STRENGTH IN NUMBERS: TEACHING NUMERACY IN THE CONTEXT OF BUSINESS ASSOCIATIONS

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INTRODUCTION

Although it is news that some students won't be happy to use (or even to hear), the life of a transactional lawyer is, by and large, a numerate life. In other words, such a lawyer frequently is called upon to add and subtract—sometimes even to multiply or divide—and it is not considered attractive to break into a chilly sweat when the occasion to do so arises. As reading the last two sentences unfortunately suggests, however, it is somewhat hard for a true math believer to even broach the subject of transactional numeracy without sounding at least a little snide. That presentational difficulty is closely related to the possibility that a teacher wishing to contribute to the numeracy of students taking business associations simply will wind up driving some students out of the class and, more generally, away from transactional practice. The purpose of this Article is to describe one possible approach to overcoming these linked challenges.

The author's preferred, easy-does-it, method to enhancing transactional numeracy is explicated in Part II below.[1] Part II is (unremarkably) preceded by Part I, which briefly addresses two important background matters.[2] The first is the prevailing, but incorrect, view that lawyers, and law students, are not good at math. The second is the evidence supporting the need for numeracy on the part of transactional lawyers.

I. BACKGROUND

I, and others, have written elsewhere on the popular perception that lawyers and law students are innumerate (that is, the math equivalent of

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1. *See infra* Part II.
2. *See infra* Part I.

illiterate).[3] There are jokes on the subject —none of them particularly funny[4]— as well as a slew of anecdotal illustrations of legal calamities involving math mistakes by lawyers or judges.[5] There is, however and happily, at least one recent study negating the truth of the perception and suggesting that law students are (a) no worse at math than the general population and (b) most likely are better.[6] That does not establish, of course, that law students actually *like* math or that they anticipated having much to do with it when they made the choice to attend law school. My take, based on teaching Business Associations for thirty years, is that the first appearance on the white-board of any sort of equation leads, at best, to stunned silence on the part of a significant majority of the members of the class.[7]

3. *See, e.g.*, Edward K. Cheng, *Fighting Legal Innumeracy*, 17 GREEN BAG 271, 271 (2014) (arguing that numeracy is a fundamental skill for lawyers); Theresa A. Gabaldon, *Doing the Numbers: The Numerate Lawyer and Transactional Law*, 3 AM. U. BUS. L. REV. 63, 64 (2014) (discussing the necessity of numeracy for the transactional lawyer); Lisa Milot, *Illuminating Innumeracy*, 63 CASE W. RES. L. REV. 769, 769–70 (2013) (discussing innumeracy in the legal system).

4. *See, e.g.*, Michelle Obama, Remarks of the First Lady at the National Science Foundation Family-Friendly Policy Rollout (Sept. 26, 2011), http://www.whitehouse.gov/the-press-office/2011/09/26/remarks-first-lady-national-science-foundation-family-friendly-policy-ro. ("I know for me, I'm a lawyer because I was bad at [math and science]. All lawyers in the room, you know it's true. We can't add and subtract, so we argue."). Although lawyer and math jokes may not be especially funny, compare lawyer and mathematician jokes such as the following: A doctor, a lawyer, and a mathematician were discussing the relative merits of having a wife or a mistress. The lawyer says, "For sure a mistress is better. If you have a wife and want a divorce, it causes all sorts of legal problems." The doctor says, "It's better to have a wife because the sense of security lowers your stress and is good for your health." The mathematician says, "You're both wrong. It's best to have both so that when the wife thinks you're with the mistress and the mistress thinks you're with your wife, you can do some mathematics." Compare also "pure" math jokes, e.g., Q: What do you call friends who love math? A: algebros; Three statisticians go out hunting together. After a while they spot a solitary rabbit. The first statistician takes aim and overshoots. The second aims and undershoots. The third shouts out "We got him!"

5. *See, e.g.*, Cheng, *supra* note 3, at 272 n.4 (citing examples of numerical errors by lawyers and judges).

