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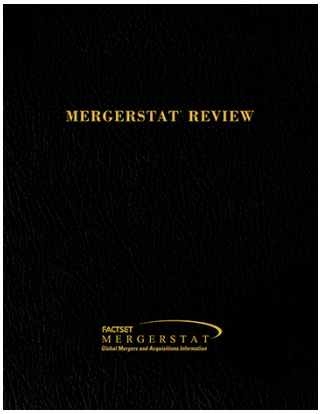

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BUSINESS VALUATION UPDATE

TIMELY NEWS, ANALYSIS, AND RESOURCES FOR DEFENSIBLE VALUATIONS

How to Use New Data on Invested Capital Premiums

Valuation professionals have traditionally used equity values to estimate acquisition premiums because data were not available concerning the target company's leverage and its comparison to the capital structure in comparable companies. Now, the Factset Mergerstat/BVR Control Premium Study includes an invested capital premium and the corresponding implied minority discount along with the equity premiums/discounts.[1]

During a recent webinar, Timothy J. Meinhart and Nate Novak (both with Willamette Management Associates) discussed important concepts about the proper quantification and application

1 bvresources.com/products/factset-mergerstat-bvr-control-premium-study.

continued on page 11...

Economic Damages From Design Patent Infringements

By Richard F. Bero, The BERO Group PA (Chicago, Ill., USA) and Christopher V. Carani, Esq., McAndrews, Held & Malloy Ltd. (Chicago, Ill., USA)[1]

Editor's note: This article is from the recently released sixth edition of The Comprehensive Guide to Economic Damages *(Chapter 29, "Design Patent Damages"), which is available from BVR at bvresources.com/products/the-comprehensive-guide-to-economic-damages-sixth-edition.*

For the period from October 2014 through September 2019, design patent applications grew at an annual compound rate of 5.2%, outpacing

1 The authors also wish to thank Bryan Berghauer, director with The BERO Group, for his substantial contributions in developing this chapter.

continued on next page...

In This Issue

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utility patents, which grew at a rate of 1.6%.[2] Over the same period, issuances of design patents grew at a higher rate of 5.8% than for utility patents, 3.3%.[3]

From 2012 through 2015, the number of design patent infringement filings in the United States increased slightly, from 273 cases in 2012 to 300 cases in 2015.[4] From 2015 through 2019, design patent infringement filings dropped, from 300 cases in 2015 to 217 cases in 2019.[5] During the same period, as a percentage of total patent infringement filings, design patent filings increased from 5.1% to 6.0%.[6]

Three Ways to Protect Appearance

Design patents are one of three central means of intellectual property protection for an item's appearance:[7]

1. Copyright–A copyright may include "original works of authorship fixed in any tangible medium of expression."[8] The basic framework of current copyright law was enacted with the Copyright Act of 1976.[9] As stated in the chapter "Lost Profits (and Other Damages) in Trademark and Copyright

2 *FY2019 United States Patent and Trademark Office*, Performance and Accountability Report, 166.

3 Ibid.

4 Lex Machina, "Patent Litigation Report," February 2020, 6.

5 Ibid.

6 Lex Machina, "Patent Litigation Report," February 2020, 4.

7 Christopher V. Carani and Dunstan H. Barnes, *United States in Design Rights: Functionality & Scope of Protection 9-50* (Christopher V. Carani, ed., London, Kluwer Law International BV, 1st ed., 2017) ("The appearance of an object or article of manufacture may be protected in the United States under three separate, but sometimes overlapping IP regimes: design patents, trade dress, and copyright. As all three rights aim to protect the outward visual appearance of a product, none protects any underlying functional purposes, qualities or characteristics of the product.")

8 copyright.gov/title17/title17.pdf.

9 Ibid.

Cases," United States statute provides recovery of "actual damages and any additional profits of the infringer."[10]

2. Trademark/trade dress—The term "trademark" is defined as "any word, name, symbol, or device or any combination thereof 1) used by a person or 2) which a person has a bona fide intention to use in commerce and applies to register on the principal register established by this chapter, to identify and distinguish his or her goods, including a unique product, from those manufactured or sold by others and to indicate the source of the goods, even if that source is unknown."[11] The Lanham Act, enacted into law in 1946, is the governing statute for trademarks in the United States. It codified modern trademark legislation and established the guidelines for the registration and regulation of trademarks in the United States.[12] As stated in the chapter "Lost Profits (and Other Damages) in Trademark and Copyright Cases," damages can be recovered for plaintiff's actual damages, losses, or "defendant's profits."

3. Design patents—The USPTO defines the subject matter of a design patent as the "design embodied or applied to an article of manufacture (or potion thereof) and *not* the article itself."[13] The statutory basis for design patents is 35 U.S.C. § 171, which was codified in 1952.[14] While it is possible to receive a utility patent and a design patent on the same product, the protection each affords is directed at different aspects of that product.[15]

10 17 U.S.C. § 504(a).

11 law.cornell.edu/uscode/text/15/1127.

12 law.cornell.edu/wex/lanham_act.

13 uspto.gov/web/offices/pac/mpep/s1502.html.

14 govinfo.gov/content/pkg/STATUTE-66/pdf/STATUTE-66-Pg792.pdf#page=1.

15 uspto.gov/web/offices/pac/mpep/s1502.html.

Distinguished From Utility Patents

Generally, the difference between a utility patent and a design patent is that a utility patent covers the *use* of an item, whereas a design patent covers its *appearance*.[16]

The statutory basis for utility patents is 35 U.S.C. § 101. Section 101 states:[17]

> Whoever invents any new and useful process, machine, manufacture or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

The statutory basis for design patents is 35 U.S.C. § 171.[18] Section 171 states:[19]

> Whoever invents any new, original and ornamental design for an article of manufacture may obtain a patent therefor, subject to the conditions and requirements of this title.

Infringement of design patents is decided based on a two-step process: construing the claims and employing the "ordinary observer" test.[20] According to the ordinary observer test:[21]

> If, in the eye of an ordinary observer, giving such attention as a purchaser usually gives, two designs are substantially the same, if the resemblance is such as to deceive such an observer, inducing him to purchase one supposing it to

16 Ibid.

17 35 U.S.C. § 101.

18 *See* Christopher V. Carani and Dunstan H. Barnes, 2017, *supra* (full discussion of the requirements for U.S. design patents); *see also*, Christopher V. Carani and Dunstan H. Barnes, 2017. United States. In: "Designs 2017 A Global Guide," *World Trademark Review*, pp. 123-129.

19 35 U.S.C. § 171(a).

20 *Catalina Lighting, Inc. v. Lamps Plus, Inc.*, 295 F.3d 1277, 1286 (Fed. Cir., 2002).

21 Ibid.

> be the other, the first one patented is infringed by the other.

Federal Law Governing Design Patent Infringement Damages

The statutory basis for damages in design patent infringement cases is 35 U.S.C. § 284 (similar to utility patents) *and* 35 U.S.C. § 289. As addressed in the chapter "Patent Infringement Damages: Lost Profits and Royalties," 35 U.S.C. § 284, states:[22]

> Upon finding for the claimant the court shall award the claimant damages adequate to compensate for the infringement, but in no event less than a reasonable royalty for the use made of the invention by the infringer, together with interest and costs as fixed by the court.

35 U.S.C. § 289 states:[23]

> Whoever during the term of a patent for a design, without license of the owner,
>
> (1) Applies the patented design, or any colorable imitation thereof, to any article of manufacture for the purpose of sale, or
>
> (2) Sells or exposes for sale any article of manufacture to which such design or colorable imitation has been applied
>
> Shall be liable to the owner to the extent of his total profit, but not less than $250, recoverable in any United States district court having jurisdiction of the parties.

The law recognizes and distinguishes three general bases for recovery for design patent damages pursuant to Sections 284 and 289: (1) lost profits under 284; (2) reasonable royalty under 284; and (3) infringer's profits under 289.[24]

However, in no case can a design patentee recover damages both under Section 284 and infringer's profits under 289 for infringement by the same product.[25]

As addressed in "Patent Infringement Damages: Lost Profits and Royalties," the Federal Circuit has defined lost profits damages as a measure of damages "intended to make the party whole—to compensate the patent holder for profits lost as a result of the infringement. It is not solely a 'but for' test."[26]

The applicability of lost profits to design patent holders versus utility patent holders may differ as "design patent holders may face a puzzling problem when attempting to establish entitlement to lost profits" under the *Panduit* test.[27] Specifically, if the design patent holder must fend off a challenge under Section 171 that the design is not ornamental, the main argument in response (to prove that the design is not dictated solely by function) is to show that there *are* alternative designs.[28] But arguing alternative designs in this

22 35 U.S.C. § 284.

23 35 U.S.C. § 289.

24 *See, e.g., Polaroid Corp. v. Eastman Kodak Co.*, 16 USPQ2d 1481, 1484 (D. Mass. 1990). (The law recognizes two possible measures of recovery: lost profits or a reasonable royalty; under either method, the purpose is the same: to compensate the patentee for actual injuries.) An "established royalty" is sometimes referred to as a third form of compensatory damages, although it is often characterized as a reasonable royalty (*see, e.g., Compensatory Damages Issues in Patent Infringement Cases: A Handbook for Federal District Court Judges*, law.berkeley.edu/files/bclt_PatentDamages_Ed.pdf, 3-4 (Jan. 2010)). *See also* 35 U.S.C. § 289.

25 *Braun Inc.*, 975 F.2d at 824 citing *Bergstrom v. Sears, Roebuck and Co.,* 496 F.Supp. 476, 494 (D.Minn.1980) (citing *Henry Hanger & Display Fixture Corp. of America v. Sel-O-Rak Corp.,* 270 F.2d 635 (5th Cir.1959)).

26 *Warsaw Orthopedic, Inc. v. NuVasive, Inc.,* 778 F.3d 1365, 1375 (Fed. Cir. 2015) (citing *Rite-Hite Corp. v. Kelley Co., Inc.,*56 F.3d 1538, 1546 (Fed.Cir.1995) (en banc)).

27 Mark D. Janis, "How Should Damages Be Calculated for Design Patent Infringement?" 37 *Rev. Litig.* 241 (2018).

28 *See Ethicon Endo-Surgery, Inc. v. Covidien, Inc.*, 796 F.3d 1312, 1330-31 (Fed. Cir. 2015) ("We have often

context may be at odds with the patent holder's burden under *Panduit* to show that there is an "absence of acceptable non-infringing alternatives." It is uncertain whether the analysis for what constitutes an "alternative design" in each of those contexts means the same thing. To the authors' knowledge, no court has addressed this potential issue.

Given the challenges of recovering lost profits for design patent infringement, the two more likely remedies would be a reasonable royalty and infringer's profits. Whereas a reasonable royalty damages methodology "is intended to compensate the patentee for the value of what was taken from him—the patented design"[29]—the infringers' profits methodology contrastingly requires the disgorgement of infringers' profits to the patent holder, such that the infringers retain no profit from their wrong.[30]

Damages

As stated above, the law recognizes three general bases for recovery for design patents pursuant to Sections 284 and 289.

Section 289 Damages. Section 289 not only states the infringer *"shall be liable to the owner to the extent of his total profit"* (emphasis added), but also sets a floor for those damages, requiring that damages be "not less than $250."[31] It is worth mentioning that an award of the infringer's profits is technically not an award of damages. Historically, an award of profits is an equitable remedy only courts of equity provide. In contrast, an award of damages is compensatory in nature and was provided only by courts of law. Over time, the line between courts of law and equity has been erased. The referencing of an award of profits as a damages award is now common. Nevertheless, some jurists still maintain the distinction, even if only as a matter of semantics.[32]

The amount of infringer's total profit depends on the:[33]

1. Identification of the article of manufacture; and
2. Infringer's total profit made on the article of manufacture.

Article of Manufacture. Part 1 of Section 289, as recited above, refers to the "patented design" and "the article of manufacture."[34] To determine the amount of damages to compensate the patent owner for infringing the design, it is inherently necessary to understand both the patented design and the article of manufacture.

Although certain design patents cover an entire product sold, in the case of a multicomponent product, identification of the "article of manufacture" is more difficult with respect to the patented design.[35] As stated in the Supreme Court's *Apple v. Samsung* opinion, in the case of a dinner plate design patent, the product is the article of manufacture versus a partial design on a kitchen oven where the article of manufacture may seem less obvious.[36] The term "article of manufacture" is broad enough to cover both scenarios where the "article of manufacture" is either an entire

focused, however, on the availability of alternative designs as an important—if not dispositive—factor in evaluating the legal functionality of a claimed design.")

29 *Warsaw Orthopedic,* 778 F.3d 1365, 1375 (citing *Aqua Shield v. Inter pool Cover Team*, 774 F. 3d 766, 770 (Fed. Cir. 2014) (quoting *Dowagiac Mfg. Co. v. Minn. Moline Plow Co.,* 235 U.S. 641, 648, 35 S.Ct. 221, 59 L.Ed. 398 (1915)).

30 *Nike, Inc. v. Wal-Mart Stores, Inc.*, 138 F.3d 1437, 1448, 46 USPQ2d 1001 (C.A.Fed. (Va.), 1998).

31 35 U.S.C. § 289.

32 *See Nike, Inc. v. Wal-Mart Stores, Inc.*, 138 F.3d 1437, 1448, 46 USPQ2d 1001 (C.A.Fed. (Va.), 1998).

33 *Samsung Electronics Co., Ltd., et al. v. Apple Inc.*, 137 S. Ct. 429, 434 (2016).

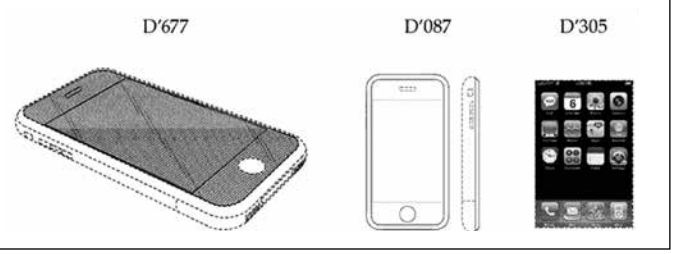
34 35 U.S.C. § 289.

35 *Samsung*, 137 S. Ct. at 431.

36 *Samsung*, 137 S. Ct. at 432.

product or a piece of a product.[37] Consider the "article of manufacture" in the case of *Apple v. Samsung,* where three asserted design patents were all "partial designs" (i.e., a portion of a larger product) (see exhibit).[38]

Three Asserted Design Patents in *Apple v. Samsung*



An understanding of the patented design within the context of defining the "article of manufacture" tends to assist in this analysis, such that the damages can be properly correlated between the patented design and the article of manufacture. However, no exact test for "article of manufacture" has been established and is instead left to the lower courts to decide.[39]

As part of *Apple v. Samsung*, the solicitor general for the United States submitted an amicus brief that described a four-factor (or four-consideration) test for identifying the "article of manufacture." The four factors described in the brief include:[40]

1. The scope of the design claimed in the plaintiff's patent, including the drawing and written description, provides insight into which portions of the underlying product the design is intended to cover and how the design relates to the product as a whole.

