



PRIVATELY-HELD BUSINESS VALUATION IN THE WAKE OF THE TAX CUTS & JOBS ACT

presented by the GYF Business Valuation & Litigation Support Services Group



GROSSMAN YANAK & FORD LLP
Certified Public Accountants and Consultants



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- *International Taxation*
- *Thorny Issues with Applying the Income Approach in a Legal Setting*
- *Tax Reform or Tax Calamity? – A Closer Look at the Tax Cuts & Jobs Act*

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Certified Public Accountants and Consultants



Grossman Yanak & Ford LLP

Headquartered in Pittsburgh, Grossman Yanak & Ford LLP is a regional certified public accounting and consulting firm that provides assurance and advisory, tax planning and compliance, business valuation, ERP solutions and consulting services. Led by six partners, the firm employs approximately 55 personnel who serve corporate and not-for-profit entities.

Our firm was founded in 1990 on the idea that the key to successful, proactive business assistance is a commitment to a high level of service. The partners at Grossman Yanak & Ford LLP believe that quality service is driven by considerable involvement of seasoned professionals on a continuing basis. Today's complex and dynamic business environment requires that each client receive the services of a skilled professional with a broad range of experience and knowledge who can be called upon to provide efficient, effective assistance.

Grossman Yanak & Ford LLP combines a diversity of technical skills with extensive "hands-on" experience to address varied and complex issues for clients on a daily basis. We pride ourselves on bringing value-added resolution to these issues in a progressive and innovative manner. Our ability to produce contemporary, creative solutions is rooted in a very basic and ageless business premise – quality service drives quality results. Our focus on the business basics of quality technical service, responsiveness and reasonable pricing has enabled the firm to develop a portfolio of corporate clients, as well as sophisticated individuals and nonprofit enterprises.

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Robert J. Grossman, CPA/ABV, ASA, CVA, CBA



Bob heads our firm's Tax and Business Valuation Groups. He has over 35 years of experience in tax and valuation matters that affect businesses, both public and private, as well as the stakeholders and owners of these businesses. The breadth of his involvement encompasses the development and implementation of innovative business and financial strategies designed to minimize taxation and maximize owner wealth. As his career has progressed, Bob has risen to a level of national prominence in the business valuation arena.

His expertise in business valuation is well known, and Bob is a frequent speaker, regionally and nationally, on tax and valuation matters. Bob is a course developer and national instructor for both the American Institute of Certified Public Accountants (AICPA) and the National Association of Certified Valuators and Analysts (NACVA). He has served as an adjunct professor for Duquesne University and Saint Vincent College. He has also written articles for several area business publications and professional trade journals.

After graduating from Saint Vincent College in 1979 with Highest Honors in Accounting, Bob earned a Masters of Science degree in Taxation with Honors from Robert Morris University. He is a CPA in Pennsylvania and Ohio and is accredited in Business Valuation by the AICPA. Bob also carries the well-recognized credentials of Accredited Senior Appraiser, Certified Valuation Analyst and Certified Business Appraiser.

A member of the American and Pennsylvania Institutes of Certified Public Accountants (PICPA), Bob has previously chaired the PICPA Pittsburgh Committee on Taxation. He has also served as Chair of the Executive Advisory Board of NACVA, its highest Board; as well as Chair of NACVA's Professional Standards Committee and its Education Board.

Bob received NACVA's "Thomas R. Porter Lifetime Achievement Award" for 2013. The award is presented annually to one of the organization's 6,500 members, who has demonstrated exemplary character, leadership and professional achievements to NACVA and the business valuation profession, over an extended period.

Bob is a member of the Allegheny Tax Society, the Estate Planning Council of Pittsburgh and the American Society of Appraisers. He has held numerous offices in various not-for-profit organizations. Bob received the PICPA Distinguished Public Service Award and a Distinguished Alumnus Award from Saint Vincent College.

Bob and his wife, Susie, live in Westmoreland County. They have two grown children.



Melissa A. Bizyak, CPA/ABV/CFF, CVA



Melissa, a partner in the firm's Business Valuation & Litigation Support Services Group, has practiced in public accounting for more than 21 years. She has significant experience in business valuation and tax-related issues for privately-held concerns and their owners.

Her business valuation experience is diverse, including valuations of companies in the manufacturing, oil and gas and technology industries. These valuations have been performed for various purposes such as financial reporting, equitable distributions, buy/sell transactions, dissenting shareholder disputes, Employee Stock Ownership Plans (ESOPs), value enhancement and gift and estate tax purposes. Melissa also provides litigation support services including expert witness testimony.

After graduating from the University of Pittsburgh in 1994 with a B.S. in Business/Accounting, Melissa spent two years with a local accounting firm in Pittsburgh. She joined Grossman Yanak & Ford LLP in 1997.

Melissa is a certified public accountant and is accredited in business valuation and certified in financial forensics by the American Institute of Certified Public Accountants (AICPA). She has also earned the AICPA Certificate of Achievement in business valuation. Additionally, Melissa carries the credentials of Certified Valuation Analyst.

Her professional affiliations include the AICPA, the Pennsylvania Institute of Certified Public Accountants (PICPA) and the Estate Planning Council of Pittsburgh. She is a member and previously served as the Chair of the Executive Advisory Board of the National Association of Certified Valuators and Analysts (NACVA). Melissa has written business valuation course-related materials and serves as a national instructor for NACVA. She has also authored articles appearing in professional publications.

Melissa is a graduate of Leadership Pittsburgh, Inc.'s Leadership Development Initiative. She serves on the Board of Directors of the Children's Museum of Pittsburgh and is a member of the Executive Leadership Team for the American Heart Association's "Go Red for Women" initiative. Melissa is also a mentor for women business owners through Chatham University's MyBoard program. She was one of four female CPAs in the State of Pennsylvania to be honored in the PICPA's "Women to Watch" awards in 2017.

Melissa resides in the South Hills of Pittsburgh with her husband and their two sons.



Brad W. Matthews, CPA, CVA



Brad has focused his career on providing valuation and litigation support services since joining Grossman Yanak & Ford LLP in 2011. His experience includes financial statement and historical financial trend analysis, financial modeling, and business risk assessment, as well as performing calculations required for the preparation of business valuations and other consulting projects.

Brad has served clients in many industries including manufacturing, professional services, financial services, engineering, construction, retail, management consulting, oil and gas, and technology. He has played a significant role in providing business valuation services for a range of purposes including gift and estate tax planning, Employee Stock Ownership Plans (ESOPs), marital dissolutions, corporate divorce/shareholder disputes, financial and tax reporting, buy/sell transactions, and general business planning. Further, his litigation support experience includes the determination of lost profits and economic damages arising from various disputes.

Brad graduated from the University of Pittsburgh, earning a double major in Accounting and Finance with a minor in Economics. Brad is a graduate of Class XXIV of Leadership Pittsburgh Inc.'s Leadership Development Initiative (LDI) program that hones the leadership skills of high-potential young professionals.

He is a certified public accountant (CPA) and has earned the Certified Valuation Analyst (CVA) designation conferred by the National Association of Certified Valuators and Analysts (NACVA).

In his spare time, Brad enjoys golfing, following Pittsburgh sports and spending time outside with his family. He lives in the North Hills with his wife, Alexis.



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Privately-Held Business Valuation in the Wake of the Tax Cuts & Jobs Act

I. Introduction

The Tax Cuts and Jobs Act (TCJA or the Act), represents the most significant overhaul of the Internal Revenue Code in more than 30 years. The changes in the U.S. tax code resulting from enactment of the TCJA on December 22, 2017, number in the hundreds and cover a wide breadth of income, estate and other tax provisions and issues related to tax planning and compliance for individuals, families and businesses. Moreover, it is expected that the significant tax overhaul of the Internal Revenue Code will have both an immediate impact and some longer-term effects on the valuation of equity investments in privately-held businesses.

The impact on the public stock market was evident in 2017 when anticipated tax cuts were a significant factor that helped the market soar to record levels. The impact of the TCJA on the valuation of privately-held businesses and equity ownership interests in those businesses is, and will remain, a major point of discussion within the business valuation community. While the verdict on the new law's effect on equity valuation will not be fully known for years to come, there is an absolute effect on valuation to the extent that the new provisions work to reduce attendant tax liabilities. And, these lower liabilities very often equate to additional cash flow, and higher valuations.

Valuation 101

To understand how the tax reform package will affect valuations, it is necessary to develop a basic understanding of business valuation theory. At their core, asset valuations are based on future expectations for the expected economic benefits that will accrue to that asset. In the case of a business valuation, the most commonly used measure of the future economic benefit stream for purposes of these quantifications is free cash flow.

Note that all businesses are financed by capital contributed by owners (equity capital) and capital contributed by lenders (debt capital), or some combination thereof.

Debt-free cash flow is representative of the cash available to invested capital holders (dividends for equity capital holders and principal and interest for debt capital holders) after paying all business expenses (including taxes), and making the necessary investments in working capital and capital expenditures to sustain and grow a business.

In a business valuation under the Income Approach, forecasted free cash flows are discounted to their present value using a risk rate (discount rate) that is intended to compensate investors for the time value of money and any uncertainty (risk) existing in the receipt of the underlying benefit stream. Two popular models employed in valuation that incorporate these fundamental relationships are the discounted cash flow model and the capitalization of free cash flow model.



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The discounted cash flow model can be expressed as follows:

$$PV = \frac{CF_1}{(1+r)^1} + \frac{CF_2}{(1+r)^2} + \dots + \frac{CF_n}{(1+r)^n}$$

Where:

PV	=	Present value
CF_n	=	Expected cash flow in period
r	=	Discount rate
n	=	Number of periods from present value date

Under a discounted cash flow model, cash flows are forecast for discrete periods and varying levels of growth in cash flows can be accounted for due to the flexibility of the model. However, a simplification of the discounted cash flow model, known as the capitalization of free cash flow model, can be calculated if cash flows are assumed to grow at a constant rate. The capitalization of free cash flow model is illustrated below.

$$PV = \frac{CF_1}{(r - g)}$$

Where:

PV	=	Present value
CF_n	=	Expected cash flow in period
r	=	Discount rate
n	=	Long-term growth rate in cash flows

Both the discounted cash flow model and capitalization of free cash flow model will result in the same conclusion of value if the assumptions, including expected benefit stream growth, between the two are held constant. Rearranging the capitalization of free cash flow model above, it follows that:

$$\frac{PV}{CF_1} = \frac{1}{(r - g)}$$



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This rearrangement illustrates a popular convention used in practice in which value is quoted as a multiple of an underlying benefit stream. Although free cash flow is, perhaps, the most comprehensive metric to use in quantifying a benefit stream, analysts often rely on other more readily available proxies for a benefit stream such as earnings before interest, taxes, depreciation and amortization (EBITDA), sales, or earnings when using price/valuation multiples.

From the overview of these two models, it can be observed that valuation is primarily an economic risk analysis based on two inputs: a numerator equal to the expected free cash flows and a denominator reflective of the risk associated with the receipt of these cash flows. In consideration of any determination of value, it is critical to consider all of the implications of the impact of the TCJA. Within such an approach, it would be inappropriate to consider the effects of the tax law on just one part of the valuation equation, numerator or denominator, as investment risk is inherently included in both sides.

Today we will explore the provisions of the TCJA that may potentially impact these traditional valuation inputs and their corresponding effects on conclusions of value under all three valuation approaches, as well as how the new law will likely affect determinations of cost of capital. As you are aware, the potential impact of the TCJA on any privately-held business valuation will be facts and circumstances sensitive.

Today's program is divided into chapters with this introduction being the first. The remaining chapters include:

- ***Chapter II – Relevant Tax Reform Provisions for Valuation Considerations*** – We will provide a brief overview of those provisions of the TCJA that we believe will have the most profound impact on the valuation of privately-held businesses.
- ***Chapter III – Income Approach Considerations*** – This chapter will address in depth both the numerator (cash flow) and denominator (discount or risk rate) and how inputs predicated on specific provisions of the TCJA will change these key inputs. Examples will be included to provide clarifying illustrations.
- ***Chapter IV – Market Approach Considerations*** – The Market Approach works to assimilate actual transaction data available in the marketplace to the valuation process for privately-held companies. The impact of the TCJA on the historical information available from these sources will be discussed as well as the expected process by which this historical information will require modification due to changes set forth in the new law, resulting in valuation multiples being adjusted for the effects of the TCJA.
- ***Chapter V – Cost/Asset Approach Considerations*** – The asset-based methods under the cost/asset approach will be examined in this chapter in consideration of the TCJA. Principal focus will be on issues surrounding built-in gains and the effects of the actual corporate tax rate changes afforded by the TCJA on the net asset methods available under this approach.



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- **Chapter VI – C Corporations versus S Corporation Issues** – One of the most talked about and controversial issues over the last two decades has been the impact of S corporation operating and tax structures versus C corporation tax structures and how those structures impact valuation. These differences are even more pronounced after the enactment of the TCJA, and as such, have been a major point of interest among the business valuation community and users of business valuation. Discussions revolve around exactly how valuers will handle tax-affecting pass-through entities post enactment of the TCJA.
- **Chapter VII – Concluding Remarks** – We will conclude by summarizing how we think privately-held businesses stand to benefit from the TCJA.

Note that, as is the case with all of our programs, today's presentation is not intended to be an all-encompassing presentation but, rather, to provide an overview of how the specific provisions of the tax reform may impact the value of privately-held businesses, as each business is unique. Please feel free to contact any of the speakers in the event that you have a follow up comment or question that we do not address in the session.

We do appreciate how busy each of you are and we thank you for spending your morning with us. We hope that our time together is beneficial for you and that you are able to return to your offices and practices and have a working knowledge of the impact of the tax act on the valuation of privately-held businesses.

Thank you!

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II. Relevant Tax Reform Provisions for Valuation Considerations

The Tax Cuts and Jobs Act (TCJA) is the most significant change to our nation's tax code since the Tax Reform Act of 1986, enacted more than 30 years ago. The changes encompassed in the TCJA cover a wide breadth of income tax provisions and issues related to income tax planning and compliance for individuals, families and businesses. This significant tax overhaul has both immediate and long-term impacts on the valuation of equity investments in privately-held businesses. We believe those provisions within the TCJA will have the greatest effect on the valuation of privately-held businesses.

- Corporate and Individual Tax Rates
- Limitations on the Deductibility of Interest
- Capital Expenditure Cost Recovery
- Research and Experimental Expenditures
- Net Operating Losses
- Temporary Sunset Provisions

This chapter is intended to provide a detailed discussion of each of the aforementioned provisions within the TCJA and will function as the technical base to our later demonstrations on how these provisions are likely to impact the methodologies and approaches employed in the valuation of equity investments in privately-held businesses. Accordingly, the goal of this chapter is to establish an understanding of the changes to the U.S. tax code captured in the six specific areas noted above. However, it should be noted that the provisions identified and discussed herein do not encompass all of the changes within the TCJA, but only those which we believe will have the greatest impact on the valuation of privately-held businesses.

Corporate and Individual Tax Rates

Individual Tax Rates

At the heart of the TCJA legislation, and as heavily promoted by the President as well as Republicans in both the House and Senate, the individual marginal income tax rates, and the brackets to which those rates apply, have been changed for tax years 2018 through 2025. While the President had campaigned for a two-rate system, the House bill moved that number to four and, finally, the Senate bill expanded them to seven.



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The final bill coming from the Conference Committee contained seven separate marginal income tax rates: 10%, 12%, 22%, 24%, 32%, 35%, and 37%.

