, 160 characters, F-K grade 10.6

Example 1 is the shortest and is the least linguistically complex. However, it leaves open a legal ambiguity – how to treat shares subject to option for purposes of calculating Y%. The latent ambiguity essentially invites an interpreter to consider the purpose, other terms, and extrinsic evidence relevant to uncovering what the parties (would have) intended (had they considered the question). The overall body of interpretive principles and evidence potentially relevant to that question is potentially much more complex than any simple specification of an answer, as in Examples 2 and 3.

Example 2 is the longest and most linguistically complex. Example 3 is slightly shorter than, materially less linguistically complex, and legally equivalent to Example 2.

These examples together show that linguistic complexity can differ from, and indeed be negatively correlated with, legal complexity. If one observed an evolution from Example 1 to Example 2 to Example 3 over time, one would observe an increase and then a decrease in length and linguistic complexity, but arguably a decline and then a flattening of legal complexity.

## Annex B. Examples of Changes in Financing-Related Covenants

Early Period Financing-Related Covenants (1997)

- 358 words
- Flesch-Kincaid 18.09
- http://www.sec.gov/Archives/edgar/data/1/0000898822-97-000746-index.htm

SECTION 5.02 Access to Information. From the date of this Agreement until the Effective Time, the Company will, and will cause its subsidiaries, and each of their respective officers, directors, employees, counsel, advisors and representatives (collectively, the "Company Representatives") to, give FSI and their respective officers, employees, counsel, advisors, representatives (collectively, the "FSI Representatives") and representatives of financing sources identified by FSI reasonable access, upon reasonable notice and during normal business hours, to the offices and other facilities and to the books and records of the Company and its subsidiaries and will cause the Company Representatives and the Company's subsidiaries to furnish FSI and the FSI Representatives and representatives of financing sources identified by FSI with such financial and operating data and such other information with respect to the business and operations of the Company and its subsidiaries as FSI and representatives of financing sources identified by FSI may from time to time reasonably request. FSI agrees that any information furnished pursuant to this Section 5.02 will be subject to the provisions of the letter agreement dated June 23, 1997 between Thomas H. Lee Company ("THL") and the Company (the "Confidentiality Agreement").

SECTION 5.03 Efforts. ... (c) FSI shall use commercially reasonable efforts to cause the financing necessary for satisfaction of the condition in Section 6.02(e) to be obtained on the terms set forth in the commitment letters attached to Schedule 6.02(e) of the FSI Disclosure Schedule; provided, however, that FSI shall be entitled to (i) enter into commitments for equity and debt financing with other nationally recognized financial institutions, which commitments will have substantially the same terms as those set forth in the commitment letters and which commitments may be substituted for such commitment letters and (ii) modify the capital structure set forth in such commitment letters so long as the total committed common equity equals at least $350 million (including Common Shares to be retained), the aggregate Cash Price paid to all stockholders of the Company is no less than otherwise would have been paid in accordance with this Agreement and such modified financing is no less certain than that set forth in such commitment letter.

Late Period Discrete Financing and Financing Cooperation Covenants (2013)

- 2802 words
- Flesch-Kincaid Grade Level 48.74
- https://www.sec.gov/Archives/edgar/data/713002/000089843213001271/exhibit2-1.htm

Section 6.10 Financing. (a) Each of Parent and Merger Sub shall use its reasonable best efforts to take, or cause to be taken, all actions and to do, or cause to be done, all things necessary, proper or advisable to arrange and consummate the Financing as soon as reasonably practicable (but in any event not prior to the consummation of the Marketing Period) on the terms and conditions described in the Commitment Letters, including using reasonable best efforts to (i) maintain in full force and effect the Commitment Letters, (ii) negotiate and enter into the definitive agreements with respect thereto on the terms and conditions contained in the Commitment Letters (including, as necessary, the "flex" provisions contained in any related fee letter), (iii) comply with and satisfy on a timely basis (or if determined advisable by Parent and Merger Sub, obtain the waiver of) all terms, covenants and conditions applicable to Parent and Merger Sub that are in their control to obtaining the Financing set forth in the Commitment Letters and the definitive agreements related thereto such that the Financing will be able to be consummated at or prior to the Effective Time, and (iv) consummate the Financing at or prior to the Effective Time subject to the terms and conditions described in the Commitment Letters, and it being understood that neither Parent nor Merger Sub shall be in breach of its obligations set forth above on account of the effects of any inaccuracies in the representations and warranties of the Company set forth herein or any failure by the Company to comply with its obligations hereunder; provided, that the foregoing (other than clause (i)) shall not apply with respect to the Bank Financing in the event that and for so long as (A) Parent or Merger Sub elect to pursue a high yield securities offering or other debt financing with respect to Parent and its Subsidiaries (a "***High Yield Debt Financing***") in lieu of the Bank Financing, (B) assuming the High Yield Debt Financing is funded, the net proceeds contemplated by the High Yield Debt Financing, together with the Equity Financing and cash or cash equivalents held by Parent and Merger Sub, will in the aggregate be sufficient for Merger Sub and the Surviving Corporation to pay the aggregate Merger Consideration (and any repayment or refinancing of debt contemplated by this Agreement or the High Yield Debt Financing) and any other amounts required to be paid by Parent, Merger Sub and the Surviving Corporation in connection with the consummation of the transactions contemplated by this Agreement and to pay all related expenses at the Closing required to be paid by Parent, Merger Sub and the Surviving Corporation, (C) Parent and Merger Sub use their commercially reasonable efforts to take, or cause to be taken, all actions and to do, or cause to be done, all things necessary, proper or advisable to arrange and consummate the High Yield Debt Financing as soon as reasonably practicable and (D) it is reasonably anticipated (in the good faith discretion of Parent) that such High Yield Debt Financing would be consummated on or prior to the time required for Closing under Section 1.02.

(b) Parent and Merger Sub shall keep the Company informed with respect to all material activity concerning the status of the Financing and, if applicable, the High Yield Debt

Financing, and shall give the Company prompt notice of any material adverse change with respect to the Financing, and, if applicable, the High Yield Debt Financing. Without limiting the foregoing, Parent shall notify the Company promptly, and in any event within two Business Days, if at any time (i) any of the Commitment Letters shall expire or be terminated for any reason, (ii) any financing source that is a party to a Commitment Letter notifies Parent that such source no longer intends to provide financing to Parent (or, in the case of the Equity Commitment Letter, Merger Sub) on the terms set forth therein, (iii) Parent is aware of any actual or threatened material breach, default, termination or repudiation by any party to the Commitment Letters or definitive agreements relating to the Commitment Letters or any material dispute or disagreement between or among the parties to the Commitment Letters or definitive agreements relating to the Commitment Letters with respect to the obligation to fund the Financing or the amount of the Financing to be funded at Closing, or (iv) for any reason Parent or Merger Sub no longer believes in good faith that it will be able to obtain all or any portion of the Financing contemplated by the Commitment Letters on the terms or within the timing described therein.

(c) If any portion of the Bank Financing becomes unavailable on the terms and conditions or within the timing contemplated in the Bank Commitment Letter (other than on account of the High Yield Debt Financing having been completed), Parent and Merger Sub shall (i) use their reasonable best efforts to obtain, as promptly as practicable following the occurrence of such event, alternative financing for any such portion from alternative sources ("***Alternative Financing***") in an amount that will still enable Parent and Merger Sub to consummate the transactions contemplated by this Agreement and (ii) promptly notify the Company of such unavailability and the reason therefor. If obtained, (A) Parent shall promptly deliver to the Company true and complete copies of all agreements (including all exhibits, schedules, annexes and amendments thereto in effect, but provided that any related fee letters may be redacted in a manner consistent with the redaction of the Fee Letters as described in Section 4.05(a)) pursuant to which any such alternative source shall have committed to provide Parent, Merger Sub or the Surviving Corporation with Alternative Financing (collectively, "***Alternative Commitment Letters***") and (B) the defined terms "Bank Financing" and "Bank Commitment Letter" as used herein shall mean the Alternative Financing and Alternative Commitment Letters.