6. *See* Arden Rowell & Jessica Bregant, *Numeracy and Legal Decision Making*, 46 ARIZ. ST. L.J. 191, 221–22 (2014) (noting that data suggests that attorneys are better at numeracy when compared to the general public).

7. Interestingly—and also merely in my experience—finance and accounting graduates seldom tip their hands by so much as cracking a smile. Why do some accountants decide to become actuaries? They find bookkeeping too exciting. By contrast, engineering grads often beam with pleasure. How do you know if someone is an engineer? You don't have to ask him . . . he will tell you; the optimist says the glass is half full. The pessimist says the glass is half empty. The engineer says the glass is twice the size it needs to be.

I, and others, also have written elsewhere on the need for numeracy (that is, the math equivalent of literacy) in the specific context of transactional law.[8] One favored method of making the point in a law school class involves invocation of personal experience: one simply strokes one's long, grey beard and proclaims, "Ah, yes, when *I* was in practice . . ." or, going one better, invites alumni to address the class to do the same thing. Again, a new study has arrived—and again happily—to augment this approach. The study revealed that the largest employers of the graduates of Harvard Law School (a/k/a "Big Law") advise would-be corporate/transactional lawyers that they need to become proficient in accounting and financial statement analysis, as well as in corporate finance.[9] I fully intend to flog this information for all it's worth, suggesting to business associations students that they are in a gateway course, and that it is very important for those without prior finance or accounting experience to find out whether they have an interest in pursuing the more advanced courses.

II. CASES IN POINT

An additional method of illustrating the importance of numeracy actually conflates with a method of developing the skill itself. This involves specifically articulating the role of numbers in many of the cases customarily used in a Business Associations class. I try to do this at least once a week and have found that it frequently is possible even in connection with cases primarily included in the material to raise such general questions for discussion as "What is the purpose of the corporation?" Set out below are brief descriptions of a couple of casebook classics, together with discussion of just what "doing the numbers" in each case can accomplish.

A. Dodge v. Ford Motor Co.

The first example is provided by *Dodge v. Ford Motor Co.*,[10] a case so famous it needs scant description. It invoked the business judgment rule in permitting the directors of Ford to reinvest cash reserves, rather than distribute them to shareholders, but also held that Henry Ford's voiced interest in reducing the price of cars for the benefit of the working man was an

8. *See* Gabaldon, *supra* note 3, at 69; Joan MacLeod Heminway et al., *Innovative Transactional Pedagogies*, 12 TRANSACTIONS: TENN. J. BUS. L. 243, 252–53 (2011) (noting the necessity of numeracy for transactional lawyers).

9. John Coates et al., *What Courses Should Law Students Take? Harvard's Largest Employers Weigh In* 1 (Harvard Pub. Law, Working Paper No. 14-20, 2014), *available at* http://papers.ssrn.com/sol3/Delivery.cfm/SSRN_ID2397317_code1465.pdf?abstractid=2397317&mirid=1. The referenced subjects also were regarded as important for litigators. *Id.*

10. 170 N.W. 668 (Mich. 1919).

impermissible motivation for non-payment of dividends.[11] Its most famous language almost certainly is as follows:

> A business corporation is organized and carried on primarily for the profit of the stockholders. The powers of the directors are to be employed for that end. The discretion of directors is to be exercised in the choice of means to attain that end, and does not extend to a change in the end itself, to the reduction of profits, or to the nondistribution of profits among stockholders in order to devote them to other purposes.[12]

Much less well-loved are the following numeric facts excerpted from two different parts of the case:

> [Its most recent financial statements at the time of filing showed] [i]t had assets of more than $132,000,000, a surplus of almost $112,000,000, and its cash on hand and municipal bonds were nearly $54,000,000. Its total liabilities, including capital stock, was [sic] a little over $20,000,000 . . . .[13]
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> . . .We do not lose sight of the fact that it had been, upon an occasion, agreeable to the plaintiffs to increase the capital stock to $100,000,000 by a stock dividend of $98,000,000. These things . . . cannot operate to estop [the plaintiffs] to demand proper dividends upon the stock they own. It is obvious that an annual dividend of 60 per cent, upon $2,000,000, or $1,200,000, is the equivalent of a very small dividend upon $100,000,000, or more.[14]