As one would expect, the marginal income tax rates are applied over several ranges of income, commonly referred to as “income brackets,” with the highest rates applied to the highest levels of incomes. As such, the final legislation maintains the historical emphasis on the progressive nature of the U.S. individual tax system. The bracket amounts are adjusted annually for inflation. The tax brackets and rates are listed in the tables below

Single Taxpayers – For Tax Years Beginning in 2018

<u>Rate</u>	<u>Taxable Income</u>	<u>Tax Owed</u>
10.0%	\$0 to \$9,525	10% of taxable income
12.0%	\$9,525 to \$38,700	\$952.50 + 12% of the amount over \$9,525
22.0%	\$38,700 to \$82,500	\$4,453.50 + 22% of the amount over \$38,700
24.0%	\$82,500 to \$157,500	\$14,089.50 + 24% of the amount over \$82,500
32.0%	\$157,500 to \$200,000	\$32,089.50 + 32% of the amount over \$157,500
35.0%	\$200,000 to \$500,000	\$45,689.50 + 35% of the amount over \$200,000
37.0%	\$500,000+	\$150,689.50 + 37% of the amount over \$500,000

Married Individuals Filing Separately – For Tax Years Beginning in 2018

<u>Rate</u>	<u>Taxable Income</u>	<u>Tax Owed</u>
10.0%	\$0 to \$9,525	10% of taxable income
12.0%	\$9,525 to \$38,700	\$952.50 + 12% of the amount over \$9,525
22.0%	\$38,700 to \$82,500	\$4,453.50 + 22% of the amount over \$38,700
24.0%	\$82,500 to \$157,500	\$14,089.50 + 24% of the amount over \$82,500
32.0%	\$157,500 to \$200,000	\$32,089.50 + 32% of the amount over \$157,500
35.0%	\$200,000 to \$500,000	\$45,689.50 + 35% of the amount over \$200,000
37.0%	\$500,000+	\$150,689.50 + 37% of the amount over \$500,000



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Married Individuals Filing Jointly & Surviving Spouses – For Tax Years Beginning in 2018

<u>Rate</u>	<u>Taxable Income</u>	<u>Tax Owed</u>
10.0%	\$0 to \$19,050	10% of taxable income
12.0%	\$19,050 to \$77,400	\$1,905 + 12% of the amount over \$19,050
22.0%	\$77,400 to \$165,000	\$8,907 + 22% of the amount over \$77,400
24.0%	\$165,000 to \$315,000	\$28,179 + 24% of the amount over \$165,000
32.0%	\$315,000 to \$400,000	\$64,179 + 32% of the amount over \$315,000
35.0%	\$400,000 to \$600,000	\$91,379 + 35% of the amount over \$400,000
37.0%	\$600,000+	\$161,379 + 37% of the amount over \$600,000

Heads of Household – For Tax Years Beginning in 2018

<u>Rate</u>	<u>Taxable Income</u>	<u>Tax Owed</u>
10.0%	\$0 to \$13,600	10% of taxable income
12.0%	\$13,600 to \$51,800	\$1,360 + 12% of the amount over \$13,600
22.0%	\$51,800 to \$82,500	\$5,944 + 22% of the amount over \$51,800
24.0%	\$82,500 to \$157,500	\$12,698 + 24% of the amount over \$82,500
32.0%	\$157,500 to \$200,000	\$30,698 + 32% of the amount over \$157,500
35.0%	\$200,000 to \$500,000	\$44,298 + 35% of the amount over \$200,000
37.0%	\$500,000+	\$149,298 + 37% of the amount over \$500,000

Estates & Trusts – For Tax Years Beginning in 2018

<u>Rate</u>	<u>Taxable Income</u>	<u>Tax Owed</u>
10.0%	\$0 to \$2,550	10% of taxable income
24.0%	\$2,550 to \$9,150	\$1,360 + 12% of the amount over \$13,600
35.0%	\$9,150 to \$12,500	\$5,944 + 22% of the amount over \$51,800
37.0%	\$12,500+	\$12,698 + 24% of the amount over \$82,500

An individual taxpayer who receives business income from a pass-through business entity (an S corporation, a partnership, a limited liability company and/or a sole proprietorship) is taxed on that income at the regular individual income tax rates. The individual owners in an S corporation or partnership take into account, on their personal Forms 1040, *U.S. Individual Income Tax Return*, their respective shares of the entity's items of income, gain, loss, deduction and credits that are reported to them on their respective Schedules K-1.



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Each of these items is required to be included on the owner's separate income tax returns, regardless of whether the income is actually distributed to the owner group during the tax year. In contrast, a sole proprietorship and rental property activities that are not incorporated are not treated as separate from the owner for federal income tax purposes; as such, the owner is taxed directly on the income from that business.

Each year, an individual S corporation shareholder or partner must report his or her share of S corporation or partnership income or loss on his or her Form 1040, *Schedule E, Supplemental Income and Loss*. An individual who owns and operates a business as a sole proprietor must calculate his or her business income or loss on Form 1040, *Schedule C, Profit or Loss from Business*. An individual who owns rental properties must calculate his or her rental income or loss on Form 1040, *Schedule E, Supplemental Income and Loss*.

Individual taxpayers compute their regular federal income tax liability for any tax year by multiplying their calculated taxable income (inclusive of all pass-through items) by the appropriate marginal income tax rate, subtracting allowable credits and adding other taxes if applicable. As discussed earlier, the tax law is progressive and rates are graduated, so income is taxed at higher marginal rates as the individual taxpayer earns more income. For the 2017 tax year, the highest marginal income tax rate for individuals is 39.6%. For tax years beginning after December 31, 2017 through December 31, 2025, the maximum marginal tax rate is 37%.

Corporate Income Tax Rate Reduction

While President Trump campaigned on a top marginal income tax rate of 15% for America's corporations, and the bills introduced by the both the House and the Senate proposed a 20% top marginal income tax rate, the Conference Committee compromise yielded a flat marginal income tax rate of 21%. The enacted rate represents a significant reduction from the prior-law graduated rate system.

Prior to the TCJA, C corporations were subject to a graduated rate system that included four tax rates ranging from 15% to 35%. The specific graduated tax brackets were set fairly low (incomes under (\$75,000), with taxable income of \$335,000 and above being taxed generally at a flat rate of 34%. However, the prior law also resulted in a 35% corporate rate for taxable income in excess of \$10 million. The top marginal income tax rate under the prior law was the highest in the industrialized world and, according to most observers, placed the United States at a significant competitive disadvantage as compared to alternative business locales.

For tax years beginning after December 31, 2017, the TCJA permanently eliminates the previous graduated corporate tax rate structure, and corporate taxable income is taxed at a 21% flat rate.



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Business Interest Limitation

The TCJA, as enacted, adds a significant change to the traditional deduction for business interest. Prior to the new law, interest paid or accrued by a business was generally deductible in the computation of taxable income, subject to various limitations. For a taxpayer “other than a corporation,” the deduction for interest on indebtedness that was allocable to property held for investment (investment interest) was limited to the taxpayer’s net investment income for the tax year. For tax years beginning after 2017, the deduction for business interest is limited to the sum of:

- the taxpayer’s business interest income;
- the taxpayer’s floor plan financing interest; and
- 30% of the taxpayer’s adjusted taxable income for the year.

As with many tax provisions, careful attention must be paid to definitions to fully comprehend the limitation:

- **Business interest** – any interest paid or accrued on indebtedness properly allocable to a trade or business. It does not include investment interest.

It is obvious from the definition that Congress intended the “interest expense” addressed in this provision to be that interest incurred in connection with the conduct of business operations of any particular trade or business.

- **Business interest income** – the amount of interest includible in the taxpayer’s gross income for the tax year that is properly allocable to a trade or business. It does not include investment income.

Hereto, the interest income is that generated from operating assets. It is assumed that certain interest might be generated from invested working capital, but beyond such a circumstance, it is unlikely that most businesses will have substantial business interest income, as the definition delineates it from investment income.

- **Business interest floor plan financing interest** – interest paid or accrued on indebtedness used to finance the acquisition of motor vehicles held for sale or lease to retail customers and secured by the inventory so acquired.

Importantly, while the limitation would apply to most taxpayers, the TCJA provides an exception for small businesses. The business interest limitation does not apply to small businesses with average gross receipts of \$25 million or less (adjusted for inflation).

A taxpayer meets the small business test for the tax year if its average annual gross receipts for the three tax years ending with the prior tax year do not exceed \$25 million (adjusted for inflation after 2018). In the case



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of a taxpayer that is not a corporation or partnership, the gross receipts test is applied in the same manner as if the taxpayer were a corporation or partnership. The small business exception is not available to tax shelters.

Any business interest paid or properly accrued for any trade or business that is limited under this provision may be carried forward indefinitely. This carryforward is discussed in greater depth below.

Note, also, that the business interest limitation applies to both partnerships and S corporations. The deduction limitation is computed and applied at the pass-through business entity level, and the disallowed interest of the business entity is then allocated to each partner or shareholder as “excess business interest.”

The obvious effect of the new rule is to limit the deduction of net interest expenses to 30% of the affected taxpayer’s adjusted taxable income. In the first step of the computation, the deduction for business interest and floor plan financing interest is permitted to the full extent of business interest income and floor plan financing interest. The second step comes into play if the taxpayer has any interest expenses that exceed these amounts. In these cases, the deduction is limited to 30% of adjusted taxable income.

For purposes of applying the business interest limitation, the taxpayer’s adjusted taxable income is calculated by starting with taxable income calculated for regular tax purposes and excluding the following items:

- any item of income, gain, deduction, or loss that is not properly allocable to a trade or business;
- any business interest or business interest income;
- the amount of any net operating loss deduction;
- the 20% deduction for qualified business income of a pass-through; and
- for tax years beginning before January 1, 2022, any allowable deduction for depreciation, amortization or depletion.

The Internal Revenue Service is authorized to provide other adjustments to the computation of adjusted taxable income as it deems necessary to facilitate the intent of the provision.

Under the TCJA, for purposes of calculating the business interest deduction limitation, a trade or business does not include the performance of services as an employee. Therefore, wages of an employee are not included as part of the taxpayer’s adjusted taxable income.

For taxpayers involved in a real property trade or business, there is an election available under the TCJA to be excluded from the limitation. An electing real property trade or business is any real estate development, redevelopment, construction, reconstruction, acquisition, conversion, rental, operation, management, leasing, or brokerage trade or business.



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The result of such an election is that interest expenses paid or accrued in an electing real property trade or business is not business interest subject to the limitation. The election is made at a time and manner as provided by the Internal Revenue Service. Once made, the election is irrevocable.

The amount of business interest not allowed as a deduction for the tax year under the new rules can be carried forward and treated as business interest paid or accrued in the succeeding tax year. The interest may be carried forward indefinitely, subject to certain restrictions for partnerships and S corporations.

As noted above, for partnerships or S corporations, the limitation on the deduction of business interest is applied at the entity level. Any deduction for business interest is taken into account in determining the non-separately stated taxable income or loss of the partnership or S corporation. While any business interest not deductible generally may be carried forward indefinitely to succeeding tax years, restrictions apply for these pass-through business entities.

The adjusted taxable income of each partner or shareholder is determined without regard to the partner's or shareholder's distributive share of any item of income, gain, deduction or loss of the partnership or S corporation. This prevents double-counting of the same dollars used in the adjusted taxable income of the entity generating additional interest deductions passed through to those partners or shareholders.

In a case where the partnership or S corporation has excess taxable income for purposes of the deduction limit, then the excess is passed through to the partners or shareholders. The adjusted taxable income of each partner or shareholder is increased by the partner's or shareholder's distributive share of the entity's excess taxable income. A partner's or shareholder's distributive share of partnership excess taxable income is determined in the same manner as his or her distributive share of non-separately stated taxable income or loss of the entity.

The excess taxable income of a partnership or S corporation is a percentage of the entity's adjusted taxable income for the year, and is calculated as follows:

- 30% of the entity's adjusted taxable income, over its net excess business interest (the excess of business interest of the entity, reduced by floor plan financing interest, over business interest income); over
- 30% of the entity's adjusted taxable income.

The above-noted addition to a partner's or shareholder's adjusted taxable income is intended to allow the partners or shareholders to deduct more interest than they may have paid or incurred during the year, to the extent the entity, itself, could have deducted more business interest.



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The disallowed interest of a partnership or S corporation is NOT carried forward to the succeeding tax year. Rather, the disallowed interest of the entity is treated as excess business interest that is allocated to each partner or shareholder in the same manner as any non-separately stated item of taxable income or loss.

Allocated excess business interest for the current tax year is treated by the partner or shareholder as business interest paid or accrued by the partner or shareholder in the next succeeding year. The allocated excess business interest is carried forward to the next succeeding tax year by the partner or shareholder, but only to the extent that he or she is allocated excess taxable income from the entity in the succeeding year. Excess taxable income allocated to a partner or shareholder for any tax year must be used against excess business interest from the entity from all tax years before it may be used against any other business interest.

Should a partner or shareholder find that he or she does not have enough excess taxable income from the entity to offset the carried forward excess business interest, the interest must continue to be carried forward to succeeding tax years. In all subsequent tax years, the excess business interest carried forward by the partner or shareholder is treated as paid or accrued in the next subsequent tax year and may only be used against excess taxable income allocated by the entity to the partner or shareholder for that tax year.

The following example illustrates the mechanics behind the calculations for the business interest limitation in a partnership or other pass-through entity. Assume that P (a partnership) is owned equally by X Co. (a “regular” C corporation) and an individual. Further, assume that P generates \$160,000 of net income during the tax year, which includes a \$40,000 expense for interest paid or accrued on trade or business debt.

Initially, the overall limit must be calculated to determine if the interest expense exceeds 30% of the partnership’s adjusted taxable income (before consideration of the interest expense deduction). As calculated under this limitation, P’s “deductible” interest expense is \$60,000 for the year $[(\$160,000 + \$40,000) \times 30\%]$. Thus, P reports non-separately stated income for the tax year of \$160,000 (taking the full amount of the interest expense).

The “excess” limitation amount for P is \$20,000 $(\$60,000 - \$40,000)$. P’s “excess taxable income” is \$66,667, which is computed by applying a fraction – the numerator of which is the excess limitation amount, and the denominator is the general limitation amount multiplied by P’s adjusted taxable income $[\$20,000 / (\$60,000 \times \$200,000)]$. As X Co. is a 50% partner, its distributive share of P’s excess taxable income is \$33,333.

Note, that these calculations are performed at the business entity (partnership) level.

Turning to the partner level, X Co. has no taxable income from its other operations for the tax year, and it has paid or accrued \$25,000 of business interest expense. Under the TCJA, X Co.’s “partner-level” adjusted taxable income for the year is computed without regard to the distributive share of the non-separately stated income of P.



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X Co.'s deduction for its business interest expense of \$25,000 (the non-P interest expense incurred in its trade or business operations) is limited to 30% of the sum of its adjusted taxable income (without inclusion of the pass-through income from P), plus its distributive share of the "excess" taxable income from the P partnership.

Thus, the amount of the \$25,000 interest expense that is deductible is \$10,000 $[30\% \times (\$0 + \$33,333)]$. As a result of the TCJA, X Co. may deduct \$10,000 of its business interest and has an interest deduction disallowance of \$15,000. The disallowed amount of \$15,000 represents the amount of excess business interest at the partner level and is treated as an amount paid or accrued by X Co. in the following tax year.

Unfortunately, computations such as this one do nothing for simplifying the Internal Revenue Code. One must appreciate that the goal of generating some level of revenue from a tax bill designed to provide substantial tax cuts is a necessary part of the budget process. However, the stealthy manner in which provisions such as this find their way into the final bill is dismaying, as the added complexity (and associated cost) of taxpayer compliance can be stifling.

Cost Recovery/Bonus Depreciation Rules

Temporary 100% Cost Recovery of Qualifying Business Assets

Special accelerated tax depreciation and cost recovery allowances have long been part of the Internal Revenue Code, with the intended motivation being to encourage capital investment in new machinery and equipment, which is perceived by Congress to create new jobs.

Before passage of the TCJA, an additional first-year bonus depreciation deduction was allowed for 50% of the adjusted basis of qualified property, the original use of which had to begin with the taxpayer (meaning the property had to be "new"), as long as the property was placed in service before January 1, 2020 (January 1, 2021, for certain property with a longer production period). The 50% allowance was originally scheduled to be phased down for property placed in service after December 31, 2017 (after December 31, 2018, for certain property with a longer production period).

Effective with the enactment of the TCJA, the bonus depreciation rate is increased to 100% for property acquired and placed in service after September 27, 2017, and before January 1, 2023. The rate of bonus depreciation will phase down thereafter.

Interestingly, the TCJA eliminates the previous requirement that only new property is eligible for bonus depreciation. The implications of this change are very broad. For example, by statute, it appears as though



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the entire cost of eligible depreciable property acquired in a business acquisition through a purchase of assets or through an acquisition of the units of an LLC or partnership interests of an entity taxed as a partnership, would be permitted to be expensed in a single year.

This change could cause a very different determination of investment return for an investor who is acquiring an operating entity. The end result of the ability to immediately expense the portion of the purchase price that is allocated to short-term assets (i.e., the manufacturing equipment) could be a material factor in determining the ultimate purchase price. This change is significant and should be carefully considered for all transactions and tax years beginning after December 31, 2017.

It is important to understand that not all property will be eligible for bonus depreciation, and there are some special rules related to certain industries. Care should be taken to ensure that one understands the special rules and special assets that are either excluded from the statute or specifically allowed under the law.

In general, the bonus depreciation percentage rates under the TCJA (by tax year) are as follows:

- 100% for property placed in service after September 27, 2017, and before January 1, 2023;
- 80% for property placed in service after December 31, 2022, and before January 1, 2024;
- 60% for property placed in service after December 31, 2023, and before January 1, 2025;
- 40% for property placed in service after December 31, 2024, and before January 1, 2026;
- 20% for property placed in service after December 31, 2025, and before January 1, 2027;
- 0% (bonus expires) for property placed in service after December 31, 2026.

For tax years beginning after December 31, 2017, taxpayers may elect to apply the 50% rate (instead of the 100% rate) for qualified property placed in service during the taxpayer's first tax year ending after September 27, 2017. The TCJA dictates that the time and manner of making the election will be provided by the Internal Revenue Service.

It is also important to understand that a taxpayer is permitted to make an election to bypass the use of bonus depreciation. In some situations, this may be beneficial, depending upon the specific situation and the facts and circumstances of the taxpayer. While not commonly used, this election can be an important tax planning strategy in the right circumstance and should always be considered.