(d) Parent and Merger Sub shall not, without the Company's prior written consent (not to be unreasonably withheld, delayed or conditioned) permit any amendment or modification to, or any waiver of any provision or remedy under, any Commitment Letter or any definitive agreements related thereto unless the terms of such Commitment Letter or definitive agreements related thereto, in each case as so amended, modified or waived, are substantially similar to those in such Commitment Letter or definitive agreement related thereto, prior to giving effect to such amendment, modification or waiver (other than economic terms, which shall, taken as a whole, be as good as or better for Parent (and, in the case of the Equity Commitment Letter, Merger Sub) than those in such Commitment Letter or definitive agreement relating thereto prior to giving effect to such amendment, modification or waiver (giving effect to the "flex" provisions in any related fee letter)); provided that in the case of amendments or modifications of, or any waiver of

any provision or remedy under, any Commitment Letter or a definitive agreement relating thereto, the foregoing shall only apply if such amendment, modification or waiver (i) could reasonably be expected to (A) adversely affect the ability or likelihood of Parent or Merger Sub timely consummating the transactions contemplated by this Agreement or (B) make the timely funding of the Financing or the satisfaction of the conditions to obtaining the Financing less likely to occur, (ii) reduces the amount of the Financing and the Equity Financing or Bank Financing is not increased by a corresponding amount, or (iii) adversely affects the ability of Parent (or, in the case of the Equity Commitment Letter, Merger Sub) to enforce their rights against other parties to the Commitment Letters or the definitive agreements relating thereto to require such parties to provide the Financing. Upon any such permitted amendment, supplement, waiver or modification or replacement of the Commitment Letters, (1) Parent shall promptly deliver to the Company true and complete copies thereof (including all exhibits, schedules, annexes and amendments thereto in effect), and (2) the defined terms "Bank Financing," "Bank Commitment Letter," "Equity Financing" or "Equity Commitment Letter" (as applicable) as used herein shall mean the Bank Financing, Bank Commitment Letter, Equity Financing or Equity Commitment Letter (as applicable) as so amended, supplemented or modified or replaced.

(e) In the event Parent or Merger Sub is required pursuant to this Section 6.10 to provide any information that is subject to attorney-client or similar privilege, or in the event that such disclosure would violate any Law or confidentiality obligation to third parties, Parent and Merger Sub may withhold disclosure of such information to the same extent the Company may withhold disclosure of comparable information pursuant to Section 6.03.

Section 6.11 Company Financing Assistance. Prior to the Closing, the Company shall, and shall cause its Subsidiaries and its and their respective Representatives to, at the sole expense of Parent, use its and their commercially reasonable efforts to provide such cooperation as may be reasonably requested by Parent in connection with the arrangement of the Financing and the High Yield Debt Financing to be consummated in connection with the Merger and the other transactions contemplated by this Agreement; provided, that such requested cooperation does not unreasonably interfere with the ongoing operations of the Company and its Subsidiaries and is subject to customary confidentiality arrangements. Without limiting the generality of the foregoing, prior to the Closing, the Company shall, and shall cause its Subsidiaries and its and their respective Representatives to, at the sole expense of Parent: (a) as promptly as reasonably practicable provide Parent, Merger Sub, the Financing Sources and potential lenders or investors in the Bank Financing or the High Yield Debt Financing with (i) the financial statements regarding the Company and its Subsidiaries necessary to satisfy the conditions set forth in paragraphs 3 and 6 of Annex C of the Bank Commitment Letter (or the corresponding exhibits, schedules or annexes to the Alternative Commitment Letters) and (ii) such other information (financial or otherwise) relating to the Company and its Subsidiaries (including information to be used in the preparation of one or more information packages regarding the business, operations, assets, liabilities, financial position, financial projections and prospects of Parent, the Company, their respective

Subsidiaries and, if applicable, other Affiliates customary or reasonably necessary for the completion of the Bank Financing or the High Yield Debt Financing) to the extent reasonably requested by Parent or Merger Sub in connection with the Bank Financing or the High Yield Debt Financing or is customary for the arrangement of loans or issuance of debt securities contemplated by the Bank Financing or the High Yield Debt Financing, (b) cooperate with the syndication and marketing efforts of Parent, Merger Sub and the Financing Sources, including cooperation in connection with the obtainment of ratings and participation in a reasonable number of meetings, presentations, due diligence sessions, drafting sessions, road shows, rating agency presentations and sessions with prospective Financing Sources and potential lenders or investors in the Bank Financing or the High Yield Debt Financing, at times and at locations reasonably acceptable to the Company, including direct contact between senior management and the other representatives of the Company and its Subsidiaries, on the one hand, and the actual and potential Financing Sources and potential lenders or investors in the Bank Financing or the High Yield Debt Financing, on the other hand, (c) reasonably assist in preparing customary offering memoranda, rating agency presentations, lender and investor presentations (including "public" versions thereof), bank information memoranda (including "public" versions thereof), financial statements (including pro forma financial statements), business projections, private placement memoranda, prospectuses and other similar documents, and identifying any portion of the information that constitutes material, non-public information, in each case in connection with the Bank Financing or the High Yield Debt Financing, (d) make available, on a customary and reasonable basis and upon reasonable notice, appropriate personnel, documents and information relating to the Company and its Subsidiaries, in each case, as may be reasonably requested by Parent, Merger Sub or the Financing Sources (e) facilitate the granting of a security interest (and perfection thereof) in collateral (including delivery of certificates representing equity interests constituting collateral and intellectual property filings with respect to intellectual property constituting collateral), guarantees, mortgages, other definitive financing documents or other certificates or documents as may reasonably be requested by Parent, Merger Sub or the Financing Sources including obtaining releases of existing Liens; provided, that any obligations and releases of Liens contained in all such agreements and documents shall be subject to the occurrence of the Closing and become effective no earlier than substantially concurrently with the occurrence of the Closing, (f) obtain a certificate of the chief financial officer or person performing similar functions of the Company with respect to solvency matters to the extent required to consummate the Bank Financing or the High Yield Debt Financing, customary authorization and representation letters with respect to the bank information memoranda and consents of accountants for use of their reports in any materials relating to the Bank Financing or the High Yield Debt Financing, (g) furnish all documentation and other information required by any Governmental Entity under applicable "know your customer" and anti-money laundering rules and regulations, including the U.S.A. Patriot Act of 2001, but in each case, solely as relating to the Company and its Subsidiaries, (h) take corporate actions reasonably necessary to permit the consummation of the Bank Financing or the High Yield Debt Financing and to permit the proceeds thereof to be made available to the Company, (i) assist in the preparation, execution and delivery of one or more credit agreements, indentures, purchase agreements, pledge and security documents and other

definitive financing documents as may be reasonably requested by Parent or Merger Sub, (j) reasonably cooperate in satisfying the conditions precedent set forth in the Commitment Letter or any definitive document relating to the Bank Financing or the High Yield Debt Financing to the extent the satisfaction of such condition requires the cooperation of, or is within the control of, the Company and its Subsidiaries, (k) use reasonable efforts to facilitate discussions between the Financing Sources and banks and other financial institutions with whom the Company and its Subsidiaries have existing relationships, and (l) obtain accountants' comfort letters and consent letters, waivers, legal opinions, surveys, appraisals, environmental reports, title insurance and insurance certificates and endorsements at the expense of and as reasonably requested by Parent, Merger Sub or the Financing Sources in connection with the Bank Financing or High Yield Debt Financing; provided, that until the Effective Time occurs, the Company shall (i) have no liability or any obligation under any agreement or document related to the Bank Financing or the High Yield Debt Financing (other than with respect to representations made in the authorization and representation letters made to the Financing Sources and potential lenders and investors in the Bank Financing or the High Yield Debt Financing described above in clause (f)) and (ii) not be required to incur any other liability in connection with the Bank Financing or the High Yield Debt Financing unless simultaneously reimbursed or reasonably satisfactorily indemnified by Parent. Parent shall, promptly upon request by the Company, reimburse the Company for all reasonable and documented out-of-pocket costs and expenses (including reasonable attorneys' fees) incurred by the Company and its Subsidiaries in connection with the cooperation of the Company and its Subsidiaries contemplated by this Section 6.11 (without duplication of any reimbursement pursuant to the preceding sentence). Parent and Merger Sub shall, on a joint and several basis, indemnify and hold harmless the Company and its Subsidiaries and their respective representatives from and against any and all claims, losses, liabilities, damages, judgments, fines, penalties, fees, costs and expenses, including attorneys' fees and disbursements, and amounts paid in settlement (including all interest, assessments and other charges paid or payable in connection with or in respect thereof) suffered or incurred in connection with the arrangement of the Bank Financing or the High Yield Debt Financing (including any action taken in accordance with this Section 6.11 or any information utilized in connection therewith), except (i) historical information relating thereto or other information furnished in writing by or on behalf of the Company and its Subsidiaries for use therein and (ii) to the extent arising from the willful misconduct, gross negligence, fraud or intentional misrepresentation of the Company or its Subsidiaries. The Company hereby consents to the use of its and its Subsidiaries' logos in connection with the Bank Financing or the High Yield Debt Financing; provided, that such logos are used solely in a manner that is not intended to, nor reasonably likely to, harm or disparage the Company or any of its Subsidiaries or the reputation or goodwill of the Company or any of its Subsidiaries, and, provided further, that the Company shall be permitted to review the use of such logos prior to any such use.