These numbers generally do appear in the edited versions of the case appearing in most texts;[15] there are quite a few more in the actual case. One way of dealing with the numbers as they do appear is simply to gloss over them, thus allowing them to have a sort of a "gee, golly-whoppers" effect—as in "Gee, golly-whoppers, those are big numbers. Ford Motor Co. had a lot of money!" Perhaps that's enough of a point if one is pressed for time, but it bypasses a lot. Those relatively few nasty numbers actually do give enough information, however, to enjoy oneself in constructing a rough approximation of the Ford Motor Co.'s balance sheet both before and after the $98,000,000 stock dividend described.[16] Those balance sheet renditions reveal that after the stock dividend, the surplus available for distribution would have been only

11. *Id.* at 682–84.

12. *Id.* at 684.

13. *Id.* at 683.

14. *Id.* at 685.

15. *See, e.g.*, ROBERT W. HAMILTON ET AL., CASES AND MATERIALS ON CORPORATIONS INCLUDING PARTNERSHIPS AND LIMITED LIABILITY COMPANIES 341–45 (11th ed. 2010).

16. The unedited case does contain the pre-stock dividend balance sheet. *Dodge*, 170 N.W. at 670.

$14,000,000 were the amounts on the balance sheet otherwise static.[17] That is not a small number, but it's quite a bit less impressive than the original surplus of $112,000,000 to which the court alludes.[18]

The exercise of reconstructing the before and after balance sheets also prompts an inquiry into just why that stock dividend might have been declared. Was it actually for the purpose of reducing surplus so there would be less that Ford lawfully could distribute? Or, was it for the eventual purpose of giving shareholders something to sell while still retaining their original investment? If it were the latter, it would raise a question about one possible interpretation of the case—that Henry Ford's reluctance to declare cash dividends was simply a way to avoid funding competition by the upstart Dodge brothers and that his refusal to admit his real motive permitted him to avoid scrutiny under newly burgeoning federal antitrust law.[19] In any event, thinking hard about the numbers significantly facilitates a discussion of exactly how one might, as a corporate attorney, advise a prospective Mr. Ford.

B. In re Radom & Neidorff, Inc.

In re Radom & Neidorff, Inc.[20] is somewhat less famous than *Dodge v. Ford Motor Co.*, but provides just as compelling an example of the need for numeracy in understanding and giving advice in light of corporate doctrine. There, a brother and sister, each of whom owned fifty percent of the corporation in question (the latter by reason of inheritance from her husband), were deadlocked with respect to the election of directors.[21] Moreover, although the brother, Mr. Radom, was responsible for running the company, his sister, Mrs. Neidorff, refused to co-sign his paychecks as was required pursuant to corporate by-laws. Mr. Radom therefore sought judicial dissolution, invoking a statute authorizing a petition for dissolution "if the votes of [a corporation's] stockholders are so divided that they cannot elect a board of directors . . . ."[22]

17. Obviously, in the three years since the litigation was filed the balance sheet would have undergone changes in addition to reflecting the transfer of $98,000,000 from retained earnings to stated capital (a/k/a capital stock).

18. *Dodge*, 170 N.W. at 683.

19. For a fascinating exploration of Ford's likely motives, see Todd M. Henderson, *Everything Old Is New Again: Lessons from* Dodge v. Ford Motor Company 1 (John M. Olin Law and Econs. Working Paper Series, Paper No. 373, 2007), *available at* http://papers.ssrn.com/sol3/Delivery.cfm/SSRN_ID1070284_code249436.pdf?abstractid=1070284&mirid=1.

20. 119 N.E.2d 563 (N.Y. 1954).

21. *Id.* at 563–64. It is only a minor math point, but it perhaps is worth reminding students that 50/50 share ownership is a recipe for deadlock in the absence of cumulative voting or some tie-breaking arrangement.

22. *Id.* at 564 (quoting N.Y. BUS. CORP. LAW § 103 (Consol.)).