2. The fact-finder should examine the relative prominence of the design within the product as a whole. If the design is a minor component of the product, such as a latch on a refrigerator, or, if the product has many other components unaffected by the design, that fact suggests that the "article" should be the component embodying the design.

3. Relatedly, the fact-finder should consider whether the design is conceptually distinct from the product as a whole. If the product contains other components that embody conceptually distinct innovations, it may be appropriate to conclude that a component is the relevant article.

4. The physical relationship between the patented design and the rest of the product may reveal that the design adheres only to a component of the product. If the design pertains to a component that a user or seller can physically separate from the product as a whole, that fact suggests that the design has been applied to the component alone rather than to the complete product.

After remand from the Supreme Court and the Federal Circuit, the district court overseeing *Apple v. Samsung* embraced the above "four-factor test," summarized each factor in the jury instructions, and instructed the jury to consider such factors when determining the article of manufacture.[41] Based on the above-claimed designs, the jury appears to have considered the entire phone the article of manufacture.[42] However, the parties ultimately settled their seven-year dispute in June 2018, and the terms of the settlement were not disclosed.

37 Id. at 435.

38 I note the design patents cover the solid lines and not the dotted lines.

39 Id. at 436.

40 *Apple, Inc. v. Samsung Elecs. Co.*, No. 11-cv-01846 (May 18, 2018), ECF No. 3785 at 43.

41 Ibid.

42 *Apple, Inc. v. Samsung Elecs. Co.*, No. 11-cv-01846 (Aug. 24, 2012), Amended Verdict Form, and *Apple, Inc. v. Samsung Elecs. Co.*, No. 11-cv-01846 (May 18, 2018), Verdict Form.

Soon thereafter, in the case of *Columbia Sportswear v. Seirus Innovative Accessories*, the trial court's jury instructions directed the jury to, first, determine the article of manufacture and, second, to calculate the infringer's total profit.[43] The jury instructions indicated that, while "Columbia bears the initial burden of producing evidence identifying the article of manufacture," Seirus "bears the burden of proving that the article of manufacture is something less than the entire product," consistent with the *Samsung* decision.[44] The instructions also suggested the article of manufacture "may be the product as a whole or a component of that product" and "if the product as sold to consumer is a multicomponent product then you must use the [4] factors [four-factor test] listed below to determine whether the 'article of manufacture' is the whole product or a component of that product," again, consistent with the *Apple v. Samsung* case.[45]

The jury instructions in *Ford Global Technologies, LLC v. New World Int'l., et al.* also contemplate the four-factor test.[46] With more limited commentary, the jury instructions merely state: "To identify the articles of manufacture, you should consider the following four factors."[47]

In another reference to the four-factor test, in the case of *Nordock v. Systems*, after the case was remanded from the Supreme Court and Federal Circuit, the trial court found the four-factor test to be appropriate.[48] However, while the trial court agreed the four-factor test was appropriate, the court also stated it did not believe the four factors "will always be the only factors relevant to determining the article of manufacture." For example, the court concluded "that how a product is manufactured merits explicit consideration as a factor when attempting to determine what is the relevant article of manufacture." The court also quoted an older case stating, "[E]ach design patent must be considered in context and 'considered from all viewpoints, technical, mechanical, popular, and commercial.'"[49]

While a number of courts have embraced the four-factor test for use in their jury instructions, in the case of *Deckers Outdoor Corp. v. Romeo & Juliette*, the jury instructions make no mention of the four-part test for identifying the article of manufacture.[50] Silence could suggest other valid interpretations of arriving at the article of manufacture other than the four-part test contemplated as part of *Apple v. Samsung*.

In a recent article titled "Determining the 'Article of Manufacture' Under 35 U.S.C. § 289," the authors suggest an alternative four-factor test believed to be consistent with statute and legislative intent, while also being fair to each of the litigants. Knowing the default article of manufacture to be the end product sold, unless the infringer proffers something less, the proposed factors include:[51]

1. *The visual contribution the patented design made to the overall appearance of the end product the infringer sold, in the eye of an ordinary observer.* The more significant the patented design to the end product sold,

43 *Columbia Sportswear North America, Inc. v. Seirus Innovative Accessories, Inc.*, No. 3-17-cv-01781 (Sept. 29, 2017) ECF No. 378, Jury Instructions, at 15.

44 Ibid.

45 Ibid.

46 *Ford Global Technologies, LLC v. New World Int'l., et al.,* No. 3:17-CV-3201-N (N.D. Tex 2018) at 16.

47 Ibid.

48 *Nordock, Inc. v. Sys., Inc.*, No. 11-cv-118 (E.D. Wis. Nov. 21, 2017) at 13-14.

49 *Bush & Lane Piano Co.*, 234 F. at 81.

50 *Deckers Outdoor Corp. v. Romeo & Juliette*, No. 15-cv 02812 (C.D. Cal. April 6, 2018) ECF No. 257. As noted, the jury instructions make no mention of the four-part test for identifying the article of manufacture. The article of manufacture and, more generally, damages issues were also not appealed by either party.

51 Elizabeth D. Ferrill, Perry Saidman, Damon Neagle, and Tracy Durkin, "Determining the 'Article of Manufacture' Under 35 U.S.C. § 289."

the more weight given to the end product sold as being the article of manufacture.

2. *Whether, at the time of the infringement, the patentee or infringer separately sold its proffered articles of manufacture.* If the end product sold were multicomponent, and if the proffered article of manufacture were sold separately, this would suggest the proffered article of manufacture is the relevant article of manufacture.

3. *The intent of the infringer in appropriating the patented design.* If the infringer intended to take advantage of the patented design in order to sell a competing product, the factor would indicate the end product was the relevant article of manufacture. Alternatively, if the infringer did not intend to simulate the patented design or had no knowledge of the patented design, this would suggest the proffered product to be the relevant article of manufacture.

4. *The degree of difficulty in calculating total profit of the proffered articles of manufacture.* The easier the calculation to articulate total profit for the proffered article of manufacture, the more likely the proffered article of manufacture is the relevant article of manufacture.

It is notable that the authors' first factor looks to the "visual contribution the patented design made to the overall appearance of the end product." The first factor does not compare the contribution to the *entire end product* (including nonvisual aspects of the end product such as functionality) but rather to the *overall appearance* of the end product. When the design patent claim is directed at all, or nearly all, of the exterior surfaces of the end product, the relevant article of manufacture will likely be the entire end product, irrespective of whether the end product possesses other functional attributes. For example, if a design patent is directed to the entire exterior surface of a blender, the contribution of the design patent to the overall appearance of the blender is 100%. The entire blender would be the relevant article of manufacture. The profits to be disgorged would be those from the sale of the entire blender, while no apportionment for considerations such as functionality of the innards (e.g., motor, electronics, etc.) would be deducted. While not yet adopted by any courts at the time of this writing, the article's authors' four-factor test nonetheless provides an alternative proposed framework to be considered with a lack of clarity in an evolving area of law.

Both technical and practical sources can provide information to assist in determining and understanding the patented design and the defined article of manufacture. These technical sources may include the court's decisions in the pending case, the patent at issue, and discussions with technical experts and their expert reports. From a practical standpoint, guidance can be found in sources such as the assertions made in deposition testimony, legal briefs, internal documents and correspondence, marketing documents, discussions with company personnel or customers, and independent research, among many potential sources.

The definition of the patented design and the article of manufacture ultimately needs to be consistent with liability issues in the case, such that there is a correlation (rather than a disconnect) between the liability issues and the damages issues. After developing an understanding of the patented design and article of manufacture, an expert can better address the damages analyses.

Ultimately, without a proper definition and understanding of the patented design and the article of manufacture, an expert may be more prone to improperly calculate infringement damages.

Calculating infringer's total profit made on the article of manufacture. As stated earlier, infringer's profits as a damages remedy requires the disgorgement of the infringer's profits to the

patent holder, such that the infringers retain no profit from their wrong.[52]

In general, the amount of infringer's total profit for patent infringement claims depends on the:[53]

1. Dollar amount generated from sales of the infringing articles of manufacture; and

2. Costs deductible from the sales (revenues).

Infringer's total profits consider the amount of sales generated from the infringing article of manufacture and deductible costs the infringer would have incurred to sell the infringing products, the deductible costs being the burden of the defendant to prove at arriving at a defendant's total profit.[54]

Incremental costs, i.e., direct and indirect costs incurred incrementally with the sales of the article of manufacture, are considered and subtracted from the sales revenue. Direct and indirect costs components including commissions, royalties, customer returns, shrinkage, and attributable indirect expenses can be deducted.[55] Additional costs may also be deducted; however, they must be properly supported by documentary evidence or disclosure.[56]

Calculating and awarding damages based on post-tax profits would leave the infringer in possession of its tax refund and resulting profit. As Section 289 mandates, the infringer *"shall be liable to the owner to the extent of his total profit,"* meaning damages are awarded based on pretax profits.

No Double Recovery. Under some circumstances, a damages award can include remedies under both Section 284 and Section 289. However, as stated above, in no case can a design patentee recover damages under Section 284 and under Section 289 for the same infringing sales.[57] Such an award would constitute double counting or double recovery. Thus, recovery resulting from a single act of selling under Section 289 or 284 satisfies entitlement under the other. Further, where a single product infringes both a utility patent and a design patent, damages are awarded only for one patent and under one theory of recovery. The patentee will obviously pursue the theory that would yield the highest damage award. For example, in *Catalina Lighting Inc. v. Lamps Plus, Inc.*, the plaintiff established infringement of both a utility patent and a design patent. The utility patent damages under Section 284 totaled $660,000, while the design patent damages under Section 289 totaled $767,942. Naturally, the design patent holder pursued the larger amount, which the design patent holder was ultimately awarded.[58]

Willfulness. As described in the chapter "Patent Infringement Damages: Lost Profits and Royalties," it is relevant to note Section 284 states: "[T]he court may increase the damages up to three times the amount found or assessed."[59] The court may award enhanced damages when the infringer is found to have willfully infringed the patent. This potential for enhanced damages is left up to the court's discretion and, importantly, is beyond the scope of a financial expert's analysis.

It is relevant to note the Federal Circuit concluded that "profits" recovered under Section 289 are not "damages" and, therefore, cannot be trebled under Section 284. In *Braun Inc. v. Dynamics Corp. of America*, the Federal Circuit found infringer's total profits awarded under Section 289 explicitly precluded a patentee from "twice recover[ing] the profit made from the

52 *Nike, Inc.*, 138 F.3d at 1448.

53 Id. at 1447.

54 Ibid.

55 Ibid.

56 Ibid.

57 *Braun Inc.*, 975 F.2d at 824.

58 *See Catalina Lighting Inc. v. Lamps Plus, Inc.*, 295 F.3d 1277 (Fed. Cir. 2002).

59 35 U.S.C. § 284 (2012) (emphasis added).

infringement."[60] The underlining theory is that an award of profits under 289 already is an equitable remedy and thus the additional trebling under Section 284 is not needed to "do equity." ◆

60 *Braun Inc. v. Dynamics Corp. of America,* 775 F.Supp 33, 41 (D. Conn., 1991).

Richard F. Bero, CPA/ABV, CVA, CLP, *is the managing director of The BERO Group, which specializes in litigation and valuation services.* ***Christopher V. Carani, Esq.,*** *is a partner at the Chicago-based IP law firm of McAndrews, Held & Malloy Ltd. practicing in all areas of IP with particular emphasis on design law.*

June Tip From the Field

A Valuation Is Only as Good as the Financial Information on Which It Is Based

Valuation experts are not auditors, but they do have to dig into the financials and do some spot-checking. For example, if you are given a management projection, ask for historical projections and compare them to actual results. Know the industry you are dealing in. One broad measure is to try to get industry data and compare the company to the industry to see how it performs, particularly in terms of profitability and some other ratios that matter, such as liquidity, working capital, and the like. Dig into the weeds to some degree—look at the general ledger and the adjusting journal entries. Privately held businesses use a lot of strategies to potentially depress their income, such as adding extra expenses, adjusting revenue or changing timing. There are many other things to look at, but the overall mindset should be one of professional scrutiny.

Source: Power Panel: Live Expert Answers for Today's Tough BV Questions, BVR webinar, April 6, 2021; Jay E. Fishman (Financial Research Associates), Raymond Rath (GlobalView Advisors), Neil J. Beaton (Alvarez & Marsal), and Stacy Collins (Financial Research Associates); available at sub.bvresources.com/TrainingEvent.asp?WebinarID=1640.

How to Use New Data

... continued from front page

of acquisition premiums and control premiums. They also discussed the benefits of using market-based invested capital premiums rather than market-based equity premiums in certain situations. They also went through an illustrative example of determining a control premium with this new data.[2]

Data in action. Exhibit 1 contains three transactions (A, B, and C) and their values prior to the announcement of the acquisition. These transactions are to be used to determine a control premium.

Without any data regarding the invested capital values, analysts would likely conclude an acquisition premium of 35%, 45%, and 65%, respectively—which are a bit all over the place. Do you simply select the average (48%) or some other number? How confident are you in doing that?

If you are dealing with a large amount of leverage in one transaction and little in another, or the leverage differs among all transactions, then start looking at invested capital premiums.

But, as the lower half of the exhibit shows, when the data include the amount paid and market value of the debt, the range of invested capital premium tightens to 25% to 27%. This has an enormous impact on the ultimate conclusion of value, as the comparison of calculations shows in Exhibit 2.

A difference in the concluded values of about 12% may not sound like much, but the dollar amount of that difference can be quite high when you are talking about hundreds of millions of dollars. There still may be some industries (such as oil and gas), where equity control premiums may vary

2 Evaluating and Applying Control Premiums, BVR webinar, March 31, 2021, Timothy J. Meinhart and Nate Novak (Willamette Management Associates). A recording of the entire webinar is available at sub.bvresources.com/TrainingEvent.asp?WebinarID=1635 (subscription or purchase required).

Exhibit 1. Selected Transactions for Determining a Control Premium

	Transaction A	Transaction B	Transaction C	Average Premium
Market Value of Aggregate Equity Prior to Announcement ($000)	$100,000	$75,000	$50,000	
Plus: Market Value of Debt Prior to Announcement ($000)	$30,000	$55,000	$80,000	
Market Value of Invested Capital Prior to Announcement ($000)	**$130,000**	**$130,000**	**$130,000**	
Acquisition Premium Offered for the Equity	35%	45%	65%	48%
Offer Price for Aggregate Equity ($000) [a]	$135,000	$108,750	$82,500	
Plus: Market Value of Debt ($000)	$30,000	$55,000	$80,000	
Implied Value of Invested Capital Based on Offer ($000)	$165,000	$163,750	$162,500	
Implied Acquisition Premium on Invested Capital [b]	27%	26%	25%	26%

[a] Equals market value of aggregate equity prior to announcement times one plus the acquisition premium offered for the equity.