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Recovery Period for Real Property Shortened

In an important change, effective for property placed in service after December 31, 2017, “qualified improvement property” is removed as a specifically named category of property eligible for bonus depreciation.

Under prior law, such eligibility as qualified improvement property as a separate category of property eligible for bonus depreciation was necessary because some types of improvements that met the definition of qualified improvement property had a recovery period of 39 years. Thus, this 39-year qualified improvement property would not have been eligible for bonus depreciation without the separate category (bonus depreciation generally only applied to property with an MACRS recovery period of 20 years or less).

The TCJA, however, provides a standard 15-year recovery period for all qualified improvement property placed in service after December 31, 2017. This means that qualified improvement property will be eligible for bonus depreciation because it has a recovery period of 20 years or less. This is a significant and important change for taxpayers.

Special Bonus Depreciation Rules for Businesses that Have Floor Plan Financing

The TCJA has placed limitations on the use of bonus depreciation for any trade or business that has floor plan financing, and such interest on the floor plan indebtedness is excluded from the limitations on interest expense under the new law. As noted earlier, businesses with floor plan interest are permitted a full tax deduction for the interest incurred on the indebtedness. As a trade-off, these businesses are not permitted to use bonus depreciation, and must depreciate their capital expenditures under the normal (“non-bonus”) rules.

Used Property Acquired for Use in a Trade or Business

Property acquired and placed in service after September 27, 2017, which was previously used by an unrelated person, can now qualify for bonus depreciation if the property meets certain “acquisition requirements.”

These acquisition requirements are met if:

- the taxpayer did not use the property at any time before acquiring it; and
- the taxpayer acquired the property by “purchase.”

Any acquisition is considered a purchase unless the property:

- is acquired from a person whose relationship to the taxpayer would bar recognition of a loss in any transaction between them (with the taxpayer’s family limited to spouse, ancestors and lineal descendants);



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- is acquired by one member of a controlled group of corporations from another member (substituting 50% for the 80% that would otherwise apply with respect to stock ownership requirements);
- has a basis in the hands of the acquiring taxpayer determined, in whole or in part, by reference to the adjusted basis of the person from whom the property was acquired (e.g., a gift); or,
- has a basis determined relating to inherited or bequested property.

As noted earlier, this change can be significant, especially in situations where an entire business is acquired.

Effective Date of Bonus Depreciation Provisions

Note, that the effective date of the bonus depreciation provision is for property placed in service after September 27, 2017. This is one of the very few provisions that have any specific applicability to tax years ended on December 31, 2017, or later. Taxpayers should keep in mind that the TCJA can prove beneficial if they purchased new or used assets during the period September 28th through December 31st. In these cases, and if the assets were placed in service, the total cost can be expensed in 2017

Expensing of Depreciable Assets (IRC Section 179)

A taxpayer may (subject to limitations) elect under Code Section 179 to deduct (or “expense”) the cost of qualifying property, rather than to recover such costs through depreciation deductions. Prior to the TCJA, the maximum amount a taxpayer could expense was \$500,000 of the cost of qualifying property placed in service for any tax year. The \$500,000 amount was reduced on a dollar-for-dollar basis (but not below zero) by the amount by which the cost of qualifying property placed in service during the tax year exceeded \$2 million. These amounts were indexed for inflation.

In general, qualifying property is defined as depreciable tangible personal property that is purchased for use in the active conduct of a trade or business. It includes off-the-shelf computer software as well as qualified real property (i.e., qualified leasehold improvement property, qualified restaurant property and qualified retail improvement property).

Under the TCJA, the Section 179 dollar limitation is increased to \$1 million, and the investment limitation is increased to \$2.5 million for tax years beginning after December 31, 2017. These increases are permanent and will be inflation-adjusted for tax years beginning after 2018.

Additionally, the definition of “qualified real property” eligible for expensing is expanded to include improvements to the interior of any nonresidential real property (qualified improvement property), as well as



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roof components, heating, ventilation and air-conditioning property, fire protection and alarm systems, and security systems installed on such property.

The exclusion from expensing for tangible personal property used in connection with lodging facilities (such as residential rental property) is eliminated. The \$25,000 Section 179 expensing limit on certain heavy vehicles is scheduled to be inflation-adjusted after 2018.

As under prior law, a taxpayer must elect to treat qualified real property as Section 179 property. If the election is made, and the total cost of all Section 179 property (including qualified real property exceeds the investment limitation, the dollar limitation is subject to reduction on a dollar-for-dollar basis.

By definition, “qualified improvement property” is an improvement to an “interior portion” of a building that is nonresidential real property, provided the improvement is placed in service after the date that the building was first placed in service. However, improvements related to the enlargement of the building, an elevator or escalator, or the internal structural framework of the building are not qualified improvements.

Research and Experimentation Expenses

A highly regarded activity related to future economic growth and job creation centers on the creation of new and ever-improving technology. Recognized by Congress as integral to the well-being of the country, incentives for research and experimentation expenditures have long been part of the Internal Revenue Code.

While the TCJA maintains a deduction for expenditures incurred in these activities, the expensing alternatives are not as lucrative as under prior law. Before passage of the TCJA, a taxpayer was permitted to use one of three alternative methods to account for research and experimental expenditures:

1. currently deduct the expenditures in the year in which they are paid or incurred;
2. elect to treat the expenditures as deferred expenses, amortizable over a period of at least 60 months, beginning in the month that benefits are first realized from the expenditures; or
3. elect to amortize the expenditures over 10 years, beginning in the tax year in which they are paid or incurred

If none of these options were used by the taxpayer, they were generally required to capitalize the expenditures.

The TCJA effectively eliminates the “current” deduction alternative for research and experimentation expenses incurred after 2021. In addition, the rule allowing taxpayers to elect an amortization period of 60 months or more, beginning when benefits are first realized, is eliminated after 2021. As such, only the rule



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allowing a taxpayer to elect 10-year amortization of research and experimental expenditures, beginning in the year the expenditures are paid or incurred, remains available after 2021.

Amounts paid or incurred for specified research or experimental expenditures after December 31, 2021, attributable to foreign research, must be amortized ratably over 15 years. Note, however, that there is no restriction on the deduction of research or experimental expenditures attributable to foreign research if paid or accrued before 2022.

Research and experimental expenditures are well addressed within the statutes, regulations and case law, and must be given careful consideration in their classification and treatment for federal income tax purposes.

Net Operating Losses (NOLs)

Historically, a net operating loss (NOL) was permitted to be carried back two years and carried forward 20 years to offset taxable income in such years. Different carryback periods were applied with respect to NOLs arising in varying circumstances. For example, extended carryback periods were allowed for NOLs attributable to specified liability losses and certain casualty and disaster losses.

Two important changes to the NOL rules will be far-reaching. With the enactment of the TCJA, NOLs arising in a tax year ending after December 31, 2017 are no longer allowed to be carried back (with very limited exceptions for NOLs attributable to farm losses and certain insurance companies) and are permitted only to be carried forward. The 20-year limitation on carryforwards is repealed, and the NOLs may now be carried forward indefinitely.

The other substantive change relates to how much income in any future year may be offset by a NOL. Under the new law, a NOL arising in a tax year beginning after December 31, 2017, may only reduce 80% of taxable income in any remaining carryback or carryforward tax year (versus 100% under prior law).

The effective date provides that the provision limiting a NOL deduction to 80% of taxable income is effective for NOLs arising in tax years beginning after 2017. The effective date eliminating the two-year carryback period is for NOLs arising in tax years ending after 2017.

This difference is important to 2017/2018 fiscal-year taxpayers. A NOL arising in the 2017/2018 fiscal year may not be carried back two years, since it arose in a tax year ending after 2017. However, the same NOL is not subject to the 80%-of-taxable-income limitation, since the NOL did not arise in a tax year beginning after 2017.

Effective for NOLs that arise in tax years beginning after December 31, 2017, the NOL deduction for a future tax year is limited to the lesser of:



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- the aggregate of NOL carryovers (i.e., carryforwards) to the tax year, plus NOL carrybacks to the tax year; or
- 80% of taxable income computed for the tax year, without regard to the NOL deduction allowed for the tax year.

Since the 80%-of-taxable-income limit applies to losses arising in tax years beginning after December 31, 2017, NOL carrybacks and carryforwards attributable to losses that arise in tax years beginning before January 1, 2018, are not subject to the 80% limitation.

Sunset Provisions

Although the TCJA makes substantial changes to the Internal Revenue Code, in order to comply with certain budgetary constraints, the TCJA contains a “sunset,” or an expiration date, for many of its provisions.

All of the substantive provisions affecting individual taxpayers are currently applicable in tax years 2018 through 2025. Thus, at the end of this seven-year period, all of the provisions expire, and the tax law in 2026 will revert to the law in force in 2017. This outcome presupposes that Congress will not see fit to extend the provisions beyond 2025.

Conclusion

Of course, it is imprudent to believe that Congress will not, at least in some way, meddle in the law that was recently passed during the next seven years. The issue that becomes front and center is Congress’ inability to leave tax laws in force until a proper evaluation of their usefulness can be determined. Moreover, the past experience of Congress in addressing an “extender package” (a tax law renewing an expiring tax provision for another year) each year is not good. Thus, it remains to be seen whether the TCJA provisions affecting individuals will be extended prior to their sunset dates at the end of 2025, or even if the law continues in its current form at that point. Unfortunately, such an environment makes long-term planning difficult, if not impossible.

Due to forward-looking nature of valuation coupled with the aforementioned considerations, we expect that approaches to valuation will most likely rely on forecasting to capture the specific nuances of the prevailing tax rules in each respective period as well as the effect of those specific clauses set to sunset by 2025. However, it should be noted, the main changes in the corporate tax rate provisions are, by and large, permanent.

These elements of the TCJA will affect computations of future economic benefits (i.e., cash flows) by reducing the amount of cash outflows required to fund annual income tax liabilities. This additional cash flow is expected to provide a degree of value enhancement, usually in high equity values.



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III. Income Approach Considerations

A basic premise of all valuation is that the value of any financial asset, including a capital equity interest, is equal to the value of all future economic benefits that will inure to the holder of that interest over the investment period, reduced to a current or present value at a particular date of valuation. Of the three approaches available to business valuers under governing professional standards, income, market and cost/asset, the Income Approach most directly aligns subject company data with this basic premise.

Application of the Income Approach is facilitated by applying one of two primary valuation methodologies, the discounted future economic benefits method or the capitalization of future economic benefits method. In practical application, future economic benefits are most often measured in terms of cash flow(s).

Because of their direct applicability to measuring the current/present value of future cash flows, these two methodologies under the Income Approach are, perhaps, the most widely-used models in business valuation practice. The flexibility afforded by either Income Approach method allows an analyst to model, in relative detail, the critical financial elements and operational relationships that are expected to drive any specific company's financial performance moving forward. Such models allow for significant financial and economic assessment and analysis, which undoubtedly increases their attractiveness, and usefulness to both business valuers and users of business valuations.

Given the detail and flexibility of the financial modeling associated with the proper use of these methods, incorporation of the many provisions of the TCJA into that modeling can be undertaken with a great deal of specificity and accuracy.

As indicated in the introduction, Income Approach-based methods have two primary mechanical elements requiring careful consideration. These two elements are the expected future economic benefit stream (hereafter, sometimes referred to as the "numerator") and the associated risk or discount rate (hereafter, sometimes referred to as the "denominator").

While current income tax expense is generally considered in conjunction with the determination of the numerator in the model, it is critical, as well, to make certain that those rates used to discount the future expected benefit streams (again, usually, cash flows) properly match the tax-affect included in those expected future cash flows.

In these ways, the TCJA is expected to create significant changes in the inputs requiring consideration and, as such, will often materially affect the resulting conclusions of any business valuation assignment. Some



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of these changes will be mechanical and directly relate to the subject company, while others may be rooted in market reactions from companies and investors to the TCJA itself, and affect valuation conclusions in an indirect manner. In summary, the authors expect that the many provisions of the TCJA will require extra focus, care and attention in the process of conducting a business valuation under the Income Approach and that the new law will result in a number of changes in model selection and application, future expected cash flow forecasts and projections and risk/discount rate calculations going forward.

Model Selection and Forecast Period

As previously noted, the two primary methods employed under the Income Approach are the discounted cash flow model and the capitalization of cash flow model. These two methods of valuation include models that are based on the same foundational principles of valuation theory, differing only in the assumption of expected long-term sustainable growth utilized in each. It is important to recall that growth is inextricably tied to the determination of value and an integral element of any estimate of value of a financial asset, including an equity interest.

Growth is assumed as a “constant” in any working models under the capitalization methods while the discounted future cash flow models assume varying growth rates over a specified period of years before becoming a “constant”.

As noted, a properly developed model under the capitalization of cash flow method assumes that cash flows will grow at a constant rate into perpetuity. While this assumption is seldom absolutely accurate, it is not unusual that mature companies, in particular, experience a historical annual growth rate that reflects consistency and is able to be used as a proxy for future expected growth going forward. Thus, such an assessment by the business valuator provides a reasonable basis for assuming constant growth.

Alternatively, the discounted cash flow model allows for varying growth rates over a discrete forecast or projection period and is typically combined with a constant growth rate, into perpetuity beyond the discrete forecast or projection period. The second part of the discounted cash flow model is generally referred to as the “terminal value” determination.

The use of varying expected growth rates is predicated upon management expectations within the forecast period and is facts and circumstances sensitive, dependent on management decisions as well as financial and operational initiatives.

As noted, most discounted cash flow models forecast or project free cash flows over a discrete period of time into the future (often three to ten years in practice). At the end of the discrete forecast period, the value



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of all future expected cash flows beyond that point in time is captured in a “terminal value” calculation. The terminal value is estimated using a capitalization of free cash flow model at the end of that discrete forecast period, employing a constant growth assumption.

As one would expect, a critical element in applying this method under the Income Approach is determining that point in time at which the expected long-term sustainable growth rate in the underlying benefit stream is expected to stabilize. This is, as noted above, a necessary part of the terminal value calculation.

This determination is largely based on a business valuator’s assessment of management’s expectations as to when all of the contributing factors to free cash flow (profitability, capital expenditures, working capital) are expected to become relatively consistent year over year and when overall growth in cash flow is expected to be driven by “constant” growth in its underlying components. Therefore, it follows that a capitalization of cash flow model is generally most appropriate in situations where:

- Revenues are expected to grow steadily year over year rather than rampantly or erratically;
- Profit margins (most importantly, after-tax income margins) are expected to be relatively constant year over year;
- Capital expenditures are expected to be fairly consistent year over year, with moderate increases anticipated to occur consistent with overall enterprise growth; and
- Investments in working capital are expected to stabilize to levels consistent with that needed to drive overall enterprise growth.

It goes without saying, in spite of the above listing, that specific characteristics of any subject company must always be taken into consideration in making a decision as to which financial model is most appropriate in any particular valuation assignment. For example, in certain industries, overall growth in a company’s operations and profitability may not be accurately captured in revenue growth if profits are not directly aligned with revenue.

A number of the business income tax provisions under the TCJA could affect when it is reasonable to assume that a cash flow constant growth rate has been attained. As discussed in the previous chapter, the TCJA contains several provisions that are expected to be phased out over time. The use and application of these provisions by businesses could work to create material changes in cash flow year over year, even if a company’s overall financial performance (excluding those factors attributable to tax provisions) remains identical to a prior year.



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Cash Flow Calculations

For purposes of the following section, we assume that all companies referenced are regular, or C Corporations, taxable under Subchapter C of the Internal Revenue Code.¹ The specific implications of the TCJA on S Corporations are addressed later in Chapter VI of these materials.

The cash flow used in the calculations will be free cash flow to invested capital. Invested capital is generally comprised of two primary components, equity capital, contributed by equity owners and debt capital, provided by the lender community. To derive the value of equity from an invested capital computation of value, one would simply subtract the value of debt from the value of invested capital.

It is important for participants to recall that cash flow is not the same financial concept as net income. Most often, especially for smaller enterprises, income statements are available that present all items of income and expense including income tax expense. Often, however, these enterprises do not present a Statement of Cash Flows. Financial statements prepared fully in compliance with generally accepted accounting principles are required to include such a statement and can be exceedingly helpful in aiding readers of those financial statements in understanding the operations and financial well-being of the company in question.

In determining the cash flow associated with any business enterprise, the starting point is net income (after-tax) and then certain critical adjustments are made to net income to derive cash flow. This is often done in a formula presentation as follows.

Free cash flow to invested capital² is typically calculated as:

$$\begin{aligned} \text{Free Cash Flow to Invested Capital} = & \\ & \text{Net Income} \\ & + \text{Depreciation} \\ & + [\text{Interest Expense} * (1 - \text{Tax Rate})] \\ & - \text{Capital Expenditures} \\ & - \text{Working Capital Investment} \end{aligned}$$

(Note that free cash flow to equity capital requires a different formula)

To understand the effect of the TCJA on free cash flow calculations, it is necessary to evaluate how the key provisions of the Act impact each of the variables in the above equation.

