

# MANUFACTURER

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Tax Cuts and Jobs Act update

**Big changes for 2022 and beyond**

Get ahead on cybersecurity — before it's too late

6 tips for dealing with rising material prices

Using AR to enhance manufacturing processes



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**Rick Virnig**

President, Commercial Lender  
Direct: 320-257-2835 | Fax: 320-257-2867  
Cell: 320-493-4677 | rvirnig@anbm.com  
NMLS 1410584

3210 W Division St., St. Cloud, MN 56301 | 320-253-0142 | [www.anbm.com](http://www.anbm.com)



Tax Cuts and Jobs Act update

## Big changes for 2022 and beyond

It's been four years since the Tax Cuts and Jobs Act (TCJA) was signed into law, but it's still having an impact. Several provisions take effect this year and next. Here's a brief overview of these changes and the implications for many manufacturers.

### R&D expenses

The TCJA will affect manufacturers with significant research and development (R&D) costs. Starting in 2022, Internal Revenue Code (IRC) Section 174 "research and experimental" expenditures must be capitalized and amortized over five years (15 years for research conducted outside the United States). Previously, businesses had the option of deducting these costs immediately as current expenses.

The TCJA also expands the types of activities that are considered R&D for purposes of IRC Sec. 174. For example, software development costs are now considered R&D expenses subject to the amortization requirement.

Manufacturers should consider the following strategies for minimizing the impact of this change:

- ▶ Analyzing costs carefully to identify those that constitute R&D expenses and those that are properly characterized as other types of expenses (such as general business expenses under IRC Sec. 162) that continue to qualify for immediate deduction.
- ▶ If cost-effective, moving foreign research activities to the United States to take advantage of shorter amortization periods.
- ▶ If cost-effective, purchasing software that's immediately deductible, rather than developing

it in-house, which is now considered an amortizable R&D expense.

- ▶ Revisiting the R&D credit if you haven't been taking advantage of it. (See "Take another look at the R&D credit" on page 3.)

As of this writing, there are proposals in Congress that would delay or eliminate the amortization requirement. Your CPA is monitoring legislative developments and can help adjust your tax strategies accordingly.

### Bonus depreciation

Starting in 2023, bonus depreciation will gradually be phased out. Currently, businesses may immediately deduct 100% of the costs of eligible equipment and interior improvements to commercial buildings in the year they're placed in service. That percentage drops to 80% in 2023, 60% in 2024, 40% in 2025 and 20% in 2026. After 2026, absent new legislation, bonus depreciation will no longer be available.

As a result, manufacturers that plan to purchase equipment or make building improvements should consider placing those assets in service this year to take full advantage of the tax benefits of bonus depreciation. Be aware, however, that increasing depreciation may restrict your ability to deduct



business interest, so it's important to balance these potentially competing tax breaks.

## Business interest deduction

The TCJA's limit on business interest deductions is more restrictive this year. This will increase borrowing costs for larger manufacturers.

Prior to the TCJA, most business-related interest expense (such as interest on business loans) was deductible. The TCJA placed a limit on business interest deductions, except for small businesses (defined as those with average annual gross receipts for the preceding three years of \$25 million or less). This threshold is adjusted annually for inflation. For tax years beginning in 2022, the inflation-adjusted limit is \$27 million.

If your average annual gross receipts exceed that threshold, then your deduction for business interest is limited to: your business interest income, plus your floor plan financing interest, plus 30% of your adjusted taxable income (ATI).

Typically, manufacturers don't have business interest income or floor plan financing arrangements, so the business interest deduction is generally equal to 30% of ATI. For tax years beginning in 2018 through 2021, ATI was essentially earnings before interest, taxes, depreciation and amortization. Under TCJA changes, for tax years starting in 2022, depreciation and amortization will be deducted from earnings in calculating ATI. This change will reduce business interest deductions for many manufacturers.

