VIEWPOINT ON VALUE

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3 ways to evaluate capital budgeting decisions

Many business owners plan to reinvest their tax savings from the Tax Cuts and Jobs Act (TCJA) into their operations. Strategic investments — such as expanding a plant, purchasing a major piece of equipment or introducing a new product line — can add long-term value.

But these investment decisions shouldn't be made on gut instinct. Instead, it's important to realistically project future cash flows. Financial experts use projections in conjunction with various financial tools to minimize the guesswork and maximize a business's potential return.

Getting started

When evaluating strategic investments, the project's incremental cash flow must be projected. This requires several questions to be answered:

- How much revenue (or cost savings) will the project generate?
- What incremental expenses will the project incur?
- Does the project provide any special tax savings (for example, first-year bonus depreciation or Section 179 deductions)?
- How much incremental working capital and fixed assets will the project require?
- How long will it take to get the project up and running?
- How long will the project generate incremental cash flow?

Financial projections should look beyond the income statement and consider how the project will affect the company's balance sheet. This helps management evaluate how much cash the project will need each period and whether internal resources will be sufficient to finance the project. Some projects will require the company to tap into the company's line of credit — or require additional loans or capital contributions.

Using a financial tool kit

Once cash flows have been projected, it's time to analyze the results and prioritize competing investment alternatives. For example, you might have $200,000 to invest in either a new machine or IT upgrades. Which alternative is better from a financial perspective? Three financial tools that are used to evaluate such decisions include:

1. Accounting payback period. This simple tool tells you how long it will take for a project to recoup its initial investment and start generating positive net cash flow. For example, suppose you're thinking about buying equipment that costs $200,000 and is expected to generate $50,000 of incremental cash flow annually. Its accounting payback period would be four years ($200,000 divided by $50,000).

Most companies will pursue investments that only meet a predetermined target payback period. The time value of money is a critical consideration when evaluating investments, but it's ignored by the accounting payback period.

2. Net present value (NPV). NPV is a tool that discounts each period's projected cash flow into its present value. The sum of the present values for all the periods equals the project's NPV. If NPV is greater than zero, the project will generate positive cash flow and it's worth considering. If not, the project may not be worthwhile.

Typically, management uses the company's cost of capital — or possibly a rate based on the risk of the investment — to discount projected cash flow. For example, launching a new product in the company's current line of business (or geographic region) may be perceived as less risky (and warrant a lower discount rate) than a product launch in an unknown market.

3. Internal rate of return (IRR). IRR estimates a project's expected return on investment — essentially, the point at which a project's NPV equals zero. Management typically has a preset hurdle rate that a project must exceed to be considered. For example, if management sets its hurdle rate at 15%, any project with an IRR below 15% will be on the chopping block.

Unfortunately, these financial tools sometimes conflict with one another. So, it's important to consider qualitative factors, too. For example, IT upgrades might also protect against cyberattacks and reputational harm, which may be difficult to quantify in financial projections.

Need help?

Some financial professionals are trained in accounting or tax compliance. But a business valuation expert knows how to project and discount future cash flows while taking accounting and tax issues into consideration. Determining how much value an investment project will add over time is a natural extension of a business valuation professional's expertise. ■

How much savings will tax reform generate?

Under the Tax Cuts and Jobs Act (TCJA), C corporations will pay a flat 21% federal income tax rate for tax years starting in 2018. Under prior law, C corporations paid a federal income tax rate of up to 35%. The reduced rate also applies to personal service corporations.

In addition, many other entities — including qualifying sole proprietorships, limited liability companies, S corporations and partnerships — will be eligible for a qualified business income (QBI) deduction of up to 20%. Numerous rules and restrictions apply, however.

The TCJA also:

- Expands Section 179 deductions,
- Temporarily provides more generous first-year bonus depreciation deductions, and
- Repeals the corporate alternative minimum tax (AMT).

Not all TCJA provisions are business friendly. But most business owners expect to come out ahead under the new law. The TCJA will affect every business differently — and it could have widespread effects on projected cash flows and the cost of capital that must be factored into strategic investment decisions.

Vetting IP

In M&A, it's critical to evaluate intellectual property

From patents to licenses, intellectual property (IP) assets often represent a significant portion of the purchase price in mergers and acquisitions. Business valuation professionals can help ensure IP assets are valued correctly and that the rights are transferable to a new owner.

