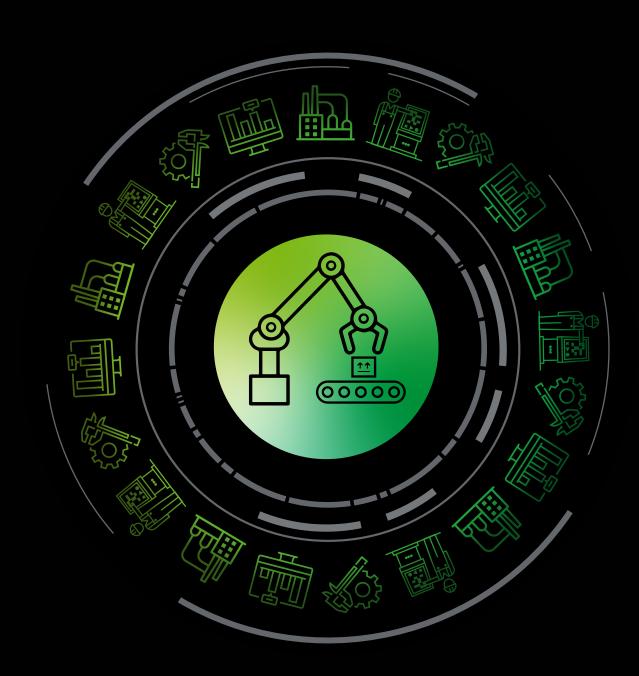
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2019 industrial manufacturing industry outlook

My take: Paul Wellener





The US industrial manufacturing industry continued its strong performance this year, following a similarly positive 2017.

Heading into the final year of the decade and the tenth straight year of economic expansion in the US economy, the industry finds itself in a unique position.¹ On one hand, manufacturing is firing on all cylinders: output is humming, capacity utilization is up, and many manufacturers are delivering solid performance results and shareholder returns. On the other hand, trade tensions lurk in the background and supply chains are straining to keep up with demand, while skilled talent is in short supply and threatening to derail the current industry momentum. Amid these headwinds is an underlying move toward digital and advanced technologies that are transforming not only business operations but also partner ecosystems and even business models. Digital holds tremendous potential and is likely to be decisive in determining the fate of industrial manufacturing companies in the months and years to come.

As we enter 2019, here are some observations and predictions for our industry.

Firing on all cylinders—but for how long?

Let's begin with the good news. The US manufacturing industry appears back on track and is likely to surpass growth expectations for two consecutive years in a row.

Deloitte projections based on the Oxford Economic Model (OEM) indicate the 2018 manufacturing GDP numbers are likely to register a 3 percent upswing over 2017, the highest annual growth levels recorded since 2010.² This year was also notable in terms of net employment gain, with the industry adding 300,000 new jobs.³ Meanwhile, the US Manufacturing PMI in September 2018 stood at 55.6 on the back of increasing industry output and new order gains.⁴ This brings us to an all-important question: Will the industrial manufacturing industry continue to remain the bright spot in the economy and a leader in global manufacturing performance?

The answer is uncertain, given today's complicated times. Deloitte's economic analysis indicates that manufacturing GDP should increase by 3.7 percent in 2019, and based on the confidence of industry leaders, this could be a feasible outcome. According to the latest

Manufacturers' Outlook Survey, optimism soared this past year at 93.9 percent, the highest yearly average in the history of the survey.⁵ An analysis by the Manufacturers Alliance for Productivity and Innovation (MAPI) indicates that the US manufacturing sector is likely to regain output levels lost during the Great Recession before the middle of 2019.⁶

Yet there are indications that the outlook may not be all bright. The manufacturing industry is currently dealing with one of the tightest labor markets in history, exacerbated by high job-opening levels (more than 400,000 since January 2018) and historic low unemployment rates. Also complicating the market momentum are the recent activity around trade agreements and tariffs and rising raw material costs, which have the potential to send disruptions throughout the manufacturing industry in the coming months.



Turning to M&A amid political uncertainties and an influx of digital technologies

US industrial manufacturing deals activity experienced a healthy 2018, recording more than \$65 billion in year-to-date M&A deal values, an increase of more than 30 percent compared to the same period in 2017.

The average deal volumes also registered a gain of more than 50 percent during the same period, with twelve \$1 billion plus deals, despite a decline in cross-border M&A activity due to sustained political and trade uncertainty throughout the year.8

Mergers and acquisitions seem positioned for a strong 2019, primarily driven by continued business confidence and an increasing focus of US firms to enhance their geographic presence and strengthen their product portfolios. The Tax Cuts and Job Act signed in December 2017 is likely to lead to enhanced M&A activity in 2019 as manufacturers accrue cash and look for ways to invest. Further, manufacturing firms are also expected to repatriate cash from foreign countries and look to expand their production capacity and resources in the United States, driving reshoring initiatives. This could lead to new factories, as well as smaller players and

suppliers being acquired. Additionally, US manufacturing firms are also turning to M&A and divestitures to clean up their product portfolio and focus on core business segments. Case in point, during the last few years, the industry observed as many as thirty \$500 million divestiture deals.

