The RSM US Middle Market Business Index (MMBI) is a first-of-its-kind middle market economic index developed by RSM in collaboration with Moody’s Analytics. Data for the MMBI is gathered through quarterly surveys of the RSM US Middle Market Leadership Council, a panel of 700 middle market executives managed by the Harris Poll. This special edition is a supplement to the third quarter 2018 report.
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CAPEX AND THE MIDDLE MARKET

The middle market is exercising caution, and may be missing an opportunity.

In order to sustain their businesses for the long term, successful business owners tend to be thoughtful in their investments. They act like chess masters, deciding their next five moves in order to maintain a competitive edge and stay in the game.

Yet throughout this business cycle, the RSM US Middle Market Business Index (MMBI) has shown that middle market leaders have been slow to increase capital expenditures. Further, a series of questions on capex in the fourth quarter of 2017 indicated that nine out of 10 middle market executives believe their level of capital expenditures is sufficient. This is concerning in light of today’s rapid pace of business transformation.

This somewhat restrained approach to capital outlays continues a trend that has endured since the inception of the index. The 2018 Q3 MMBI found that the percentage of companies that increased capex in the prior quarter has diminished, while those that expect to increase expenditures in the next six months also declined.

The recent surplus of capital temporarily made available through the 2017 Tax Cuts and Jobs Act (TCJA) has made little impact, with just 38 percent of middle market leaders reporting in the MMBI survey in the second quarter of 2018 that they plan to increase the dollar volume of their capex over the next three years as a result of accelerated expensing and depreciation. Of that 38 percent, only half are planning to make new capital investments, while the other half are accelerating previously planned investments.
It’s worth noting that tax reform has had a modest impact on capex and other corporate spending in the middle market. One of the guiding principles behind the TCJA was to provide an incentive for U.S. companies to invest—in their businesses, their stakeholders and employees' welfare, and, ultimately, the U.S. economy. Rather than encourage a spike in investment, the TCJA may primarily be helping to pull forward investment for a longer period.

Middle market executives express a range of priorities around the focus of their investments, including shoring up balance sheets, driving up investor returns, and increasing hiring and wages. An arguably more prudent investment in technology, however, may be the best approach to ensure long–term viability and combat an increasingly competitive marketplace.

The MMBI survey results suggest that the middle market is somewhat risk averse when it comes to making capital investments. On the following pages, we examine why capex in the middle market is relatively flat—and why executives should be concerned.
Despite expectations that capital expenditures would increase as a result of the Tax Cuts and Jobs Act of 2017 (TCJA), just 38 percent of middle market executives report that they have plans to increase the dollar volume of capital investments over the next three years as a result of the act. Among those middle market firms, however, spending plans differ: A higher percentage of larger businesses (45 percent) than smaller businesses (34 percent) expect an increase in the dollar amount of capital investments. While disappointing, this is not necessarily surprising considering nine out of 10 executives polled in the 2017 Q4 RSM US Middle Market Business Index (MMBI) said their level of capital expenditures was sufficient.

A window opens

Among the organizations surveyed, only C corporations get the sharply lower federal income tax rate of 21 percent, down from 35 percent. The S corporations in the survey, along with the remaining limited liability corporations, sole proprietorships and others, are pass-through entities, meaning profits from the business flow through to the business owner’s personal tax return. The TCJA, however, offers an attractive bonus depreciation rate of 100 percent for qualified assets—but only until Dec. 31, 2022. While the 21 percent rate is a favorable factor in the current taxation of C corporations, the bonus depreciation incentive isn’t as valuable to them as it is to pass-through entities, who don’t get the lower tax rate.

“The middle market’s reticence to invest in their business, despite the tax reform stimulus, may be due in part to a lack of understanding on how certain provisions of the TCJA, such as bonus depreciation, could benefit their companies and provide opportunities to accelerate capital expenditures,” says RSM US Chief Economist Joe Brusuelas. “The survey results also indicate business leaders plan to spend more on attracting and retaining talent, yet could channel some resources to technology to improve productivity.”

A reluctance to spend

This seeming hesitance to invest capital sharply contrasts with the overall expectations of the current economic environment by middle market executives, who say they expect to expand hiring and increase compensation amid strong revenues and net earnings. With gross domestic product increasing at an annual rate of 4.1 percent in the second quarter of 2018 and unemployment hovering around 3.9 percent, a forecast of increased capital investment would be understandable, if not entirely justifiable.

Impact new U.S. tax law will have on organization’s future growth (BASE = respondents who are familiar with the TCJA)

<table>
<thead>
<tr>
<th>Impact new U.S. tax law will have on organization’s future growth</th>
<th>Total n=393</th>
<th>$10M--$50M n=187</th>
<th>$50M--$1B n=186</th>
</tr>
</thead>
<tbody>
<tr>
<td>Negative impact</td>
<td>8%</td>
<td>4%</td>
<td>9%</td>
</tr>
<tr>
<td>Positive impact</td>
<td>57%</td>
<td>55%</td>
<td>63%</td>
</tr>
<tr>
<td>Little or no impact</td>
<td>35%</td>
<td>41%</td>
<td>28%</td>
</tr>
</tbody>
</table>

However, there may be a number of reasons why economic forecasts—particularly those regarding capital expenditures—were too optimistic. As noted in a study by the Federal Reserve Bank of San Francisco, a fiscal stimulus such as the TCJA is less effective in times of economic growth (such as the one the country is experiencing now) than during downturns. Moreover, a tightening labor market is making it difficult for some companies to meet customer orders, let alone increase revenue. Survey participants
SPENDING PRIORITIES OF THE MIDDLE MARKET

How companies direct their resources depends, of course, on their individual circumstances, and participants responding to the MMBI survey are no different. In deciding how to spend or invest their organization's savings over the next 12 months, the half that anticipate seeing an increase in after-tax cash flow reveal their priorities and plans to address them:

HIRING
Roughly three-quarters of middle market executives who said hiring is a priority are likely to hire full-time hourly or salaried workers. Larger companies (38 percent) are nearly twice as likely to hire part-time workers compared to their counterparts at smaller companies (19 percent).