Manufacturers with significant interest expense should consider strategies for reducing interest expense, such as relying more heavily on equity rather than debt financing. If your business owns debt-financed real property, another option is to transfer such property to a separate entity — such as a partnership or limited liability company you control — in a sale-leaseback transaction. That entity can opt out of the interest limitation as a real

## Take another look at the R&D credit

The recent expansion of the research and development (R&D) credit, together with limitations on the deductibility of R&D expenses, make it a good time to revisit the R&D credit. For example, start-up businesses (less than five years old with less than \$5 million in gross receipts) can use the credit to offset up to \$250,000 in payroll taxes. And small businesses (those with average gross receipts under \$50 million) can use the credit to reduce their alternative minimum tax (AMT) liability. Although the TCJA eliminated corporate AMT, pass-through entities may benefit from the AMT credit.

Note that under a change made by the TCJA, qualified research eligible for the credit is limited to expenditures that are treated as "specified research or experimental expenditures" under IRC Sec. 174. So, when classifying expenditures for purposes of deduction or amortization, manufacturers should also consider the potential impact on the credit amount.

property business. For this strategy to work, however, there must be a legitimate business purpose for the transaction (such as liability protection) other than tax avoidance.

Also, if you're contemplating investments in equipment or building improvements this year to take advantage of 100% bonus depreciation, increased depreciation may adversely affect your ability to deduct business interest. To identify the optimal tax strategy, you'll need to balance the benefits of increased depreciation deductions against the cost of reduced interest deductions.

## The big picture

These changes complicate tax planning for manufacturers. Your tax advisors can help develop a comprehensive tax strategy for your particular circumstances. They can also help you prepare to shift gears in case Congress passes any relevant tax legislation later this year. ■

# Get ahead on cybersecurity — before it's too late

**M**anufacturers can't afford to put cybersecurity issues on the back burner. Just because manufacturers may not sell directly to consumers doesn't mean they're not at risk. Sometimes manufacturers are impacted when their customers or vendors get hit by a cyberattack. And while news media gives play to data breaches that occur at large retailers or financial institutions, manufacturers are becoming a more common target. Let's identify the reasons why and what you can do to get ahead of cybercriminals.

## Exposing vulnerabilities

Cybercriminals may target manufacturers because, in many cases, they're more vulnerable than other types of businesses. For one thing, the manufacturing supply chain is complex, with an intricate network of suppliers, logistics firms, distributors, retailers and others, often connected by the Internet. Members may have access to each other's systems, so a vulnerability in one link of the supply chain can expose the entire chain to cyber risks.

A hacker that gains access to Internet-connected devices could shut down operations or cause manufacturers to produce defective products.

Also, as the digital revolution continues, manufacturers increasingly rely on Internet-connected devices on the shop floor that can be monitored and operated remotely. At the same time, the

manufacturing industry has been slower than other industries to upgrade IT infrastructures and develop robust security practices designed to prevent, detect and mitigate cybercrime.

## Hacking the system

Manufacturers' systems generally don't store customers' credit card numbers and other sensitive data that criminals can use to perpetrate identity theft and similar crimes. Instead, cyberattacks against manufacturers are designed to disrupt operations and extort money.

For example, a hacker that gains access to Internet-connected devices could shut down operations or cause you to produce defective products. Or the criminal could introduce ransomware into a manufacturer's systems, blocking access until a ransom is paid.

Another technique is to steal valuable intellectual property stored on a manufacturer's system and sell it on the black market. Examples include patents, designs, manufacturing processes, research and development documents, customer lists, contracts, bidding information, business plans, marketing plans, and proprietary software.

Manufacturers also aren't immune to ordinary fraud. For example, a cybercriminal may send a phony email from an actual vendor, updating its payment information and asking the manufacturer to send all future payments to a bank account the criminal controls.

## Minimizing risks

To avoid potentially devastating cyberattacks, it's a good idea to conduct a risk assessment to take

inventory of your hardware, software and data and identify any vulnerabilities. It's critical to examine all the ways employees, vendors and other partners can access your network. Then implement policies, procedures and controls designed to prevent unauthorized access.

Equally important is an incident response plan to mitigate the damages in the event of a breach. Finally, have a solid backup plan that enables you to resume operations if a hacker destroys or blocks access to data.