**<u>Annex C  Comparison of Early, Middle-Period and Late Forum Selection Clauses</u>**

Example of Early Period FSC with DE (1996)

- https://www.sec.gov/Archives/edgar/data/22735/0000912057-96-012092.txt
- 111 words (excluding first sentence, which is on law), F-K Grade 15.93

11.6. GOVERNING LAW. This Agreement shall be governed by and construed in accordance with the laws of the State of Delaware without regard to its rules of conflict of laws. Each of the Company, Purchaser and Merger Sub hereby irrevocably and unconditionally consents to submit to the exclusive jurisdiction of the courts of the State of Delaware and of the United States of America located in the State of Delaware (the "DELAWARE COURTS") for any litigation arising out of or relating to this Agreement and the transactions contemplated hereby (and agrees not to commence any litigation relating thereto except in such courts), waives any objection to the laying of venue of any such litigation in the Delaware Courts and agrees not to plead or claim in any Delaware Court that such litigation brought therein has been brought in an inconvenient forum.

Example of Mid Period FSC with DE (2007)

- https://www.sec.gov/Archives/edgar/data/863821/000119312507239561/dex21.htm
- 416 Words (enforcement subsections are omitted), up 274% from 1996, F-K Grade 22.83, up 43% from 1996
- Bold language is additional substantive or clarifying language added compared to early period example (from 1996)

Section 8.4 <u>Jurisdiction; Enforcement</u>.

(a) Each of the parties hereto irrevocably agrees that any **legal action or proceeding** with respect to this Agreement **and the rights and obligations arising hereunder**, **or for recognition and enforcement of any judgment in respect of this Agreement and the rights and obligations arising hereunder** brought by the other parties hereto **or its successors or assigns**, shall be brought and determined exclusively in the **Delaware Court of Chancery**, **or in the event (but only in the event) that such court does not have jurisdiction over such action or proceeding, in the United States District Court for the District of Delaware**. Each of the parties hereto hereby irrevocably submits with regard to any such action or proceeding for itself **and in respect of its property,** generally and unconditionally, to the personal jurisdiction of the aforesaid courts and agrees that it will not bring any action relating to this Agreement or any of the transactions contemplated by this Agreement in any court other than the aforesaid courts. Each of the parties hereto hereby irrevocably waives, and agrees not to assert, **by way of motion, as a defense, counterclaim or otherwise**, in any action or proceeding with respect to this Agreement, (a) **any claim that it is not personally subject to the jurisdiction of the above-named courts for any reason other than the failure to serve in accordance with this Section 8.4**, (b) **any claim that it or its property is exempt or**

**immune from jurisdiction of any such court or from any legal process commenced in such courts (whether through service of notice, attachment prior to judgment, attachment in aid of execution of judgment, execution of judgment or otherwise)** and (c) **to the fullest extent permitted by applicable Law**, any claim that (i) the suit, action or proceeding in such court is brought in an inconvenient forum, (ii) the venue of such suit, action or proceeding is improper or (iii) **this Agreement, or the subject matter of this Agreement, may not be enforced in or by such courts**. **Each of the Company, Parent and Merger Sub hereby consents to service being made through the notice procedures set forth in Section 8.6 and agrees that service of any process, summons, notice or document by registered mail (return receipt requested and first-class postage prepaid) to the respective addresses set forth in Section 8.6 shall be effective service of process for any suit or proceeding in connection with this Agreement or the transactions contemplated by this Agreement.**

Late Period Forum Selection Clause (2014)

- https://www.sec.gov/Archives/edgar/data/1031028/000119312513350618/d589740dex21.htm
- Overall: 534 Words, up 28% from 2007 example, Flesch-Kincaid 26.48, up 16%
- Portion that corresponds to 2007 example = 212 Words, 50% of the length of the 2007 example [i.e., there was compression in the basic FSC clause, but expansion due to the addition of the financing-related clauses]
- Bold language is additional language added compared to early period example (from 2007)

Section 11.08. *Jurisdiction.* The parties hereto agree that any suit, action or proceeding seeking to enforce any provision of, or based on any matter arising out of or in connection with, this Agreement or the transactions contemplated hereby, including any dispute arising out of or relating in any way to the financing commitments or the performance thereof (whether brought by any party or any of its Affiliates or against any party or any of its Affiliates) will be brought in the Delaware Chancery Court or, if such court does not have jurisdiction, any federal court located in the State of Delaware or other Delaware state court, and each of the parties hereby irrevocably consents to the jurisdiction of such courts (**and of the appropriate appellate courts therefrom**) in any such suit, action or proceeding and irrevocably waives, to the fullest extent permitted by law, any objection that it may now or hereafter have to the laying of the venue of any such suit, action or proceeding in any such court or that any such suit, action or proceeding brought in any such court has been brought in an inconvenient forum. Each party agrees that service of process on such party as provided in Section 11.01 will be deemed effective service of process on such party. **Notwithstanding anything herein to the contrary, the Company agrees, and agrees to cause its Affiliates to agree, (i) that any action of any kind or nature, whether at law or equity, in contract, in tort or otherwise, involving a source of Debt Financing in connection with this Agreement, the Debt Financing or the transactions contemplated hereby or thereby will be brought exclusively in any New York State court or Federal court of the United States of America sitting in New York County, (ii) to submit for itself and its**

**property with respect to any such action to the exclusive jurisdiction of such courts, (iii) not to bring or permit any of its Affiliates or representatives to bring or support anyone else in bringing any such action in any other court, (iv) that service of process, summons, notice or document by registered mail addressed to it at the address of the Company provided in Section 11.01 hereof will be effective service of process against it for any such action brought in any such court, (v) to waive and hereby irrevocably waives, to the fullest extent permitted by law, any objection which it may now or hereafter have to the laying of venue of, and the defense of an inconvenient forum to the maintenance of, any such action in any such court, (vi) that a final judgment in any such action will be conclusive and may be enforced in other jurisdictions by suit on the judgment or in any other manner provided by law, (vii) that any such action will be governed by, and construed in accordance with, the laws of the State of New York, and (viii) to irrevocably waive and hereby waives any right to a trial by jury in any such action to the same extent such rights are waived pursuant to Section 11.09.**

## Annex D Comparison of Early, Middle-Period and Late Top-up Options

Early Top-Up Option (2000, Telocity)

- 222 words, 1113 characters, 3 paragraphs, F-K Grade 18.35
- https://www.sec.gov/Archives/edgar/data/1102448/000101287000006324/0001012870-00-006324-0002.txt

1.5 Top-Up Option.

(a) The Company hereby grants to Purchaser an irrevocable option (the "Top-Up Option") to purchase that number of shares of Common Stock (the "Top-Up Option Shares") equal to the lowest number of shares of Common Stock that, when added to the number of shares of Common Stock owned by Purchaser at the time of such exercise, shall constitute one share more than 90% of the shares of Common Stock then outstanding (assuming the issuance of the Top-Up Option Shares) at a price per share equal to the Offer Consideration; provided, however, that the Top-Up Option shall not be exercisable unless immediately after such exercise Purchaser would own more than 90% of the shares of Common Stock then outstanding.