COMPENSATION AND BENEFITS
Of those who cite increasing compensation and benefits as a priority, most will increase wage rates for workers (65 percent), increase funding for performance-based incentives (52 percent) or both. Larger organizations are more likely to increase profit-sharing incentives, their executives say, while smaller companies are more likely to add or increase noncash compensation or benefits.

ONE-TIME BONUSES
Business leaders who cite one-time bonuses as a priority are most likely to pay in cash (80 percent). Larger organizations (43 percent) are more likely to pay a one-time bonus in company stock vs. smaller organizations (10 percent).

BALANCE SHEETS
Those participants reporting that shoring up their organization's balance sheet is a priority plan to increase their company's cash position or reduce debt in equal percentages (68 percent and 66 percent, respectively), with just over one-third planning to do both.

INVESTOR RETURNS
A large majority (77 percent) of those prioritizing increasing investor returns or rewards plan to increase dividends paid to shareholders. Just under one-third of them plan to buy back stock.

CAPITAL INVESTMENTS
For those focusing on capex spending, three of the top five investment categories—purchasing computer hardware; upgrading existing computer equipment and acquiring new computer equipment—are technology-related.

MERGERS AND ACQUISITIONS (M&A)
Where M&A is a priority, nearly two-thirds plan to acquire a company, with a significantly greater percentage of those at smaller companies (77 percent) doing so compared to those at larger companies (56 percent). Just under one-third say their organization will merge with another business, and about one in five say they will divest part of the organization or a subsidiary.
indicate they plan to increase hiring, but it is unclear by how much, or what the effect would be on growth.

Given the complex nature of the TCJA, it is not surprising that details about its implementation still need to be worked out, even months after being signed into law. Inadvertent omissions in the wording of the law have forced some hospitality chains, for example, to postpone annual renovations to their restaurants until the flaws are corrected and they can take advantage of the intended tax incentives. The complexity of the tax law changes is evidenced by the fact that only half (52 percent) of middle market executives believe it will have a positive effect on their after-tax cash flow.

“It’s typical of a bill of this size that Congress needs to make corrections, and the IRS needs to issue interpretative guidance,” observes Patti Burquest, principal in charge of the Washington National Tax practice at RSM US. “The 1986 tax act was similar in scope, and it took several years to get the regulations issued as well as to make technical adjustments and corrections to various provisions.”

Meanwhile, current market conditions, including sustained levels of low domestic unemployment and escalating trade tensions resulting in the imposition of multilateral tariffs, may be adding to the cautious approach to capex spending.

“Anecdotally, we see that the tightening labor market as well as policy and financial market uncertainty tend to be the significant barriers to increased capital investments for middle market businesses,” Brusuelas says. “Without knowing the impact that any future tariff or trade policies will have on supply chains, for example, companies may be reluctant to make long-term strategic investments. Moreover, middle market executives may see the returns on investments in technology as too little for the effort and expense.”

Among middle market companies that anticipate seeing an increase in after-tax cash flow, the capex story is a little brighter. Nearly three-quarters of these business leaders state they will make capital investments, exceeded only by business leaders who plan to shore up their balance sheets. Increasing compensation, increasing investor rewards and hiring are the next most popular investments of the tax savings.

Investor returns are popular among larger businesses as well, with stock buybacks overall expected to reach a record $1 trillion this year. Such a short-term approach does little to boost the long-term value of a company and could even have a negative impact on the U.S. economy, according to a report by McKinsey & Company; surplus cash might be better spent on issuing dividends or increasing investments.

### Priorities for deciding how to spend or invest savings over the next 12 months

(BASE = respondents who said new tax law will have strong/moderate impact on after-tax cash flow and familiar with the TCJA. n=204)

<table>
<thead>
<tr>
<th>Priority</th>
<th>Moderate to absolute priority</th>
<th>Not a priority at all</th>
<th>Slight priority</th>
<th>Not sure at this time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shoring up balance sheet</td>
<td>72%</td>
<td>11%</td>
<td>15%</td>
<td></td>
</tr>
<tr>
<td>Increasing capital investments</td>
<td>71%</td>
<td>16%</td>
<td>11%</td>
<td></td>
</tr>
<tr>
<td>Increasing comp./benefits for workers</td>
<td>65%</td>
<td>20%</td>
<td>13%</td>
<td></td>
</tr>
<tr>
<td>Increasing investor returns/rewards</td>
<td>64%</td>
<td>11%</td>
<td>24%</td>
<td></td>
</tr>
<tr>
<td>Increasing hiring</td>
<td>62%</td>
<td>20%</td>
<td>16%</td>
<td></td>
</tr>
<tr>
<td>Giving one-time bonus/reward to workers</td>
<td>54%</td>
<td>15%</td>
<td>30%</td>
<td></td>
</tr>
<tr>
<td>Engaging in merger/acquisition activity</td>
<td>50%</td>
<td>15%</td>
<td>32%</td>
<td></td>
</tr>
<tr>
<td>Investing in business capabilities outside U.S.</td>
<td>41%</td>
<td>11%</td>
<td>47%</td>
<td></td>
</tr>
</tbody>
</table>

### Spending extended rather than increased

Nevertheless, the topline MMBI and outlook for middle market businesses revenue remain robust.