### Adding cyberinsurance

One way to protect your business is with cyberinsurance. General liability policies normally exclude cyberclaims. Insurance carriers are limiting coverage to specific ransomware claims, excluding coverage for specific known vulnerabilities, and requiring applicants to provide more details about their data security control efforts before extending coverage, according to the *2022 Cyber Insurance Market Conditions Report* published by insurance consulting firm Gallagher US.



Manufacturers may want to consider switching some property insurance coverage over to cyberinsurance. After all, in today's digital world, cyberattack claims may be as likely — or even more likely — than fire, tornado or other natural disaster claims.

### Educating your team

Ransomware and malware take advantage of sloppy security. To avoid falling prey to a cyberattack, educate your staff on cybersecurity best practices and potential vulnerabilities. Every employee is a link in your cybersecurity chain. Ignoring the risks isn't an option in today's interconnected marketplace. ■

## 6 tips for dealing with rising material prices

**M**anufacturers face enormous business challenges today. The top two are rising raw material costs and supply chain challenges, according to the fourth quarter *2021 Manufacturers' Outlook Survey* by the National Association of Manufacturers (NAM). Other significant challenges that may affect the availability of materials include rising transportation and logistics costs, unfavorable business climates, and trade uncertainties.

### What you can do

Here are six tips for addressing increasing prices or decreasing availability of key manufacturing inputs:

**1. Do your homework.** Just because a supplier informs you that a price increase is necessary because of increasing costs, supply chain issues or logistical challenges, that doesn't necessarily mean the price hike is fair. Do your own research

to assess the impact of these developments on supplier costs and determine an acceptable range of price increases.

**2. Purchase materials in advance.** Recent experience has exposed the risks inherent in just-in-time manufacturing strategies. Stocking up on raw materials and key components can help you lock in current prices and avoid shortages. However, it's important to have a solid grasp of your material needs and consider storage costs and the impact on your cash flow.

Escalation clauses shift some of the risk to customers by providing for periodic price adjustments to reflect increasing or decreasing material costs.

**3. Negotiate long-term contracts.** Consider entering into long-term contracts with suppliers that lock in prices and guarantee availability and a certain level of quality for a specified time period. Suppliers have limited production capacity. Long-term contracts that focus solely on price can be problematic if a supplier decides to sell to your competitors at higher prices (or lower quality), leaving you without materials or parts to purchase.

**4. Include escalation clauses in your contracts with customers.** These clauses shift some of the risk to customers by providing for periodic price adjustments to reflect increasing or decreasing material costs. For simplicity, some clauses may be tied to cost-of-living or inflation rates.

**5. Increase your own prices.** Consider passing through some of your cost increases to your own customers by raising your prices. Be sure to carefully consider the impact of this strategy on your customers

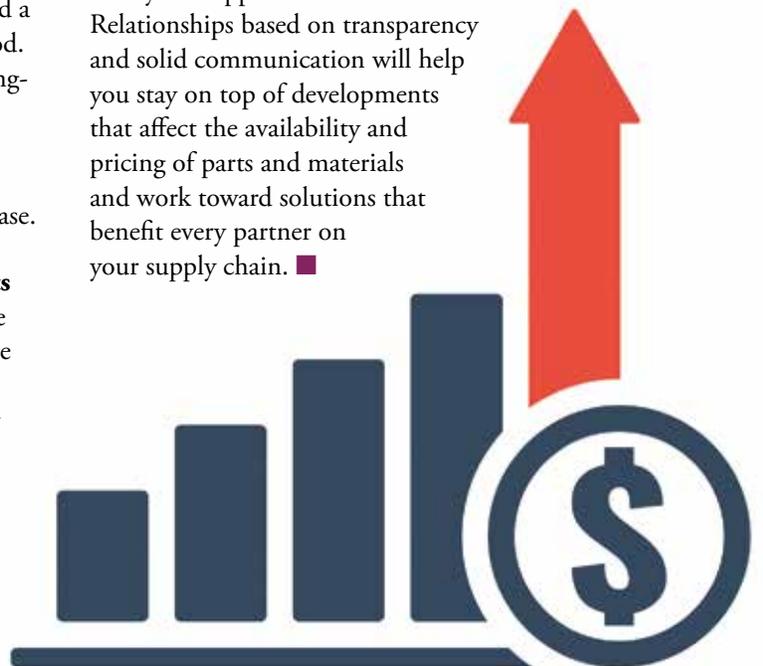
and to back up the reasonableness of the increase with general economic and supplier pricing data.