(b) Purchaser may exercise the Top-Up Option, in whole but not in part, at any one time after the occurrence of a Top-Up Exercise Event (as defined below) and prior to the occurrence of a Top-Up Termination Event (as defined below).

(c) For purposes of this Agreement, a "Top-Up Exercise Event" shall occur upon Purchaser's acceptance for payment pursuant to the Offer of shares of Common Stock constituting less than 90% of the shares of Common Stock then outstanding. Each of the following shall be a "Top-Up Termination Event": (i) the Effective Time and (ii) the termination of this Agreement pursuant to its terms.

Example of Middle Period Top-Up Option (3/5/07, SafeNet Inc)

- 790 words, 3816 characters, 4 paragraphs, F-K Grade 24.35
- Bolded language represents new language compared to 2000 Example
- http://www.sec.gov/Archives/edgar/data/1/0000898822-07-000368-index.htm

Section 1.4 Top-Up Option.

(a) The Company hereby irrevocably grants to Merger Sub an option (the "Top-Up Option"), **exercisable upon the terms and conditions set forth in this Section 1.4,** to purchase up to that number of Shares (the "Top-Up Option Shares") equal to the lowest number of Shares that, when added to the number of Shares **directly or indirectly** owned by Parent **or Merger Sub** at the time of such exercise, shall constitute one share more than 90% of the Shares outstanding **immediately after exercise of the Top-Up Option** at a price per share **as set forth below**; **provided that in no event shall the Top-**

**Up Option be exercisable for a number of Shares in excess of the Company's then authorized but unissued Shares (less the number of such Shares reserved for issuance in respect of vested Company Stock Options outstanding immediately prior to the expiration of the Offer with an exercise price less than the Per Share Amount (the "Vested In-The-Money Options")**. The purchase price for the Top-Up Option Shares shall be equal to the Offer Price, **which price shall be payable in cash in an amount equal to the aggregate par value of the purchased Top-Up Option Shares and by the issuance of a full recourse note with a principal amount equal to the remainder of the exercise price in the form attached as Exhibit A**.

(b) The Top-Up Option **shall be** exercised **by Merger Sub**, in whole **or in part,** at any time **on or** after the Acceptance Time (**so long as the exercise of the Top-Up Option would, after the issuance of Shares thereunder, be sufficient to allow the Short Form Merger to occur**), and prior to **the earlier to occur of** (i) the Effective Time and (ii) the termination of this Agreement in accordance with its terms; **provided, however, that the obligation of the Company to deliver Top-Up Option Shares upon the exercise of the Top-Up Option is subject to the conditions that (A) no provision of any applicable Law and no judgment, injunction, order or decree shall prohibit the exercise of the Top-Up Option or the delivery of the Top-Up Option Shares in respect of such exercise,** (B) upon exercise of the Top-Up Option, the number of Shares owned by Parent **or Merger Sub or any wholly-owned Subsidiary of Parent or Merger Sub** constitutes one Share more than 90% of the number of Shares that will be outstanding immediately after the issuance of the Top-Up Option Shares, **and (C) Merger Sub has accepted for payment all Shares validly tendered in the Offer and not withdrawn**. **The parties shall cooperate to ensure that the issuance of the Top-Up Option Shares is accomplished consistent with all applicable legal requirements of all Governmental Entities, including compliance with an applicable exemption from registration of the Top-Up Option Shares under the Securities Act.**

**(c) Upon the exercise of the Top-Up Option in accordance with Section 1.4(a), Parent shall so notify the Company and shall set forth in such notice (i) the number of Shares that are expected to be owned by Parent, Merger Sub or any wholly-owned Subsidiary of Parent or Merger Sub immediately preceding the purchase of the Top-Up Option Shares and (ii) a place and time for the closing of the purchase of the Top-Up Option Shares. The Company shall, as soon as practicable following receipt of such notice, notify Parent and Merger Sub of the number of Shares then outstanding and the number of Top-Up Option Shares. At the closing of the purchase of the Top-Up Option Shares, Parent or Merger Sub, as the case may be, shall pay the Company the aggregate price required to be paid for the Top-Up Option Shares pursuant to Section 1.4(a), and the Company shall cause to be issued to Parent or Merger Sub a certificate representing the Top-Up Option Shares.**

**(d) Parent and Merger Sub acknowledge that the Shares which Merger Sub may acquire upon exercise of the Top-Up Option will not be registered under the Securities Act and will be issued in reliance upon an exemption thereunder for**

**transactions not involving a public offering. Parent and Merger Sub represent and warrant to the Company that Merger Sub is, or will be upon the purchase of the Top-Up Option Shares, an "accredited investor", as defined in Rule 501 of Regulation D under the Securities Act. Merger Sub agrees that the Top-Up Option and the Top-Up Option Shares to be acquired upon exercise of the Top-Up Option are being and will be acquired by Merger Sub for the purpose of investment and not with a view to, or for resale in connection with, any distribution thereof (within the meaning of the Securities Act).**

Late Top-Up Option (2/6/12, O'Charley's)

- 1174 words, 5903 characters, 4 paragraphs, 15 sentences, F-K Grade 28.45
- Compare 2000 stand-alone early example:
    - 222 words, 1113 characters, 3 paragraphs, F-K Grade 18.45
    - Words increased 429% in 12 years, characters 430%, complexity 54%
- Compare 2007 midstream example:
    - 790 words, 3816 characters, 4 paragraphs, F-K Grade 24.35
    - Words increased 48% in 5 years, characters 54%, complexity 17%
- Bolded language represents new language compared to 2007 Example
- https://www.sec.gov/Archives/edgar/data/864233/000119312512040069/d294707dex21.htm

Section 1.3 Top-Up Option.

(a) The Company hereby grants to **Parent and/or** Merger Sub an irrevocable option (the "Top-Up Option"), exercisable **only** upon the terms and **subject to the** conditions set forth in this Agreement, to purchase **from the Company, at a price per share equal to the Offer Price paid in the Offer**, up to that number of newly issued shares of Company Common Stock (the "Top-Up Option Shares") that, when added to the number of shares of Company Common Stock owned by Parent (**or any of its Subsidiaries**) or Merger Sub at the time of exercise **of the Top-Up Option**, would constitute one **(1)** share more than **ninety percent** (90%) of the shares **of Company Common Stock** then outstanding **on a fully-diluted basis ("on a fully-diluted basis" meaning the number of shares of Company Common Stock then issued and outstanding, plus all shares of Company Common Stock that the Company may be required to issue as of such date pursuant to options (whether or not then vested or exercisable), rights, convertible or exchangeable securities (only to the extent then convertible or exchangeable into shares of Company Common Stock) or similar obligations then outstanding, and after giving effect to the issuance of the Top-Up Option Shares, but excluding from Parent's (and any of its Subsidiaries') and Merger Sub's ownership, but not from the outstanding shares of Company Common Stock, shares of Company Common Stock tendered pursuant to guaranteed delivery procedures that have not yet been delivered in settlement or satisfaction of such guarantee) (the "Short Form Threshold"). Parent may assign the Top-Up Option and its rights and obligations pursuant to this Section 1.3, in its sole discretion, to any of its Subsidiaries, including Merger Sub.**

(b) The Top-Up Option may be exercised at any time after consummation of the Offer and prior to the earlier of (i) the Effective Time and (ii) the termination of this Agreement in accordance with its terms; provided, however, the Top-Up Option shall not be exercisable to the extent (A) the number of shares of Company Common Stock subject to the Top-Up Option exceeds the number of authorized and unissued shares of Company Common Stock available for issuance (less the maximum number of shares of Company Common Stock potentially necessary for issuance with respect to outstanding Company Options and other obligations of the Company), (B) any Restraint or Law shall prohibit the exercise of the Top-Up Option or the delivery of the Top-Up Option Shares, (C) immediately after such exercise and issuance of shares of Company Common Stock pursuant thereto, the Short Form Threshold would not be reached or (D) Merger Sub has not accepted for payment all shares of Company Common Stock validly tendered in the Offer **(or during any subsequent offering period)** and not **validly** withdrawn. **The Top-Up Option shall be exercisable only once.**