The matter dragged on for several years while Mr. Radom's ownership of his stock was contested in a separate matter pitting him against his children.[23] When the intergenerational conflict was resolved, the sibling rivalry resumed and made its way to the highest court in the state.[24] There, denial of the petition was affirmed given the finding that, despite the deadlock, the corporation was "not sick but flourishing."[25] The court noted that a lower court had observed, "not only have the corporation's activities not been paralyzed, but . . . its profits have increased and its assets trebled during the pendency of this proceeding, [and] the failure of petitioner to receive his salary did not frustrate the corporate business and was remediable by means other than dissolution."[26] The most memorable language employed by the New York Court of Appeals is as follows:

> Clearly the dismissal of this petition was within the discretion of the Appellate Division. There is no absolute right to dissolution under such circumstances. Even when majority stockholders file a petition because of internal corporate conflicts, the order is granted only when the competing interests are so discordant as to prevent efficient management and the object of its corporate existence cannot be attained. The prime inquiry is, always, as to necessity for dissolution, that is, whether judicially-imposed death will be beneficial to the stockholders or members and not injurious to the public. Taking everything in the petition as true, this was not such a case . . . .[27]

We hear, then, a reprise from the *Ford* case with respect to the object of corporate existence and learn that so long as a corporation is making a significant amount of money it probably deserves to escape judicially-sanctioned execution.[28] Thus, the point of the case can be made without a single number (other than that "trebled" bit in the lower court opinion, which probably could have been avoided). One can well imagine that students who, in their first year of law school, have been challenged to screen for and recite only the most relevant facts will distill analysis of the *Radom* case in exactly this fashion.[29] That said, thoughtful students often do gravitate toward the dissent, which expresses sympathy for Mr. Radom, who as a result of the case seems to be destined to a future of litigation against the corporation for his salary claims.

23. In re Radom's Estate, 112 N.E.2d 768 (N.Y. 1953).
24. *In re Radom & Neidorff*, 119 N.E.2d at 563.
25. *Id.* at 564–65.
26. *Id.* at 565 (citing *In re* Radom, 124 N.Y.S.2d 424, 424–25 (N.Y. App. Div. 1953)).
27. *Id.* (citations omitted) (internal quotation marks omitted).
28. *Id.* at 564.
29. *See* Gabaldon, *supra* note 3, at 74–76 (describing distillation process).

Now for a bit of the nasty: there are actually quite a few numbers in the case that are compositely quite illuminating. Students nonetheless are quite likely to have speed-read their way right past them. In the court's words, they are summarized as follows:

> A schedule attached to the petition showed corporate assets consisting of machinery and supplies worth about $9,500, cash about $82,000, and no indebtedness except about $17,000 owed to petitioner (plus his salary claim). Mrs. Neidorff's answering papers alleged that, while her husband was alive, the two owners had each drawn about $25,000 per year from the corporation, that, shortly after her husband's death, petitioner had asked her to allow him alone to sign all checks, which request she refused, that he had then offered her $75,000 for her stock, and, on her rejecion thereof, had threatened to have the corporation dissolved . . . . [During the years the litigation was in suspense] the corporation's profits before taxes had totaled about $242,000, or an annual average of about $71,000, on a gross annual business of about $250,000, and . . . the corporation had, in 1953, about $300,000 on deposit in banks.[30]

When students are first prompted to focus on *Radom*'s numbers with a question like "Was the brother offering a fair price?", their starting point usually is an attempt to determine "value" at the time the petition was filed, which was a mere five months after Mr. Neidorff's death.[31] Mathematically inclined students who are not particularly financially literate may add $9,500 and $82,000 (perhaps rounding down to $90,000) and then subtract liabilities (perhaps rounding up to $30,000 because of the salary claim, which presumably would have been for about half of the annual "draw"). They then may divide the resulting number of around $60,000 by two, leading them to conclude that Mrs. Neidorff's inherited stake in the corporation was around $30,000, and that she was a grasping piggy for rejecting her brother's princely offer of $75,000.