[b] Calculated as implied value of invested capital based on offer divided by market value of invested capital prior to announcement minus 1.

Source: Factset MergerStat/BVR Control Premium Study

widely, and you can't explain the range based solely on leverage but will have to rely on actual transaction multiples. In others, especially the financial and commercial banking industries, invested capital is not as meaningful as traditional multiples (e.g., P/E, price to book). And if the target company and comparable companies have similar capital structures, a smaller range of equity and invested capital premiums is likely to result.

However, if you are dealing with a large amount of leverage in one transaction and very little in another, or the leverage differs among all the transactions, then it is highly encouraged that you start looking at invested capital premiums. Doing so helps analyze the data, provides a sanity check, and develops a high level of confidence in the quantification of a control premium.

Step-by-step. Traditionally, the application of a control premium (or discount for lack of control) involved these three steps:

1. Determine whether the valuation method develops a control value indication or noncontrolling value indication. Depending on subject ownership interest and objective of valuation, further adjustments may not be needed.

2. Determine whether a change in control transaction could result in incremental economic benefits. If yes, there may be a material difference between control value and noncontrolling value. If no, there may not be a material difference between control value and noncontrolling value.

3. Determine the magnitude of any incremental economic benefits to estimate a control premium (or discount), by use of theoretical models and empirical data, including *Mergerstat Review,* Factset MergerStat/BVR Control Premium Study, etc., with an eye toward using data that are as targeted as possible to the subject transaction and performing a company-specific analysis to identify positive (and negative) attributes that control (or lack of control) may impact.

Exhibit 2. Premium to Equity v. Invested Capital

	Subject Company
Scenario A - Apply Premium to Equity:	
Noncontrolling Value of Invested Capital ($000)	$100,000
Less: Market Value of Debt ($000)	$20,000
Noncontrolling Value of Equity Capital ($000)	$80,000
Plus: Acquisition Premium of 48% ($000)	$38,400
Controlling Value of Equity Capital ($000)	$118,400
Scenario B - Apply Premium to Invested Capital:	
Noncontrolling Value of Invested Capital ($000)	$100,000
Plus: Acquisition Premium of 26% ($000)	$26,000
Controlling Value of Invested Capital ($000)	$126,000
Less: Market Value of Debt ($000)	$20,000
Controlling Value of Equity Capital ($000)	$106,000
Difference in Concluded Equity Value	12%

Source: Factset MergerStat/BVR Control Premium Study

Taking this further, consider the following discrete DCF analysis to quantify a control premium and add the following four steps:

4. Perform traditional DCF analysis using company-provided projections (status quo, noncontrolling).

5. Analyze and identify potential changes that a hypothetical controlling owner could make to enhance business on a stand-alone basis. Potential areas include identifying new, organic areas of growth, diversification, customer base, geographic reach; reducing operating and nonoperating expenses without harming the business; reducing rates of employee and management compensation; and exploring options to decrease working capital requirements and/or the cost of capital.

6. Perform a secondary DCF analysis using the controlling-owner projections, as adjusted by potential changes identified in Step 5.

7. Compare results of two DCF analyses to quantify implied control premium.

In the final analysis, it really is as simple as comparing the two DCFs. After the completion of the entire exercise, what you're left with is a noncontrolling value and a controlling value—you don't even need to apply any discounts or premiums. You have your two dollar-amount value conclusions, and you can use them as a reasonableness check against what the empirical data show.

If, for example, the empirical data indicate a 15% control premium, but your comparative analysis shows no real room for any changes by a hypothetical controlling owner to improve cash flows, then you may want to rethink whether the 15% (or any) control premium is warranted, based on your company-specific analysis, or whether you need to reconcile the two.

Final points. Although the empirical data on invested capital premiums are new, a careful, case-specific analysis of any business valuation still applies to the ultimate selection and application of a control premium. Summary factors to keep in mind:

- Control premiums are not necessarily equal to acquisition premiums—analysts should understand differences and distinguish between the two;

- Prerogatives of control do not have value in isolation but instead have value based on changes to cash flow or risk that may result from a change in control.

- We have much better data available to help us select acquisition premiums and control premiums, but we still need to consider how variables such as size of the ownership block, type of transaction (strategic or financial), and leverage affect the premiums;

- In recent years, the difference in average premiums for strategic transactions versus financial transactions has narrowed;

- Consider invested capital premiums and acquisition multiples when the capital structure of the comparable transactions differs from that of the subject company; and

- An analysis that includes both controlling and noncontrolling DCFs may provide the most accurate estimate of a control premium.

For more information. The webinar conducted by Meinhart and Novak is available at sub.bvresources.com/TrainingEvent.asp?WebinarID=1635 (subscription or purchase required). BVR has a free webinar that covers the basics of the control premium study and discusses the enhancements to the platform. That webinar is free and is available at sub.bvresources.com/TrainingEventPast.asp?WebinarID=811. ◆

Updated Data in Largest Pre-IPO Study Reveal High Discounts

New pre-IPO data for the first quarter of 2021 had been added to the Valuation Advisors Lack of Marketability Discount Study, which is the largest study of its kind.[1] The use of pre-IPO data is a widely used and accepted method for estimating a discount for lack of marketability (DLOM).

New data. For U.S. transactions, the median discount was 53.7% for the 1Q2021 zero-to-three-month time frame (compared to 39% for all of 2020 and 21.5% for all of 2019). For all transactions (U.S. and non-U.S.), the 1Q2021 zero-to-three-month time frame median discount was 51.4% (compared to 35.5% for all of 2020 and 21.2% for all of 2019).

"The pre-IPO discounts this quarter are higher than they usually are," says Joseph Cotton of Valuation Advisors LLC, the firm that researches and provides the data for the study. "Recently, the stock market has been hitting new highs. Also, valuations for medical, healthcare and drug development related companies have been increasing rapidly in value. These factors led to higher discounts this quarter, as demand for IPO shares increased."

Pre-IPO studies examine the price of stock transactions before the stock is publicly traded and compare it to the price at some future event, such as when the IPO price is set or when the IPO actually occurs. There are three main sources of pre-IPO studies: (1) Willamette Management Associates (WMA)[2]; (2) John Emory[3]; and (3) Valuation Advisors. The results from pre-IPO studies often lead to higher DLOMs as compared to restricted stock studies.

The source of the information contained in the Valuation Advisors study and database is government filings. Before a company has an IPO, it files a prospectus with the SEC. These prospectuses are available through the SEC's EDGAR database and also from the investment bankers who underwrite the offering. Each prospectus is reviewed for any transactions involving the company's stock, stock options, or convertible preferred stock prior to going public (i.e., when it was still a private company). The database is updated for new IPOs at least once per month.

Widely accepted. The use of pre-IPO studies for estimating a DLOM has been supported by authoritative texts and professional education courses in business valuation. The methodology has also been accepted by courts but took a hit back in 2003 in the *McCord* case, in which the Tax Court rejected the pre-IPO approach.[4] Many of the criticisms have been rebutted, and pre-IPO studies rebounded when the court accepted the approach in 2004 in the *Okerlund* case[5] and in 2008 in the *Bergquist* case,[6] so you'll find it being used in current case law.

For example, in the important *Jones* case, the Tax Court accepted the taxpayer's expert's DLOM estimate, which considered studies of transfers of restricted stock of publicly traded companies and private, pre-IPO sales of stock.[7] The IRS unsuccessfully challenged the DLOM estimate, but the court said the estate expert explained the reasoning behind his DLOM rate. The models he used

1 bvresources.com/products/valuation-advisors-lack-of-marketability-study.

2 Explained in willamette.com/insights_journal/16/winter_2016_5.pdf.

3 emoryco.com/recent-pre-ipo-studies.

4 bvresources.com/articles/bvwire/post-mccord-is-it-back-to-bias-as-usual-in-the-tax-court-48-2.

5 bvresources.com/articles/full-text-of-court-cases/okerlund-v-united-states-ii (subscription required).

6 bvresources.com/articles/bvwire/justified-hypocrisy-71-1.

7 *Estate of Aaron Jones v. Commissioner*; T.C. Memo. 2019-101; bvresources.com/articles/full-text-of-court-cases/estate-of-aaron-jones-v-commissioner.

were common, and he also used the *Mandelbaum* factors. He also considered the firm's unique characteristics, including the buy-sell agreement, the company's lack of historical transfers, a potentially indefinite holding period, reported loss in the past 12 months before the valuation date, and the unpredictability of partner distributions.

Other uses. The Valuation Advisors database also contains convertible preferred stock (CPS) transactions. These pre-IPO transactions are often with very sophisticated investors, and, therefore, there are lots of arm's-length negotiation of price and terms on these investments. They may provide a good floor for discounts for the time period to liquidity that the valuation professional is considering. This is especially true since oftentimes they do offer the holder some form of income in the form of dividends.

Another possible usage of the CPS transactions is if you are valuing an entity such as an LLC or FLP that may hold primarily investment securities. The income nature of CPS offers a good reference point for the DLOM of such entities.

Occasionally, you may be asked to value a company that does not have revenues. You can use the change in price of transactions in the database for companies in a similar industry or that are similarly sized (using assets or book value) to generate a group of companies with similar changes in value that may be helpful in demonstrating the changes in value of the subject company over time.

Important tips. Pre-IPO studies and restricted stock studies are the most commonly used methods for estimating a DLOM. Which is better? You should not rely on only one approach but use evidence from several sources for your analysis. But, when using pre-IPO or restricted stock studies, do not use averages of the data. The characteristics of your subject company much be matched to those companies in the data. This is especially true when considering pre-IPO data. The Valuation Advisors Study (which has over 17,000 transactions from 1985 to the present) allows you to search by industry, revenue, operating income, and assets to find companies that compare closely with the company you are valuing.

For more information on the use of pre-IPO data and the Valuation Advisors study, BVR has a free webinar that is available at sub.bvresources.com/TrainingEvent.asp?WebinarID=752. ◆

Ask the Experts

Q: *We have a healthcare client that estimates that, instead of 2% telehealth interactions in the immediate future, it will be in the 25% range. What do you think about that estimate? It seems aggressive to us.*

A: It depends on the specialty, but, certainly, with primary care, we see much higher acceptance of telehealth. For some of our clients during the pandemic, our number was well in excess of 25%, but it depends on facts and circumstances and their specialty. As we now see everything to start to open up a bit, 25% might seem aggressive for now, but certainly we have clients where that is the projection in the future where they are shifting to be able to accommodate more volume.

Source: Valuing Telehealth Services; BVR webinar, April 27, 2021; Todd Zigrang and Jessica Bailey-Wheaton (Health Capital Consultants); available at sub.bvresources.com/TrainingEvent.asp?WebinarID=1644.

COVID-19 Just a Speed Bump in Hot M&A Market, Say Speakers at Transaction Advisors Forum

A year ago, you would not have thought M&A deal activity would reach an all-time high, but that's just what has happened, say speakers at the M&A Strategy Forum on April 30, hosted by the Transaction Advisors Institute.[1] Speakers included corporate development leaders, in-house M&A counsel, board members, and private equity investors. It was interesting to hear about M&A from their perspective and that may impact valuations. The host of the conference was William Jefferson Black, M&A Institute chair and publisher at Transaction Advisors.

Innovation-driven firms. Valuing acquisitions where the target firm's value depends largely on future growth, new technology, intangible assets, and human capital brings to the forefront the notion that business valuation is an art as opposed to a science. Of course, BV experts know all about that, but it's nice to hear the M&A pros acknowledge it.

So how do M&A pros assess value for innovation-driven acquisitions? A "tough question," a panel remarked, noting you can't rely just on historical revenue and hockey-stick projections. Panel members were Sanjay Kacholiya, vice president, strategic business development, at Citrix; Tim McBride, director, M&A strategy and integration, Google Cloud (Google); and Don Dawson, managing director–North American M&A practice lead, Accenture. They say the focus is on several things, including an assessment of the technology and IP assets and whether the firm will be a strategic and cultural fit with the acquirer. Another important matter is whether the sales force will be able to sell the product that emerges out of the innovation process. Can it be further developed either as a stand-alone product or integrated with existing products?

Getting past these big-picture issues, M&A experts "struggle the most" with the valuation of these firms. There is virtually no value in cost savings from operating synergies because they typically are "really small." One thing they will examine is the possibility of new or enhanced revenue streams, says the panel. In the end, it comes down to negotiations, which the panel likens to trying to buy a house in today's crazy real estate market where there can "no logic." Also, like the real estate market, valuations for these types of firms are now very high so, at some point, you have to know when the price no longer makes sense. That's where a value range comes into play.

Prerevenue firms. Similar to innovation-driven firms, early-stage companies are built around technology and often have yet to generate any revenues. To an acquirer, the value of these prerevenue companies often stems from a classic "build vs. buy" analysis, a panel points out. This panel included Renee Scherrer, senior director, GTM acquisition integration at Cisco Systems; Branko Svec, vice president, head of global consumer M&A at American Express; and Jim Buckley, vice president of M&A integration at VMware.

The acquirer needs the technology and/or skilled professionals and can either develop them internally (build it) or buy the company that has the assets it needs in a so-called "tech and talent" acquisition. The value of the target is based on what it would cost to hire the talent and develop the technology. It could take much more time to build as opposed to buy, so a premium would be added for the time element. In some cases, a strategic urgency is involved, so the premium would be commensurate with the level of that urgency.

1 transactionadvisors.com/ma_conferences/ma-strategy-forum-april-2021.

Here are some interesting takeaways from the other sessions:

- COVID-19 has not triggered any fundamental changes to the M&A playbook, just a few tweaks to the process, such as how to address events such as the pandemic between the time a deal is made and when it closes;
- As COVID-19 vaccinations evolve, some firms will end up doing well financially and others will not, which may impact the timing of deals as some acquirers may take a wait-and-see attitude in some cases;
- The current hot trend in special purpose acquisition entities (SPACs) will continue. A SPAC is a shell company that acquires a private firm, making it easier for the target to go public;
- In a virtual world, it's more difficult to assess whether the target's culture will successfully mesh with the acquirer—being on-site gives a better feel for this;
- Retaining talent in the target is not an issue in the short term, but, after three years, a significant amount of the acquired staff takes off, which impacts long-term value creation, especially in a relationship-type business;
- If a target's business is rooted in software, the integrity of that software in terms of technology compliance and cyber security is a key part of the due diligence process; and
- The heightened regulatory enforcement that began before the Biden administration is just the beginning of a trend, and challenges to mergers will continue to escalate.