Types of IP

Before assigning value to IP in a business combination, the acquisition target's assets must be specifically identified. Often intangible assets aren't reported on the balance sheet under U.S. Generally Accepted Accounting Principles (GAAP). Four major categories of IP include:

1. Patents. By researching the key technologies, processes and products the acquisition target has developed or uses, a valuation expert will examine which patents have been issued to it and those for which it has applied. Part of this analysis is determining whether the patents protect key technologies or only minor aspects of them. If the latter, competitors may be able to bypass certain patent protections.

It's also important to investigate whether any patent applications are provisional. If so, the acquisition target doesn't yet have patent protection. However, provisional applications can be useful placeholders for future nonprovisional filings.

2. Copyrights. A valuation expert will assess the scope of copyright protection, including jurisdictional coverage, status of registrations and renewals, and whether the copyright relates to the original work or a particular derivative. Value also is affected by any public and private information that may be available regarding the copyrighted work and comparable or competing works.

Companies working with independent contractors may fail to ask them to sign agreements that release rights to IP on which they've worked. Unless the acquisition target has negotiated this kind of agreement, the work product legally belongs to the contractor, and the buyer may have to pay a fee to use it after the deal closes. Another concern is copyrighted material the target licenses and whether licenses are transferable.

3. Trade secrets. These include formulas, practices, processes, designs, instruments, patterns or a combination of information used to gain an advantage over competitors. Valuation experts will determine whether the acquisition target has employee or contractor secrecy agreements, nondisclosure agreements with potential customers or partners, and licenses with customers that restrict the use of proprietary information. For trade secrets to be enforced by a court, it's vital that the information be kept confidential and access to it be limited.

4. Licenses. There are two types of licenses: those that give the acquisition target access to another company's IP, and out-licenses that the target issues to third parties. When conducting M&A due diligence, experts will inquire about the terms of licenses. Are they transferable to a new owner? When do they expire? Can they be terminated without cause? Have the issuers provided timely updates on licensed information?

Out-license agreements that are written broadly — for example, to allow unlimited use by a large customer or exclusive arrangements with distributors — may be difficult for the buyer to capitalize on after closing.

Under the RFR method, an asset's value equals the value of the royalty payments from which the company is relieved by owning the asset.

RFR method

Once a business valuation expert understands the nature and scope of a company's IP assets, he or she can assign them values using one or more methods within the cost, market and income approaches. The most common technique for valuing IP — the relief from royalty (RFR) method — draws from all three approaches.

Under the RFR method, an asset's value equals the value of the royalty payments from which the company is relieved by owning the asset. Valuation experts apply this method by selecting a royalty rate based on available market data for licenses involving similar assets. Then they select an appropriate, risk-adjusted discount rate to determine the present value of the royalty payments.

Need help?

When acquiring a business, it's not always clear how much IP assets are worth. Business valuation professionals can bring much-needed objectivity to the due diligence process in the form of real-world market data, reproduction and replacement cost analysis, and discounted cash flow calculations. ■

How tax law changes may affect the cost of capital

The costs of debt and equity capital are key components of business value under the income approach. But traditional methods of calculating the cost of debt, the cost of equity and the relative percentages of debt vs. equity financing may not be relevant under the Tax Cuts and Jobs Act (TCJA). Here are the details.

What is WACC?

Businesses are financed with two types of capital: debt and equity. The cost of debt is usually based on the company's actual borrowing costs. It generally must be "tax affected" based on the subject company's effective tax rate to reflect the tax deductibility of interest expense.

There are several methods for calculating the cost of equity, including the capital asset pricing model (CAPM) and the build-up method. Unlike interest, dividends paid to owners aren't tax deductible.

The weighted average cost of capital (WACC) is the average of the subject company's cost of debt and cost of equity, weighted according to the relative percentages of each. Because the discount rate is based on the expected cost of capital, experts typically measure equity and debt by their market values, not their book values.

How is WACC used in business valuation?

To convert projected cash flows to present value, a business valuation expert uses a discount rate that reflects the time value of money and the degree of risk associated with an investment in the business. Essentially, the discount rate is the rate of return a hypothetical investor would require given the degree of risk associated with an investment. It's also known as the cost of capital.

The cost of equity is sometimes used to discount cash flows to equity investors. Here, the resulting value reflects the value of equity.

However, business valuation experts may prefer to use WACC to discount cash flows available to both debt and equity investors. Here, the resulting value reflects the value of all invested capital, which means the expert needs to subtract debt to arrive at the value of equity. Using WACC generally allows greater flexibility if the company plans to alter its capital structure in the future or if a hypothetical buyer would likely adjust the capital structure after a sale.