And that means that more manufacturers are expected to form ventures and alliances to complement their expertise and work together to develop future products. Doing so would allow the companies to expand their digital expertise, potentially leapfrogging the competition in the digital transformation race. There should be a strategy for approaching any activity in this space to ensure that acquisitions, divestitures, or ventures deliver the intended value.



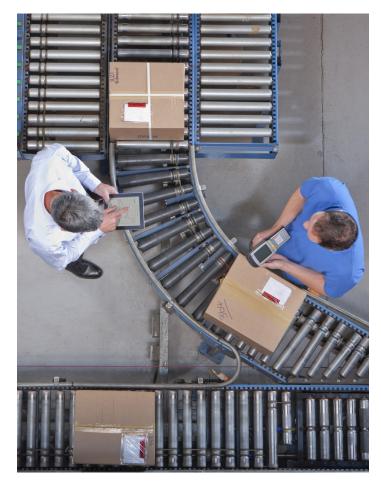
Building resilience into the supply network to prepare for trade and tariff uncertainties

2018 was marred by tariff activity and negotiations between two heavyweights in the global industrial manufacturing industry: China and the United States.

The story began with the United States' announcement to impose tariffs on imported steel and aluminum and led to a volley of additional trade restrictions between the two nations. The impending situation creates a number of potential risks for manufacturers and poses multiple questions around the impact on margins due to uncertainty around increasing raw materials prices.

The current trade uncertainties, however, create an opportunity for industrial manufacturers to reevaluate their supply and distribution networks. Performing a risk analysis of existing supplier portfolios and identifying potential bottlenecks might be a starting point for discussing broader supply network strategies. Manufacturing firms can consider the best methods for building resilience into their supplier network to accommodate for the coming year's unknowns, which may include identifying new suppliers in certain regions, remapping the distribution networks, working on new pricing models, or moving production based on customer proximity and prevailing trade policies.

Aiming for operational efficiency through technology can help mitigate some of the inherent risk in the supply chain, especially by using it to increase visibility and connectivity to create a digital supply network (DSN). In addition, 2019 presents an opportunity to consider investments in advanced materials and applications, such as additive printing, as an alternative supply source should specific component or parts pricing rise precipitously.



Attracting, recruiting, and retaining talent

In light of the positive performance on many fronts in the industry, talent is becoming a top issue among executives.

Job openings have been growing at double-digit rates since mid-2017 and are nearing the historical peak recorded in 2001. The manufacturing industry faces a talent shortage in the coming decade that could seriously hamper the positive growth and regeneration much of the industry has experienced in the United States since the Great Recession. The 2018 Deloitte and The Manufacturing Institute skills gap and future of work study shows a growing shortage of skilled workers over the next decade—up to as many as 2.4 million unfilled jobs by 2028, which could put \$2.5 trillion of US GDP at risk. 11

Not filling job openings and not having the right skill set in the workforce can negatively impact manufacturers in various ways, including not being able to meet growing customer demand, the inability to respond to new market opportunities,

and failing to innovate. To maintain output levels in the coming years, manufacturers should consider innovative approaches to attract, recruit, and retain talent. Engaging with the open talent ecosystem, tapping the resources of retirement-age experienced workers, and developing in-house training programs are all part of a holistic, long-term approach that companies may need to adopt.

Additionally, sourcing talent through apprenticeship programs and technical schools can identify prospective employees with the right skills. And considering the rise of digital, it is also important to understand how skills are changing and then design a talent management strategy that reflects this.



Building digital in the core

Industrial manufacturers have spent 2018 deliberately advancing along the digital maturity curve.

Pockets of activity throughout the factory, across finance and operational functions, and out in the field continue to gain momentum. Overall, just over 20 percent of manufacturers rated themselves as "highly prepared" to address the emerging business models the fourth industrial revolution brings. ¹² The coming year is one that is expected to separate the digital leaders from the followers, and it could leave some companies dangerously behind.

Industrial manufacturers have multiple levers to engage when it comes to digital. Looking across the organization, digital technologies can be applied to product development and innovation, through 3D prototyping and digital twins. Artificial intelligence and cognitive technologies can foster growth in the customer life cycle and create exceptional experiences. And automation can deliver measurable outcomes, from robotic arms on the production line intended to increase output to robotic process automation (RPA) in financial processes to shorten receivables and improve cash flow.

Our research shows that nearly half of manufacturers (49 percent) are using a form of automation in their business, with plans to increase its use across the business from production to supply chain/logistics and maintenance, repair, and aftermarket service in the coming year.¹³ Automation is one area that stands to see significant investment in the coming year, and industrial companies have an opportunity to flip the switch on productivity with the right strategy and approach.



Let's talk



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Paul is a vice chairman, Deloitte LLP, and the leader of the US Industrial Products & Construction practice with Deloitte Consulting LLP. He has more than three decades of experience in the industrial products and automotive sectors and has focused on helping organizations address major transformations. Paul drives key sector industry initiatives to help companies adapt to an environment of rapid change and uncertainty—globalization, exponential technologies, the skills gap, and the evolution of Industry 4.0. Based in Cleveland, Paul also serves as the managing principal of Northeast Ohio.



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