(c) **In the event that Parent or Merger Sub wishes to** exercise the Top-Up Option, Parent or Merger Sub shall give the Company **written** notice (i) **specifying** the number of shares of Company Common Stock that are or will be owned by Parent or any of its Subsidiaries or Merger Sub immediately following the Acceptance Time (**or any closing relating to a subsequent offering period**), (ii) **specifying** a place and a time for the closing of the purchase **and (iii) undertaking to effect the Merger pursuant to <u>Article II</u> (including the proviso in <u>Section 2.2</u>) as promptly as practicable following the acquisition of the Top-Up Option Shares**. The Company shall, as soon as practicable following receipt of such notice, deliver **written** notice to Parent or Merger Sub **specifying** the **estimated** number of Top-Up Option Shares. **Prior to the closing of the purchase of the Top-Up Option Shares, the Company shall (A) cause its transfer agent to certify in writing to Purchaser the number of Shares issued and outstanding (x) as of immediately prior to the closing of the Top-Up Option and (y) after giving effect to the issuance of the Top-Up Option Shares and, (B) based thereon, determine the final number of Top-Up Option Shares**. At the closing of the purchase of the Top-Up Option Shares, (i) Parent or Merger Sub shall pay (**or cause to be paid**) to the Company the aggregate purchase price payable for the Top-Up Option Shares (**in an amount equal to the product of (x) the number of shares of Company Common Stock purchased pursuant to the Top-Up Option and (y) the Offer Price** (which amount may be paid, **at the election of Parent or Merger Sub**, either in cash **(by wire transfer or cashier's check)** or by **execution and delivery** of a promissory note having a principal amount equal to the aggregate purchase price for the Top Up Option Shares, **or any combination thereof**, and (ii) the Company shall cause the Top-Up Option Shares to be issued to Parent **(or any of its Subsidiaries designated by Parent**) or Merger Sub, **represented by either certificates or book-entry shares, at the sole option of Parent or Merger Sub**. Any promissory note **issued pursuant to the immediately preceding sentence** shall be in the form attached as <u>Annex C</u> hereto **and shall include the following terms: (A) the maturity date shall be one year after issuance, (B) the unpaid principal amount of the promissory note shall accrue simple interest at a per annum rate of 1.5% per annum, (C) the promissory note**

**may be prepaid in whole or in part at any time, without penalty or prior notice, (D) the promissory note shall be with full recourse and shall be fully secured by the Top-Up Option Shares, (E) the promissory note shall be nonnegotiable and nontransferable and (F) the promissory note shall have no other material terms**. The parties will cooperate to ensure that the issuance of the Top-Up Option Shares is accomplished consistent with applicable Laws, including compliance with an applicable exemption from registration under the Securities Act. **The Top-Up Option shall terminate concurrently with the termination of this Agreement in accordance with its terms**.

(d) Parent and/or Merger Sub acknowledges that the Top-Up Option Shares which Parent **(or any of its Subsidiaries)** or Merger Sub may acquire upon exercise of the Top-Up Option shall not be registered under the Securities Act, and shall be issued in reliance upon an exemption for transactions not involving a public offering. Parent and/or Merger Sub agrees that the Top-Up Option, and the Top-Up Option Shares to be acquired upon exercise of the Top-Up Option, if any, are being and shall be acquired by Parent **(or any of its Subsidiaries)** or Merger Sub for the purpose of investment and not with a view to, or for resale in connection with, any distribution thereof (within the meaning of the Securities Act). Each of Parent and Merger Sub hereby represents and warrants to the Company that Merger Sub is, **and** will be, upon the purchase of the Top-Up Option Shares, an “accredited investor,” as defined in Rule 501 of Regulation D under the Securities Act.

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**Table 1 Formal organization and length (in words) of M&A contracts**

| Article | Mean (median) [%] words, all contracts | Public target deal contracts | Private target deal contracts | IBM / Lotus Agreement, 1994 | Publicis / Sapient Agreement, 2014 |
|---|---|---|---|---|---|
| Recitals | 283 (225) [1%] | 354 [1%] | 211 [<1%] | 419 [2%] | 423 [1%] |
| Price, currency and structure | 3,261 (3,165) [11%] | 4,021 [12%] | 2,501 [8%] | 2966 [14%] | 4779 [12%] |
| Representations | 11,139 (11,239) [39%] | 11,504 [37%] | 10,061 [33%] | 6480 [30%] | 14191 [36%] |
| Target reps | 8,361 (8,663) [30%] | 8,916 [28%] | 8,916 [26%] | 5490 [25%] | 12790 [32%] |
| Buyer reps | 2,216 (1,316) [9%] | 2,544 [8%] | 7,797 [6%] | 990 [5%] | 1401 [4%] |
| Covenants | 5,875 (6,214) [20%] | 2,544 [23%] | 1,883 [15%] | 5434 [25%] | 12950 [33%] |
| Conditions | 1,297 (1,249) [5%] | 1,201 [4%] | 1,393 [5%] | 1239 [6%] | 1316 [3%] |
| Termination | 997 (713) [3%] | 1,444 [5%] | 551 [2%] | 921 [4%] | 1380 [4%] |
| Indemnification | 1,177 (308) [4%] | 134 [<1%] | 2,220 [7%] | 0 [0%] | 0 [0%] |
| Tax | 457 (0) [2%] | 0 [<1%] | 914 [3%] | 0 [0%] | 0 [0%] |
| Defined terms | 2,573 (2,392) [9%] | 1,962 [6%] | 3,185 [10%] | 0 [0%] | 0 [0%] |
| Miscellaneous | 1,695 (1,689) [6%] | 1,444 [5%] | 1,945 [6%] | 856 [4%] | 3282 [8%] |
| Total | 31,093 (31,435) | 31,518 | 30,531 | 21,675 | 39,424 |

Notes. Data from representative, random sample of US target deal contracts 2007-2008. See Coates 2010 for sample description. This sample is not the primary sample analyzed in this paper, which covers a narrow slice of deals (all-cash, US public target only) over a longer period of time (1994-2014).

Table 2. Summary Statistics for Sample Used this Paper

| | Mean or % positive | Median | St. dev. | Min | Max |
|---|---|---|---|---|---|
| Panel A. Deals (n=586) | | | | | |
| Transaction (equity) value ($mm) | 718.9 | 277.8 | 1658.5 | 100.0 | 25537.4 |
| Target enterprise value ($mm) | 1122.6 | 327.3 | 6239.5 | 30.5 | 137291.5 |
| Percent sought in bid | 98.3% | 100.0% | 7.1% | 51.0% | 100.0% |
| Bid premium to 4-week pre-ann. price | 41.0% | 32.7% | 37.8% | -95.8% | 336.1% |
| Completion rate | 90% | -- | -- | 0 | 1 |
| Duration if completed (days) | 90 | 79 | 54 | 0 | 581 |
| Diversifying bid (1-digit SIC mismatch) | 50% | -- | -- | 0 | 1 |
| Diversifying bid (4-digit SIC mismatch) | 77% | -- | -- | 0 | 1 |
| Bid includes tender offer | 35% | -- | -- | 0 | 1 |
| Leveraged buyout (Thomson coding) | 21% | -- | -- | 0 | 1 |
| All cash deal currency | 100% (by construction) | | | | |
| Domestic (US buyer, US target) | 100% (by construction) | | | | |
| Publicly held target | 100% (by construction) | | | | |
| Panel B. Contracts (n=564) | | | | | |
| Length (characters) | 167,902 | 163,419 | 45,827 | 15,122 | 319,054 |
| Length (words) | 30,980 | 30,105 | 8,643 | 2,550 | 59,584 |
| Number of sections | 70 | 72 | 20 | 30 | 104 |
| Complexity (Flesch-Kincaid grade level) | 27.6 | 27.8 | 6.4 | 6.4 | 67.2 |