Only when prompted again are students likely to take into account the fact that fifty percent of $71,000 (or a little over $35,000) in annual profit is a return on a $30,000 "investment" of over one hundred percent.[32] Where else is Mrs. Neidorff going to be able to get a return like that? For that matter, if she had taken the $75,000 offered would she have been able to invest it in something that would return $35,000, or close to fifty percent? Pushing a bit further, if the corporation were dissolved as a result of the case, what would

30. *In re Radom & Neidorff*, 119 N.E.2d at 564.

31. *Id.*

32. Even if "return" is measured based on amounts drawn before Mr. Neidorff's death rather than on subsequent profit figures, an annual return of $25,000 is handsome given the amount invested. Moreover, owing to the accumulated cash, it is likely that annual profits (and thus return) exceeded the amounts drawn. All of the calculations in this paragraph require some guesswork, of course.

Mrs. Neidorff receive? Let's say that it would be half of approximately $220,000, calculated by adding cash of $300,000 plus estimated machinery and supplies of perhaps $10,000 and subtracting liabilities estimated at around $90,000 (composed of $17,000 plus $75,000 for three years of salary claims, rounded down). Would she be able to invest that $110,000 in something that reliably returns $35,000 or over thirty percent? This progression ultimately and fairly conclusively demonstrates exactly why dissolution would not be "beneficial to the stockholders"—at least not all of them.

"Doing the numbers" in this case may lead some students to feel that Mr. Radom was trying to cheat Mrs. Neidorff (especially if the teacher helpfully contributes some information about what his children claimed in the separate litigation[33]). Others still may feel that Mrs. Neidorff is being greedy because Mr. Radom is doing all the work. Leaving aside the salary claim, it's appropriate to ask for speculation about just why the company can make so much money with so little tied up in machinery and supplies. This is an occasion to talk about goodwill, and the fact that although goodwill that is "earned" by a corporation is not something that shows up as an asset on its own balance sheet, it is something for which third parties are willing to pay. Presumably, Mr. Neidorff (who appears to be the only person who ever got along with Mr. Radom) contributed to the accumulation of that goodwill during the thirty years that he and his brother-in-law labored cheek-by-cheek.[34]

What this all means, of course, is that if one is counseling either a Mrs. Neidorff or a Mr. Radom with respect to a negotiated buy-out, it would be nice to able to follow the conversation about pricing, and even nicer to be able to suggest that your client think again if his or her claim seems unreasonable or if he or she is on the verge of being snookered.[35] Just as important, it would be nice to be able to give advice, in the context of a proposed dissolution proceeding, as to whether continuing the corporate life is or is not going to be deemed generally beneficial to the shareholders.

CONCLUSION

Obviously, "doing the numbers" for every case—or even most cases—in Business Associations would significantly diminish the time available for classroom contemplation of other matters. Course coverage, however, is always up for grabs. In light of the evidence that transactional lawyers really

33. *See* In re Radom's Estate, 112 N.E.2d 768 (N.Y. 1953).

34. *See In re Radom & Neidorff*, 119 N.E.2d at 563.

35. Granted, we are not generally hired to dispense business advice, but it is not inappropriate to give it. *See* MODEL RULES OF PROF'L CONDUCT r. 2.1 (2013) ("In rendering advice, a lawyer may refer not only to law but to other considerations such as moral, economic, social and political factors, that may be relevant to the client's situation.").

do need to have at least modest ability to work with numbers, as well as the suspected disinclination of law students to do that work, using classroom time for math practice seems a wise choice. I have been happy to note that by the end of the usual semester in Business Associations—in which I have a conversation along the lines of those described in Part II approximately once a week—my students seem to be both more willing and more able to discuss the significance of the various figures appearing in cases. In addition, I have been interested to observe that it tends disproportionately to be my own more-than-averagely math-titillated Business Associations students who subsequently enroll in Law and Accounting (a class I also teach). I certainly do not credit this to my own charm, but rather to the fact that the students already have been exposed to the substantial charms of numbers in a transactional context.