¹ Unless noted otherwise, all references to the Internal Revenue Code or "the Code" or "IRC" refer to the Title 26, U.S. Code, Internal Revenue Code of 1986, as amended.

² Note that free cash flow to equity capital differs from this formula and more closely reflects the cash flow calculation in a Statement of Cash Flows under generally accepted accounting principles. Direct equity models are less often used for business valuation purposes for a number of reasons beyond the scope of this program.



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Federal Income Tax Rates

Under the TCJA, beginning in tax year 2018, federal corporate income is taxed at a flat 21% rate. Prior to the TCJA, C corporations were subject to a graduated rate system that included rates of 15% on the first \$50,000 of taxable income, 25% on taxable income over \$50,000 through \$75,000 and 34% on taxable income beyond \$75,000. For taxable incomes over \$10M, the rate was 35%.

A reduction in the applicable federal corporate income tax rate will serve to increase after-tax earnings. Moreover, as the payment of less tax equates to less cash outflow, there is almost certainly going to be a valuation increase for most companies.

However, the magnitude of the benefit from the new tax law will vary from company to company. The benefit realized by each company will not simply be the difference in cash flow associated with the reduction in income tax rates between the old law and the new. Rather, the benefit realized by companies will more accurately be quantified as the change in the effective tax rates paid by each company under the TCJA, in consideration of those business-friendly TCJA provisions utilized by any specific company, as compared to those effective rates, and business-friendly provisions, that were applied by the company under prior tax law.

Note the effective corporate income tax rate for any subject company under valuation includes both federal and state income tax (net of the economic benefit of deducting the state income taxes on the federal return). The effective income tax rate is that rate of tax ultimately applied to “taxable income” after reduction for allowable tax deductions and preferential tax provisions allowable under the Code. In most instances, under generally accepted accounting principles, the effective income tax rate is that rate used in computing the “current” income tax provision in the income statement of the subject company under valuation. This rate very often differs from the marginal (statutory) income tax rates required under federal and state income tax law.³

By way of a simple example, assume herein that the subject company, ABC, Inc., has annual taxable income of \$20.0 million and that it was taxed under prior-TCJA law at 9.99% for Pennsylvania state income tax purposes and at 35% for federal income tax purposes. As noted above, marginal state income tax rates are generally reduced due to their deductibility in determining federal taxable income. As such, the effective tax rate of ABC, Inc. prior to the TCJA is estimated to be 41.5% $(1 - (1 - 10\%)(1 - 35\%))$.

Under the new law we assume that ABC, Inc. will continue to pay 10% in state income taxes but that it will be taxed at a rate of 21% for federal income tax purposes, resulting in an effective tax rate of approximately 28.9% $(1 - (1 - 10\%)(1 - 21\%))$.

³ The marginal (statutory) tax rate is the rate levied on the next dollar of taxable profit



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The following calculations illustrate the impact of the change in the federal income tax rate on after-tax income for our subject company.

	Prior to TCJA	Under the TCJA
Pre-Tax Income	\$ 20,000,000	\$ 20,000,000
State Income Taxes @ 10.0%	(2,000,000)	(2,000,000)
Federal Taxable Income	18,000,000	18,000,000
Federal Income Taxes	(6,300,000)	(3,780,000)
After-Tax Income	11,700,000	14,220,000
Total Provision for Income Taxes	8,300,000	5,780,000
Effective Tax rate	41.5%	28.9%

From the above analysis, it is estimated that the effective tax rate for the subject company is 12.6% lower under the TCJA as compared to the old law, leading to \$2.52 million (\$14,220,000 less \$11,700,000) in additional after-tax “net” income for \$20.0 million in pre-tax income. As this increase in net income is solely attributable to a reduction in ABC, Inc.’s current income tax liability, the entire amount of the savings represents free cash flow.

However, complexities encompassed in other provisions of the TCJA generally make such a simple assessment less meaningful until they are fully considered and analyzed. For the most part, these provisions relate to modifications in the rules for various deductions and credits.

Deductions

The TCJA includes significant changes to the deductibility of three major corporate expense categories:

1. Interest expense
2. Capital expenditures (in the form of depreciation)
3. Research and experimental expenditures

Interest Expense

The TCJA limits in certain circumstances interest expense associated with certain borrowings incurred in connection with the operation of a trade or business. The full deduction of any interest incurred on such



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loans and borrowings is a long-standing part of the Internal Revenue Code and the new limitation represents a significant change in tax law.

Prior to the new law, interest paid or accrued by a business in the conduct of that trade or business was generally deductible in the computation of taxable income, under IRC §163, subject to various limitations. As previously noted, for tax years beginning after December 31, 2017, the deduction for business interest is limited to the sum of:

- the taxpayer's business interest income;
- the taxpayer's floor plan financing interest; and
- 30% of the taxpayer's adjusted taxable income for the year.

It is, of course, the third category where interest is most likely to be limited for most companies undergoing a business valuation.

Importantly, while the limitation will apply to many taxpayers, the TCJA does provide an exception for small businesses. The business interest limitation does not apply to small businesses, defined as those with average annual gross receipts of \$25 million or less (adjusted for inflation).

Note that in calculating free cash flow to invested capital (which, again, includes both debt and equity holders), the cash flow impact of interest expense and the corresponding income tax benefit is removed from consideration. As such, the tax change limiting the deduction of interest has no direct bearing on the mechanical determination of expected free cash flow used in this model.

However, the free cash flow equation itself changes, and must be adjusted to reflect that not all interest expense may be deductible. The resultant equation is therefore:

$$\begin{aligned} \text{Free Cash Flow to Invested Capital} = & \\ & \text{Net Income} \\ & + \text{Depreciation} \\ & + [\text{Deductible Interest Expense} * (1 - \text{Tax Rate})] \\ & + \text{Nondeductible Interest Expense} \\ & - \text{Capital Expenditures} \\ & - \text{Working Capital Investment} \end{aligned}$$

While this change, in and of itself, and as noted above, does not directly impact the calculation of free cash flow to invested capital, limiting the deduction on interest expense works to make debt financing more costly, and therefore, somewhat less appealing. This nuance will be discussed further in our assessment of how the TCJA may affect discount rates.



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Moreover, it is important to note that the interest expense deduction limit is not static year over year due to the method by which the statute calculates the limitation. As such, depending on year to year performance and varying levels of “adjusted taxable income,” the limitation could generate significant year over year valuation impacts, altering current income tax liabilities.

For example, a highly leveraged company might have a poor year in profitability, thereby reducing the adjusted taxable income for the year and, consequently, the amount of deductible interest expense in that year. Under the old law, the full deduction of interest expense in calculating taxable income would serve to shield the company from being burdened by both interest expense and taxes in a year of low profitability. Under the new law, however, that same company with a poor year of profitability may not be able to deduct all of its interest expense.

At the extreme, a company that might be recognizing a loss for the year after factoring in total interest expense under prior law, may be required to recognize taxable income if not all of that interest expense is deductible, under the TCJA. In such a situation, the company could face the burden of paying its full interest expense obligation as required by the loan agreement, and, in addition, additional cash outflows via higher income taxes on the amount of taxable income not offset by the disallowed interest expense.

This situation, especially if it is recurring year after year, could potentially create a significant amount of financial distress for a company.

Note that any disallowed interest will be permitted under the law to be carried forward indefinitely. The use of the disallowed interest will therefore become an element of future forecasting to be considered in determining which year the interest may be deductible. If a business valuator is able to reasonably assume that the interest is likely to be deductible in the near term, thus yielding the cash inflows associated with the receipt of a federal income tax deduction, it may be more appropriate to use a discounted future cash flows methodology under the Income Approach to value the company to directly capture that benefit in the calculations.

Capital Expenditures

As previously noted in Chapter II, the TCJA contains provisions for accelerated recognition of depreciation expense compared to that of the old law. Although depreciation is a non-cash expense, it provides a true cash flow benefit because of its deductibility for purposes of calculating taxable income. It is important to note that depreciating an asset over time will ultimately result in the same overall income tax benefit (assuming tax rates remain the same) regardless of the time-period over which it is depreciated. However, because



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of the time value of money concept, current tax benefits have a greater present value due to the realization of the tax savings at an earlier date. Therefore, accelerating the depreciation of capital expenditures to earlier years will create larger tax benefits in those earlier years, by virtue of increasing the present value of the tax savings associated with accelerated depreciation.

As an offset to the advantage of faster depreciation allowances under the TCJA, it is important to note that lower federal income tax rates reduce the overall income tax benefit associated with depreciation as compared to taking those same deductions in tax years subject to higher income tax rates. Thus, the actual accelerated depreciation income tax benefit associated with the bonus depreciation provisions of the TCJA (measured in terms of cash flow with consideration of the time value of money) is lower than it would otherwise had been had the higher tax rates under the old law remained in effect.

To better understand the effects of the bonus depreciation provision, the following example sets forth those key elements requiring consideration.

Assume a company, DEF, Inc., is planning to invest \$2.0 million dollars into a new piece of equipment. Prior to the TCJA, a company would be able to accelerate the recognition of depreciation through Section 179 as well as the 50.0% bonus depreciation. Any remaining undepreciated cost would have been expensed over the cost recovery period assigned that class of property under the MACRS (Modified Accelerated Cost Recovery System) for tax purposes.

Alternatively, under the TCJA, the entire amount of the planned capital expenditures can be expensed as depreciation in the first year, if the property is placed in service in that year.

The depreciation expense in each year for the planned capital expenditures under prior law as well as that allowed under the TCJA is illustrated below. Note that for purposes of this example it is assumed that the asset has a five-year useful life. Moreover, it is assumed that prior to the TCJA, \$500,000 of the \$2.0 million expenditure is expensed under Section 179 and an additional 50.0% of the remaining depreciable basis is eligible for depreciation in the first year. Half year MACRS rates would have then been applied to the remaining depreciable basis to determine the total depreciation that would be recognized in each year.

	DEPRECIATION EXPENSE					
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Prior to TCJA	1,404,000	238,400	143,040	85,824	85,824	42,912
Under TCJA	2,000,000					



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By applying the applicable tax rates under the prior law (41.5%) to the pre-TCJA law expensing schedule above and applying present value concepts, the tax benefit in each year using an assumed discount rate of 12.0% results in a present value of \$693,233.

In contrast, applying the lower effective income tax rate (28.9%) under the TCJA under the new expensing rules and discounting the tax benefit cash flow to present value at an assumed discount rate of 12.0% results in a present value of \$516,071, or approximately \$177,152 less under the TCJA than prior to it.

Prior to the TCJA	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Depreciation Expense	1,404,000	238,400	143,040	85,824	85,824	42,912
Tax Rate	41.5%	41.5%	41.5%	41.5%	41.5%	41.5%
Tax Savings	582,660	98,936	59,362	35,617	35,617	17,808
Present Value Factors at 12.0%	0.8929	0.7972	0.7118	0.6355	0.5674	0.5066
Present Value of Tax Savings	520,232	78,871	42,252	22,635	20,210	9,022
Total Present Value of Tax Savings	693,223					

Under the TCJA	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Depreciation Expense	2,000,000	-	-	-	-	-
Tax Rate	28.9%	28.9%	28.9%	28.9%	28.9%	28.9%
Tax Savings	578,000	-	-	-	-	-
Present Value Factors at 12.0%	0.8929	0.7972	0.7118	0.6355	0.5674	0.5066
Present Value of Tax Savings	516,071	-	-	-	-	-
Total Present Value of Tax Savings	516,071					

Difference Between New Law and Old Law	(177,152)					
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The change in the present value of the depreciation tax benefit is a result of both the significant reduction in the corporate income tax rates as well as the change in expensing provisions under the TCJA. These effects can be isolated by varying one factor at a time. The following exhibit illustrates the change in the present value of the tax benefit attributable to the additional bonus depreciation.

Change in Present Value of Tax Savings Due to Expensing						
Prior to the TCJA	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Depreciation Expense	1,404,000	238,400	143,040	85,824	85,824	42,912
Tax Rate	41.5%	41.5%	41.5%	41.5%	41.5%	41.5%
Tax Savings	582,660	98,936	59,362	35,617	35,617	17,808
Present Value Factors at 12.0%	0.8929	0.7972	0.7118	0.6355	0.5674	0.5066
Present Value of Tax Savings	520,232	78,871	42,252	22,635	20,210	9,022
Total Present Value of Tax Savings	693,223					

Under the TCJA - Assuming No Change in Tax Rates	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Depreciation Expense	2,000,000	-	-	-	-	-
Tax Rate	41.5%	41.5%	41.5%	41.5%	41.5%	41.5%
Tax Savings	830,000	-	-	-	-	-
Present Value Factors at 12.0%	0.8929	0.7972	0.7118	0.6355	0.5674	0.5066
Present Value of Tax Savings	741,071	-	-	-	-	-
Total Present Value of Tax Savings	741,071					

Net Change in Present Value of Tax Shield	47,848					
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As can be seen in the previous exhibit, keeping tax rates under the old law constant while adjusting for the additional bonus depreciation allotted for under the TCJA results in a \$47,848 increase in the present value of the depreciation tax benefit. This increase is attributable to the more immediate recognition of tax savings afforded to a company through the bonus depreciation provisions of the TCJA.

The exhibit below illustrates the change in the present value of the depreciation tax benefit attributable to changes in the tax rate.

Change In Present Value of Tax Savings Due to Tax Rates						
Prior to the TCJA - Assuming TCJA Expensing	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Depreciation Expense	2,000,000					
Tax Rate	41.5%					
Tax Savings	830,000					
Present Value Factors at 12.0%	0.8929					
Present Value of Tax Savings	741,071					
Total Present Value of Tax Savings	741,071					
Under the TCJA	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Depreciation Expense	2,000,000					
Tax Rate	28.9%					
Tax Savings	578,000					
Present Value Factors at 12.0%	0.8929					
Present Value of Tax Savings	516,071					
Total Present Value of Tax Savings	516,071					
Net Change in Present Value of Tax Shield	(225,000)					

As can be seen in the calculation above, the lower tax rate decreases the present value of the depreciation tax benefit as it creates a smaller dollar amount of tax savings in any given year. The net change in the present value of the depreciation tax benefit is therefore equal to the sum of the change resulting from changes in expensing and the change resulting from changes in the tax rate, or $\$47,848 + (225,000) = (177,152)$.

It is important to note that while the present value of the tax benefit attributable to depreciation is expected to be lower under the new law than under the old law, the decrease is attributable to lower tax rates, which as previously demonstrated, serve to increase free cash flow. The overall decrease in total taxes paid, more than offsets the lower present value of the depreciation tax benefit for a profitable company. Thus, for a profitable company, although the total present value attributable to depreciation tax savings will decrease, the overall increase in after-tax cash flow is expected to more than offset the decrease, resulting in a net increase in present value.



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Research and Experimentation Expenditures

After 2021, several existing methods for expensing research and experimentation expenditures will be eliminated. The methods that are being eliminated allow businesses to recognize research and experimentation expenses quicker than those that will remain after 2021. Thus, after 2021, the tax benefits attributable to research and experimentation expenditures will have lower present values because they will be recognized over a longer period of time. Moreover, as tax rates have decreased, the dollar amount of the tax benefit will also be lower under the new law compared to that of the old. Therefore, the total present value attributable to tax savings on research and experimentation expenditures is expected to decrease under the TCJA.

Net Operating Losses (NOLs)

As previously noted in Chapter II, under the pre-TCJA law, net operating losses were permitted to be carried back two years and carried forward 20 years to offset taxable income in such years. Under the TCJA, in most instances, NOLs will no longer be allowed to be carried back to pre-loss years and will be carried forward indefinitely. Moreover, pre-TCJA law, allowed any carryforward or carryback to reduce 100% of taxable income, while under the TCJA, a NOL arising in a tax year beginning after December 31, 2017, may only reduce 80% of taxable income in any remaining carryback or carryforward tax year.

In aggregate, these changes will negatively impact the present value of NOLs created after December 31, 2017 as they ultimately work to defer their use further into the future (thereby, decreasing the discount period applicable to the associated cash benefit). Although extending the life of NOLs from 20 years to indefinitely increases the likelihood that an NOL will not go unused, it is important to note that there are only a few instances in which a company would carry an NOL for such an extended period of time and that the present value impact of an NOL far into the future is likely minimal due to the long discounting period.

Lastly, like the bonus depreciation provisions discussed earlier, the lower corporate income tax rates work to decrease the cash flow value of an NOL as compared to the higher tax rates imposed under prior law. Net operating losses continue to be important in corporate tax planning. However, the dollar magnitude to which future net operating losses are able to create cash flow is lower, suggesting that NOLs may be less of a value driver going forward.

Note that in the discipline of business valuation, most often a hypothetical sale is contemplated in the definition of value. In transfers of controlling blocks of stock, Internal Revenue Code §382 has worked to limit that amount of net operating losses that may be used by the acquirer. As such, net operating losses, while important, had mixed effects on value determinations and depends heavily on the facts and circumstances surrounding each subject company.