The next M&A Strategy Forum will be September 17 and will be online. For information, go to transactionadvisors.com. ◆

Eliminating Outliers in Financial Data Without Cherry-Picking

By J. Richard Claywell,
J. Richard Claywell, CPA (Houston, Texas, USA)

When I download financial data, I almost always have transactions that are considered outliers. This article discusses one method of determining outliers that is defensible from the allegation of cherry-picking the data to suit the client's wishes and desires or of being accused of bias in an attempt to generate a specific result for the client. I will discuss one of many various techniques for detecting outliers that can withstand this challenge.

The sample data included in the following exhibits have been slightly modified so as to disguise the source. The source of the data is not important. What is important is the methodology used, which is based on long-accepted and sound statistical methods.

Mark G. Filler (Filler & Associates PA, Portland, Maine) introduced the technique I use to me a number of years ago, and I use it for all types of outliers—for example, teaching a master-level business class at the University of Houston Clear Lake campus, market multiples, normalized operating income, projecting balance sheet ratios, etc. I also use this technique in determining a company-specific risk by applying the Z score to each financial ratio across all of the years being analyzed. For me, this make the analysis much easier to see how erratic the historical data have been.

Defining outliers. First, let's discuss what outliers are. We all know that outliers are data points that are higher or lower than the other data points. But how do we quantify each data point to determine that it is in fact an outlier? In other words, what are the parameters for an outlier?

Outliers are data points at the outer bounds of the bell curve (Exhibit 1). But how far, to the left or right, depends on the number of data points being considered. For small samples (80 observations or fewer), outliers are typically defined as cases with standard deviation scores of 2.5 or greater.[1] Any data point that falls beyond the range should seriously be considered for elimination.

Initial data download. When data are downloaded, you need to review the descriptive statistics to understand the data. In Exhibit 2, I have downloaded a data set of 17 sale transactions (sales price/seller's discretionary earnings) and have calculated the average, median, harmonic mean, high, low, and range of the data. This is typical of what we often download.

We can see that the skewness (which should be around ±2) and the kurtosis (which should be around ±3) are out of line. We want to identify and eliminate the outliers. When we do, the cleansed data should see improvement in both the skewness and kurtosis.

To begin our identification of outliers we calculate the Z score for each data point in the set.

1 William C. Black, Barry J. Babin, Rolph E. Anderson, Ronald L. Tatham, and Joseph F. Hair (2006), *Multivariate Data Analysis,* 6th edition, Upper Saddle River, N.J., Pearson Prentice Hall, p. 75.

Exhibit 1. Bell Curve

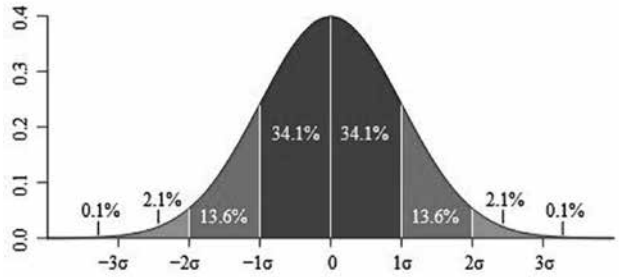


Exhibit 2. Initial Download of Data

Sales Price	Revenue	SDE	SP/SDE
1,300,000	876,000	500,000	2.60
800,000	2,935,000	742,000	1.08
175,000	506,000	31,000	5.65
200,000	506,000	291,000	0.69
90,000	490,000	173,000	0.52
695,000	1,100,000	710,000	0.98
45,000	171,000	98,000	0.46
200,000	606,000	171,000	1.17
700,000	1,401,000	797,000	0.88
150,000	739,000	134,000	1.12
95,000	555,000	71,000	1.34
250,000	865,000	289,000	0.87
400,000	1,000,000	401,000	1.00
300,000	619,000	331,000	0.91
565,000	1,524,000	676,000	0.84
115,000	417,000	125,000	0.92
700,000	1,213,000	250,000	2.80
Number of transactions			17
Average			1.40
Median			0.98
Harmonic mean			0.97
Weighted average harmonic mean			1.17
High			5.65
Low			0.46
Range			5.19
Coefficient of determination (r^2)			0.55
Skewness			2.750
Kurtosis			8.258
Standard deviation (sample)			1.263

The calculation for the Z score to determine the position of the data point on the bell curve is:

$(x-\mu)/\sigma$ where:

x = the individual sales price to seller's discretionary earnings;

μ = the average of the sales price to seller's discretionary earnings; and

σ = the standard deviation of the sales price to seller's discretionary earnings.

Exhibit 3 shows the preparation of the data in order to test for the outliers.

As can be seen, the sales price/seller's discretionary earnings ratio of 5.65 has a large Z score (3.36). This is an indication of an extreme outlier, and we remove it.

However, if this single transaction is removed, do we have any additional outliers? How many additional "outliers" should be removed and when do we stop removing outliers? Eliminating the outliers is an iterative process.

First iteration for outliers. When an outlier is removed, all of the descriptive statistics change as one of the data points is no longer included. This changes the average and standard deviation of the data as well as the other metrics, including the Z scores for each of the remaining data points. The new Z scores are evaluated to determine whether any outliers exceed 2.5.[2]

Exhibit 4 depicts the recalculation of all financial data including the Z scores after eliminating the first (5.65) outlier.

You will notice that, after eliminating the 5.65 outlier, a new outlier has been identified, based on the remaining data points. The second data point is then eliminated.

2 Ibid.

Exhibit 3. Initial Detection of Outliers

Sales Price	Revenue	SDE	SP/ SDE	Price/Earnings			
						Z-Score	Exceeds 2.5 Deviations
				x	(x-μ)	(x-μ) /σ	
1,300,000	876,000	500,000	2.60	2.60	1.20	0.95	
800,000	2,935,000	742,000	1.08	1.08	(0.32)	(0.25)	
175,000	506,000	31,000	5.65	5.65	4.25	3.36	X
200,000	506,000	291,000	0.69	0.69	(0.71)	(0.56)	
90,000	490,000	173,000	0.52	0.52	(0.88)	(0.70)	
695,000	1,100,000	710,000	0.98	0.98	(0.42)	(0.33)	
45,000	171,000	98,000	0.46	0.46	(0.94)	(0.74)	
200,000	606,000	171,000	1.17	1.17	(0.23)	(0.18)	
700,000	1,401,000	797,000	0.88	0.88	(0.52)	(0.41)	
150,000	739,000	134,000	1.12	1.12	(0.28)	(0.22)	
95,000	555,000	71,000	1.34	1.34	(0.06)	(0.05)	
250,000	865,000	289,000	0.87	0.87	(0.53)	(0.42)	
400,000	1,000,000	401,000	1.00	1.00	(0.40)	(0.32)	
300,000	619,000	331,000	0.91	0.91	(0.49)	(0.39)	
565,000	1,524,000	676,000	0.84	0.84	(0.56)	(0.45)	
115,000	417,000	125,000	0.92	0.92	(0.48)	(0.38)	
700,000	1,213,000	250,000	2.80	2.80	1.40	1.11	
Number of transactions			17				
Average			1.40				
Median			0.98				
Harmonic mean			0.97				
Weighted average harmonic mean			1.17				
High			5.65				
Low			0.46				
Range			5.19				
Coefficient of determination (r^2)			0.55				
Skewness			2.750				
Kurtosis			8.258				
Standard deviation (sample)			1.263				

Exhibit 4. Second Iteration for Outliers

Sales Price	Revenue	SDE	SP/ SDE	Price/Earnings			
						Z-Score	Exceeds 2.5 Deviations
				x	(x-μ)	(x-μ) /σ	
1,300,000	876,000	500,000	2.60	2.60	1.47	2.25	
800,000	2,935,000	742,000	1.08	1.08	(0.06)	(0.09)	
200,000	506,000	291,000	0.69	0.69	(0.45)	(0.69)	
90,000	490,000	173,000	0.52	0.52	(0.61)	(0.94)	
695,000	1,100,000	710,000	0.98	0.98	(0.16)	(0.24)	
45,000	171,000	98,000	0.46	0.46	(0.68)	(1.04)	
200,000	606,000	171,000	1.17	1.17	0.03	0.05	
700,000	1,401,000	797,000	0.88	0.88	(0.26)	(0.39)	
150,000	739,000	134,000	1.12	1.12	(0.02)	(0.02)	
95,000	555,000	71,000	1.34	1.34	0.20	0.31	
250,000	865,000	289,000	0.87	0.87	(0.27)	(0.41)	
400,000	1,000,000	401,000	1.00	1.00	(0.14)	(0.21)	
300,000	619,000	331,000	0.91	0.91	(0.23)	(0.35)	
565,000	1,524,000	676,000	0.84	0.84	(0.30)	(0.46)	
115,000	417,000	125,000	0.92	0.92	(0.21)	(0.33)	
700,000	1,213,000	250,000	2.80	2.80	1.67	2.56	X
Number of transactions			16				
Average			1.13				
Median			0.95				
Harmonic mean			0.92				
Weighted average harmonic mean			1.15				
High			2.80				
Low			0.46				
Range			2.34				
Coefficient of determination (r^2)			0.54				
Skewness			1.942				
Kurtosis			3.319				
Standard deviation (sample)			0.652				
Standard deviation Z score			2.5				

Exhibit 5. Z Score Analysis After Eliminating Outliers

Sales Price	Revenue	SDE	SP/ SDE	Price/Earnings			
						Z-Score	Exceeds 2.5 Deviations
				x	(x-μ)	(x-μ) /σ	
800,000	2,935,000	742,000	1.08	1.08	0.17	0.70	
200,000	506,000	291,000	0.69	0.69	(0.22)	(0.93)	
90,000	490,000	173,000	0.52	0.52	(0.39)	(1.63)	
695,000	1,100,000	710,000	0.98	0.98	0.07	0.28	
45,000	171,000	98,000	0.46	0.46	(0.45)	(1.88)	
200,000	606,000	171,000	1.17	1.17	0.26	1.08	
700,000	1,401,000	797,000	0.88	0.88	(0.03)	(0.14)	
150,000	739,000	134,000	1.12	1.12	0.21	0.87	
95,000	555,000	71,000	1.34	1.34	0.43	1.78	
250,000	865,000	289,000	0.87	0.87	(0.05)	(0.19)	
400,000	1,000,000	401,000	1.00	1.00	0.09	0.36	
300,000	619,000	331,000	0.91	0.91	(0.00)	(0.02)	
565,000	1,524,000	676,000	0.84	0.84	(0.08)	(0.31)	
115,000	417,000	125,000	0.92	0.92	0.01	0.04	
Number of transactions			14				
Average			0.91				
Median			0.91				
Harmonic mean			0.84				
Weighted average harmonic mean			0.92				
High			1.34				
Low			0.46				
Range			0.88				
Coefficient of determination (r^2)			0.96				
Skewness			(0.349)				
Kurtosis			0.146				
Standard deviation (sample)			0.240				
Standard deviation Z score			2.5				

This process of elimination continues until no remaining Z scores exceed 2.5.

Second iteration for outliers. After eliminating the second datapoint, all of the metrics are, again, recalculated. Exhibit 5 depicts the recalculation of all financial data including the Z scores after eliminating the second (2.80) outlier.

Z score analysis after eliminating outliers. Exhibit 5 depicts the recalculation of all metrics including the Z scores after eliminating the two identified outliers. When we have removed the true outliers, there will no longer be any Z scores larger than 2.5. At this point, we know there are no remaining outliers.

All the Z scores in our example data set are now less than 2.5; thus, for this data set, we have identified and removed all of the true outliers.

Change in relative multiples. Looking at Exhibit 5 and Exhibit 6, we can see the change in the relative multiples, skewness, kurtosis, and standard deviation.

Exhibit 6. Change in Relative Multiples

Description	Initial Data	Cleansed Data	Improvement
Number of transactions	17	14	
Average	1.40	0.91	48.90%
Median	0.98	0.91	6.57%
Harmonic mean	0.97	0.84	12.66%
Weighted average harmonic mean	1.17	0.92	25.16%
Coefficient of determination (r^2)	0.55	0.96	41.24%
Skewness	2.750	(0.349)	309.92%
Kurtosis	8.258	0.146	811.26%
Standard deviation Z score	1.263	0.240	102.29%

Each of the remaining data points also showed improvement in the metrics.

All of the descriptive statistics have improved. One ratio of particular note is the coefficient of determination. In the initial data download, it was 0.55. This may be acceptable depending on your professional judgment. However, the cleansed coefficient of determination (0.96) is considered very strong and should stand up better to challenge than the 0.55 coefficient of the original data set.

Summary. Using data without understanding its characteristics can and will lead to errors in the analysis and may result in the analyst's disqualification. The technique we just discussed is based on sound statistical analysis and assists the analyst in determining when to eliminate outliers and when to stop eliminating additional data that is not a true outlier.

When eliminating outliers, valuation analysts should identify and indicate why each specific data point is considered an outlier and thus removed from the data set. ◆

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Defining Terms: Forecasts v. Projections–Why Does It Matter?

Definitions are critical in business valuation—and they are evolving. Lately, there has been an effort to revise the *International Glossary of Business Valuation Terms,* which would double the size of the glossary by adding over 120 new terms and methodologies.[1] One area that can trigger some confusion is prospective financial information (PFI) and the difference between the terms "forecast" and "projection." These are formal terms found in the literature, so they should be used appropriately.

The proposed new glossary does not include the terms "projection" or "forecast" because they are well-defined elsewhere. The glossary does include the term "prospective financial information" (PFI), which it defines as:

> [A]ny financial information about the future. The information may be presented as complete financial statements or limited to one or more elements, items, or accounts. Prospective Financial Information includes forecasts.

Of course, this is an all-encompassing term. Let's dig in a little and get to forecasts and projections. In the 1990s, the definition of "prospective financial statements" was included in the *Prospective Financial Information Guide* from the AICPA.[2] They are defined as either financial forecasts or financial projections and include summaries of significant assumptions and the accounting policies that are embedded. Here's the definition of "prospective financial statements:

> Either financial forecasts or financial projections including the summaries of significant assumptions and accounting policies.... Pro forma financial statements and partial presentations are not considered to be prospective financial statements.

Notice the reference to the term "pro forma." Many practitioners take this term to represent the future, but it should not really be used when talking about prospective financial information. According to the definition, pro forma has nothing to do with the future.

The guide then defined "financial forecast" as:

> Prospective financial statements that present, to the best of the responsible party's knowledge and belief, an entity's expected financial position, results of operations, and cash flows. A financial forecast is based on the responsible party's assumptions reflecting the conditions it expects to exist and the course of action it expects to take.

The forecast is really the central document that valuation analysts hope to get in order to give an opinion on valuation. It is prospective financial information that presents the expected financial position, results, and cash flows based on the conditions that management expects to exist and the course of action it expects to take.