“It may well be that the TCJA is helping maintain the current pace of investment and spending for a longer period than it would have otherwise,” says Jeff Johannesen, chief strategy and innovation officer at RSM US and the firm’s immediate past national tax leader. “Rather than seeing an immediate spike, the act may be prolonging long-term confidence in the current posture, rather than short-term, frenetic spending.”

To be sure, more than one-third of executives surveyed are planning to increase their capital investments. But these expenditures align with the unique circumstances of each company. “I don’t think middle market executives are looking for a quick way to spend money,” Johannesen says. “They want to identify the best way to spend their money for the long term.”

So what is the best way? How the tax law may specifically affect a company’s growth and cash flow will depend on management’s specific priorities. However, for long-term viability, technology may be an industry-agnostic investment priority common to middle market companies nationwide.
The future is here, and middle market businesses must find a way to allocate investment capital to keep pace with technological changes.

Technology investments may be beyond the reach of some businesses, either because they are too expensive, too unknown or too irrelevant. Nevertheless, “tech spending—on everything from cloud computing to improved automation and artificial intelligence—is particularly important now, as the economy moves through a period of profound disruption,” says Joe Brusuelas, RSM US chief economist.

“As challenging as it may be during a time of economic uncertainty, middle market businesses must find a way to allocate investment capital to keep pace with technological changes,” Brusuelas says.

As the economy moves through this period of extreme disruption, technology innovations are becoming mainstream. Technologies once seen as unattainable, cost-prohibitive or fraught with risk are transforming into fundamental mainstays for doing business:

- **The cloud**: After some initial hesitation, companies are now realizing the potential of the cloud, migrating basic information technology (IT) functions such as data storage and network hosting. To a lesser extent, the cloud is being used for financial and productivity systems as well as data analytics.
- **Mobility**: Mobility strategies have altered the traditional work environment, removing the need for the daily commute, the desktop PC and the conventional workweek, and transforming how employees work, when they work and where.
- **Automation**: Robotic process automation (RPA) can automate repetitive and manual operations, reduce errors and allow employees to focus on more strategic tasks. As a result, RPA can increase productivity, improve efficiency and lower costs.
- **Blockchain**: This technology allows for the recording, execution and auditing of contracts in real time on distributed ledgers. It can be adopted for asset sales, payments, loans and contracts of all types. Blockchain’s ability to reengineer processes makes it a truly disruptive technology.
- **Big data**: One of a company’s most important assets is its data. Most companies use only a fraction of their data and, even then, not to its full potential. Analytics transform that data into information that can help improve operations, inform decisions and increase returns on investment.
- **Artificial intelligence (AI)**: AI is being embedded in products from consumer goods to industrial manufacturing. Although still in relatively nascent stages, early adopters in the tech, automotive and financial services sectors are using AI to develop products and services. Although AI is difficult and time-consuming to implement, these early adopters are already creating competitive advantages.
For companies concerned about having enough capital and human resources to keep up with the latest technology—not to mention administer IT operations—a full-service managed services provider can handle monitoring, patch management, remediation and ongoing technology advisory services. In addition to ensuring that a company can take advantage of the latest technology innovations, outsourcing the IT function can be a cost-effective approach to maximize IT investments, expand resources and allow internal personnel to focus on the core business.

If management is feeling the pinch of a tight labor market, technology—in the form of robotics and automation—can simultaneously address increasing demand and rising labor costs.

**Change is good, but slow**

The advantages of technology innovations are not always appreciated and can be underutilized. For many companies, equipment is kept in use longer than is typically recommended. Maintenance tends toward extending the life of the equipment rather than updating it, risking downtime and increasing support costs.

It does not help when budgets are a fraction of what they should be if innovation is a priority. Overall, only an average 5.95 percent of revenue is spent on IT by the middle market, according to a 2018 RSM survey of CFOs on digital transformation. While nearly three-quarters of those polled indicate they anticipate their IT budgets to increase in the next three years, those gains are forecast to be primarily in single-digit percentages. Most of those surveyed self-identified as being in the mid–stages of digital maturity, with plans to adopt new IT programs or actually at the beginning of implementation. Yet a majority of survey participants (60 percent) consider themselves to be only at parity with their competitors; only about a quarter describe their company as leaders in digital innovation.

But where there’s a will, there’s a way to pay for it. “The more you integrate tech, the more you need outside help. The more you spend on tech, the more you’ll need to spend to maintain and update it,” says EJ Nedder, RSM US national tax leader. “Outsourcing can help keep costs steady.” He notes that industry behemoth Apple spends very little of its time on manufacturing (it outsources) so the company can focus on what it does best: designing products that the end-user will appreciate. “Focus on where you add value and less on those areas not in your wheelhouse.”

Technology disruption may also be changing the nature of capex spending, as noncapitalized expenses such as outsourcing and cloud computing increase. Indeed, “intangible capital” such as software or online platforms are more difficult to use than physical assets as collateral in obtaining external financing. Intangibles increased, and since 2000 even “companies with the highest growth and valuations failed to fuel investment demand,” according to economists Nicolas Crouzet and Janice Eberly. “Monetary policy is unlikely to influence intangible investment as strongly as it does traditional investment.”

But how long can middle market companies maintain their status quo on IT spending before technology forces them to increase their budgets to survive, let alone maintain a competitive advantage?
Perhaps one of the most significant developments affecting the future of the internet is blockchain technology.

A number of major companies have launched blockchain (also called distributed ledger) initiatives to track shipments of cargo from manufacturer to distributor to retailer, trace food products to their source in times of contamination, and create smart contracts that execute provisions automatically using workflow and scanning technology.

“Right now, companies should be analyzing how blockchain could disrupt their businesses, and begin planning counterstrategies and explore new opportunities,” says Jay Schulman, a principal in the security, privacy and risk consulting practice at RSM US.

As noted at the 2017 World Economic Forum, innovators are programming blockchain’s digital ledger to “record anything of value to humankind—birth and death certificates, marriage licenses, deeds and titles of ownership, rights to intellectual property, educational degrees, financial accounts, medical history, insurance claims, citizenship and voting privileges, location of portable assets, provenance of food and diamonds, job recommendations and performance ratings, charitable donations tied to specific outcomes, employment contracts, managerial decision rights.” In other words, anything that can be expressed in code.

Cook County, Illinois, for example, launched a pilot program using blockchain to track and transfer real estate property titles and other public records with greater security than existing methods can afford. Real estate transaction data, usually available through the multiple listing service, is often decentralized, fragmented, out of date and difficult to access. But blockchain can overcome such barriers by providing a shared database with up-to-date information. The technology can streamline transactions by providing a secure environment that cuts out the middleman.

There are a number of compelling cases that could be made for using blockchain technology in the automotive sector. Since it implements a transactional ledger, for example, blockchain could be useful for tracking parts. As a part moves through the manufacturing ecosystem, a record could be created of the specific car in which it was installed. That part can then be tracked as it is removed from one car and inserted in another in the aftermarket. At any time, a manufacturer, service center or car dealer can track every part in a car.

Similarly, blockchain can offer consumers transparency into the food they buy. The technology, which is being tested by Walmart, Kroger and Amazon Whole Foods, allows consumers to see, for instance, how livestock was raised or when plants were harvested. Producers such as Nestle, Tyson Foods, McCormick and Dole are testing the technology with their supply chains to reduce costs associated with spoilage and product recalls.

Like any new technology, there is a level of concern about the security of these platforms, but the developers are working alongside the public sector to address these issues. “Blockchain is changing the rules of the game,” notes Schulman. “Middle market companies need to learn those rules and make them work to their advantage.”
Without increasing capex on technology, it may be difficult for middle market companies to remain viable.

For all their benefits, supply chain tracking and monitoring, blockchain, artificial intelligence and the internet of things technologies are currently the least used in the middle market, according to the 2018 RSM survey of CFOs on digital transformation. Only one in four executives participating in the survey claims to be leading their competitors when it comes to implementing digital technology.

Notably, most company executives (94 percent) participating in the digital transformation survey claim to have a “digital road map,” that is, a detailed, operational plan that describes how digital strategy will take shape. Yet when asked if they have a strategy to achieve specific goals or objectives in place, less than half (48 percent) had a fully developed plan.

But tech priorities may be gaining more importance.

As research firm Gartner notes, spending on application and infrastructure software is expected to continue to rise through 2019. In addition, among the participants in the RSM US MMBI survey who prioritize increasing capex, three of the top five areas for investment are tech-related:

“IT is not about just maintaining servers anymore,” says Bill Kracunas, RSM US’s national management consulting leader. “Among other things, it’s about aggregating data from a number
of different sources that can provide visibility into patterns and trends for increased insight into customers, employees and financials.

As Kracunas sees it, companies are using technology to connect with current customers and expand their customer base. They are using enterprise systems to achieve better inventory, production and quality management, as well as improving customer behavior forecasting. Many are implementing performance management and employee self-service systems to give employees a better work experience and insights into their careers.

**Trends in technology investments**

Clearly, some company executives see the disruption coming and they are investing accordingly. For all business processes and segments, the vast majority of middle market companies expect future digital spending to increase over the next three years, particularly in operational efficiency, according to the digital transformation survey.

In fact, small and medium-size businesses are expected to spend nearly $602 billion in 2018 for IT hardware, software and services, a nearly 5 percent increase over 2017, according to research firm International Data Corporation. Devices such as personal computers and mobile phones make up the largest spending category, followed by spending in applications and enterprise resource management.

Depending on the industry, companies are investing in technology to enhance the customer experience, track buying patterns and even gather biometrics. From business-to-consumer to business-to-business, technology disruption abounds in health care, financial institutions, retailers and other industries:

**Cultivating relationships**

According to the American Bankers Association, millennials are the fastest-growing customer base and one that is changing the way banks do business (see Profile section on Kansas City–based NBKC Bank). This generation requires digital solutions to manage their money, and banks that offer digital services such as mobile payments, budgeting and wealth management tools are improving their engagement with millennial consumers and other generations. However, many traditional financial institutions are experiencing competition from financial technologies (fintech) such as mobile transaction apps. According to the analytics software company FICO, while fintech use is still somewhat low across the board, younger generations (those aged 18 to 34) are twice as likely to use mobile payments as those over 35, and more likely to start using mobile payments in the next 12 months.

To combat fraud and protect customers, a number of retailers and financial institutions are tracking visitors’ physical movements as they use websites and apps. Using sensors on phones or code on websites, the data points—known as behavioral biometrics—are collected and being used to prove that a digital customer actually is who he or she claims to be.

Some companies are implementing social media listening initiatives to monitor and enhance engagement and consumer confidence, allowing businesses to collect valuable data that is then integrated into its customer relationship management systems. This helps companies understand customer preferences and be more proactive about potential issues. Manufacturers, retailers and others are also using predictive analytics technology to remain agile and forecast appropriate inventory levels throughout the year to improve their ability to meet client demands.
Worldwide IT spending will reach $3.7 trillion in 2018, an increase of 6.2 percent from 2017, according to the research firm Gartner. Much of that spending will be focused on communications services (forecast is about $1.4 billion worldwide) followed by IT services ($1 billion). Gartner expects the highest percentage of growth (just over 11 percent) in enterprise software. Spending for devices such as PCs, tablets and mobile phones in 2018 is expected to grow worldwide, but at a somewhat slower pace than in 2017.

Depending on the industry, IT spending is at different stages of maturity:

The rising costs of health care can be attributable in large part to technology, according to analysis by The New York Times. The publication notes that technology innovation accounts for at least one-third—and as much as two-thirds—of per capita health care growth. Telemedicine—the telecommunications technology that allows for the remote diagnosis and treatment of patients—could help drive down the cost of health care as well as provide services to underserved areas. Interoperability, the ability of different computer systems to communicate with each other, allows health care providers to share medical records. Blockchain technology is one approach being considered to enable this type of communication.

In 2017, IT spending across state and local governments was estimated to top off at $101.3 billion, a 1.4 percent increase over 2016. In particular, tax dollars for technology expenditures were in the double digits for health and human services ($26.4 billion) and education ($23 billion).

As a glimpse at the future, retailers should note that an estimated 71 percent of digital purchases were mobile-based in 2017 in China. In 2016, consumers around the world spent more through card payments than with cash for the first time, setting the stage for an increase in more digital device-based payments. As inventory and supply chain management become increasingly important, retailers are turning to technology to look beyond historical analysis to anticipate changes in demand before they happen.

Automotive suppliers and OEMs are actively assessing acquisitions, driven primarily by the need to gain technologies. As technology converges with the car, the Silicon Valley solutions serving the infotainment and telematics market are expected to multiply. In-vehicle infotainment and connectivity standards are now the norm, rather than the exception, in automobile production.

On the other hand, the 2017 RSM Manufacturing Monitor noted that only about one-third of manufacturers will use technology to increase profitability; only a quarter plan to use new technologies to grow sales. But that may change. Distributed manufacturing—a form of decentralized manufacturing enabled by technology—could set the standard for production in the future. By using a network of designers, manufacturers and distributors, quality is prioritized over location for the entire life cycle of a product. In addition, 3D printing technologies help lower product development time, enhance design opportunities and reduce the costs of distribution.

Real estate companies are leveraging real-time data by combining internet of things and artificial intelligence technologies to develop sophisticated interconnected...
systems. Sensors are available to read utility usages in items from smart HVAC systems, elevators and lights—even down to the faucet level. These smart buildings allow for predictive analysis, leading to better preventative maintenance, and thereby reducing costs and increasing tenant satisfaction.

Real estate investors are using machine learning to expedite the initial deal due diligence period. When their algorithms find a deal that is favorable, it gets flagged for the analysts. The ability to leverage machine learning allows investors to evaluate many more deals than they could previously in their search for the hidden gems.

Data innovators are considering the development of a standardized machine “language” intended to enable machines to communicate more quickly than current methods requiring human language translation. This would allow hedge fund traders, for example, to develop analysis and formulate market-driven conclusions or trading strategies more quickly. Additionally, data collected from nontraditional sources such as navigation apps and weather services may provide alternative sources to supplement traditional data culled from public filers and industry surveys. This alternative data can enhance research for private equity and hedge fund companies by incorporating, for example, demographic information such as number of cars, foot traffic and the like to enable more accurate sales forecasts.

In the construction industry, new technologies such as building information modeling, radio–frequency identification, virtual design and construction, and cloud–based communications are transforming the jobsite. Yet the industry overall has been rather slow to adopt new technology—more than half of construction managers spend only 2 percent or less of their revenue on IT.²³
Creating opportunities
Consumers value streamlined convenience, information, easy comparison shopping and quick transactions once they’re ready to buy. Successful consumer products businesses are providing services such as mobile or online ordering with in-store pickup, easy returns and improved loyalty programs, as well as showroom and online experiences featuring artificial intelligence and virtual reality. Many companies are leveraging big data to mine targeted demographic information, maximize their omnichannel effectiveness, expand their reach with customers and better understand them.

Improving operations and engagement
Smart health care providers are linking multiple computer systems across the enterprise to exchange collected information. This allows patients’ electronic health records to be entered once but referenced endlessly, providing accurate care, quicker service and efficient billing. Some health care providers are also leveraging population health management studies to help prevent or predict community health concerns.

Many organizations are leveraging digital technology to increase communication and gather employee feedback. Common strategies include installing video boards to share office news and current events, creating surveys to gauge employee satisfaction and implementing internal social media platforms.

For some time now, mobility strategies have altered the traditional work environment, removing the need for the daily commute, the desktop PC and the conventional workweek, and transforming how employees work, when they work and where they work. Mobile tech is arguably the biggest enabler of the digital revolution.

The looming disruption is gaining the attention of private equity managers, who are increasingly investing in tech companies. Investment strategies include application software, IT services, hardware, office electronics and consumer electronics, among others. In the first five months of 2018, 16 of the 46 new fund launches, representing $6.7 billion or 30.1 percent of all assets deployed, were PE funds with tech investment strategies, continuing an upward trajectory of such investments. By the third quarter of 2018, there were more middle market funds with technology strategies than in all of 2017. It appears the middle market is using innovation as a way to propel investment returns, and managers are sensing market disruption in their respective ecosystems. With the emergence of artificial intelligence and automation in nearly all industries, PE firms recognize the inevitability that tech will transform business.

Technology investments require a commitment over the long term. “It’s not like you can just go flip the switch and you automatically gain the advantages,” says Steve Ems, leader of RSM US’s national business application practice. “It’s an investment of time, dollars and other resources. However, the derived benefits can be substantial.”
Are businesses just keeping up—or are they moving ahead?

In 1965, Gordon Moore, co-founder of Intel Corporation, observed that the number of transistors in a dense integrated circuit doubles about every two years. Since then, Moore’s Law, as the observation came to be known, seems an almost quaint—if not a conservative—estimate. That the speed and capability of computers can be expected to double every two years is now a given. What we do with the technology is less assured.

Nine of 10 executives polled in the RSM US Middle Market Business Index (MMBI) believe their organization’s capital investments and expenditures sufficient to meet current demand, raising concern that this view may reflect growing complacency. When it comes to business-level decisions on capital expenditures, perhaps the question that needs to be asked is: Are middle market businesses making only transitional decisions, or more thoughtful transformational ones to facilitate the ability to anticipate, adapt and drive downstream demand going forward?

How companies answer depends on their unique circumstances. In the MMBI survey, many participants noted that they were already investing in technology. These executives appear to understand that expanding or investing in technology is a strategy focused on long-term interests rather than short-term gain. Bill Kracunas, RSM US’s national management consulting leader, observes: “Every client I know is going through a digital transformation in every department.”

Expanding or investing in technology is a strategy focused on long-term interests rather than short-term gain.

What will be the tipping point for those companies still on the fence? Will a forcing mechanism challenge and eventually persuade them to innovate? A number of issues could change the way these businesses operate:
REGULATIONS: Keeping track of a changing tax environment can be difficult, particularly when a company has operations or sales in various states. With the 2018 Wayfair decision, the U.S. Supreme Court opened up the possibility for states to impose sales and use tax collection and remittance responsibilities on remote sellers based solely upon their economic presence in a state. Middle market companies should speak to their state tax advisors about the impact of Wayfair on their business. The implications for industries go well beyond retailers: Those companies that sell for resale or sell component parts for further processing are likely to see a significant increase in sales tax compliance obligations requiring additional time and expertise. The cost of the taxes may pale in comparison to the new technologies companies need to be able to comply with Wayfair. Moreover, companies may be unaware that their business activities with remote vendors may be creating nexus in some locations, allowing states to impose various state taxes. A robust, enterprise-wide technology platform would go a long way toward identifying exposure and ensuring compliance.

LABOR: Sustained levels of low U.S. unemployment make it difficult to attract and retain qualified workers, let alone keep up with demand for products and services. Companies need to take a range of actions to maintain and improve production, including investment in automation. “In an environment where qualified labor is becoming scarcer and more expensive, now appears to be an ideal time to make technology investments,” notes RSM US Chief Economist Joe Brusuelas. For some manufacturers of robotic equipment, business is good. But it will take a different mindset—and perhaps an updated business model—for some companies to incorporate innovative technology into their operations. “Data entry is starting to disappear, for employees, it’s becoming data analysis,” Kracunas says. “I think the work will be different and, if anything, I think digital transformation will actually create more work.” But training and technology investment will be mandatory.

CYBERSECURITY: The age of big data translates to even bigger risk for businesses of all sizes, but middle market companies are particularly vulnerable. Compared to just three years ago, significantly more middle market companies (13 percent versus 5 percent) contend they experienced data breaches, as noted in the RSM US Middle Market Business Index special report on cybersecurity. There is no one-size-fits-all approach to developing and implementing security controls to protect against incidents. But a sound cybersecurity management program—one that is supported by technology that protects, detects and corrects systems against any unauthorized access—is a business imperative. Too much is at stake to put a company’s resources and reputation at risk by leaving systems and data vulnerable to cyberattacks.

COMPETITION: In an increasingly competitive environment, innovation is a key differentiator for successful businesses and a significant driver of industry disruption. Retailers, for example, are investing in digital business transformation and IT modernization to enhance the consumer experience, and investments in the so-called internet of things, which connects everyday devices to technology, are expected to increase as well.

INDUSTRY: According to Gartner, the retail industry saw its highest growth in IT spending in 2017 in the industry’s efforts to engage consumers. Consumer-facing business functions are also behind the increased spending in machine-derived intelligence by the banking and securities industry, which is the No. 1 industry worldwide in IT spending. Manufacturing and natural resources are second; communications, media and services came in third. Governmental regulations and investments in analytics also are driving the growth IT spending in health care.
The private real estate sector will continue to use technology to analyze data and make informed decisions on where to build and invest.

**AGING INFRASTRUCTURE:** All technology reaches a point where it simply becomes more of a hindrance than a benefit. Older technology will eventually lose support from vendors, and as those platforms become less efficient, new solutions can provide a significant boost in productivity. When technology reaches end of life, it offers a critical opportunity for management executives to think about how they can gain an advantage over their competition. The objective is not only to replace what is at end of life, but to implement solutions that enable the company to leapfrog competitors that may still be using a suboptimal solution.

**Pragmatic Innovation**

Many organizations automatically equate technology advances with large investments, but taking steps toward digital transformation does not always carry a huge expense. For example, companies can leverage social media platforms to create groups that can gather unfiltered, targeted insights directly from customers or employees.

“IT’S GETTING HARDER AND HARDER TO FIND AREAS WHERE TECHNOLOGY DOESN’T APPLY,” OBSERVES JEFF JOHANNESEN, RSM US’S CHIEF STRATEGY AND INNOVATION OFFICER. “SUCCESSFUL BUSINESSES ARE ALWAYS THINKING ABOUT WHAT’S NEXT. AS SOON AS YOU GET COMPLACENT, YOU’RE AT GREATER RISK.”

“So even if you’re shoring up your balance sheet, or you’re giving back to your shareholders—and there are good reasons to be doing that—you will want to incorporate more tech as well,” he says.

A pragmatic approach to innovation can successfully identify transformational opportunities with a manageable financial commitment, a strategy that may be more attractive and workable for middle market companies. Organizations can implement several initiatives to increase innovation and enhance processes in a pragmatic manner, taking improvement actions that almost every company can implement. “In many cases, organizations already own technologies that are not being used to their full potential,” says Brusuelas.

As technology advances, many solutions are becoming more affordable for businesses of all sizes. For example, cloud computing has greatly reduced the upfront costs for implementing several applications that can greatly enhance key business processes.

Innovation stems from not just small, incremental improvements; rather, it requires significant changes that bring immediate differences to key stakeholders. Businesses must assess their technology frameworks and solutions regularly to provide clear value to internal and external customers. In any case, technology investment is becoming a business imperative. “The integration of advanced technology—big data, artificial intelligence and machine learning—is rapidly altering the nature and type of capital expenditures necessary to remain competitive,” says Brusuelas.

The window of opportunity provided by the TCJA is open for a limited time, and middle market companies would do well to take advantage of the capital investment opportunities it provides. Even if technology is not a primary concern, it should be a part of any strategic business plan. Leading companies know it is no longer enough to simply maintain the technological status quo.

“BUSINESS OWNERS ARE VERY THOUGHTFUL. A LOT OF MIDDLE MARKET COMPANIES ARE STILL TRYING TO FIGURE OUT HOW TO BE MORE INNOVATIVE AND HOW TO TAKE ADVANTAGE OF TECHNOLOGY IN THEIR BUSINESS,” SAYS JOHANNESEN.

“It’s a little bit like a hockey stick. It goes along and slowly trends upward. The early adopters go for it and they either prove or disprove the technology for everybody else. Then, all of a sudden, things come together and adoption shoots up at a very accelerated pace.”

“In many cases, organizations already own technologies that are not being used to their full potential.”
Community banks are not typically associated with risk-taking. But NBKC Bank, an RSM client located in Kansas City, has been defying the conservative stereotype since its inception 20 years ago, and winning additional business along the way.

By partnering with startups in need of a banking platform to process their transactions, the $700-million asset bank has developed a reputation for sponsoring leading-edge fintech startups in mortgage lending and related retail offerings.

“Our ownership group has always been entrepreneurial,” says Eric Garretson, NBKC’s CFO. “It’s always been in our DNA.”

The bank’s foray into fintech began in 2001 by investing in eSmartloan, a home equity loan originator. The startup helped boost NBKC’s returns and was bought by Capital One in 2005 for $145 million; the bank split the proceeds with the founders. Similar ventures followed: In 2014, the bank partnered with San Francisco–based Roostify, which offers fast online processing of mortgage paperwork. Most recently, NBKC invested $16 million in Atlanta-based Greenlight Technology Financial, which offers debit cards for children that parents can control from their mobile phones.

“We find financial technologies that are in need of a bank,” says Garretson, noting that early-stage businesses like working with a smaller bank that can make quick calls on strategy. He stipulates that investment candidates must fall within the bank’s primary service areas: lending, deposits and home mortgages.

An environment that fosters creative thinking has helped NBKC win accolades; local business media hailed NBKC as one of the best places to work in Kansas City. Its 320 employees wear jeans to work and enjoy game rooms on every floor, a putting–green room and an outdoor patio. The company brings in speakers each quarter to discuss trending topics.

The bank’s success with fintech has also fostered the creation of an internal business accelerator that aims to bring more startups to Kansas City. Garretson says it has received applications from ventures in 12 countries. NBKC will be the bank partner for participating ventures. “The culture has taken on a life of its own,” says Garretson.

Restaurateur Danny Meyer knows the value of hospitality—it’s the secret sauce behind the longstanding success of Union Square Hospitality Group, the New York–based restaurant group that counts well–known names such as Gramercy Tavern and The Modern under its fold.

Meyer, known as an industry innovator for moves such as eliminating tipping to level the playing field for employees at his restaurants, is fostering innovation through technology and smart strategies that improve ordering without sacrificing service.

“I think the way that you make people feel, what we call hospitality, is truly the differentiator,” he said in June on The Middle Market Transformative CEO radio show, a joint production of the CEO Forum Group and RSM US LLP.

The business dates to 1985 when then 27–year–old Meyer founded Union Square Cafe. It now comprises more than 15 restaurant concepts, as well as a thriving catering and events business. Shake Shack, the fast–casual burger chain touting fresh ingredients that Meyer founded in 2004, went public in 2015, and now operates more than 180 restaurants in the United States and internationally. Meyer is the company’s chairman.

Pianos crafted by New York–based Steinway & Sons remain the first choice of world–class musicians such as Mitsuko Uchida, Billy Joel and Diana Krall. Now the company wants them to be the first choice of everyday music aficionados as well.

Costing tens of thousands of dollars, Steinways are built by master artisans to last a lifetime. Faced with the challenge of limited repeat business, the 165–year–old company has been rolling out a new line of sophisticated player pianos, dubbed Spirio, that incorporates complex audio technology to precisely replicate performances given by master pianists, playing in real time or on demand.

“Innovation has always been at the core of Steinway & Sons,” Ron Losby, the company’s CEO, told The Middle Market Transformative CEO radio show, a joint production of The CEO Forum and RSM US LLP, in August. The New York–based business, founded by German immigrant Henry Engelhard Steinway in 1853, is responsible for creating the modern grand piano.

With development that began some 15 years ago in London, Steinway’s Spirio project—then called Astoria—was originally targeted at colleges and universities. Losby said the idea was to augment musical instruction by allowing students to hear playbacks of themselves as well as masters.
In an effort to contain labor costs in New York City, where minimum wage is set to reach $15 an hour, Shake Shack is experimenting with self-ordering kiosks at several restaurants, Meyer said. The move allows the company to reduce the number of overall positions during a shift by using fewer cashiers but adding a smaller number of more highly compensated maitre d’s who assist in the ordering process.

“This is as challenging of a labor market as I’ve ever seen in my entire career,” Meyer said, noting that the kiosks take orders flawlessly, and they “are pretty good at suggestive selling too.”

Meyer is also recruiting talent from populations his business never before considered by reaching out to a variety of schools, as well as groups that place formerly incarcerated individuals.

“We look for somebody who has got a high HQ, what we call a high hospitality quotient,” he said.

Meanwhile, at Vini e Fritti, USHG’s new Roman–style wine and aperitivi bar, the company is reducing labor costs with a process that calls for customers to check off their orders on sheets of paper at their tables; the sheets are then handed to servers. Meyer said this simple system cuts down on 20 percent of the labor that would have been required to take orders at the outset.

Choices such as this are carefully evaluated to ensure they don’t compromise service.

“We’re not interested in changing any of our full-service concepts to try to dumb down any of the hospitality or service or culinary experience,” he said. “It’s unlikely that you are going to see robots making pizza.”

Losby said that the new product line was so successful that demand outstripped supply in 2016 and 2017 following its launch. He considers this success a testament to Steinway’s ability to tap into a completely new audience for its products.

“We bring George Gershwin, Arthur Rubenstein and Thelonious Monk back to life,” Losby says.

Spirio is now working on new features such as two-way video to accompany playback features, allowing for remote instruction sessions that cater to students’ busy lifestyles.

Steinway favors social media over traditional advertising to reach would-be customers. Platforms such as We Chat have been critical in building brand recognition in China, Steinway’s fastest-growing market, where piano instruction is mandatory for all children and between 30 million and 50 million kids are estimated to study piano.

“This enables us to access customers that, frankly, I don’t know how else we would,” Losby says.

Despite technological innovation, Steinway remains committed to its tradition of expert craftsmanship. That’s one reason the company continues to manufacture pianos in the United States. With its largest factories in New York, the company maintains proximity to newly arrived immigrant groups, many from Eastern European countries that produce master woodworkers, Losby says.

“We have access to these immigrants, we train them, and that’s why Steinway has such a long history of having employees who serve 30, 40 years,” he says. “Being close to this labor market over the years has been one of our strategic advantages.”
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ABOUT THE RSM US MIDDLE MARKET BUSINESS INDEX RESEARCH

The RSM US Middle Market Business Index survey data in the second quarter of 2018 was gleaned from a panel of 700 executives (the RSM US Middle Market Leadership Council) recruited by The Harris Poll using a sample supplied by Dun & Bradstreet. All individuals qualified as full-time, executive-level decision-makers working across a broad range of industries, excluding public service administration; nonfinancial or financial services companies with annual revenues of $10 million to $1 billion; and financial institutions with assets under management of $250 million to $10 billion.

These panel members have been invited to participate in four surveys over the course of a year; the second quarter survey was conducted between April 12–30, 2018. The survey was completed by 402 executives. Potential middle market executives were emailed a link to an online survey. Follow-up calls were made to middle market executives who did not respond to the online survey; they were given the option to complete the survey via telephone. Data are weighted by industry.