Table 3. Annual Summary Statistics for Sample Contracts

| | | **Average** | | **Min** | | **Max** | |
|---|---|---|---|---|---|---|---|
| **Year** | **N** | Length (words) | Flesch-Kincaid grade level | Length (words) | Flesch-Kincaid grade level | Length (words) | Flesch-Kincaid grade level |
| **1994** | 8 | 16,994 | 19 | 2,550 | 7 | 26,816 | 29 |
| **1995** | 9 | 22,907 | 18 | 17,410 | 7 | 48,266 | 29 |
| **1996** | 14 | 21,538 | 22 | 17,351 | 8 | 23,509 | 32 |
| **1997** | 30 | 23,211 | 24 | 13,524 | 6 | 52,143 | 33 |
| **1998** | 41 | 23,265 | 23 | 10,136 | 9 | 42,544 | 33 |
| **1999** | 50 | 25,655 | 26 | 18,780 | 17 | 40,913 | 33 |
| **2000** | 38 | 26,075 | 27 | 17,201 | 7 | 36,104 | 36 |
| **2001** | 16 | 27,581 | 27 | 21,328 | 21 | 42,723 | 34 |
| **2002** | 22 | 32,098 | 28 | 21,015 | 14 | 55,958 | 36 |
| **2003** | 32 | 31,344 | 27 | 22,322 | 15 | 49,600 | 36 |
| **2004** | 26 | 31,197 | 27 | 21,714 | 20 | 55,006 | 32 |
| **2005** | 52 | 31,880 | 27 | 24,276 | 21 | 53,404 | 37 |
| **2006** | 48 | 32,555 | 29 | 21,072 | 22 | 45,084 | 35 |
| **2007** | 51 | 33,657 | 29 | 22,263 | 21 | 48,932 | 44 |
| **2008** | 34 | 37,781 | 30 | 24,628 | 22 | 48,918 | 47 |
| **2009** | 6 | 42,015 | 30 | 29,904 | 28 | 51,987 | 36 |
| **2010** | 32 | 38,706 | 33 | 26,993 | 22 | 52,353 | 57 |
| **2011** | 25 | 41,239 | 33 | 30,687 | 22 | 55,339 | 67 |
| **2012** | 12 | 39,942 | 32 | 33,338 | 25 | 45,635 | 46 |
| **2013** | 12 | 37,750 | 33 | 9,707 | 24 | 59,584 | 53 |
| **2014** | 6 | 44,730 | 29 | 37,959 | 25 | 58,221 | 35 |

**Table 4. Annual Summary Statistics for Sample Deals (averages)**

| **Year** | N | % sought | Bid value $ mm | Bid premium | Completion rate | Duration if completed | % LBO | % Tender Offer | Diversifying 1-digit SIC | 1-digit SIC |
|---|---|---|---|---|---|---|---|---|---|---|
| **1994** | 8 | 96 | 989 | 46 | 88% | 104 | 0% | 50% | 25% | 25% |
| **1995** | 9 | 100 | 457 | 60 | 89% | 69 | 0% | 67% | 11% | 11% |
| **1996** | 16 | 97 | 446 | 36 | 75% | 63 | 6% | 50% | 37% | 37% |
| **1997** | 30 | 97 | 461 | 35 | 80% | 107 | 20% | 47% | 63% | 63% |
| **1998** | 41 | 95 | 506 | 42 | 80% | 106 | 22% | 54% | 54% | 54% |
| **1999** | 54 | 99 | 334 | 46 | 81% | 96 | 33% | 50% | 56% | 56% |
| **2000** | 40 | 96 | 417 | 62 | 93% | 88 | 15% | 65% | 52% | 52% |
| **2001** | 19 | 98 | 542 | 64 | 89% | 87 | 11% | 26% | 37% | 37% |
| **2002** | 22 | 99 | 228 | 47 | 100% | 91 | 9% | 23% | 68% | 68% |
| **2003** | 33 | 99 | 720 | 52 | 85% | 116 | 6% | 24% | 45% | 45% |
| **2004** | 26 | 100 | 408 | 35 | 92% | 89 | 12% | 15% | 31% | 31% |
| **2005** | 52 | 100 | 815 | 24 | 90% | 90 | 23% | 10% | 58% | 58% |
| **2006** | 51 | 99 | 1221 | 35 | 90% | 104 | 25% | 6% | 43% | 43% |
| **2007** | 52 | 99 | 1375 | 28 | 85% | 95 | 25% | 23% | 52% | 52% |
| **2008** | 35 | 98 | 1226 | 50 | 89% | 71 | 17% | 60% | 46% | 46% |
| **2009** | 8 | 98 | 750 | 48 | 63% | 68 | 38% | 38% | 62% | 62% |
| **2010** | 32 | 100 | 482 | 47 | 100% | 74 | 19% | 41% | 47% | 47% |
| **2011** | 27 | 100 | 890 | 37 | 100% | 76 | 26% | 33% | 48% | 48% |
| **2012** | 12 | 99 | 688 | 25 | 100% | 83 | 33% | 17% | 50% | 50% |
| **2013** | 12 | 96 | 456 | 43 | 100% | 65 | 42% | 17% | 42% | 42% |
| **2014** | 7 | 94 | 578 | 16 | 100% | 66 | 14% | 14% | 43% | 43% |

**Table 5. Comparison of Early and Late Contract Sections**

| Article | Substance of Section | % Present | | Average Words in Late Subsample | % of Average Words in Full Contract in Late Subsample |
|---|---|---|---|---|---|
| | | Early Subsample (n=50 unless noted otherwise) | Late Subsample | | |
| **Offer or Merger** | Top-up Option [See Notes] | 0% (n=32) | 79% (n=14) | 887 | 2.0% |
| | Stock option treatment in merger | 38% | 80% | 802 | 1.9% |
| | Anti-dilution adjustments | 4% | 48% | 120 | 0.3% |
| **Target reps** | Disclosure controls | 0% | 84% | 300 | 0.7% |
| | Bribery or unlawful payments | 2% | 44% | 443 | 1.1% |
| | Buyer acknowledges Target's disclaimer of other reps | 0% | 36% | 125 | 0.3% |
| **Buyer reps** | Solvency | 0% | 48% | 241 | 0.6% |
| | Buyer disclaimer of other reps | 0% | 26% | 216 | 0.5% |
| | Target acknowledges Buyer's disclaimer of other reps | 0% | 40% | 204 | 0.5% |
| **Covenants** | Financing covenant | 2% | 66% | 794 | 2.0% |
| | Financing cooperation | 0% | 66% | 2122 | 5.1% |
| | Litigation cooperation | 19% | 74% | 126 | 0.3% |
| **Conditions** | Financing condition | 67% | 0% | [See Notes] | [See Notes] |
| **Termination** | Reverse termination fees | 8% | 52% | 1034 | 2.6% |
| **Misc-ellaneous** | Definitions | 45% | 84% | [See Notes] | [See Notes] |
| | Severability | 55% | 100% | 148 | 0.4% |
| | Specific performance | 46% | 98% | 476 | 1.1% |
| | Jury waiver | 11% | 98% | 254 | 0.6% |
| | Forum selection | 21% | 100% | 298 | 0.8% |
| | Total (excluding definitions) | | | 8591 | 20.7% |

**Notes**. **Top-up Options** are useful only in deals including tender offers (see text), so number of observations is lower. Words included in **financing conditions** are not counted because they are the (only) type of section that appears in the early subsample and not in the late subsample; in the early subsample, they have a small (average=30) words. **Definition sections** are not counted because they collect defined terms from elsewhere in the contract, and do not add meaningful new text.