**6. Be flexible.** Look for creative ways to increase your company's flexibility and agility. For example, seek alternate suppliers that offer more attractive pricing or can meet your needs in the event a regular supplier can't deliver. Consider using suppliers that are closer to your facilities to reduce transportation costs or shifting production to locations that offer reduced costs or other advantages. Explore the possibility of switching to less expensive or more readily available parts or materials, provided doing so won't adversely affect the quality of your products.

According to the NAM survey, the top three strategies manufacturers are using to address supply chain disruptions are 1) finding alternative or duplicative suppliers for some inputs, 2) increasing inventories of raw materials and other inputs, and 3) exploring more domestic U.S. sourcing or production.

## Maintain strong relationships

Whichever strategies you employ, it's critical to develop and maintain strong relationships with your suppliers and customers. Relationships based on transparency and solid communication will help you stay on top of developments that affect the availability and pricing of parts and materials and work toward solutions that benefit every partner on your supply chain. ■



# Using AR to enhance manufacturing processes

**R**arely used as recently as five or six years ago, augmented reality (AR) has emerged as a technology with the potential to transform manufacturing. Unlike virtual reality, which immerses the user in a fully virtual environment, AR overlays digital imagery onto your physical surroundings — typically through the use of a headset or AR glasses.

AR provides visual cues and real-time information that can streamline and improve a variety of manufacturing processes and operations. Here are a few of the many ways AR can revolutionize manufacturing.

## Efficient training

One of the biggest challenges facing manufacturers today is a shortage of skilled workers. AR technology can enhance the training process by creating a fully immersive training environment that's far more efficient than training manuals and similar materials. By pointing out components of sophisticated equipment and demonstrating complex tasks in a realistic setting, AR has the potential to train workers in a quarter of the time conventional methods take.

AR isn't just a bonus for your existing workforce. It can also help attract new workers, especially younger people who seek experience with cutting-edge technologies.

## Speedier maintenance

Maintenance of costly manufacturing machinery is another area that can benefit from AR. Newer AR technology, combined with sensor data and real-time analytics, can greatly enhance preventive and predictive maintenance.

For example, AR glasses can use three-dimensional arrows to pinpoint machine components and display



real-time data — such as temperature, vibration rates, and maintenance histories and trends. This allows workers to quickly identify and address potential failure points before a machine breaks down.

## Simpler assembly

AR technology can significantly improve the efficiency of complex assembly processes by providing workers with visual instructions. For instance, AR can superimpose spatial markers over objects and provide instructions through the AR viewer.

This technology allows workers to perform complex tasks more quickly and accurately. The result is reduced error rates.

## Make the transformation

These are just a few examples of the many ways AR technology is transforming manufacturing. It can also be invaluable in product design and development, logistics management, customer support, quality control, and workplace safety management. Contact your CPA to evaluate the potential costs and benefits of implementing this technology at your company. ■



American National Bank of Minnesota  
3210 W. Division St.  
St. Cloud, MN 56301



**Rick Virnig**  
President, Commercial Lender  
Direct: 320-257-2835 | Fax: 320-257-2867  
Cell: 320-493-4677 | [rvirnig@anbmn.com](mailto:rvirnig@anbmn.com)  
NMLS 1410584



**Brian Bastian**  
Commercial Lender  
Direct: 320-257-2842 | Fax: 320-253-9045 | [bbastian@anbmn.com](mailto:bbastian@anbmn.com)



**Tammy Reis**  
Vice President, Mortgage Specialist  
Direct: 320-257-2840 | Fax: 320-253-9045 | [treis@anbmn.com](mailto:treis@anbmn.com)  
NMLS 709753

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