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Finally, it is important to note that companies holding deferred tax assets reflective of their future use of net operating loss carryforwards may see significant decreases in their total assets on their balance sheets as accountants and auditors adjust the value of these benefits downward for the decreases in the statutory income tax rates.

Discount Rates

The most appropriate risk or discount rate to apply to free cash flow to invested capital and the most widely used discount rate in practice is the weighted average cost of capital (WACC). The weighted average cost of capital calculates a weighted average discount rate based on the capital structure of a subject company.

For a company with a capital structure consisting of only debt and equity, the WACC can be calculated as:

$$WACC = W_e k_e + W_d k_d (1 - t)$$

Where:

W_e = proportion of equity in capital structure

W_d = proportion of debt in capital structure

k_e = cost of equity capital

k_d = cost of debt capital

t = tax rate

To understand how the TCJA may affect each component of the WACC, it is necessary to discuss the potential implications of the TCJA on each of the above noted variables.

Capital Structure

The capital structure of a company should be a strategic decision made by management. Capital structure will vary from company to company based on differences in the stage of their life cycle, industry specific risks, competitive pressures and company specific risks. In general, debt capital creates more strain on a company's financial position than equity, due to contractual repayment obligations, imposition of loan covenants, and the risk of default. However, debt financing is generally far less expensive than equity financing and interest



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expense is often tax deductible, thereby generating cash flows from the associated tax savings, further lowering its cost and enhancing the appeal of debt in any capital structure.

As previously discussed, the TCJA made a significant change to the historical rules regarding the deductibility of interest expense. These changes will undoubtedly affect management decisions related to how best to optimize corporate capital structures. It should be obvious, though, that changes in capital structure are always business specific and, again, facts and circumstances sensitive.

These provisions of the TCJA will certainly work to increase the net cost of debt in any situation where current interest expense is limited. However, the cost of debt, even with the interest limitation should work to remain significantly lower than the cost of equity. As such, while the overall WACC for any affected company is expected to increase, it remains to be seen whether the debt /equity weightings will shift materially.

Cost of Capital

The pre-tax cost of debt is quantified as the interest rate at which debt financing is available to a specific company. However, as noted above, due to the deductibility of interest expense for tax purposes, the true cost of debt after tax is actually lower by a factor of $(1 - \text{tax rate})$. Thus, the lower corporate tax rates under the TCJA will actually increase the after-tax cost of debt (as the cash flows associated with the deduction were higher when income tax rates were higher).

The following calculations illustrate the expected change in the after-tax cost of debt for a company able to borrow funds at 6.0% interest with an effective tax rate of 41.5% prior to the TCJA and 28.9% under the TCJA.

	Prior to TCJA	Under the TCJA
Pre-Tax Cost of Debt	6.0%	6.0%
Tax Rate	41.5%	28.9%
After-Tax Cost of Debt*	3.5%	4.3%

$$\text{*After-Tax Cost of Debt} = \text{Pre-Tax Cost of Debt} * (1 - \text{tax rate})$$

As can be observed in the above calculations, the decrease in the effective tax rates will increase the after-tax cost of debt. Again, this result occurs because the tax savings associated with being able to deduct interest expense for purposes of calculating pre-tax income are lower under the TCJA.



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As a reminder, note that the relationship between discount rates and present value (of any particular financial asset) is inverse. Therefore, keeping everything else constant, an increase in the after-tax cost of debt should also increase the WACC and decrease the present value of an asset, including the value of invested capital.

It is, as of yet, unknown whether the TCJA could have implications for the actual interest rates charged by lenders. There is insufficient information at this time to quantify any actual or potential changes in market interest rates attributable to the TCJA. What is clear is the business borrowers will see a higher net borrowing cost.

Unlike the cost of debt, which is often observable through a quoted interest rate, the cost of equity is not directly observable. However, numerous models have been developed to estimate the cost of equity.

Perhaps the most intuitive of these models is the build-up model, which is illustrated on the below.

$$k_e = R_f + ERP + RP_s + RP_u$$

Where:

k_e = cost of equity

R_f = risk-free cost rate

ERP = equity risk premium

RP_s = risk premium related to size

RP_u = unsystematic risk (specific-company risk)

The risk free rate is reflective of the return that is available as of a specific date on a security that is generally regarded as being free of default risk. A long-term (20-year) Treasury bond yield is often used to estimate the risk-free rate. The equity risk premium is the rate of return added to the risk-free rate to reflect the additional risk inherent in equity investments (based on the market as a whole, and generally measured as the return on the S&P 500 less the risk-free rate). The size risk premium is used to reflect the inherently riskier nature of smaller companies. Lastly, the company specific risk premium reflects additional risk that is specific to the subject company but that is not adequately captured in any of the previous risk-premiums.

Of the aforementioned components of the cost of equity, it should be noted that only the risk-free rate can be directly observed in the market. However, significant empirical data exists to quantify an estimate of the equity risk and size risk premiums and is widely relied upon as proxies for establishing forward looking premiums in the context of business valuation.



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The company-specific risk premium poses the greatest problems in the context of business valuation as it is most often a question of valuator judgment without any accepted source of empirical evidence.

As is the case with the pre-tax cost of debt, at the current time, there is insufficient information to quantify any expected changes in the components of the cost of equity resulting from the passage of the TCJA. The WACC is always company-specific, but, to remain competitive, it will be necessary for all companies to assimilate as closely as possible industry norms. In any case, it is not likely that material swings in the cost of equity will result from those changes to the income tax law in the TCJA.

The following calculations illustrate the build-up-model using commonly used empirical data estimates for the equity risk and size risk premiums, the spot rate of the United States 20-year Treasury bond (as of December 29, 2017), and an assumed 3.0% company specific risk premium.

	<u>Prior to TCJA</u>	<u>Under the TCJA</u>
Risk-free rate	2.6%	2.6%
Equity risk premium	6.0%	6.0%
Small company market premium	5.6%	5.6%
Company specific risk premium	3.0%	3.0%
Cost of equity (Discount rate)	17.2%	17.2%

The weighted average cost of capital is calculated by applying the proportionate weight of each source of capital to its respective cost. Using the estimates of the cost of equity and the cost of debt previously derived in this section, and assuming a company with a capital structure consisting of 70% equity and 30% debt, the WACC is calculated as follows:

WACC PRIOR TO THE TCJA			
	<u>Weight</u>	<u>Cost</u>	<u>Weighted Cost</u>
Equity	70.0%	17.2%	12.0%
Debt	30.0%	3.5%	1.1%
		WACC	13.1%

WACC UNDER THE TCJA			
	<u>Weight</u>	<u>Cost</u>	<u>Weighted Cost</u>
Equity	70.0%	17.2%	12.0%
Debt	30.0%	4.3%	1.3%
		WACC	13.3%

The analysis above illustrates a small increase in the weighted average cost of capital attributable solely to an increase in the after-tax cost of debt. It is important to note that as companies and investors adjust to the new tax law, other components of this calculation could change on a case-by-case basis.



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Weighted Average Cost of Capital Sensitivity Analysis

As previously noted, the TCJA may ultimately cause shifts in a company's capital structure and cost of capital. Although the data does not yet exist to determine exactly what these changes may be, a sensitivity analysis can be performed to estimate the potential magnitude that changes in the inputs to the WACC might have on valuations. The following two tables illustrate the sensitivity in the WACC to a shifting capital structure as well as the cost of equity and the pre-tax cost of debt. For purposes of our base calculations, we assume that the variable inputs to the WACC are consistent with our previous example, resulting in a WACC of 13.3%.

WACC SENSITIVITY TO CAPITAL STRUCTURE AND COST OF EQUITY								
Equity Weight	Cost of Equity							
	13.3%	15.0%	16.5%	17.0%	17.5%	18.0%	18.5%	19.0%
	60.0%	10.7%	11.6%	11.9%	12.2%	12.5%	12.8%	13.1%
	65.0%	11.2%	12.2%	12.5%	12.9%	13.2%	13.5%	13.8%
	70.0%	11.8%	12.8%	13.2%	13.5%	13.9%	14.2%	14.6%
	75.0%	12.3%	13.4%	13.8%	14.2%	14.6%	14.9%	15.3%
	80.0%	12.9%	14.1%	14.5%	14.9%	15.3%	15.7%	16.1%

WACC SENSITIVITY TO CAPITAL STRUCTURE AND PRE-TAX COST OF DEBT								
Equity Weight	Pre-Tax Cost of Debt							
	13.3%	5.0%	5.5%	6.0%	6.5%	7.0%	7.5%	8.0%
	60.0%	11.7%	11.9%	12.0%	12.2%	12.3%	12.5%	12.6%
	65.0%	12.4%	12.5%	12.7%	12.8%	12.9%	13.0%	13.2%
	70.0%	13.1%	13.2%	13.3%	13.4%	13.5%	13.6%	13.7%
	75.0%	13.8%	13.9%	14.0%	14.1%	14.1%	14.2%	14.3%
	80.0%	14.5%	14.5%	14.6%	14.7%	14.8%	14.8%	14.9%

As can be seen from the tables above, the WACC can fluctuate a couple percentage points with minor changes in the underlying inputs. So exactly how sensitive is value to changes in the WACC?

For purposes of illustrating the sensitivity of a present value to the discount rate, we begin with a basic capitalization of free cash flow calculation. For a company that is expected to have \$2.0 million in free cash flow at the end of next year and for which that free cash flow is expected to grow at a long-term sustainable growth rate of 3.0% thereafter, the present value of the company (assuming a WACC of 13.3%) can be estimated as:



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$$\text{Present Value} = \frac{\$2,000,000}{(13.3\% - 3\%)} \approx \$19.4 \text{ million}$$

Assuming that there are no changes in the expected future cash flows of the company, we can examine the sensitivity of the present value calculation to changes in the WACC as illustrated in the following table.

PRESENT VALUE SENSITIVITY TO WACC							
	Weighted Average Cost of Capital						
	13.3%	11.0%	12.0%	13.0%	14.0%	15.0%	16.0%
Present Value	\$ 19.4M	\$ 25.0M	\$ 22.2M	\$ 20.0M	\$ 18.2M	\$ 16.7M	\$ 15.4M

As can be seen in the table above, very small changes in the discount rate (WACC) can create significant changes in the present value of an asset. Although it is always necessary to closely monitor capital market conditions and trends in performing valuations, it is evident that this will be a key consideration over the near-term as markets adjust to the newly enacted tax reform.

Growth Expectations

Although it may seem intuitive that lower tax rates will increase after-tax cash flows, this may not always equate to a dollar-for-dollar tradeoff. For example, in instances in which a company operates in a highly “price-competitive” industry, a company may elect to pass along tax savings to their customers in the form of lower prices. Therefore, implications of the TCJA will need to be carefully analyzed on a case-by-case basis in light of management expectations and industry factors.

In this sense, the tax savings are not really being recognized by the business but, rather, by the consumers. The effect on value will depend on company-specific facts, and whether the pricing reductions equate to higher sales and corresponding cash flows, or whether the price cuts simply work to maintain the company’s status quo.

Additionally, much of the underlying intent of the TCJA is to spur economic growth through providing additional funds for creating new jobs, incentivizing capital investments, etc. Many economists have been incorporating the effects of the TCJA into their projections for 2018 and forward as the specific details of the



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TCJA become more understood. Moreover, the TCJA is more likely to have its greatest impact on economic growth over the near term rather than the long-term, as growth can be expected to stabilize once the TCJA becomes the new norm.

The effect of the TCJA on expectations for overall growth in United States and regional gross domestic product is not wholly-known at this point in time. However, as more data becomes available, business valuers will turn to this data in assessing the appropriate long term sustainable growth estimates in the models and methods they use to establish these rates for purposes of estimating value.

If the law produces a substantive increase in annual economic growth for multiple periods, it is likely that the business valuation community will adopt higher growth rates going forward with values of privately-held businesses increasing, as well.

Conclusion

The use of the Income Approach in business valuation continues to be the most direct and commonly accepted means of valuing a privately-held enterprise. From lenders using the equity holdings as collateral for borrowings, to potential acquirers, to the Internal Revenue Service and to the courts, which oversee contests of value, the method is deemed the most company-specific approach to value.

The impact of the recent income tax legislation will ultimately have an effect on the conclusions of value produced under this approach and the methods available thereunder. As has been discussed in this chapter, the most impactful element of the legislation on value is the corporate income tax rate reduction, though a variety of other provisions contained within the law will also serve to affect conclusions of value.

Thus, understanding the impact of the TCJA on the valuation of privately-held businesses and equity ownership interests therein under the Income Approach will be imperative to fully understanding value going forward.



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IV. Market Approach Considerations

Introduction

The TCJA will also have a significant effect on business value determinations under the Market Approach. The fundamental theory underlying the Market Approach is the economic principle of substitution. Logically, an investor would not pay more for any asset than he or she would pay for an equally-desirable alternative. As such, it is broadly accepted within the business valuation community that the Market Approach is a valid approach to value a privately-held business or an equity interest in a privately-held business. The primary advantage of using a Market Approach is that the methods applied thereunder use “real life” observable, factual evidence of market transactions to derive indications of value.

The *International Glossary of Business Valuation Terms* defines the Market Approach as:

“...a general way of determining a value indication of a business, business ownership interest, security, or intangible asset by using one or more methods that compare the subject to similar businesses, business ownership interests, securities, or intangible assets that have been sold.”⁴

Proper application of the Market Approach provides a means by which information regarding value can be extrapolated from various sources of information available in the public domain (primarily through observations of sufficiently similar publicly-traded equities and completed merger and acquisition activity) to develop “guideline” indicators of value.

The key to properly utilizing one or more of the methods under this approach is to use only that market data and other financial information, including value multiples, that reflects a sufficient level of similarity to the subject company or equity ownership interest therein.

Methods

To understand how the TCJA impacts the Market Approach to valuing a privately-held business, one must first understand the basic methods available to the valuator. These methods include:

- Guideline transaction (merged and acquired) method
- Guideline public company method
- Past completed transactions method, and
- Rules of thumb

⁴ *International Glossary of Business Valuation Terms* – 2001.



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Guideline Transaction (Merged and Acquired) Method

Under the guideline transaction method, often referred to as the merged and acquired method, valuator focus is on observances of value indicators produced through closed and completed acquisition transactions. The guideline transaction method has taken on wider appeal over the last two decades, due to substantially greater availability of transaction data within a number of accessible independent third party databases.

Transaction databases provide information on an acquisition including: financial information on the target business, operational information of the target business, and details of the transaction price and date. If a sufficient level of similarity to the subject company exists, valuers can often take this information, convert the purchase price to a multiple of earnings, and apply the multiple to the subject company's financial information to produce an indication of value.

It cannot be overstated that the most significant challenges to valuers in using the guideline transaction method are the availability of detailed information sufficient to interpret deal structure, to draw inferences of comparability, and to quantify the benefit stream considered by the buyer. Many of the databases contain incomplete information that restricts the valuator's ability to obtain the level of detail necessary to perform a full financial analysis and, ultimately, places limitations on the use of the method.

Guideline Public Company Method

Under the guideline public company method, the valuator develops market-based multiples from the identification and analysis of companies that are readily traded on an open stock exchange in the public markets. The multiples are then applied to the subject company's metrics to quantify an indication of value of the subject business.

Public companies offer significant amounts of quality financial, industry, and economic data by which to determine the degree, and sufficiency, of comparability. The financial reporting requirements mandated by the Securities and Exchange Commission (SEC) necessitate that public companies must disclose a great deal of information to ensure compliance. This provides a valuator with a wealth of information to analyze and allows for a more direct analysis to the group (or population) of selected companies.

A valuator can find pricing data as of a specific date and can usually obtain a full set of financial statements as of the most recent quarter prior to the date of valuation. The detail available in the full set of financial statements will allow the valuator to derive multiples of EBITDA, after-tax earnings, and cash flow. This level of detail is generally unavailable when looking at transactions of privately-held companies.



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The guideline public company method incorporates, by its mechanics, observations of actively-traded stocks that are price-driven by independent investors. The risk versus return considerations contemplated by these investors, in effect, mirror those that would be considered by a hypothetical buyer or seller of the subject company under valuation, again assuming sufficient similarity. Thus, the use of this method directly correlates market investor expectations to value.

Past Completed Transactions Method

Under this method, a valuator considers past transactions involving the subject company's equity interests. In analyzing a prior transaction of the subject company's stock, the independent, objective, and arm's-length nature of the deal must be ascertained before the financial and valuation relevance can be determined. In many instances, dealings in privately-held businesses may not be at arm's-length. Examples can include the sale of stock between family members or within the management group of a company. If the valuator is unable to adjust the transaction price in consideration of such elements, the past completed transaction method will not provide a meaningful indication of value.

Rules of Thumb

Rules of thumb are, very simply, multiples set forth by various parties, publications, industry organizations or business brokerage services. In many cases, rules of thumb represent completed transaction data specific to a particular enterprise. Rules of thumb are based on suggested multipliers applied to an easily identifiable variable within the subject company's financial statements. Examples include the following:

- Multiple of sales or revenues
- Multiple of earnings before interest, taxes, depreciation and amortization (EBITDA)
- Multiple of earnings before interest and taxes (EBIT)
- Multiple of seller's discretionary cash flow or owner's cash flow

Rules of thumb can provide a useful means to confirm the reasonableness of value conclusions developed under more rigorous valuation approaches and methods. However, it is generally deemed improper within the business valuation community to accept rules of thumb carte blanche, without further analysis and understanding of how they were developed.

As the guideline public company method and the guideline transaction method are the two methods primarily utilized by valuers when deriving indications of value under the Market Approach, the balance of this chapter will focus on these two methods and how they are impacted by the TCJA.



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Comparability

As no two businesses are completely identical, a primary area of concern for business valuers when applying any method under the Market Approach is the level of comparability that the guideline publicly-traded company or company involved in a completed transaction has to the subject company. In order to gather a population sufficient to derive multiples under the Market Approach, valuers must determine an acceptable level of comparability to an outside business or transaction as a guideline indicator.

Due to subjectivity, the discussion (or debate) of comparability of operating businesses could require a publication of its own. As the focus of this presentation is the impact of the TCJA on the valuation of privately-held business interests, the authors will make the assumption that the market multiples included in the examples herein have been derived from a group of guideline companies from which there is a sufficient level of comparability to the subject company. The discussion hereafter, as it relates to comparability, will focus on differences in comparability specifically resulting from enactment of the TCJA, rather than general comparability issues between operating businesses.

Impact of the TCJA on the Guideline Transaction Method

One common misconception when analyzing closed transactions of private businesses is that the purchase price for the acquired business was determined based upon a multiple of EBITDA, as this metric serves as a proxy for cash flow. EBITDA is commonly analyzed in the due diligence process of a business transaction because the computation, at a high level, is generally accepted, easy to understand, and has few issues in its interpretation. However, the final purchase price of a transaction is always driven by the future expected free cash flow of the target business as detailed in the discussion of the Income Approach in Chapter III. This stands to reason as the due diligence process of all acquisitions includes an analysis of the risks facing a business and potential mitigation strategies, capital expenditure needs, forecasted cash flows, and the required rate of return of the buyer. Transaction multiples (of revenue, EBITDA, or EBIT) are resultant calculations that are done after the fact to place transactions on a common-size basis. If transactions were based strictly on expected EBITDA, changes to the tax law as significant as the TCJA would have no impact on transaction prices in the private markets as the metric is a pre-tax measure. From a true economic perspective, such is not the case, as will be detailed in the following analysis.

As described briefly above, the guideline transaction method is comprised of two primary calculations. First, the valuator must quantify a market-based valuation multiple. This calculation involves finding a group



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of transactions involving businesses deemed to be comparable to the subject business. Financial information is obtained for each of the companies acquired. Valuation multiples are quantified by dividing the purchase price by a benefit stream measure, ideally cash flow. A single multiple is then quantified after statistical analysis of the population of multiples is undertaken. Next, the valuator will quantify a benefit stream using the subject company's financial information. The valuation multiple derived from the population of transactions is then applied to the subject company's corresponding benefit stream to derive an indication of value.

The impact of the TCJA on the Market Approach will not be in the computational aspects of the approach, as much as it will be in the calculated multiples. From a computational standpoint, the TCJA will impact how the benefit stream of the subject company is calculated, requiring valutors to align forecasted financial results with the new tax rates and deductibility of capital expenditures. The larger impact will be an increase to the valuation multiples of post-TCJA transactions.

As discussed in Chapter III, under the Income Approach, the value of a business is predicated upon the future cash flow associated with that business. This theory remains constant in the Market Approach as well. The following example will illustrate how market multiples will be impacted by the changes implemented by the TCJA.

Assume that ABC Inc. is a privately-held business that was party to a transaction and is deemed to be sufficiently similar to our subject company. ABC Inc. has \$30.0 million of revenue, \$5.0 million of EBITDA, \$1.0 million of depreciation and amortization, and \$4.0 million of EBIT each year. Assuming no interest expense, ABC Inc. has \$4.0 million of taxable income each year. Under the old tax laws, ABC Inc. would pay taxes at a rate of 41.5%, under the new tax laws, ABC Inc. would pay taxes at a rate of 28.9%. The resulting cash flow would be \$3.3 million under the old laws, and \$3.8 million under the new laws.

ILLUSTRATION A

	Old Law	New Law	Change	% Change
Revenue	\$ 30,000	\$ 30,000	\$ -	0.0%
EBITDA	\$ 5,000	\$ 5,000	\$ -	0.0%
Less: D&A	(1,000)	(1,000)	-	0.0%
EBIT	4,000	4,000	-	0.0%
Less: Taxes	41.5% (1,660)	28.9% (1,156)	504	-30.4%
Earnings	2,340	2,844	504	21.5%
Plus: D&A	1,000	1,000	-	0.0%
Cash Flow	\$ 3,340	\$ 3,844	\$ 504	15.1%



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As illustrated in Chapter III, the value of the company to a buyer can be quantified by dividing the cash flow by a capitalization rate. Capitalizing the cash flow of ABC Inc. under the old laws and the new laws by a capitalization rate of 14.0% would result in a business value of \$23.9 million under the old tax laws and \$27.5 under the new tax laws.

ILLUSTRATION B

	Old Law	New Law	Change	% Change
Cash Flow	\$ 3,340	\$ 3,844	\$ 504	15.1%
Cash Flow Capitalization Rate	14.0%	14.0%	-	0.0%
Business Value/Purchase Price	\$ 23,857	\$ 27,457	\$ 3,600	15.1%

As a result of the values calculated in the previous illustration, the multiples of EBIT, EBITDA, and revenue have all increased under the TCJA. Note that the cash flow multiples under the old tax law and new tax law have not changed as cash flow is an after-tax measure and therefore cash flow and value both increase.

ILLUSTRATION C

	Old Law	New Law	Change	% Change
Business Value/Purchase Price	\$ 23,857	\$ 27,457	\$ 3,600	15.1%
<i>Revenue Multiple</i>	<i>0.80</i>	<i>0.92</i>	<i>0.12</i>	<i>15.1%</i>
<i>EBITDA Multiple</i>	<i>4.77</i>	<i>5.49</i>	<i>0.72</i>	<i>15.1%</i>
<i>EBIT Multiple</i>	<i>5.96</i>	<i>6.86</i>	<i>0.90</i>	<i>15.1%</i>
<i>Cash Flow Multiple</i>	<i>7.14</i>	<i>7.14</i>	<i>-</i>	<i>0.0%</i>

As illustrated in the preceding example, market multiples based upon pre-tax metrics, including EBITDA, are expected to increase as a result of the TCJA. Consequently, valuers will face multiple issues when mining data from transaction databases if a sufficient level of detail is unavailable to allow the valuator to perform the necessary analyses.

Valuers will need to pay specific attention to the date of each transaction within a database. Commonly, valuers use the relative age of a transaction as a filtering mechanism when identifying a group of guideline transactions. Older transactions are less likely to have a sufficient level of similarity than newer transactions as market and economic factors shift over time.

As a result of the TCJA, valuers will also need to determine whether the provisions of the TCJA would have been considered by the buyer and seller in determining a price in a guideline transaction. Valuers will



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isolate transactions that occurred prior to the announcement of the TCJA from those which occurred after the announcement and determine whether the transactions occurring prior to the announcement can be considered comparable. Transactions occurring after the announcement of the TCJA obviously were completed with consideration of how the changes in the laws will impact the target business going forward, while those occurring before the announcement likely have not.

However, transactions occurring before the announcement of the TCJA should not be dismissed out of hand. Ideally, a transaction database will include sufficient detail on each transaction to allow the valuator to adjust the tax impacts of the transaction. Consider the following example:

ILLUSTRATION D

	Actual	Adjusted	Change	% Change
Revenue	\$ 12,500	\$ 12,500		
EBITDA	\$ 2,500	\$ 2,500	\$ -	0.0%
Less: D&A	(500)	(500)	-	0.0%
EBIT	2,000	2,000	-	0.0%
Less: Taxes	41.5% (830)	28.9% (578)	252	-30.4%
Earnings	1,170	1,422	252	21.5%
Plus: D&A	500	500	-	0.0%
Cash Flow	1,670	1,922	252	15.1%
Actual Business Value/Purchase Price	\$ 10,000			
Cash Flow Multiple	6.0	6.0		
Adjusted Business Value/Purchase Price		\$ 11,510		

Implied Multiples	Actual	Adjusted	Change	% Change
<i>Multiple of Revenue</i>	0.8	0.9	0.12	15.1%
<i>Multiple of EBITDA</i>	4.0	4.6	0.60	15.1%
<i>Multiple of EBIT</i>	5.0	5.8	0.76	15.1%
<i>Multiple of Cash Flow</i>	6.0	6.0	0.00	0.0%

A \$10 million transaction occurred prior to the announcement of the TCJA. According to the transaction database, the target had annual EBITDA of \$2.5 million and taxable income of \$2.0 million after factoring in depreciation and amortization. The database reported that the target had an effective tax rate of 41.5% under the old tax laws. The cash flow of the target (\$1.67 million), implied that the buyer paid a multiple of 6.0x cash flow.



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As the transaction database provided a sufficient level of detail for the valuator to quantify the target's taxable income, the tax rates included in the TCJA can be applied to the guideline transaction. The target's adjusted cash flow is calculated to be approximately \$1.9 million using an effective tax rate of 28.9%. All else being equal, an assumption can be made that a hypothetical buyer would pay the same multiple of cash flow after the announcement of the TCJA. Applying the 6.0x multiple, the adjusted transaction purchase price is \$11.5 million. Utilizing the adjusted transaction purchase price, the valuator can calculate multiples of cash flow, EBIT, EBITDA, and revenue which consider the provisions of the TCJA.

If a transaction database does not provide sufficient information to adjust the tax rates of a target company, a valuator will not be able to place reliance on the multiples derived from the transaction, even if the target company is deemed to be sufficiently similar to the subject company. As a result, it stands to reason that this limitation will decrease the number of engagements to which valutors will be able to apply the guideline transaction method.

Impact of the TCJA on the Guideline Public Company Method

As noted earlier, under the guideline public company method, a valuator will analyze public companies to determine if there is a population of sufficiently similar companies to a subject company from which to quantify market multiples. Market multiples are based on the a guideline public company's trading price as of the effective date of valuation, or a date as close to the date of valuation as possible.

Under the efficient market hypothesis, share prices of public companies incorporate and reflect all relevant information. A perfect example of this hypothesis at work is the movement in the stock market prior to the announcement of the TCJA.

The market anticipated the tax cuts included in the TCJA during 2017 as details of the Tax Act's progress became available to the public. As investors became aware of the increase in expected future cash flow due to the decreased future tax liability, they began to re-price stocks accordingly.

STOCK MARKET PERFORMANCE NOVEMBER 1, 2016 THROUGH MARCH 15, 2018



Mar 15 2018, 1:54PM EDT. Powered by YCHARTS



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With this understanding, it is reasonable to assume that valuers applying the guideline public company method after the announcement of the TCJA will not experience the same issues as they will when applying the guideline transaction method. There will, however, need to be additional considerations made by the valuator.

Forward-Looking Statements

For any valuations performed in 2018, valuers must ensure that the earnings measure that they are using to calculate the public company multiple is a forward-looking earnings measure. That is, the valuator must verify that the earnings measure considers the changes to the guideline company's earnings as a result of the TCJA. If the valuator calculates a market multiple based off of trailing-twelve months earnings, the numerator (market capitalization) and the denominator (earnings) may not equally consider the new tax provisions. After 2018, however, this should not be an issue.

International Geography

A public company that has operations across multiple countries will be impacted by the TCJA in a different manner than a company with operations only within the United States. As it relates to private company valuations, a subject company that only operates inside the U.S. borders will experience the impact of the TCJA across 100% of its income. Alternatively, a company that operates in multiple nations will only have a portion of its income impacted by the changes to the U.S. tax laws. While this issue is rooted in general comparability issues between a public company and the subject privately-held company, it is magnified by the TCJA.

Conclusion

The largest impact of the TCJA on the Market Approach to valuation is expected to be the increase to (pre-tax) market multiples. As discussed at length in Chapter III, the increase in the multiples is directly tied to the expected increase in future cash flow for most businesses. This increase will have a trickle-down effect on the inputs to the Market Approach, specifically the guideline transaction method. There will, however, be a period of time in which data may be limited for valuers to incorporate these impacts into their calculations with a sufficient degree of comfort, as the databases will need to begin compiling information on transactions occurring after the announcement of the TCJA.

As it relates to the guideline public company method, the impact of the TCJA is expected to be incorporated into the trading prices of public company stocks. As such, valuers will see increases from historical market multiples, as experienced during the rise in the stock market in 2017. Valuers must be sure to properly vet through the public company financial information to assure that the impacts to public company earnings are properly included in the pricing multiple calculations.



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V. Cost/Asset Approach Considerations

As was noted in the earlier sections of your materials, the TCJA is expected to impact the three broad approaches to valuation. Relative to the Cost/Asset Approach, these changes will focus on the centerpiece of the TCJA, the permanent reduction in the corporate tax rate, and as a result, any built-in gains tax in applying this methodology to privately-held C corporations. Moreover, additional consideration will be given to the income tax implications of potential reorganizations of business entities, as well as the built-in gain implications when electing S corporation status and converting from a regular subchapter C corporation to an S corporation.

Cost/Asset Approach Basics

The Cost/Asset Approach is required to be considered in every valuation prepared in accordance with professional standards and, when applied, is easy to understand. This ease of understanding has led to the method's popularity among users of valuation reports. Most triers of fact, as well as users of business valuations are relatively familiar with balance sheet formats (assets and liabilities) and are able to generally interpret a balance sheet.

The Cost/Asset Approach to business valuation encompasses a determination of value predicated upon an assessment of each of the subject company's assets, both tangible and intangible, recorded and unrecorded, on its historical financial statements. The approach also requires a determination of value of each of its liabilities, both recorded and unrecorded, on its historical financial statements.

In its most basic form, the Cost/Asset Approach breaks down a company into a set of assets and liabilities that will act as the elementary units in developing its value. The Cost/Asset Approach is based on the economic principle of substitution, which addresses the question, *how much would it cost to replicate these assets?*

It is pertinent to distinguish the difference between the application of the Cost/Asset Approach and the reliance on the accounting book value of owners' equity as it is known under generally accepted accounting principles (GAAP):⁵

The fundamental accounting principle of double entry accounting, on which all international accounting has long been based is that the historical book value of an entity's assets minus the historical book value of that entity's liabilities equals the book value of the business owners' equity.

⁵ The word "cost" in the name references the users of the approach to consider original historical cost of applicable assets. If appropriate, that cost will be adjusted forward through the date of valuation for inflation and other influences on cost, less an adjustment for wear and tear, as well as obsolescence.



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Under the Cost/Asset Approach, this fundamental accounting principle requires adjustment of historical book values to market values. Thus, the fundamental business valuation principle underlying the Cost/Asset Approach is that the current market value of assets, minus the current market value of liabilities, equals the current value of the business owners' equity.

The Cost/Asset Approach requires the valuator to determine the cost to construct or develop an asset, less any adjustment downward for obsolescence. The approach can also establish market value of an asset via sales of comparable assets used as a proxy (i.e., price per square foot) or, if the asset is producing or expected to produce income, capitalizing the expected income derived from the asset. Under these methodologies, each asset and liability is adjusted from the amount reported under historical accounting principles to reflect its market value at the date of valuation. The corresponding adjustment represents an increase or decrease to equity. Once all assets are identified (including unrecorded intangible assets, if they exist) and assets and liabilities are adjusted to market value, the resulting equity, as restated, is assumed to represent the market value of the equity ownership.

Depending on the nature and purpose of the engagement, additional considerations might include discounts for lack of control and lack of marketability, among others, as well as "tax affecting" assets that have been written up from the historical balance sheet carrying values to the economic balance sheet appraised values. After proper application of these discounts and adjustments, if applicable, one can conclude that the result of the process is an accurate indication of value.

Methods under the Cost/Asset Approach generally include the following:

- Asset Accumulation Method;
- Excess Earnings Method;
- Rules of Thumb (asset-based); and
- Sellers Discretionary Cash Flow

The most common method under the Cost/Asset Approach is the Asset Accumulation Method, sometimes referred to as the Net Asset Method. The application of this method encompasses the fundamental concepts of the Cost/Asset Approach most directly. In this method, the valuator restates all of the assets and liabilities of the subject company from their historical cost basis to the appropriate standard of value. After the revaluation of the assets and liabilities from their respective historical cost basis to fair market value, netting the two adjusted totals is deemed to be the market value of the subject company's equity.



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Most often, this approach is used as a primary approach only in the instance where the value of the entity's equity is based on the value of its underlying assets. Generally, its application is restricted to asset holding companies and smaller companies with little or no goodwill (or other intangible value).

Built-In Gains Tax under the Asset Accumulation Method

An important step under the Cost/Asset Approach for a C corporation, and the primary focus in this chapter, is to determine the income tax implications associated with adjustments from historical book and tax bases to market values. If the required asset and liability adjustments resulting from the application of the asset accumulation method generate market asset values that exceed the tax basis of those assets, it is necessary to make an adjustment to reflect the deferred income tax effect of the unrealized gain or loss.

The need to address the deferred income tax issue in a subchapter C corporation rests with the fact that the enterprise is subjected to two layers of income tax if, and when, it sells the assets. These two layers of tax arise when the corporation pays the income tax first on its income or gain at the corporation level and, again, when an income tax is paid by the equity owners as the net "after-tax" income or gain is distributed to them.

In an open market transaction, there is little argument that a buyer would decrease his or her offer price for the "stock" in a C corporation from the sums of the market values of the underlying assets if he or she knew that a potential deferred tax liability existed at the date of the stock purchasing.

By way of a simple example, assume that XYZ, Inc., a subchapter C corporation, has a single asset on its financial statements. The asset, a commercial building, has an historical cost of \$500,000 but has been fully depreciated. As such, the total assets on the balance sheet are zero.

Assume, further, that there are no liabilities. The capital contributed to buy the building is \$500,000, and the negative retained earnings are \$500,000 (due to prior year depreciation deductions).

As a result of these facts, the company has zero assets and zero liabilities and equity. However, if one were to value the enterprise, they might find that the building has a market value of \$2,000,000. The question, then, is whether the stock is worth \$2,000,000 or something less, due to the "built-in gain" and the potential income tax on that gain.

It is clear from an economic standpoint that the deferred income tax liability on this built-in gain can have a profound effect on the value of stock in a subchapter C corporation.



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On the surface, the calculation of the built-in gain is simple. The amount of the gain is equal to the fair market value of the asset less the tax basis of that asset. As previously discussed in Chapter II of these materials, the TCJA has reduced the federal corporate tax rate from 35% to 21%. There is no lower preferential rate for capital gain income under subchapter C of the Code.

The following example presents the application of the Cost/Asset Approach with calculation of the built-in gain using both pre- and post-TCJA corporate tax rates. In this example, we will calculate the net asset value of XYZ Company as of December 31, 20XX. For purposes of simplicity, we will assume the book value of the XYZ Company's tangible assets is equivalent to their tax basis at the date of valuation. Note, however, this may not be always be the case.

In this example, assume that XYZ Company has total current assets of \$25,000, net property plant and equipment with a book value of \$75,000, and liabilities totaling \$60,000. As such, XYZ Company's accounting book value would be \$40,000 at December 31, 20XX. However, XYZ Company had a third-party appraisal undertaken on its machinery and equipment, which determined the fair value of that equipment on December 31, 20XX was \$100,000, \$25,000 greater than the recorded book value. The remainder of XYZ Company's assets and liabilities had book values which approximated their fair market values at December 31, 20XX. The \$25,000 difference between the appraised value and the tax basis of the machinery and equipment creates a built-in gain, which is subject to a corresponding tax liability.

The illustration on the following page shows the difference in value post-TCJA. As can be seen from the example, since the change to the tax rate is permanent, the tax liability decreased with the enactment of the TCJA, resulting in an increase in value.

Built-in Gain(BIG) Tax on C Corporation Conversion

The conversion of a C corporation into an S corporation generally does not trigger an immediate tax liability, but there may be some trailing tax consequences. Internal Revenue Code section 1374⁶ was added to the Code to prevent C corporations with substantial appreciated assets from electing S corporation status as a means to defeat the two layers of tax described above.

⁶ U.S. Tax §1374, *Tax Imposed on Certain Built-In Gains*



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XYZ Company
Net Asset Value Calculation
As of December 31, 20XX

	PRE-TCJA			POST-TCJA		
	Book Value	Adjustments	Fair Value	Book Value	Adjustments	Fair Value
Assets						
Current Assets						
Cash	5,000	-	5,000	5,000	-	5,000
Accounts Receivable	10,000	-	10,000	10,000	-	10,000
Prepays	10,000	-	10,000	10,000	-	10,000
Total Current Assets	25,000	-	25,000	25,000	-	25,000
Property Plant and Equipment, net	75,000	25,000	100,000	75,000	25,000	100,000
Total Assets	<u>100,000</u>	<u>25,000</u>	<u>125,000</u>	<u>100,000</u>	<u>25,000</u>	<u>125,000</u>
Liabilities						
Current Liabilities						
Accounts Payable	5,000	-	5,000	5,000	-	5,000
Other Accrued Liabilities	5,000	-	5,000	5,000	-	5,000
Total Current Liabilities	10,000	-	10,000	10,000	-	10,000
Long-Term Debt	50,000	-	50,000	50,000	-	50,000
Total Liabilities	<u>60,000</u>	<u>-</u>	<u>60,000</u>	<u>60,000</u>	<u>-</u>	<u>60,000</u>
Net Asset Value Before Built-In Gain			<u>\$ 65,000</u>			<u>\$ 65,000</u>
Built-in Gain (Adjusted Fair Value less Tax Basis)			25,000			25,000
Effective Tax Rate			41.5%			28.9%
Tax Liability (Built-in Gain x Effective Tax Rate)			10,375			7,225
Net Asset Value After Built-In Gain, Prior to Discounts or Premiums			<u>\$ 54,625</u>			<u>\$ 57,775</u>

At the time of the S election, the electing subchapter C corporation is required to calculate the amount of built-in gain that it has in each of its assets. Under current rules, if any of these assets are sold during the five-year period following the date of the conversion, this built-in gain will be subjected to income tax at the corporate level as if the corporation remained a C corporation. Only the excess of the FMV of those assets at the date of the S election in excess of their respective tax basis at that date is subject to this corporate-level tax. Post S election appreciation is subject to only one level of taxation.

Previously, a corporation was taxed on its recognized built-in gains at the highest federal corporate income tax rate of 35%. The TJCA reduced the corporate tax rate to 21% and, as such, lessens the cost of converting to S corporation status.

As always, the choice of entity consideration remains an individualized determination with respect to each business, conditioned on the facts and circumstances of that entity and its management and no single solution



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is appropriate for all situations. Entity choice will continue to involve a number of considerations, such as the makeup of the equity capital investor base, capitalization structure, borrowing requirements, distribution policy, state tax environment, compensation considerations, participation of owners in the business, presence of foreign operations, and sale or exit strategies. In the event that the conversion to an S corporation is the best option for the subject company, the tax cost associated with it comes at a lower rate.

The tax imposed in connection with the conversion can be complex and is beyond the topic for today. These complexities include the treatment of sales of inventory during the recognition period, the use of losses to reduce or possibly eliminate the tax, and the use of C corporation attributes, such as net operating losses and general business credits to reduce or eliminate the tax.

Conclusion

The purpose of this chapter is to familiarize today's attendees with the impact of the TCJA on certain aspects in applying the Cost/Asset Approach and the asset accumulation method thereunder. With all other factors remaining status quo, built-in gains income tax liabilities associated with the appreciation of assets held by a corporation will decrease under the TCJA. The resultant determinations of value will follow with value increases being the norm.



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VI. C Corporation Versus S Corporation Valuation Issues

Pass-Through Business Basics

Pass-through business enterprises, i.e., S corporations, partnerships, limited liability companies taxed as partnerships, sole proprietorships and single member limited liability companies, represent more than ninety (90) percent of all companies in the United States⁷. Unlike regular corporations subject to subchapter C of the Internal Revenue Code that pay income taxes at the corporate level, pass-through businesses do not pay tax at the business entity level. Rather, as the name suggests, the income generated by these entities is “passed through” to the equity capital owners of those businesses and any taxes due are paid by those owners reporting their share of the business income.

Funds to facilitate the payment of these taxes most often come from cash distributions to the equity capital owners from the business. In many cases observed by the authors, shareholder, partnership or operating agreements provide a requirement that the company makes cash distributions sufficient to fund equity capital owners’ income tax obligations arising from the inclusion of the business entity income on their personal income tax returns.

Because of the unique tax treatment afforded to pass-through businesses, there has been much discussion in the business valuation community regarding how to treat income taxes associated with the income of the business. A regular corporation does not present the same issues and the calculation of free cash flow discussed earlier in this session reflects a reduction for income taxes paid at the corporate level.

Because pass-through business entities essentially “shift” their tax burden to its equity capital owners, some have argued that there is no entity level tax. This has been an ongoing debate with the Internal Revenue Service for nearly twenty years after the Tax Court ruled in *Gross v. Commissioner* (“Gross”) that an S corporation did not have a tax liability and as such, its free cash flow was not to be burdened with income taxes.⁸ The end result, of course, was that the value of an S corporation was significantly higher because there was no reduction in future expected free cash flow for income tax expense. The result was reached even though it was necessary for the S corporation to distribute the cash necessary to fund the shareholder tax liabilities on the pass-through of the S corporation’s income. Since the Gross decision, numerous other decisions have reiterated the finding in Gross, causing valuation practitioners, estate planning attorneys, family law attorneys and other users of business valuations under a “fair market value” standard of value to struggle with the

⁷ The Tax Foundation at <https://taxfoundation.org/pass-through-businesses-data-and-policy/>

⁸ Gross v, Commissioner, T.C. Memo. 1999-254



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theory that two identical companies in all respects except tax structure would have different values and that pass-through business entities would inherently be worth significantly more than regular corporations due to the lack of a formal tax obligation at the business entity level.

As a result of this theory, in the context of valuation of privately-held businesses and equity capital interests in those businesses, one of the most hotly-debated issues since the Gross case has been whether any pass-through businesses, and in particular, a corporation taxed as an S corporation under United States federal income tax law, has a greater value than an otherwise identical corporation taxed as a C corporation under that same law.

This chapter will focus on the primary aspects of both S and C corporations that have been examined when attempting to quantify the differences between the two and how they are impacted by the enactment of the TCJA.

Background on S Corporation Valuation

The traditional approach used by business appraisers in valuing S corporations under the income approach has been to subtract income taxes in determining future expected free cash flows as if the entity were structured and taxed as a C corporation. Business valuers would then apply discount rates associated with the risk of receiving those expected future free cash flows generally based on “after-tax” rates of return derived from historical returns on publicly-traded C corporation stocks.

The fundamental premise of such tax affecting was driven by the fact that proper valuation of an equity interest in any business entity required a proper *matching* of the discount or capitalization rates (used as the denominator) with the type of economic benefit stream encompassed in the projections or forecasts (used as the numerator). In other words, use of an “after-tax” discount rate required matching it with an “after-tax” expected free cash flow forecast. The use of one element of the income approach model on a “pre-tax” basis with the second element on an “after-tax” basis was, and is, a technical error.

To support the historical practice set forth in the preceding paragraphs, it has long been deemed appropriate in the finance and business valuation professions, to consider that, though an S corporation passes through its income to shareholders without the incurrence of a formal and direct entity-level tax, there is still an “ordinary” rate of income tax assessed against this entity-level income.



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As noted, that ordinary income tax must be distributed by the company to fund the shareholders' tax obligations on the corporate income passed through to them. As such, a substantial portion of the S corporation's free cash flow must necessarily be distributed annually to fund this obligation. Thus, it is, and has been, the practice of many professionals in the finance and business valuation community to reduce the entity-level free cash flows by this necessary distribution.

Assuming this distribution is an accurate proxy of ordinary income tax on corporate-level earnings, reducing forecasted earnings by the expected tax distribution (generally referred to as "tax affecting") has been strongly supported as the appropriate base to which the discount and capitalization rates developed from public company information should be applied.

Based on the current controversy, it is important to understand the traditional means by which appraisers have calculated the value of S corporations by applying corporate-level taxes. This traditional method will be compared, in the following examples, to the circumstance of not tax affecting the earnings of the S corporation. The following assumptions apply to both calculations under the discounted cash flow method and the capitalization of cash flow method of the income approach:

- Cash flow and net income are equivalent
- Long-term growth rate is 4%
- Entity-level tax rate is 29%
- Rate of return on equity (discount rate) is 24%
- Terminal value capitalization rate is 20%

DISCOUNTED CASH FLOW METHOD WITHOUT TAX

Projected Year	1	2	3	4	5	Terminal Year
Income Before Tax	\$ 1,040	\$ 1,080	\$ 1,125	\$ 1,170	\$ 1,217	\$ 6,328
Entity Level Tax (0%)	-	-	-	-	-	-
Net Income/Cash Flow	1,040	1,080	1,125	1,170	1,217	6,328
Present Value Factor	0.8065	0.6504	0.5245	0.4230	0.3411	0.3411
• Discounted Cash Flow	839	702	590	495	415	2,158
Value	<u>\$ 5,200</u>					



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Note that the previous example mirrors the theoretical calculation applied by the Internal Revenue Service and accepted by the tax court in the Gross case. As mentioned earlier, this calculation improperly applies a discount rate based upon after-tax return data to a benefit stream that does not incorporate income tax expense.

The following illustrates the impact of tax affecting the earnings of the subject company by the new federal corporate rate and Pennsylvania state tax rate (combined, approximately 29%) as provided in Chapter III:

DISCOUNTED CASH FLOW METHOD WITH TAX

Projected Year	1	2	3	4	5	Terminal Year
Income Before Tax	\$ 1,040	\$ 1,080	\$ 1,125	\$ 1,170	\$ 1,217	\$ 6,328
Entity Level Tax (29%)	(302)	(313)	(326)	(339)	(353)	(1,835)
Net Income/Cash Flow	738	767	799	831	864	4,493
Present Value Factor	0.8065	0.6504	0.5245	0.4230	0.3411	0.3411
Discounted Cash Flow	596	499	419	351	295	1,533
Value (rounded)	<u>\$ 3,700</u>					

The difference in values with and without tax affecting is illustrated as follows:

DISCOUNTED CASH FLOW METHOD COMPARISON WITH AND WITHOUT TAX AFFECT

Value (pre-tax)	\$ 5,200
Value (after-tax)	<u>3,700</u>
Value Difference	<u>\$ 1,500</u>

Note that prior to the TCJA, this value difference was over \$2 million dollars (approximately \$500 thousand higher than indicated above), as the tax rate applied under prior law typically approximated 40%. In



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practice, however, applying the same discount rate to pre- and after-tax measures of earnings is inaccurate, as a valuator would need to adjust the discount rate applicable to a pre-tax benefit stream. This adjustment would serve to increase the discount rate, decreasing value, and, at least partially, offsetting the difference between the two calculations.

Valuators have resisted the premise that S corporations should not be tax affected in a valuation context merely because this type of entity does not pay corporate level taxes.

The following ancillary issues support the argument for tax affecting S corporations at corporate rates:

Standard of Value

The standard of value most common to litigation, income, estate and gift tax law is fair market value. This standard of value, by definition⁹ contemplates a hypothetical sale transaction with a hypothetical buyer taken from a “total” universe of potential buyers.

Using the fair market value standard, a valuation analyst would have to assume the hypothetical willing buyer of the subject company stock required in the technical definition would qualify as an S corporation. By inferring a certain buyer, that is, a buyer who will definitely qualify as an S corporation shareholder under Section 1361(b)(i) of the Internal Revenue Code¹⁰, theoreticians opposed to “tax affecting” of these entities operationally exclude a substantial portion of the hypothetical universe of potential buyers.

Failure to consider these hypothetical buyers (i.e., those failing to qualify by definition as S corporation shareholders) would seem to void the very standard of value contemplated by the commonly accepted and current understanding of fair market value.

Proper Application of Risk Rate

As noted earlier, business valuers generally determine base discount rates and capitalization rates from historical financial information collected from public companies. In most instances, the earnings utilized in the construction of these rates are “after” corporate-level income taxes but “before” shareholder-level taxes.

As a result of this methodology in building up risk rates, an issue has developed regarding whether “after corporate-level income taxes” discount and capitalization rates should be applied to S corporation corporate-level earnings that have not been reduced for corporate-level income taxes.

⁹ International Glossary of Business Valuation Terms, June, 2001

¹⁰ Under Section 1361(b)(1)(B) and (C) of the Internal Revenue Code of 1986, as amended, an S corporation must not (B) have as a shareholder a person (other than an estate, a trust described in sub section (c)(2), or an organization described in section (c)(6)) who is not an individual, [or] (C) have a non resident alien as a shareholder.



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Tax Affecting and Control/Minority Interests

Within the business valuation community, the issue of looking at tax affecting is that the control prerequisites attaching to a controlling ownership interest in an S corporation have an effect on whether the earnings of that entity should be tax affected. A controlling interest holder of an S corporation can effectuate a sale of the company, which would then focus on the likely buyer of the particular company.

Many commentators have concluded that an S corporation tax structure may be more valuable in the context of determining the value of a minority interest rather than a controlling interest. This is especially true in the circumstance where an agreement exists with a provision stating that the S corporation status must be maintained. In fact, of the five economic models developed for valuing S corporations that have gained general acceptance, all were originally developed as being applicable to the valuation of minority interests.

Lack of Market Confirmation

There are no published studies or empirical third party evidence that unequivocally confirm that S corporations trade at premiums over identical C corporations. In many market acquisition transactions, the buyer does not qualify for S corporation shareholder status, and the matter is not considered at all.

Measurement

If one adheres to the precept that an S corporation ownership interest may be worth more than an identical C corporation, the question then becomes one of measuring the value difference. That is, how does one quantify the tax benefits associated with S corporation tax status? Most importantly, post-TCJA, is this precept still valid?

Note that the S corporation benefit debate is not limited to whether or not a benefit exists and, if the benefit exists, how to quantify it. The debate extends to which approaches of valuation the S corporation benefit would apply. As the income-based approach utilizes data from public-company pricing of C corporations, the consensus is that if a premium exists, it would be applicable to opinions of value generated under the income approach as used in this material.

No widely accepted methodology exists for purposes of calculating this value difference, but five primary models have emerged in the last 15 years that are relatively congruent with the overall concept of according some value premium to S corporation ownership interests.



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The next section will address the aspects of S corporations and C corporations that valuers examine with respect to quantifying any differential in value, solely due to entity status, when applying the Income Approach.

Valuing S Corporations After the TCJA

There have been models put forth by members of the valuation community to attempt to quantify the value difference between S corporations and otherwise identical C corporations. The models essentially follow a similar method focused on the same objective.

- Calculate the value of the S corporation as if it were a C corporation;
- Account for the difference between corporate and individual income tax rates;
- Calculate the benefit of the avoidance of dividends tax, which is the second layer of tax on C corporations dividends); and
- Consider, and quantify if appropriate, the ability to build-up basis in S corporation stock.

The authors of this material anticipate that the first step in valuing S corporations will be the same as prior to enactment of the TCJA, in that, as provided in Chapter III addressing the Income Approach, the future expected free cash flows will be based on income generated from an S corporation that will continue to be “tax affected” at prevailing corporate income tax rates.

Therefore, the tax impact on an S corporation with \$20 million in pre-tax income, is as illustrated in Chapter III, as follows:

	Prior to TCJA	Under the TCJA
Pre-Tax Income	\$ 20,000,000	\$ 20,000,000
State Income Taxes @ 10.0%	(2,000,000)	(2,000,000)
Federal Taxable Income	18,000,000	18,000,000
Federal Income Taxes	(6,300,000)	(3,780,000)
After-Tax Income	11,700,000	14,220,000
Total Provision for Income Taxes	8,300,000	5,780,000
Effective Tax rate	41.5%	28.9%

As previously noted, the above illustration is consistent with valuations of S corporations prior to the TCJA. The last three steps listed above will be addressed separately in light of the impact of the TCJA.



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Tax Rate Differential

Historically, the rate differential between the highest corporate and individual income tax rates was minimal which did not lead to a benefit for S corporation shareholders. However, as addressed in Chapter II, the maximum corporate income tax rate is now significantly lower than the maximum individual income tax rate.

C corporations domiciled in Pennsylvania that plan to retain their earnings for growth post-TCJA have a 28.9% effective tax rate, while the owners of flow-through entities who actively participate in the business have an effective tax rate of 40.1% if the business does not qualify for the qualified business income deduction or 32.7% if it does qualify.

Assuming that the owner is a passive investor subject to the 3.8% net investment income tax, the rates increase to 43.9% if the business does not qualify for the qualified business income deduction and 35.7% if it does qualify. The following illustrates the calculations under each entity structure:

PENNSYLVANIA S CORPORATION

Pre-tax Income		10,000	10,000	10,000	10,000
20% QBI Deduction		-	-	(2,000)	(2,000)
Federal Taxable Income		10,000	10,000	8,000	8,000
Federal Income Tax	37.0%	(3,700)	(3,700)	(2,960)	(2,960)
Federal Net Inv. Income Tax	3.80%	-	(380)	-	(304)
PA Tax	3.07%	(307)	(307)	(307)	(307)
Net After Taxes		5,993	5,613	4,733	4,429
Total Taxes Paid		4,007	4,387	3,267	3,571
Effective Tax Rate		40.1%	43.9%	32.7%	35.7%

Figures are in thousands (000)

Note that, although the qualified business income deduction could help make the flow-through tax rate more competitive with the reduced C corporation tax rate, its application varies based on the type of business and depends, in part on the equity capital owner's taxable income level. The deduction may be completely unavailable to specified service businesses in which the owners' taxable incomes are above the income thresholds for claiming the deduction. On the other hand, the deduction could be fully claimed by the owners of a manufacturing business, for example, that has high levels of wages or high equipment costs.



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Based on the previous illustration, the tax rate differential favors the C corporation. Although an active shareholder in an S corporation, accompanied by an allowable deduction for qualified business income, brings the effective tax rate more in line with the C corporation rate.

Under the TCJA, the effective tax rate for a C corporation that has a history of distributing all of its earnings, is 52%, as illustrated below. Note that the rate is considerably higher than the S corporation rates shown in the previous example. In the event distributions are made at a level sufficient to pay individual taxes for an active participant in an S corporation, the effective tax rate is 38.1% as shown below.

PENNSYLVANIA C CORPORATION 100% DISTRIBUTION				PENNSYLVANIA C CORPORATION DISTRIBUTE 40%			
Pre-tax Income		10,000		Pre-tax Income		10,000	
PA Corporate Tax	9.99%	<u>(999)</u>		PA Corporate Tax	9.99%	<u>(999)</u>	
Federal Taxable Income		9,001		Federal Taxable Income		9,001	
Federal Corporate Tax	21.0%	<u>(1,890)</u>		Federal Corporate Tax	21.0%	<u>(1,890)</u>	
Net Available to Distribute		7,111		Net Available to Distribute		7,111	
Federal Tax on Distribution	20.0%	(2,000)		Federal Tax on Distribution	20.0%	(800)	
PA Tax on Distribution	3.07%	<u>(307)</u>		PA Tax on Distribution	3.07%	<u>(123)</u>	
Net After Taxes		<u><u>4,804</u></u>		Net After Taxes		<u><u>6,188</u></u>	
Total Taxes Paid		5,196		Total Taxes Paid		3,812	
Effective Tax Rate		<u><u>52.0%</u></u>		Effective Tax Rate		<u><u>38.1%</u></u>	

Figures are in thousands (000)

As can be gleaned from the above examples, the rate differential adjustment will need to be carefully considered in all valuations post-TCJA.

Avoidance of Dividends Tax

The earnings of C corporations are taxed at the corporate level when earned and then, again, at the shareholder level when distributed. Based on the illustrations in the previous section, it is reasonable to conclude that the double taxation regime of C corporations is no longer the steep penalty that it once was.



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The benefit for dividend tax avoided considers the benefit attributed to the single level of taxation that an S corporation shareholder is subject to as compared to the double-taxation of distributions of a C corporation. This benefit is calculated as the difference between the expected distributions and the tax liability computed on the subject company's income, leaving the equivalent C corporation dividends.

Pre-TCJA, the avoidance of the second layer of tax produced a net benefit to the S corporation beyond the initial 40% tax liability, as S corporations were valued after application of corporate tax rates. The following illustrates the increase in the effective tax rates as the amount distributed from the subject company increases.

PENNSYLVANIA C CORPORATION VARIOUS DISTRIBUTION LEVELS

		50%	60%	70%	80%	90%	100%
Pre-tax Income		10,000	10,000	10,000	10,000	10,000	10,000
PA Corporate Tax	9.99%	(999)	(999)	(999)	(999)	(999)	(999)
Federal Taxable Income		9,001	9,001	9,001	9,001	9,001	9,001
Federal Corporate Tax	21.0%	(1,890)	(1,890)	(1,890)	(1,890)	(1,890)	(1,890)
Net Available to Distribute		7,111	7,111	7,111	7,111	7,111	7,111
Federal Tax on Distribution	20.0%	(1,000)	(1,200)	(1,400)	(1,600)	(1,800)	(2,000)
PA Tax on Distribution	3.07%	(154)	(184)	(215)	(246)	(276)	(307)
Net After Taxes		<u>5,957</u>	<u>5,727</u>	<u>5,496</u>	<u>5,265</u>	<u>5,034</u>	<u>4,804</u>
Total Taxes Paid		4,043	4,273	4,504	4,735	4,966	5,196
Effective Tax Rate		<u>40.4%</u>	<u>42.7%</u>	<u>45.0%</u>	<u>47.3%</u>	<u>49.7%</u>	<u>52.0%</u>

Figures are in thousands (000)

Assumes active participation in the business

Based on the changes in the tax law, the avoidance of the double taxation does not become consequential until 60% of taxable income is distributed, as the lower federal corporate tax rates neutralize the second layer of tax (dividends tax).



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Basis Build-Up

Income, deductions, credits, etc. of a pass-through entity pass-through to the entity's owners and tax is paid at the individual shareholder level. Mechanically, income items increase equity capital owner "tax basis" and deductions and distributions decrease tax basis. As such, any undistributed net earnings serve to increase pass-through equity capital owner stock basis, as compared to shareholders in a C corporation that do not receive an increase in basis for retained earnings.

The benefit of the build-up in basis is determined by quantifying the capital gains savings upon the eventual sale of the stock. By way of simple example, if a company distributes one-half of its entity level income of \$10 million, the resulting build-up in shareholder basis is \$5 million. The tax savings upon the sale of stock using a 20% long-term capital gains tax rate and Pennsylvania tax rate of 3.07%, would be 22.5% $[(20\% + 3.07\% * (1 - 20\%))]$ or \$1,125,000. For valuation purposes this amount would be capitalized into the future to quantify the ability to realize the benefit. As with the other attributes of the S corporation models, the impact of this benefit is reduced post-TCJA.

Conclusion

S corporations have historically had a tax advantage over C corporations creating some value benefits, which members of the valuation community have used various methods to quantify. The rate differentials introduced by the TCJA are historic and significantly impact entity choice decisions as well as valuation of those entities.

Regarding those discussions surrounding choice of entity, with a few exceptions, a pass-through entity can become a C corporation for tax purposes without significant issues from a tax perspective. Conversely, converting from a C corporation to a pass-through entity, can trigger gain at both the corporate and shareholder levels if the pass-through entity is a partnership or upon the conversion of an S corporation and there are existing built-in gains with respect to any of the assets of the corporation at the time of the conversion, subject the S corporation to corporate-level tax on the built-in gains if it sells any of the assets within five years after the conversion.

Valuations of S corporations will continue to be a major topic of discussion. The many considerations and differences between pass-through entities and their C corporation counterparts will evolve as valuers and members of the legal community vet through the impact of the provisions of the TCJA.



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VII. Concluding Remarks

The TCJA represents the largest legislative change to the United States tax code since the Tax Reform Act of 1986. Incorporated in the new law are hundreds of modifications, with the addition of new provisions and the repeal of many historical provisions. While the exact impact of the TCJA on the overall economy, as well as on any specific business will become clearer in the coming years, members of the finance, economic and business valuation communities have identified a number of common themes that will impact privately-held businesses and the valuation of those businesses.

Understanding that all value is forward looking, it should be evident that substantial “pro-business” changes in the tax law directly alter the future financial expectations of a business. In most cases, the authors expect that the changes will reduce business income tax and thereby, increase free cash flow, which, in most cases, will present an increase in that business’ value.

The provisions of the TCJA, which were originally intended to produce a simpler tax code, have not fully attained that goal in the context of business taxation. As has been suggested in today’s program, the effects of the TCJA reach beyond pure computations of income tax, extending far into business economics, financial markets and asset valuation. The impact of those changes that affect valuation are as far reaching as the purpose for which any valuation might be used.

Clearly, transaction values are certain to change due to the additional cash flows attainable by the acquirer as a result of the lower tax rates. In addition, the possibility of expensing all tangible assets, including used tangible assets, under the bonus depreciation rules works to change internal rates of return on business acquisitions associated with taxable asset acquisitions with significant tangible property. Ultimately, we expect that in these acquisitions, deal economics will change to accommodate consideration of these types of changes.

Likewise, in a marital dissolution proceeding where a business or business interest comprises a portion of the marital estate, values will likely be higher, requiring additional financial resources to be shared by the propertied spouse. This could also cause a type of economic “windfall” to the non-propertied spouse, representing his or her portion of the income tax benefit afforded by the TCJA.

Further, in an Employee Stock Ownership Plan, where an annual valuation is required to meet Department of Labor and Internal Revenue Code rules, plan participants who hold equity capital interests in the employer stock through the plan, will likely see their accumulated retirement plan balances increase. Interestingly, in these instances, there are corresponding valuation considerations, the most critical being the repurchase ob-



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ligation liability associated with such plans that requires the Company, or plan, to honor the repurchase of participant shares at a point in the future. As participant retirement plan values increase, due to stock value increases attributable to the TCJA, the repurchase obligation also goes up and presents greater marketability issues for the shares held by the plan participants.

Another example of the effect of the TCJA will emerge in equity owner buyouts. Oftentimes, these buyouts are defined by using common standards of value, and most often, fair market value or fair value. Interestingly, departing shareholders or other equity owners operating under a shareholder's, or similar, agreement will likely see a valuation increase simply because of the changes in the tax law.

Finally, though the TCJA significantly expanded the lifetime exclusion for gifting property during one's lifetime, upwards of \$11M per person, consideration must be given to the value of privately-held business ownership interests in situations where the fair market values of those assets will have grown as a result of the tax rate decreases and other changes manifested in the TCJA. The growth in these values may make planning initiatives adopted under the former law obsolete and in need of revision to fully capitalize on the benefits afforded by the new tax law.

As has been discussed throughout these materials, the substantive changes included in the new law affect each of the three major business valuation approaches and the methods available under each of these three. Thus, those members of the legal community making use of business valuations in the representation of their clients must be careful to ensure that the impacts of the TCJA are being fully integrated into the business valuation process going forward. The changes simply cannot be ignored.

As noted, the income approach and the specific methods thereunder, offer a direct means of incorporating the changes created by the TCJA. These methods are able to incorporate those changes into the numerator and denominator of the valuation models.

When considering the use of the market-based approach, attorneys will need to be increasingly suspect of the financial information available to, and used by business valuers, to quantify multiples from completed transactions as the economic and financial elements of those historical transactions will have occurred under a different, and more costly tax environment. As a result, comparability of the historical information to the subject company may be found to be lacking if valuers are not able to gain a sufficient level of information for any population of historical transactions.



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When utilizing pre-tax measures, keep in mind that the authors expect to see increases in value multiples under the market-based approach, as after-tax earnings rise, due to the business-friendly provisions of the law. This issue is sure to reinforce the need to consider income-based methods when quantifying the value of a business or an interest in that business.

Finally, the decreased corporate tax rates will also have a positive impact on balance sheet-oriented valuations using the cost/asset approach. The reduced corporate income tax rates will cause a reduction in the built-in gain income tax liability quantified by valuers, thereby positively impacting the economically-adjusted net worth of those companies being valued under this approach.

In addressing the many nuances of the S corporation premium, the authors conclude that the value benefits assumed to be obtained from electing S corporation status, are not as significant as they were often found to be pre-TCJA. However, it is important for participants in today's program to understand that the topic of S corporation valuation will continue to be one that is hotly debated.

There are two further conceptual matters to keep in mind as you return to your practices. The first is the volatile political environment that is well recognized in Washington D.C. Given that 2018 is a mid-term election year and that the attractiveness of both political parties varies wildly depending on who is in office, there is a possibility that the winds of November could swing the balance of power in Congress. Though the changes discussed today, as included in the new tax law, are deemed to be permanent, excepting of course, the bonus depreciation rules, there is nothing to prevent the new Congress rising out of these elections, or even perhaps the 2020 Presidential election, from changing the tax laws going forward and removing some of the tax advantages afforded by the TCJA. The result, of course, could be a negative impact on valuation.

The other major outcome in which the authors and the Business Valuation Services Group at Grossman Yanak & Ford LLP are interested in is "plowback". Simply stated, the phrase is intended to address the amount of additional tax benefits afforded by the TCJA that will be reinvested (or plowed) back into the underlying business as opposed to being distributed to equity holders. This reinvestment could either be facilitated through additional capital spending or, alternatively, through investment in human capital with the addition of more employees. In either case, one would not make such an investment if they did not expect to receive an adequate return on their investment. The primary concern is whether the additional capital assets, or personnel, will equate to greater overall expectations for growth in the free cash flows of the business and economic return to equity owners through improved operational performance of the enterprise as a whole.



Privately-Held Business Valuation in the Wake of the Tax Cuts & Jobs Act

We sincerely hope that this presentation and the time that you have chosen to spend with us today has proven useful to you in understanding some of the more prominent provisions of the TCJA and how those provisions impact the valuation of privately-held businesses and ownership interest in those businesses.

On behalf of the members of the Business Valuation Services Group as well as all of the professionals at Grossman Yanak & Ford LLP, we thank you for time and attention. Have a great day!