This sounds very obvious, but this guidance resides in AT Section 301 from the Public Company Accounting Oversight Board (PCAOB).[3] This is part of the PCAOB's attestation standards, and it comes originally from AICPA's guidance that is not directly applicable.

From the same source comes the following definition of a projection:

1 "Massive Overhaul of Global BV Glossary in the Works," *Business Valuation Update*, Vol. 27 No. 2, February 2021.

2 future.aicpa.org/cpe-learning/publication/prospective-financial-information-guide.

3 pcaobus.org/oversight/standards/attestation-standards/details/AT301.

> Prospective financial statements that present, to the best of the responsible party's knowledge and belief, given one or more hypothetical assumptions, an entity's expected financial position, results of operations, and cash flows. A financial projection is based on the responsible party's assumptions reflecting conditions it expects would exist and the course of action it expects would be taken, given one or more hypothetical assumptions.

A projection is a prospective financial statement that, in today's context, contains one or more hypothetical assumptions. What exactly does that mean? It probably means it is something outside of management's control or it is something that needs to be tested for sensitivity. Here's the definition from the same PCAOB document:

> Hypothetical assumption: An assumption used in a financial projection to present a condition or course of action that is not necessarily expected to occur but is consistent with the purpose of the projection.

What are some typical examples of a hypothetical assumption? Let's say the subject entity has an unfavorable lease. What would happen if the lease could be renegotiated? That would be a hypothetical assumption because it is outside of management's control. If PFI were prepared based on that renegotiated lease, it would be technically a financial projection because it has the hypothetical projection outside of management's control.

Another typical example deals with financing. You can make an assumption about obtaining financing that could trigger significant improvements to the subject company. But you don't have the ability to know whether or not you will be successful in obtaining that capital. So putting in a hypothetical assumption of receiving proceeds from a loan, for example, would be another case where it would be a hypothetical assumption and would, therefore, fall under the definition of a financial projection, not a forecast.

To be clear, to arrive at an opinion of value and a hypothetical assumption was embedded in the PFI, it needs to be included. But it should certainly put up a red flag in that you may be looking at a success-based set of assumptions rather than a probability-weighted or expected-value set of assumptions. If you can't make adjustments to the future cash flows, it must be considered when you develop the discount rate to make sure a success assumption is not overvalued.

Another definition to consider is that of "key factors." Here is the definition:

> Key factors: The significant matters on which an entity's future results are expected to depend. Such factors are basic to the entity's operations and thus encompass matters that affect, among other things, the entity's sales, production, service, and financing activities. Key factors serve as a foundation for prospective financial statements and are the basis for the assumptions.

These key factors are pretty obvious, but a fresh look is needed because of relatively new guidance in the Mandatory Performance Framework, which emphasizes the responsibility to document these matters.[4] Evaluating these key factors and significant assumptions should be at the forefront.

In the end, does it really matter whether something is a forecast or projection? Maybe not in terms of how valuation analysts refer to it, but it matters greatly in terms of the denominator of the valuation equation—that is, the risk profile of the subject entity and the development of discount rates and additional risk premiums. More information will likely be needed for that. ◆

4 See "Little-Known Resource Can Help Bolster Support for Projections," *Business Valuation Update*, Vol. 26 No. 12 December 2020.

BVU News and Trends

A monthly roundup of key developments of interest to business valuation experts.

Regulators, Standard-Setters, VPOs

PCAOB approves formation of new advisory group

Fair value for financial reporting falls under the regulatory oversight of the Public Company Accounting Oversight Board (PCAOB), which will be forming a new advisory group for its standard-setting activities. The new Standards Advisory Group (SAG) will consist of 18 members from various stakeholder groups: Investors will hold the most SAG seats (five), followed by audit professionals (four), and three seats each for audit committee members or directors, financial reporting oversight personnel, academics, and others with specialized knowledge. SAG members will serve two-year terms. The PCAOB will soon release details on the nomination process for SAG members. "We are now taking the PCAOB's engagement to a higher level by creating a new, more effective structure for the board to receive advice from our stakeholders on key PCAOB initiatives," PCAOB Chairman William Duhnke said in a news release.[1] The PCAOB issues fair value audit standards and guidance on the auditor's use of a specialist, which includes valuation experts. It also issues a regular report on audit deficiencies that points out problems with fair value issues found during audit inspections.

TAF seeks experts on discount rates for intangible assets

For the business valuation profession to flourish, practitioners need to give back to the profession. One way to do this is by volunteering to serve on committees, working groups, task forces, and the like at the various valuation organizations. The Appraisal Foundation (TAF) is seeking subject matter experts (SMEs) to help develop voluntary guidance on determining the appropriate discount rate on intangible assets, which it has identified as an area that lacks uniformity in practice. The primary issue that will be explored will be how to determine the appropriate discount rate on intangible assets with consideration to market discount rates, deal rates of return, WACC, and other related indicators. The SMEs will work with an assigned liaison from the organization's Business Valuation Resource Panel. Completed applications must be submitted by May 15.[2] If you have any questions, please contact Jalin Debeuneure, engagement coordinator, via e-mail at jalin@appraisalfoundation.org or by calling 202-624-3055.

TAF launches diversity survey of the appraisal profession

The Appraisal Foundation (TAF) has launched a survey to gather both diversity-related demographic data and appraisers' opinions about these issues. The survey is anonymous and does not ask for any personal information. It takes about three to four minutes to complete, and it is open through April 30.[3]

Methods and Approaches

Mercer addresses court acceptance of the QMDM for DLOM

During a recent BVR webinar, an audience member asked about the track record in court of the quantitative marketability discount model (QMDM) for determining a discount for lack of marketability (DLOM). There have been several cases where the court has taken issue with the experts' use of the model.

Key point: The developer of the model, Z. Christopher Mercer (Mercer Capital), told the audience that the issues the courts have had were with the experts' assumptions used in the model and not the underlying model itself. Mercer discussed several cases in which the court took issue with assumptions the expert made, such as *Weinberg* and *Janda*. But just because a court disagrees with inputs and assumptions used in a model does not mean that the model itself is not valid. The model has been used successfully in court going back to the 1990s.

First introduced in 1997, the QMDM is a shareholder-level DCF model that values interests in a business in the context of an appraisal of the entire enterprise. The model focuses on

1 pcaobus.org/news-events/news-releases/news-release-detail/pcaob-approves-formation-of-new-standards-advisory-group-to-further-enhance-stakeholder-engagement-and-provide-advice.

2 cognitoforms.com/TheAppraisalFoundation1/SMEApplicationDeterminingTheAppropriateDiscountRateOnIntangibleAssets.

3 appraisalfoundation.questionpro.com.

shareholder-level cash flows, risk, and growth to reflect what a willing buyer would pay for a willing seller's interest. The model was discussed in detail during the final part of a three-part webinar series based on the recently released third edition of the book, *Business Valuation: An Integrated Theory,* which Mercer co-wrote with Travis W. Harms (Mercer Capital), who co-presented the webinar series.[4] They went through several case study examples using QMDM and also addressed some of the criticisms of the model, such as the subjective nature of the assumptions that need to be made.[5]

Research, Surveys, Data

Valuable lessons on using economic data in valuation reports

In his very first deposition, veteran valuation expert Jim Hitchner (Financial Valuation Advisors) learned two valuable lessons. First, know what economic data you are putting into your reports, and, second, take out economic information that you do not use. In the March issue of *Hardball With Hitchner,* he recounts that the first questions in the deposition targeted the economic section of his valuation report, which included the term "chained growth rates." The attorney asked him what that meant, but Hitchner had no idea. "Not having a grasp of the underlying data that appears in your report can be a litigation risk for experts," he writes. This is especially true during the pandemic, which has increased the importance of economic data underlying a valuation. The rest of the issue gives a practical look at how to understand and use economic data, particularly with regard to gross domestic product (GDP), which is "one of the most important economic indicators used in business valuation," he writes. *Hardball With Hitchner* is a monthly publication.[6]

Books, Publications

New edition of BVR's Bankruptcy Case Law Compendium

Virtually every bankruptcy case is intertwined with valuation issues at almost every stage of the process, which is why BVR's *Business Valuation & Bankruptcy: Case Law Compendium,* 3rd edition, is a must-have resource.[7] The new edition has been updated with the most recent court cases featuring business valuation and bankruptcy. It has a handy summary table of hundreds of cases (by jurisdiction) that gives you the case name, date, specific court, and the main valuation issue in the case. From the table, you can quickly refer to the case digest section for an analysis and other details, such as the names of the judge and valuation experts involved (when known). You have access to the full court opinion of each case in the report

What's New on BVResearch Pro

Every month, BVR adds new content to BVResearch Pro, the largest and most comprehensive library of business valuation content available anywhere. Here are some highlights of what's been added this month:

Books, Articles, Transcripts, Journals

- *Business Valuation and Bankruptcy: Case Law Compendium*, 3rd edition (book);
- Fair Market Value Opinions and Business Valuations for the Ambulance and EMS Industry; Darcy Devine and William Hamilton (webinar transcript);
- Valuing Small and Micro Businesses Using the Income Method; Gregory R. Caruso, JD (webinar transcript); and
- American Society of Appraisers, *Business Valuation Review*™, Fall 2020, Volume 39.

Legal Research

- *Estate of Warne v. Commissioner,* T.C. Memo 2021-17 (DLOM, DLOC, real estate holding companies);
- *Equity Planning Corp. v. Westfield Ins. Co.,* 2021 U.S. Dist. LEXIS 36452 (business interruption, COVID-19); and
- *King v. King,* 2021 Fla. App. LEXIS 3170, 2021 WL 822476, 46 *Fla. L. Weekly* D 498 (personal goodwill, insurance agency).

This new content joins almost 20,000 other articles, books, legal digests, webinar transcripts, white papers, and more from the world's foremost thought leaders in business valuation. Not a subscriber? Go to bvresources.com/products/bvresearch for details.

4 bvresources.com/products/business-valuation-an-integrated-theory-3rd-edition.

5 sub.bvresources.com/bvstore/cd3.asp?pid=CD753.

6 valuationproducts.com/hardball-with-hitchner.

7 bvresources.com/products/business-valuation-and-bankruptcy-case-law-compendium-3rd-edition.

via a special Web link. In addition, several articles provide insight on the challenges of valuing financially distressed businesses.

Miscellany

2020 Thomas Burrage Award recipients named

Giving back to the business valuation profession is how the late Thomas Burrage is remembered. Every year in his honor, the Burrage Award for Compassion, Collegiality and Character is given by the Expert Resource Connection, co-founded by Burrage, which is a group of business valuation and forensic accounting professionals who share resources and collaborate on engagements.[8] The recipients of the 2020 award are Karen Warner and Jim Hitchner of Valuation Products and Services for their years of dedication to producing the *Financial Valuation and Litigation Expert Journal.* Our congratulations to this year's well-deserved recipients!

Also, a scholarship of $1,000 has been presented to Sheyla Lopez, a student at the University of New Mexico (UNM). Burrage was also known for giving his support and guidance to young people in the profession, and UNM was his alma mater. "Sheyla has a unique background and is currently working on both her master's degree and her law degree," says Dr. Rich Brody at UNM, who knew Mr. Burrage and who chooses students for the scholarship. "Sheyla spent much of the summer working on a huge fraud project with me (research paper) and hopes to work for the FBI once she has finished with her education. She is a great student and has taken both my fraud examination class and my forensic accounting class. She also did a lot of work with our student chapter of the Association of Certified Fraud Examiners (ACFE). I only wish I had more students like Sheyla."

Contributions to the scholarship fund can be made by check payable to: Thomas Burrage Scholarship Fund, c/o 940 Wadsworth Blvd., Suite 200, Lakewood, CO 80214.

Dates set for VSCPA forensics and valuation conference

One of our favorite events is the annual two-day conference held by the Virginia Society of CPAs (VSCPA). This year's VSCPA Forensic and Valuation Conference will be held September 29-30 in Richmond. The agenda is forthcoming, but this conference always has interesting and practical sessions and top-notch speakers.[9]

Practitioners discover efficiencies in wake of lockdowns

The unprecedented events of the past year forced professional service firms to adapt the dynamics of operating an office and meeting with clients. The virus has upended normal office operations, but some firms have emerged more efficient. For example, Duben & Associates (Encino, Calif.) is a firm that offers tax, accounting, and other services, including business valuation and litigation support. The firm's professionals had some experience with working from home, so, when the pandemic hit, the firm just had to make some administrative adjustments. Client meetings were rearranged via Zoom or conference calls. Some clients still preferred in-person meetings, which the firm was able to accommodate by midyear, with appropriate safety protocols. As the pandemic played out, well over 50% of the firm's rented office space went unused. When the time came to sign another five-year commitment for its current space, the firm reviewed the operations of the past months. Here's what it discovered:

- Clients adapted to Zoom/conference calls, and there was positive feedback; what used to take potentially a couple of hours (including drive time) could now be achieved in an average of 30 minutes;
- The professional staff preferred working part-time or full-time from home; productivity increased as they were able to better focus on client assignments instead of sitting in traffic; and
- Internal best practices improved: Document intake and storage capacity were enhanced, as was client project triage, follow-up, and review.

As a result, the firm realized that it has become more efficient on behalf of clients and staff while occupying a smaller physical footprint. Therefore, the firm will relocate to smaller offices nearby.

8 ercllc.net.

9 vscpa.com/events/conference/forensic-valuation-services-conference.

Global *BVU* News and Trends

Business valuation news from a global perspective.

Regulators, Standard-Setters, VPOs

IFRS submits draft changes to fair value disclosure requirements

IASB released its latest exposure draft, Disclosure Requirements in IFRS Standards—A Pilot Approach, in late March, and business valuers are just beginning to examine the key elements.[1] Comments are required prior to October 21. The exposure draft proposes a new approach to developing disclosure requirements in IFRS standards. Obviously, changing the approach to forming new standards primarily affects the auditors, but they also suggest new potential disclosure standards for business valuers who do financial reporting projects under IFRS 13 *Fair Value Measurement.* Even the standard's illustrative examples will change if the draft is accepted, to "require quantitative disclosures about the fair value measurements of *each class of assets and liabilities measured at fair value in the statement of financial position after initial recognition by the level of the fair value hierarchy"* (italics indicate new language from the exposure draft). The nature of these quantitative disclosures is defined in new Paragraphs 100 to 121 in the proposed update to IFRS 13:

> An entity shall disclose information that enables users of financial statements to evaluate the entity's exposure to uncertainties associated with fair value measurements of classes of assets and liabilities measured at fair value in the statement of financial position after initial recognition.

Thanks to Marianne Tissier and Chris Thorne for their ongoing coverage of this new IFRS initiative via Valuology.org.