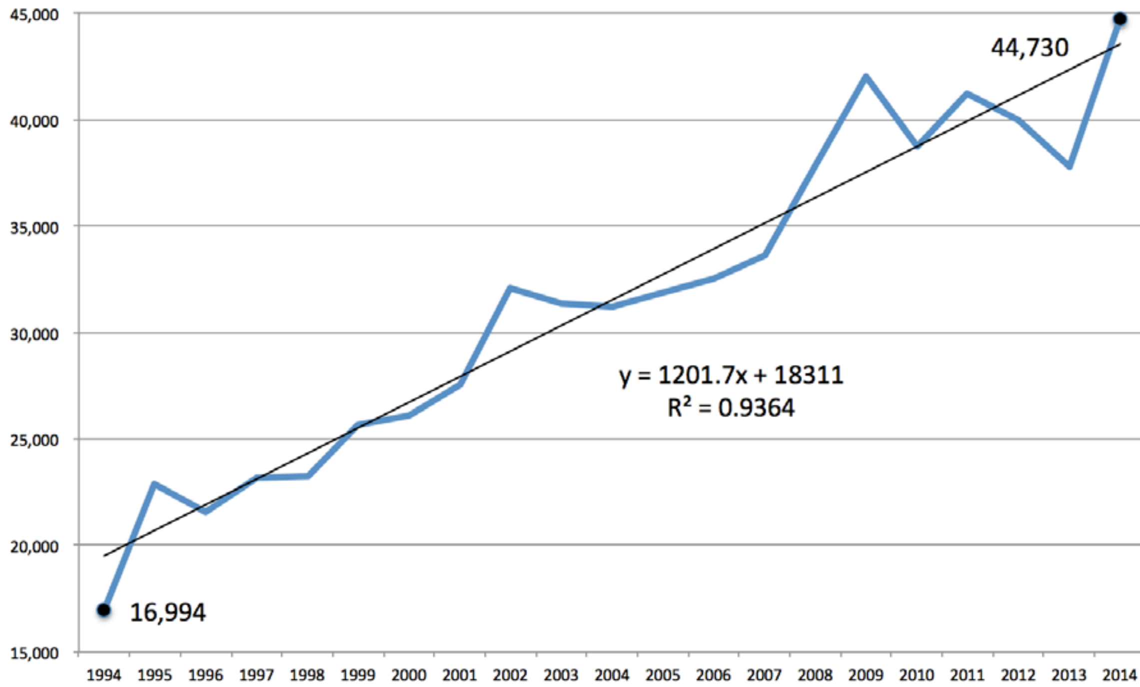
Figure 1. Average of Word Count of M&A Contracts
All-Cash $100m+ US Bidder / US Public Target
45,000
40,000
35,000
30,000
25,000
20,000
15,000
44,730
16,994
y = 1201.7x + 18311
R² = 0.9364
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014

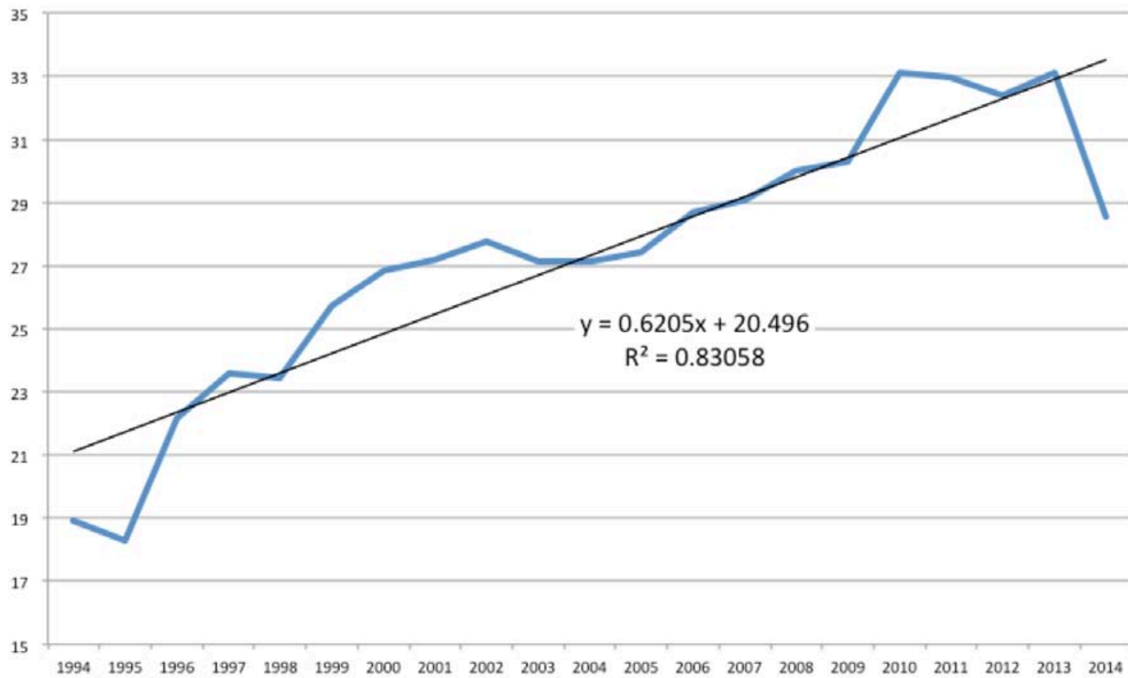
Figure 2. Linguistic Complexity in M&A Contracts
All-Cash $100m+ US Public Target US Bidder
35
33
31
29
27
25
23
21
19
17
15
y = 0.6205x + 20.496
R² = 0.83058
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014