When using WACC, determining the right "capital structure" — that is, the relative percentages of debt and equity — is key. For most companies, the ideal capital structure involves a manageable amount of debt that allows owners to leverage their investment and boost their returns. But a different mix may be appropriate depending on whether a minority interest or a controlling interest is being valued.

What's changing?

The TCJA significantly changes the tax rules. In addition to lowering business tax rates, the new law brings a host of other changes that could affect future cash flows and long-term

growth. Many companies will enjoy increased earnings, and some will use their tax savings to pay off debt or buy back outstanding shares of stock. These investment decisions could, in turn, affect the company's future capital structure and cost of capital.

In addition, the TCJA limits interest expense deductions for businesses with more than $25 million in annual revenue. This provision could increase the relative cost of debt, because it diminishes the tax benefits of debt financing. In turn, this could affect a company's optimal capital structure going forward.

More questions

The effects of the TCJA will vary from company to company. Work with experienced valuation experts who are familiar with the new law and understand how it will affect each valuation assignment. ■

Asetek Danmark A/S v. CMI USA, Inc.

Patent infringement damages require a thorough analysis

Denmark-based Asetek sells liquid cooling systems for data centers, servers, workstations and personal computers. In 2013, the company filed a lawsuit with the U.S. District Court for the Northern District of California, alleging infringement of two patents covering a cooling system for computer processing units.

Reasonable royalty vs. lost profits

Federal patent law allows courts to award damages that are "adequate to compensate for the infringement but in no event less than a reasonable royalty" for an infringer's use of the patented invention. Reasonable royalties are the statutory minimum, but plaintiffs often seek to recover greater amounts in the form of lost profits.

Asetek hired an expert who calculated a royalty of 16% using the *Georgia-Pacific* framework. This framework includes the following considerations:

- Royalties the patentee receives for licensing the patent,
- Rates the licensee pays for comparable patents,
- The exclusivity and restriction terms,
- The licensor's policy to maintain patent monopoly by not licensing the invention to others,
- The commercial relationship between the two parties,
- The effect of selling the patented specialty in promoting sales of other products,
- The duration of the patent and term of the license,
- Established profitability of the products made under the patent,
- Advantages of the patented component over old components,
- The nature of the patented invention,
- The extent to which the infringer has used the invention,
- The portion of profit customarily allowed for use of the invention,
- The portion of profit attributable to the invention,
- Expert testimony, and
- The outcome from a hypothetical arm's length negotiation at the time of infringement.

When evaluating a "hypothetical" negotiation in this case, the financial expert considered the plaintiff's profit on its cooling units under a licensing agreement with a third party.

Beyond profits

On appeal, the defendants claimed that the plaintiff's expert had performed a "pseudo" lost profits analysis. Moreover, they argued that the "profit factor predominated and virtually subsumed" the plaintiff's case.

The Federal Circuit upheld the district court ruling. The court ruled that the defendants had failed to show there was a "legal principle about predominance that would somehow bar a damages analysis that takes reasonable account of all the evidence relevant to a hypothetical negotiation."

The plaintiff's expert had testified that she'd considered more than just per-unit profits. She also had assessed 1) the nature and the scope of the license, 2) the plaintiff's established policy and marketing program, 3) the commercial relationship between the parties, and 4) the extent to which the defendants' profits under the license would be attributable to the patented invention. As a result, the Federal Circuit found no evidence that the expert's royalty rate was based on an improper methodology. ■

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Michael has more than 30 years of experience with a focus on valuation, litigation support, and taxation issues. He has additional expertise in auditing, financial statement analysis and consulting. His traditional accounting experience, includes taxation and financial statement reporting for closely held businesses, with a concentration on professional practitioners, real estate developers, construction contractors, retailers, manufacturers, and computer hardware and software providers.

Michael earned his Bachelor of Science Degree from the University of Delaware. He holds accounting certifications in both New Jersey and New York. Michael is a member of the American Institute of Certified Public Accountants (AICPA), a recipient of the AICPA's Accredited in Business Valuation (ABV), and Certified in Financial Forensics (CFF) designations. Michael is a member of the New Jersey Society of Certified Public Accountants (NJSCPA), where he was the Group Leader of the Business Valuation, Forensic & Litigation Services Interest Group, and is currently on the Steering Work Group. He is certified by the National Association of Certified Valuation Analysts (NACVA), and holds that organization's highest designation as a Certified Valuation Analyst (CVA). He is accredited as a Certified Fraud Examiner (CFE). In addition, Michael is an Accredited Senior Appraiser of the American Society of Appraisers (ASA).

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