Feedback regarding radical proposals on the reporting of intangibles

In February 2019, the Financial Reporting Council (FRC) published a discussion paper titled Business Reporting of Intangibles: Realistic Proposals that contemplates proposals for a radical change to the accounting and reporting for intangible assets.[2] A total of 24 responses were received from a wide variety of stakeholders, and their comments are summarized in a feedback statement FRC staff prepared.[3] Most respondents acknowledged the limitations of the current reporting framework in capturing and clearly disclosing the nature and value of intangibles. But their main concerns over the proposals in the paper revolve around the inherent uncertainty related to the measurement of intangible assets and that any efforts to increase transparency would lead to disclosures that would be highly subjective and beset with a high degree of management judgement.

Books, Research Papers, Studies, Data

Freyman article on CAPM in renewable energy available

A new analysis by a trio of Grant Thornton experts (Tomas Freyman, Jade Palmer, and Axel Rescanieres) addresses income approach valuation issues in renewable energy—a topic made more important because Europe's investments in this area increased 52% last year, while the rest of the world, including the US, China, and India, dialed back. The article, "Does CAPM Work for Valuing Renewable Energy Assets," highlights some of the differences in the risk/return characteristics of this asset class.[4] Long-term incentive schemes such as feed-in tariffs are one example, but renewable projects also have less leverage than other infrastructure investments, particularly in the UK, the authors note. These factors alter most of the elements of CAPM analyses. For example, the data set for betas "is still limited and is coupled with no sufficiently strong index to compare." Similarly, the authors point out that these projects have little input price or product price variation, so standard corporate ERP numbers may also provide inconsistent valuations.

1 ifrs.org/content/dam/ifrs/project/disclosure-initative/disclosure-initiative-principles-of-disclosure/ed2021-3-di-tslr.pdf.

2 frc.org.uk/consultation-list/2019/discussion-paper-business-reporting-of-intangibl.

3 frc.org.uk/getattachment/a9a2efda-fc12-4c2c-a616-3ac91e718ca9/Feedback-Statement-FINAL.pdf.

4 bvresources.com/downloads.

KPMG on early-stage valuations

"Despite the COVID-19 crisis, global venture capital funding increased 4.0% year over year to USD 300 billion in 2020," says *KPMG's Quarterly Brief–International Valuation Newsletter* for the second quarter of 2021.[5] The KPMG brief focuses on the valuation of early-stage companies and addresses which methodology to use, risk profiles, and assessing potential value development. The brief also contains an update on recent capital market data, including major stock market performances, valuation multiples, risk-free rates, country risk premiums, and growth rates.

Learn to say 'no' to some clients, says former ANEVAR president

Some business valuation clients are "dangerous," and valuers need to say "no" to them, advises Dana Ababei, former president of the National Association of Authorized Romanian Valuers, Romania (ANEVAR). These risky clients "put pressure on valuers, do not care about anyone, avoid paying for the services when the value is not what they expect and rather look for another valuer whom they subject to the same pressure," she writes in the 2021 edition of *VALUE: Wherever It Is,* a publication from ANEVAR.[6] For the good of the valuation profession, valuers should say "no" to these clients and tell them why. "I believe trust is built on the truth that we tell people, not on what they want to hear," she says.

Country Views

United Kingdom: Transfer pricing treatments under increased scrutiny as recovery continues

An HMRC March 23 consultation on strengthening the transfer pricing (TP) documentation requirements for auditors and business valuers indicates a continued focus by the UK tax authority on revenue-raising from TP audits.[7] The UK are not alone in their desire to minimise off-shoring assets–and, with proposed corporate rate changes likely in the US by midsummer, a period of rate adjustments and asset movement can be anticipated. Analyses required for transborder taxation are not likely to become more simple. As the Consultation describes, HMRC wish to:

- Conduct better risk assessment;
- Direct TP enquiries more appropriately; and
- Reduce the time taken to establish the facts when enquiries are opened.

Whether these steps reduce transfer pricing analysis time, or the length and complexity of disputes, remains to be seen. Several analyses, including a thoughtful one by Freshfields Bruckhaus Deringer's Sarah Bond (for Lexology) point out that "HMRC's radar for difficult TP cases is already quite finely tuned and thorough testing of the facts will almost always be required for the enquiry to be worked properly and lead to successful resolution."[8] The UK have not completely adopted international transfer pricing recommendations from the OECD (their recommendations include three tiers of standardized documentation, but the UK has only implemented one: country-by-country reporting, or CBCR). This documentation only extends to large multinationals, so the remainder of the economy–and their business valuers–are more or less on their own to assess whether tax filings are accurate–and correctly documented. Transfer pricing experts turn to HMRC's INTM483030–Transfer Pricing: Operational Guidance: Working a Transfer Pricing Case: Transfer Pricing Documentation, though there's little help on the scope and format of required work.[9]

HMRC now wish to improve their compliance assessments via the other two OECD routes: master file and local file requirements. Many other jurisdictions–Australia is often considered a leader here–have improved their tax enforcement and review processes this way. Bond comments that "cross border, intra-group transactions … subject to a materiality threshold (to be determined) … could include information such as the nature of transactions, details of the counterparty, the compensation and the transfer pricing methodologies applied."

5 assets.kpmg/content/dam/kpmg/ch/pdf/valuations-newsletter-15th-edition.pdf.

6 anevar.ro/images/documente/value-7.pdf.

7 assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/972141/Transfer_pricing_documentation_-_consultation.pdf.

8 lexology.com/library/detail.aspx?g=b4fa9821-1931-4f09-9ca8-24180d0b0082.

9 gov.uk/hmrc-internal-manuals/international-manual/intm483030.

BVLAW CASE UPDATE

Featured Case

Court Says DOL Claims in ESOP Case Require 'Fact-Intensive Inquiry' and Denies Motions for Summary Judgment

Scalia v. Reliance Trust Co.,
2021 U.S. Dist. LEXIS 38705 (March 2, 2021)

This is an evolving ESOP case centering on a 2011 transaction in which the majority shareholder of a manufacturing company sold the remainder of his interest in the company to the ESOP. At this stage in the proceeding, both sides filed partial summary judgment motions and challenged the opposing expert testimony under *Daubert* and Rule 702. The court denied the motions, finding many of the factual issues were in dispute and required further development of the record before the court could make an assessment. The disputed facts and the parties' interpretation of them to the court bring to mind other recent ESOP cases.

Backstory. The company is Kurt Manufacturing, a closely held Minnesota company. At the time of the transaction, William Kuban was the majority shareholder (75.6%) and chairman of the board. The ESOP already owned part of the company shares.

The company's board of directors included Kuban and his daughter as well as three non-Kuban-related members (defendant directors). In early 2011, Kurt's board began exploring the sale of Kuban's remainder interest to the ESOP. The board retained Chartwell Business Valuation LLC (Chartwell) to assess whether an ESOP transaction was viable for the company and, if so, to provide financial advice for the seller side. Ultimately, the non-Kuban board members approved the transaction, which left the ESOP with 100% of company stock.

On advice of Chartwell, the defendant directors appointed Reliance Trust as independent trustee to represent the ESOP in negotiating a purchase price. Stout Risius Ross (SRR) was retained as ESOP financial advisor, a service that included providing a written opinion as to whether "the consideration paid by the ESOP ... is not greater than the fair market value of such shares." Since this was a debt-financed transaction, SRR also would provide an opinion as to whether the terms of the loan the company was to make to the ESOP would be "at least as favorable to the ESOP as would be the terms of a comparable loan resulting from negotiations between independent parties."

In July 2011, Chartwell, representing Kuban, the seller/owner, made an initial offer to Reliance to sell the remaining stock for $45 million. Various valuations and negotiations around the price for the remaining shares followed. One sticking point was Kuban's proposed nearly $500,000 annual salary as consultant to the company. In messages, Reliance expressed concern that this amount would raise a red flag for the Department of Labor and make the transaction an "easy target," enabling the DOL to argue the compensation violated ERISA's exclusive benefit rule. Further, it could give rise to IRS claims of excessive executive compensation.

In August 2011, Reliance made a counteroffer in which the ESOP would buy the stock for $36 million. Kuban's salary remained an open issue the parties would resolve later. Apparently, SRR's draft valuations arrived at a range of value from $32.5 million to $40 million. SRR arrived at a midpoint of $36 million assuming Kuban's salary remained at nearly $500,000. In communication with Chartwell, Reliance said "any counter changes we ask for are to help protect [Kuban,]

[Kurt,] and Reliance from the DOL. If there is any element they deem to be in excess of [fair market value] they will file a claim."

Ultimately, the parties agreed to a purchase price of $39 million with a lowered salary for Kuban ($100,000). The deal closed on Oct. 5, 2011.

SRR's valuation draft. SRR's draft fairness analysis was based on company projections that Chartwell had "reformatted." SRR's analysis concluded FMV for Kuban's stock was between $34.2 million and $43.1 million, resulting in a midpoint of $39 million. This analysis discussed the company's performance during the great recession and noted that, more recently, net sales had increased for the latest 12 months (LTM period) ending July 31, 2011. Also, following cost savings measures, since 2009, gross profits increased annually as did the company's operating income in the LTM period. In terms of financial trends, SRR said it expected the profit margins to increase because the company had shifted its product mix to higher margin segments, automated certain manufacturing processes, and instituted operational efficiencies. SRR's FMV determination was based on the combined results of the guideline company method and the discounted cash flow analysis.

In the guideline company analysis, SRR applied a 10% control premium to the stock prices of

the guideline companies "to account for any enhanced benefits that may be realized by a controlling shareholder of Kurt." SRR noted that a primary benefit of control was "the ability to change the capital structure of the firm to achieve efficiencies in the cost of capital to the company" and said this was a factor considered in selecting the control premium.

However, the composition of the board did not change and there was no amendment to the company's bylaws that gave the ESOP additional control because of the transaction. But the parties did reach an investor rights agreement that gave the seller the right to designate one of the board members until the company paid off its debt to him.

In September 2011, SRR produced a slightly wider range of FMV for the contested shares. SRR found the lower end was still $34.2 million but the higher end was $43.4 million. It listed the purchase price at $39 million.

Reliance never proposed the low end of SRR's valuation, $34.2 million, in negotiations with the seller. The DOL later argued this shows there were no genuine negotiations.

Upon Reliance's request, SRR also prepared a "Solvency Opinion" that examined the company's solvency in light of the company's taking on significant debt in connection with the transaction. SRR applied three tests—the balance sheet, the cash flow test, and the reasonable capital test—and concluded Kurt would be solvent. Closer to the closing of transaction, in October 2011, the company's outside auditor found that, if the transaction closed as envisioned, the value of the company's assets would be greater than its liabilities, including contingent liabilities.

Reliance approved the transaction. SRR's fairness opinion stated that the consideration the ESOP paid for Kuban's shares was no greater than fair market value and, on the whole, the transaction was fair to the ESOP from a financial point of view. The directors received an enhanced compensation package by way of stock appreciation rights as well as raises to their base salaries.

Monitoring Reliance. Once the board had hired Reliance, the directors mostly interacted with Reliance through Chartwell, the seller-side advisor. A director who was asked during his deposition about monitoring Reliance said Reliance "was doing what it was supposed to be doing." When asked how he knew that, he said Reliance was a "trust company" that "agreed that they would perform that duty and had the reputation and ability, we believed, to do that appropriately. So maybe trust is part of the conclusion that you draw."

DOL complaint. About six years later, the DOL determined that the defendant board members and Reliance had breached their fiduciary duties to the ESOP by causing it to pay an unreasonably high price that enriched Kuban and the defendants at the expense of employee plan holders. Among the requested measures of relief, the DOL wanted the defendants to "restore all losses caused to the ESOP as a result of their fiduciary breaches" and the court to order removal of the defendants "from all fiduciary or service provider positions they may now have in connection with the ESOP" and to enjoin them from serving as fiduciary "to any ERISA-covered plan."

In July 2020, the parties filed cross-motions for partial summary judgment as to the fiduciary duty (duty of prudence and loyalty) claims. They also filed *Daubert* motions to exclude the opposing side's duty-of-prudence experts, which the court, for the most part, denied.

Applicable legal principles. Under the ERISA statute, which seeks to promote the interests of employees in employee benefit plans, fiduciaries have "twin duties of loyalty and prudence."

ESOPs represent "a type of pension plan that invests primarily in the stock of the company that employs the plan participants." ESOP fiduciaries

are subject to the same fiduciary duties applying to ERISA fiduciaries in general. ERISA duties are "the highest known to the law." Under the applicable statute, a fiduciary to the plan is a person or entity that has "any discretionary authority or discretionary responsibility in the administration of such plan."

The court found the directors were ERISA fiduciaries at all relevant times. Although they resigned when Reliance was brought in as independent trustee, the directors continued to have a fiduciary duty to monitor the activities of Reliance, the court found. Further, Reliance became a fiduciary when it was appointed as trustee.

Reliance's breach of duties of loyalty and prudence. Among the DOL's specific allegations against the trustee was the claim that Reliance violated its duty of loyalty because it did not act with an "eye single" to the ESOP. Instead, Reliance looked out for the interests of the seller side, i.e., Kuban and the company, the DOL said. To this effect, the DOL referred to the email Reliance sent to Chartwell, the seller-side advisor, that "any counter changes we [Reliance] ask for are to help protect [Kuban], [Kurt], and Reliance from the DOL." Further emails showed that Reliance was concerned about the high salary Kuban initially insisted on as part of the deal and what that would do to the optics of the transaction. Reliance explained it was trying to come up with "different approaches that looked better and accomplished the goal," the goal being closing the deal.

Reliance argued the messages merely show Reliance's concern that the high salary would make the transaction and Reliance as trustee easy targets for the DOL. From this point of view, it was reasonable for Reliance to make a counteroffer on behalf of the ESOP that would also be in Kuban's best interest.

The court agreed that this was a disputed issue of material fact that the court could not decide on summary judgment.

For its part, Reliance sought summary judgment on the DOL's breach of the duty of prudence claim. Reliance argued in a *Daubert* motion that the testimony of the DOL's expert on the duty of prudence was inadmissible. Without this testimony, the DOL would be unable to support its claim.

The court disagreed, noting it found that the testimony of both parties' duty-of-prudence experts was, with certain limitations, admissible. Therefore, there would be conflicting expert testimony on this issue, making summary judgment in Reliance's favor inappropriate.

Claims of directors' breach of duties of loyalty and prudence. Regarding director liability, the DOL alleged that the directors violated their fiduciary duties by "orchestrating" the price, structure, and financing of the transaction and by failing to monitor Reliance. According to the DOL, the directors only retained Reliance to "rubber stamp" the deal. Specific events show that, before the directors hired Reliance, they pursued a $39 million transaction, a price that exceeded FMV, the DOL complaint said.

The directors countered the evidence shows that there was no predetermined price. The financial advisor representing the seller side even valued the seller's stock below $39 million some three or four months before the transaction; further, the seller in its opening offer asked for $45 million and Reliance made an initial counteroffer of $36 million.

The court said it was clear that "DOL's 'orchestration' theory rests on disputed facts." For example, the DOL's duty-of-prudence expert stated that the seller and the directors didn't plan to hire any firms for the transaction other than Reliance and SRR. This was evidence of imprudence, the expert said. The directors hired Reliance as ESOP trustee at Chartwell's direction, Chartwell representing the seller's interests, without considering other potential trustees. Further, emails before the engagement of Reliance suggest that the seller was determined not to obtain less than

$39 million. Reliance's key person testified he felt Reliance needed to negotiate a deal "that was acceptable and would be a positive end benefit for the participants." For this reason, too, Reliance never offered the low end of SRR's FMV value range ($34.2 million).

The directors claimed the parties engaged in "substantive negotiations" before settling on the final terms.

The court said an evaluation of the DOL's orchestrated-transaction theory required the full evidentiary record. The issue could not be decided on summary judgment.

The DOL also alleged the directors breached their fiduciary duty by failing to monitor Reliance. The directors argued they satisfied this duty by having weekly meetings with Chartwell, which usually met with Reliance a day before the directors-Chartwell meetings. The directors noted they provided updated financial projections and stress-tested the numbers to ensure the company could cope with the increased leverage in case of a downturn; they asked for, but were not allowed to see, SRR's valuation; and they questioned Chartwell about the transaction price. The directors maintained the transaction price was consistent with other valuators' analyses.

The DOL countered that the meetings with Chartwell did not satisfy the directors' obligation to monitor Reliance as Reliance was not part of the meetings. Also, the directors provided Chartwell, Reliance, and SRR with inflated projections, which led Chartwell and SRR to develop inflated valuations.

The court found this claim, too, raised factual disputes and therefore could not be resolved on summary judgment.

DOL's 'prohibited transaction' claim. The DOL also alleged Reliance caused the ESOP to enter into a prohibited transaction claim. To be exempt from the prohibited transaction rules, a fiduciary must show that the ESOP bought stock for no more than adequate consideration, meaning the fair market value of the stock "as determined in good faith by the trustee."

At the same time, the court pointed out that, under applicable 8th Circuit law, even if the trustee fails to make a good-faith effort, there is no liability if a hypothetical prudent trustee would have bought the stock at the actual purchase price. Relying on expert advice may serve as evidence of prudence, but, under case law, it "is not a magic wand" for fiduciaries. Under *Brundle*, a trustee must show that it investigated the expert appraiser whom it relied on and that reliance was reasonably justified under the circumstances.

Among other things, the DOL noted Reliance failed to prove it paid "adequate consideration." Reliance ignored earlier valuations that were lower. Reliance did not properly scrutinize SRR's draft valuation or solvency opinion, spending too little time on reviewing them. In this context, the DOL attacked SRR's use of a control premium because, according to the DOL, the ESOP did not gain control of the company's board and the ESOP's voting rights did not change. Reliance's failure to question the application of a control premium resulted in an overpayment of at least $4.7 million, the DOL alleged.

Reliance responded that the ESOP did gain control. The parties made an investor rights agreement under which Kuban could only nominate one member of the board until his notes were fully paid. The ESOP was able to nominate the remaining members.

The court found the resolution of all of these issues required a fully developed record. Therefore, summary judgment was inappropriate.

Based on the court's ruling on the parties' instant motions, as of this moment, this case is headed to a Zoom bench trial. ◆

***BVLaw* subscribers can access digests of court decisions and the original court opinions, and new cases are added every month. This table provides an overview of the latest case discussions added to the *BVLaw* platform. To read the complete digest of the listed cases, subscribe to *BVLaw* by visiting bvresources.com/bvlaw.**

Latest Cases Added to *BVLaw*

Case Name/ Full Citation	Experts	Case Type	State/ Jurisdiction	Digest Summary
Scalia v. Reliance Trust Co. 2021 U.S. Dist. LEXIS 38705 (March 2, 2021)	N/A	ESOP	Federal/ District of Minnesota	In an evolving ESOP case, court says DOL's allegations that ESOP trustee and various directors engaged in breaches of fiduciary duties and caused the ESOP to enter a prohibited transaction (i.e., overpaid for company stock) require "fact-intensive inquiry" and cannot be resolved on summary judgment.
Life Time, Inc. v. Zurich Am. Ins. Co. 2021 U.S. Dist. LEXIS 35404; 2021 WL 734669 (Feb. 25, 2021)	N/A	Economic Damages & Lost Profits	Federal/ District of Minnesota	In this business interruption case resulting from mandatory shutdowns to control COVID-19, the federal court grants the plaintiffs' motion to remand the action back to Minnesota state court to resolve the disputed issue of what qualifies as direct physical loss under state law.
MIKMAR, Inc. v. Westfield Ins. Co. 2021 U.S. Dist. LEXIS 29591 (Feb. 17, 2021)	N/A	Economic Damages & Lost Profits	Federal/ Northern District of Ohio, Eastern Division	In this business interruption case resulting from mandatory shutdowns to control COVID-19, the court grants the defendant insurance company's motion to dismiss plaintiffs' complaint seeking coverage for lost business income under their insurance policies. Plaintiffs operated a hotel and adjacent banquet and catering facility. In ruling against the plaintiffs, the court found the virus did not perceptibly harm the properties and the policies included a virus exclusion that prevented coverage of business losses.
Brunswick Panini's v. Zurich Am. Ins. Co. 2021 U.S. Dist. LEXIS 31110; 2021 WL 663675 (Feb. 19, 2021)	N/A	Economic Damages & Lost Profits	Federal/ Northern District of Ohio, Eastern Division	In this business interruption case resulting from mandatory shutdowns to control COVID-19, the court granted defendant insurer's motion to dismiss the plaintiffs' claims. The court found the plaintiffs, which operated restaurant and bar facilities in Ohio but had to suspend operations because of the pandemic, did not meet the precondition of "direct physical loss of or damage to" the covered property requirement. Further, the microorganism exclusion precluded coverage of losses.
Protégé Rest. Partners LLC v. Sentinel Ins. Co. 2021 U.S. Dist. LEXIS 24835 (Feb. 8, 2021)	N/A	Economic Damages & Lost Profits	Federal/ Northern District of California, San Jose Division	In this business interruption case resulting from mandatory shutdowns to control COVID-19, the court says the plaintiff, a California restaurant, failed to state plausible claims to relief but gives plaintiff an opportunity to amend its complaint, even if "it does not seem likely" the plaintiff will be able to overcome the complaint's deficiencies.
Whitesell Corp. v. Electrolux Home Prods. 2021 U.S. Dist. LEXIS 39023 (March 2, 2021)	Paul Dopp	Discovery	Federal/ Southern District of Georgia	In this Rule 26 discovery case, court says sanctions are inappropriate where the defendant had no duty to disclose its expert's "intermediary" working paper; however, sanctions are appropriate related to the expert's miscalculations; court finds expert testimony is admissible under *Daubert*.
Torgerson Props. v. Cont'l Cas. Co. 2021 U.S. Dist. LEXIS 28928 (Feb. 17, 2021)	N/A	Economic Damages & Lost Profits	Federal/ District of Minnesota	In this business interruption case resulting from mandatory shutdowns to control COVID-19, a federal court granted the defendant insurer's motion to dismiss plaintiff's suit over coverage, finding plaintiff's claim for loss of income based on state orders restricting use does not meet "direct physical loss" prerequisite.

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Business Combinations and Fair Value for Financial Reporting
June 10, 10:00 a.m.-11:40 a.m. PT/ 1:00 p.m.-2:40 p.m.
Featuring: Bill Kennedy (Duff and Phelps)

Practical Applications of DLOM: Methods and Data (Part 1)
June 30, 10:00 a.m.-11:40 a.m. PT/1:00 p.m.-2:40 p.m. ET
Featuring: Pasquale Rafanelli (Empire Valuation Consultants)

Practical Applications of DLOM: Case Study (Part 2)
July 8, 10:00 a.m.-11:40 a.m. PT/1:00 p.m.-2:40 p.m. ET
Featuring: Pasquale Rafanelli (Empire Valuation Consultants)

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CALENDAR

2021 ASA Fair Value Virtual Conference
June 10
www.appraiser.org

ESOP 44th National Conference (Virtual and Live Conference)
June 21-23
Washington, DC
www.esopassociation.org

2021 Business Valuation and Financial Litigation Hybrid and Virtual Super Conference
June 21, 22, 24, 25
Park City, UT, and Houston, TX
www.nacva.com

AM&AA Summer Conference
July 28-30
Dallas, TX
www.amaaonline.com

IBBA 2021 Annual Conference
October 15-16
Woodlands, TX
www.ibba.org

2021 ASA International Conference (Virtual and Live Conference)
October 24-26
Las Vegas, NV
www.appraisers.org

AICPA and CIMA Forensic and Valuation Services Conference (Virtual and Live Conference)
November 8-10
Las Vegas, NV
www.aicpa.org

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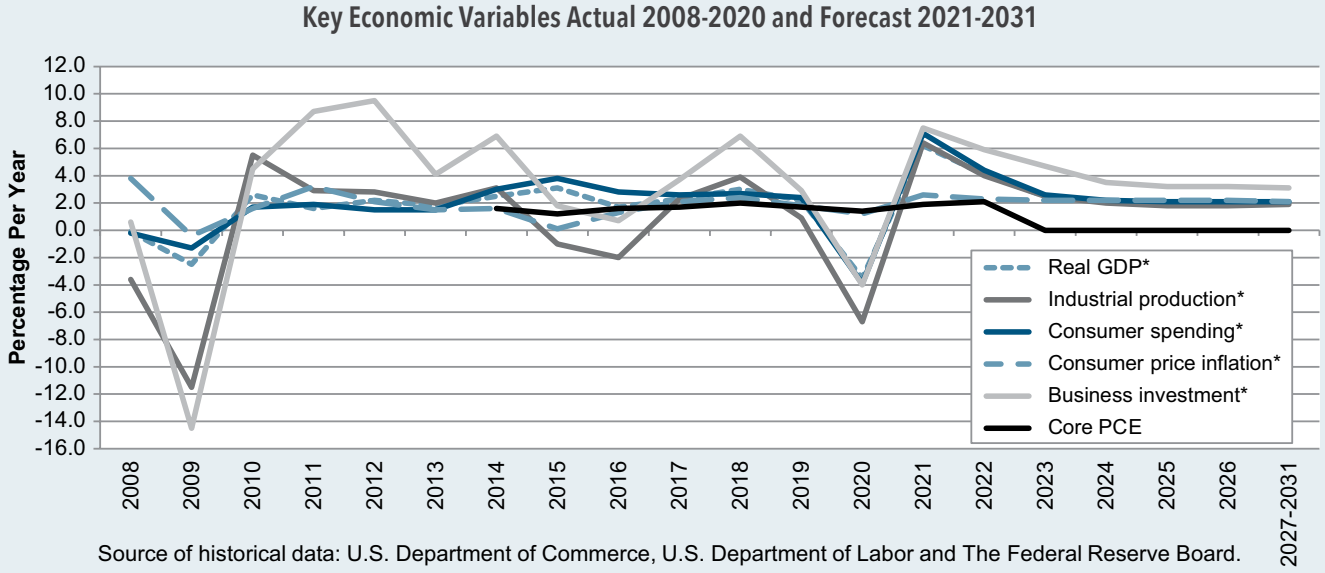
BUSINESS VALUATION DATA SPOTLIGHT

Economic Outlook for the Month



Source of historical data: U.S. Department of Commerce, U.S. Department of Labor and The Federal Reserve Board.
Source of forecasts: Consensus Forecasts.
*Numbers are based on percent change from preceding period. Consumer price inflation information is annual averages.

Quarterly Forecasts 2Q 2021-4Q 2021 and Annual Forecast 2021-2022

	Quarterly			Annual			
	2Q 2021	3Q 2021	4Q 2021	2021	*(prior forecast)*	2022	*(prior forecast)*
Real GDP*	8.4	7.4	4.7	6.2	*5.7*	4.1	*4.0*
Consumer spending*	8.7	7.9	5.1	7.1	*6.3*	4.4	*4.3*
Business investment*	6.0	7.7	6.6	7.5	*7.2*	5.9	*5.5*
Consumer price inflation*	2.5	2.4	2.4	2.6	*2.4*	2.3	*2.2*
Real disposable personal income*	-9.2	-7.9	-3.1	3.0	*2.1*	-1.2	*-1.1*
Unemployment rate	5.7	5.1	4.7	5.4	*5.6*	4.2	*4.4*
Industrial production*	6.8	6.2	4.5	6.4	*6.7*	4.0	*4.1*

Source of forecasts: *Consensus Forecasts - USA*, April 2021.

Notes: Quarterly figures are percent change from prior quarter, at seasonally adjusted annual rates (except unemployment which is the average for that period).

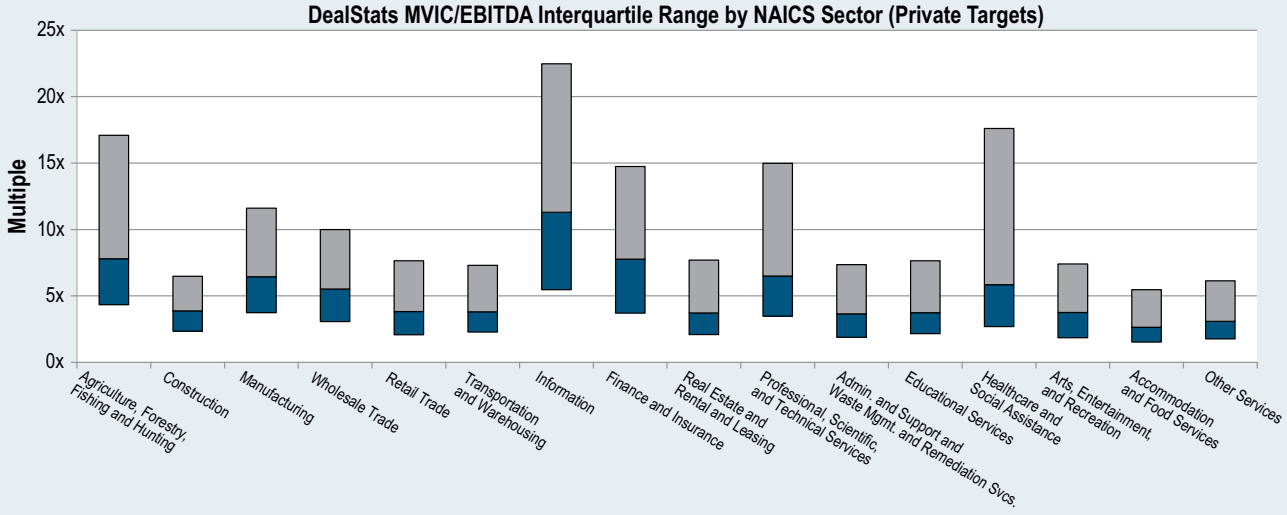
Annual rates are percent change from preceding period (except unemployment, which is the average for that period).

Every month, Consensus Economics surveys a panel of 30 prominent United States economic and financial forecasters for their predictions on a range of variables including future growth, inflation, current account and budget balances, and interest rates.

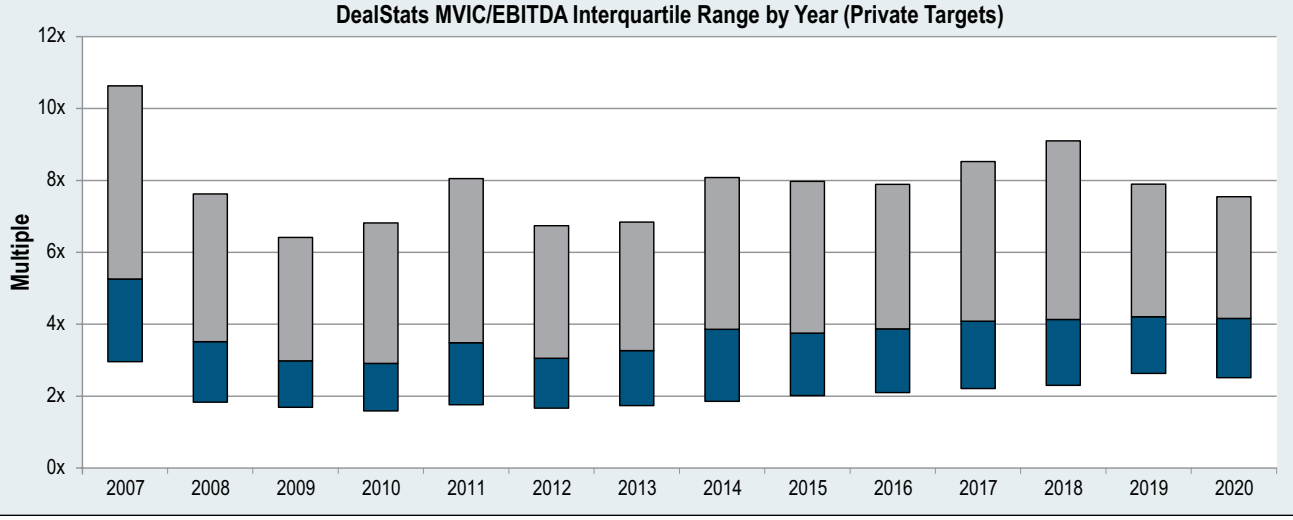
This section is an excerpt from BVR's *Economic Outlook Update* (*EOU*).[1] The *EOU,* a convenient and cost-effective resource, provides a review of the state of the U.S. economy and forecast for the future. Leading experts in the BV profession rely on the *EOU* as the basis for the current economic conditions and forecast portions of their valuation reports. ◆

1 The *Economic Outlook Update* is published monthly and quarterly by Business Valuation Resources, LLC (BVR). Visit bvresources.com/EOU or call 503-479-8200, ext. 2.

MVIC/EBITDA Trends



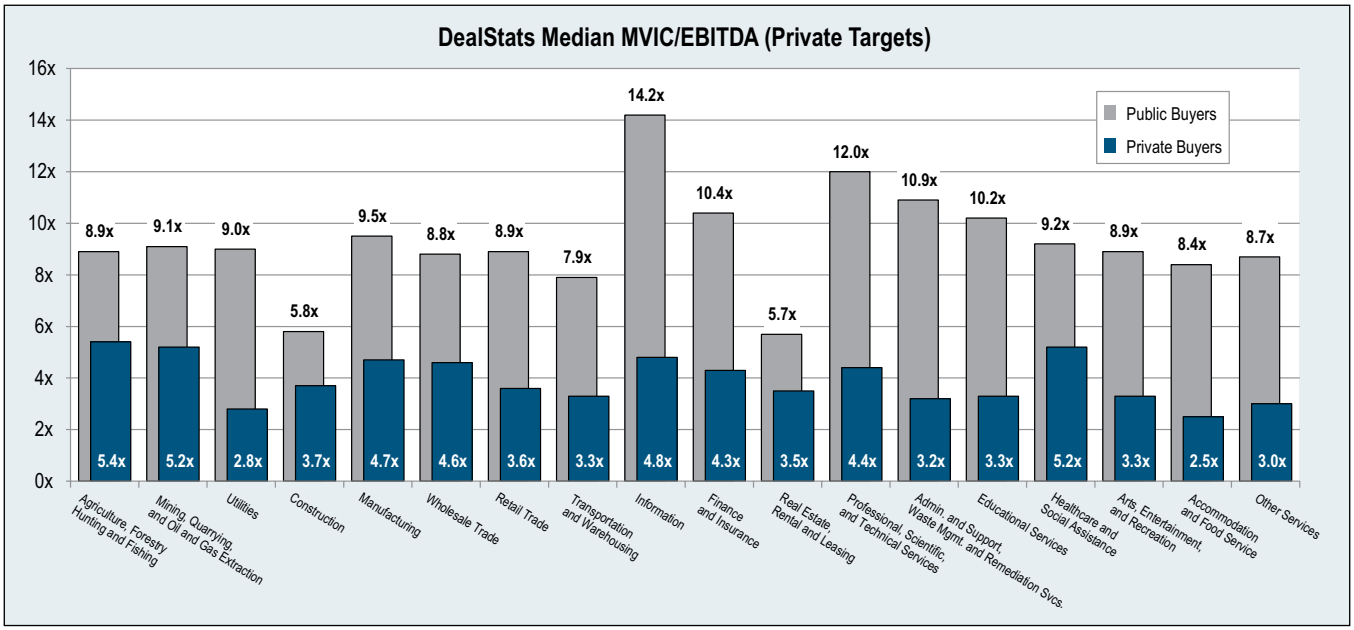
Note: The interquartile range describes the middle 50% of observations. The top of the grey rectangle indicates the 75th percentile, the bottom of the blue rectangle indicates the 25th percentile. The line where the two rectangles meet represents the median. If the interquartile range is large, it means that the middle 50% of observations are spaced wide apart, and, if the interquartile range is narrow, it means the middle 50% of observations are spaced close together.



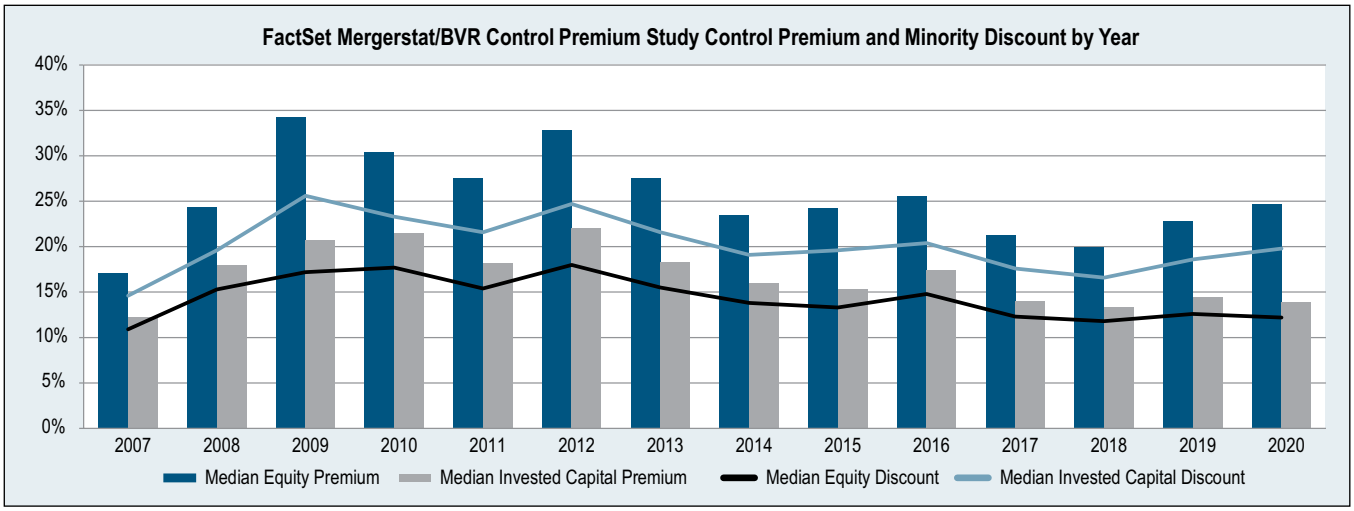
The first two graphs display the interquartile range of the MVIC/EBITDA multiple by major NAICS sector and by year from the DealStats (formerly Pratt's Stats) database for private targets.[1] For the period analyzed, the information sector had the greatest median MVIC/EBITDA multiple. It appears that the accommodation and food service sector had the least dispersion between the first and third quartiles (25th percentile and 75th percentile), while the healthcare and social assistance sector had the greatest dispersion. The accommodation and food service sector had the lowest median MVIC/EBITDA multiple. When reviewing the data by year, the median MVIC/EBITDA was the highest in 2007, at slightly more than 5.0. Since then, the median MVIC/EBITDA multiple has consistently been under 4.0 and often close to 3.0. It appears that 2007 had the most dispersion in the MVIC/EBITDA interquartile range but has been relatively consistent in recent years. The graph on the next page compares the median MVIC/EBITDA multiples paid by private acquirers to the multiples paid by public acquirers. In each of the 18 industry sectors, public buyers paid higher multiples than private buyers. The greatest difference in multiples between private and public buyers occurred in the information sector.

1 Market value of invested capital (MVIC) is the term used for selling price. In addition to showing the median valuation multiple by sector and year, the interquartile range provides a measure of dispersion. DealStats is available from Business Valuation Resources (BVR). Visit bvresources.com/dealstats, or call 503-479-8200, ext. 2.

DealStats is a private- and public-company transaction database, which provides financial details on over 41,100 acquired businesses. DealStats is used as a comparable transaction data source for sold businesses across all industry sectors. To learn more, visit bvresources.com/dealstats. ◆



FactSet Mergerstat/BVR Control Premium Study



This graph displays the median equity and invested capital control premiums, and the median implied equity and invested capital minority discounts. The analysis covers all industries between 2007 and 2020 from the FactSet Mergerstat/BVR Control Premium Study. As the graph shows, with the exception of a spike in 2009 and 2012, the median control premium and minority discount have been on a general downward trend since 2012. After reaching a high of 34.3% in 2009, the median equity control premium decreased to 19.9% in 2018 before rising slightly to 24.7% in 2020. The median equity implied minority discount reached a high of 25.6% in 2009 and has since fallen to 19.8% in 2020. In every year since 2007, the median invested capital control premium has been lower than the median equity control premium. While specific comparables would be needed in a valuation to determine and support a control premium or minority discount, this graph is useful to display trends in control premiums and minority discounts over time. More data, as well as detailed search tools, can be found in the FactSet Mergerstat/BVR Control Premium Study, available at bvresources.com/cps. ◆

PERIODICALS

BVR
What It's Worth

Business Valuation Resources, LLC
111 SW Columbia Street, Suite 750
Portland, OR 97201-5814

June 2021 Cost of Capital Center

General Monthly Cost of Capital Data

Treasury yields[1]:		
1-month: 0.01% 1-year: 0.05% 5-year: 0.86% 10-year: 1.65% 20-year: 2.19%		
Prime lending rate:[1]		3.25%
Dow Jones 20-bond yield:[2]		2.33%
Barron's intermediate-grade bonds:[2]		2.78%
Dow Jones Industrials P/E ratios:[2] (Represents median figures)		
On current earnings:		28.1
Forward 12 month operating est.:		20.4
High yield estimate:[3]	Mean: 3.1%	Median: 2.6%
Long-term inflation estimate:[4]		2.26%
1H 2021 rate of GDP growth:[5]		2.90%
2H 2021 rate of GDP growth:[5]		3.70%

BVR's Private Company Cost of Capital Index[6]

Company Revenue ($thousands)	Cost of Capital
1,000	18.9%
5,000	17.3%
10,000	15.6%
15,000	14.8%

BVR's Cost of Capital Professional[7]

	CRSP Equity Risk Premium	
Time Period	Historical ERP (10Y T-Bond)	Historical ERP (20Y T-Bond)
1928-2019	6.55%	5.91%
1950-2019	6.75%	6.13%
1960-2019	4.50%	3.82%
1970-2019	4.11%	3.12%
1928-2018	6.39%	5.80%
1950-2018	6.53%	5.95%
1960-2018	4.20%	3.58%
1970-2018	3.73%	2.82%

1 Source: The Federal Reserve Board as reported by the BVR Risk-Free Rate Tool, located at bvresources.com/riskfreerates.asp, May 1, 2021.

2 Barron's, April 26, 2021. Forward 12 months as of May 5, 2021.

3 Finra.org, May 3, 2021.

4 Aruoba Term Structure of Inflation Expectations/Federal Reserve Bank of Philadelphia Forecasts for the average annualized rate of inflation over the next 10 years, April 30, 2021.

5 GDP Forecast, Federal Reserve Bank of Philadelphia, Livingston Survey, Dec. 18, 2020.

6 After-tax cost of capital (calibrated for 35% tax rate and mid-period convention) for average/typical risk company. For use on unlevered, after-tax expected free cash flows. Based on DealStats data and Dohmeyer, Burkert, Butler and Tatum's Implied Private Company Pricing Line (IPCPL). Numbers are provided by the IPCPL developers as of Oct. 4, 2018. See the IPCPL page at bvresources.com/ipcpl.

7 These data are sourced from BVR's Cost of Capital Professional online platform, which offers equity risk premia, size premia, and risk-free rates and allows you to compute cost of equity and WACC estimates. This powerful resource provides a simple and transparent way to estimate cost of capital. You will always see the components of your cost of capital, how the figures were calculated, and the citations of all sources used–everything you need to support your work. To learn more, visit bvresources.com/ccprofessional.

2021 Closed-End Fund Report: Fixed Income Securities

The *2021 Closed-End Fund Report – Fixed Income Securities* report, authored by experts Bruce Johnson and James Park provides historical and current closed-end fund data in one convenient publication, saving you the hassle–and expense–of searching through other data sources. Use the report to compare privately-held family limited partnerships and LLCs that hold money market funds, certificates of deposit, government bonds, municipal bonds, corporate bonds or other fixed income investments.

2021 Closed-End Fund Report: Stocks and Equity Investments

If you are valuing privately held entities that hold stocks and equity-oriented securities, your best resource is now available from BVR. The *2021 Closed-End Fund Report – Stocks and Equity Investments* report, authored by experts Bruce Johnson and James Park provides historical and current closed-end fund data in one convenient publication, saving you the hassle-and expense -of searching through other data sources. Use the report to compare privately-held family limited partnerships that hold common stock, preferred stock, mutual funds, REITs or other corporate equity investments.

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