**Figure 3. Word Count in M&A Contracts Over Time**
**All-Cash $100m+ US Bidder / US Public Target**

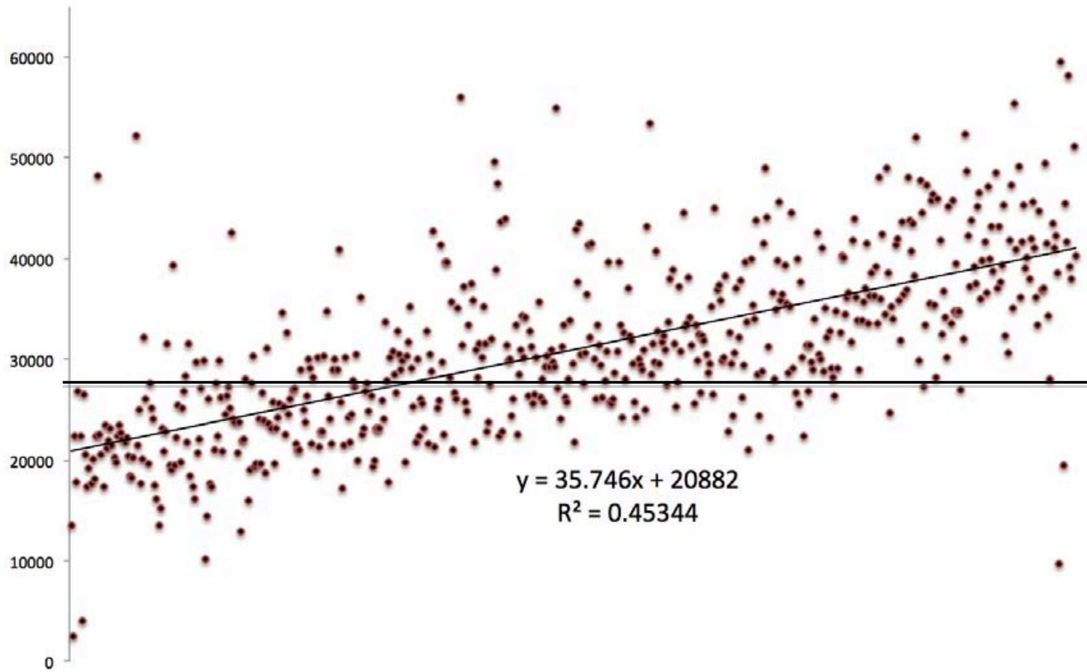


**Figure 4. Flesch–Kincaid grade level**
**All-Cash $100m+ US Bidder / US Public Target**

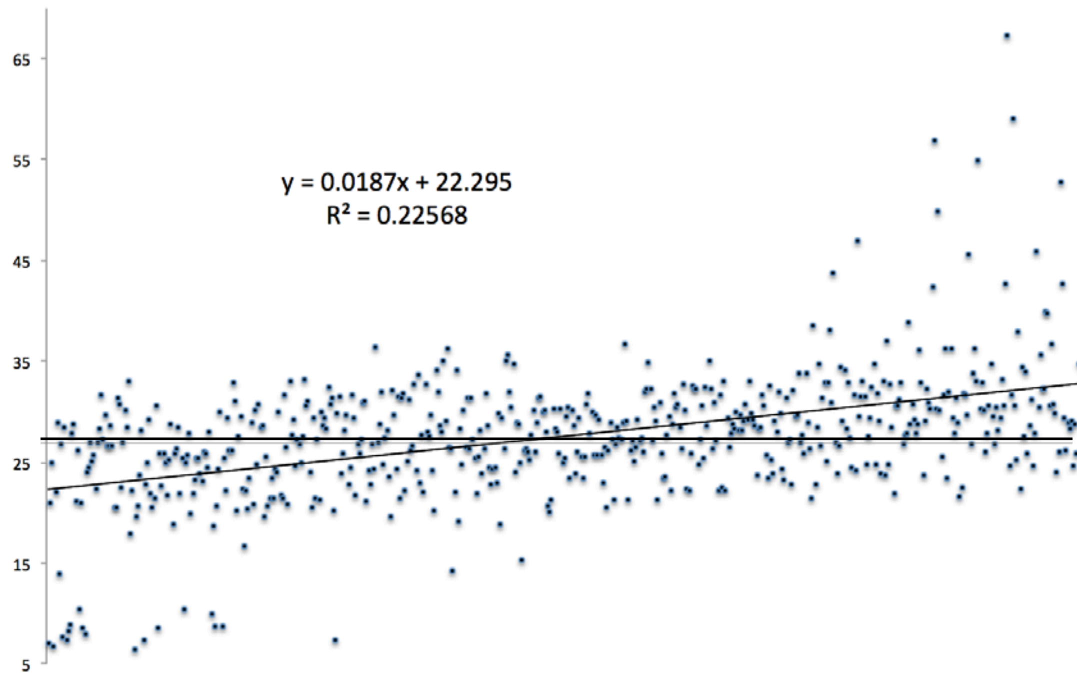

**Table A1. Length and Linguistic Complexity of M&A Contracts Over Time**

Ordinary least squares regressions of character length in columns (1) through (3) and/or Flesch-Kincaid grade level in columns (4) through (6) of M&A contracts on date of announcement and deal characteristics, including deal premium (percentage deal price exceeds target price four weeks prior to announcement), natural log of deal (equity) value, use of a tender offer to accomplish the deal, whether the deal is a leveraged buyout (as coded by Thomson), and whether the buyer and target are in different 4-digit SIC codes. Each cell contains the coefficient, the standard error in parentheses, and the p-value of the t-statistic in brackets, dropping two 1-digit SIC codes (0 and 9) that contain only one observation. Columns (3) and (6) include industry controls using 1-digit SIC classifications. For how the Flesch-Kincaid grade level was computed, see note 25 in the text. Sample consists of acquisitions of more than 50% of public U.S. targets by U.S. acquirors in deals involving 100% cash 1994 to 2014, excluding targets in SIC codes 48, 49, 60 and 63 (banking, insurance, utilities and telecom).

| | **Length of contract (characters)** | | | **Linguistic complexity (Flesch-Kincaid grade)** | | |
|---|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) | (6) |
| **Date announced** | 16.37 (1.26)<br>[0.000] | 18.53<br>(1.44)<br>[0.000] | 18.13<br>(1.16)<br>[0.000] | 0.002<br>(0.0001)<br>[0.000] | 0.002<br>(0.0002)<br>[0.000] | 0.002<br>(0.0002)<br>[0.000] |
| **Deal premium** | | 76.59<br>(49.80)<br>[0.125] | 50.59<br>(49.97)<br>[0.312] | | 0.004<br>(0.009)<br>[0.667] | 0.005<br>(0.007)<br>[0.468] |
| **Deal size** | | -1492.04<br>(2817.49)<br>[0.597] | -3078.32<br>(2233.44)<br>[0.169] | | -0.425<br>(0.251)<br>[0.092] | -0.476<br>(0.2526)<br>[0.060] |
| **Tender offer?** | | 14007.41<br>(4795.75)<br>[0.004] | 15465.80<br>(4851.26)<br>[0.002] | | 1.0778<br>(0.5708)<br>[0.060] | 1.114<br>(0.575)<br>[0.053] |
| **Leveraged buyout?** | | 2050.92<br>(6343.27)<br>[0.747] | 2929.29<br>(6156.54)<br>[0.635] | | 0.805<br>(0.9421)<br>[0.394] | 1.075<br>(0.7189)<br>[0.135] |
| **Diversifying bid?** | | 1816.99<br>(6121.79)<br>[0.767] | 2212.43<br>(5957.57<br>[0.711] | | 0.666<br>(0.6078)<br>[0.274] | 0.763<br>(0.6172)<br>[0.217] |
| **Observations** | 539 | 539 | 537 | 539 | 539 | 537 |
| **Industry controls?** | No | No | Yes | No | No | Yes |
| **R-squared** | 24.12% | 28.41% | 32.90% | 21.93% | 23.54% | 24.68% |
| **p>F** | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |

**Table A2. Top-Up Options, Deal Completion and Deal Duration**

Ordinary least squares regressions of deal completion (a binary outcome variable) in columns (1) through (3) and deal duration (days between deal announcement and completion, conditional on completion) in columns (4) through (6) on the inclusion of top-up options in M&A contracts, together with other deal, bidder and contract characteristics, including deal premium (percentage deal price exceeds target price four weeks prior to announcement), natural log of deal (equity) value, use of a tender offer to accomplish the deal, whether the deal is a leveraged buyout (as coded by Thomson), the size (as a percentage of deal value) of any target break fee or reverse break fee, and whether the buyer and target are in different 4-digit SIC codes. Each cell contains the coefficient, the standard error in parentheses, and the p-value of the t-statistic in brackets, dropping two 1-digit SIC codes (0 and 9) that contain only one observation. Columns (3) and (6) include industry controls using 1-digit SIC classifications. Sample consists of acquisitions of more than 50% of public U.S. targets by U.S. acquirors in deals involving 100% cash 1994 to 2014, excluding targets in SIC codes 48, 49, 60 and 63 (banking, insurance, utilities and telecom).

| | **Deal completion** | | | **Deal duration (in days) if completed** | | |
|---|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) | (6) |
| **Top-up Option?** | 0.10 | 0.06 | 0.06 | -39.0 | -12.7 | -12.7 |
| | (0.02) | (0.02) | (0.02) | (4.41) | (6.21) | (6.21) |
| | [0.000] | [0.002] | [0.003] | [0.000] | [0.041] | [0.041] |
| **Deal premium** | | 0.0005 | 0.0005 | | 0.09 | 0.11 |
| | | (0.0003) | (0.0003) | | (0.06) | (0.06) |
| | | [0.080] | [0.073] | | [0.115] | [0.115] |
| **Deal size** | | 0.01 | 0.01 | | 4.64 | 4.38 |
| | | (0.01) | (0.01) | | (3.91) | (3.91) |
| | | [0.289] | [0.276] | | [0.236] | [0.236] |
| **Tender offer?** | | 0.02 | 0.02 | | -33.98 | -32.78 |
| | | (0.03) | (0.03) | | (5.62) | (5.62) |
| | | [0.391] | [0.471] | | [0.000] | [0.000] |
| **Leveraged buyout?** | | -0.08 | -0.08 | | 16.54 | 16.84 |
| | | (0.04) | (0.04) | | (6.13) | (6.13) |
| | | [0.066] | [0.059] | | [0.007] | [0.007] |
| **Diversifying bid?** | | -0.03 | -0.03 | | -1.08 | -2.26 |
| | | (0.02) | (0.02) | | (6.38) | (6.38) |
| | | [0.186] | [0.214] | | [0.865] | [0.865] |
| **Target break fee size** | | 1.31 | 1.32 | | -8.23 | -8.34 |
| | | (1.46) | (1.47) | | (2.13) | (2.13) |
| | | [0.373] | [0.367] | | [0.000] | [0.000] |
| **Reverse break fee size** | | 0.48 | 0.48 | | -9.51 | -3.52 |
| | | (0.31) | (0.32) | | (64.10) | (64.10) |
| | | [0.117] | [0.136] | | [0.882] | [0.882] |
| **Observations** | 581 | 539 | 537 | 515 | 485 | 485 |
| **Industry controls?** | No | No | Yes | No | No | No |
| **R-squared** | 0.79% | 0.05% | 0.05% | 0.04% | 21.08% | 21.08% |
| **p>F** | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |