NAM MANUFACTURERS' OUTLOOK SURVEY
FOURTH QUARTER 2016

December 7, 2016

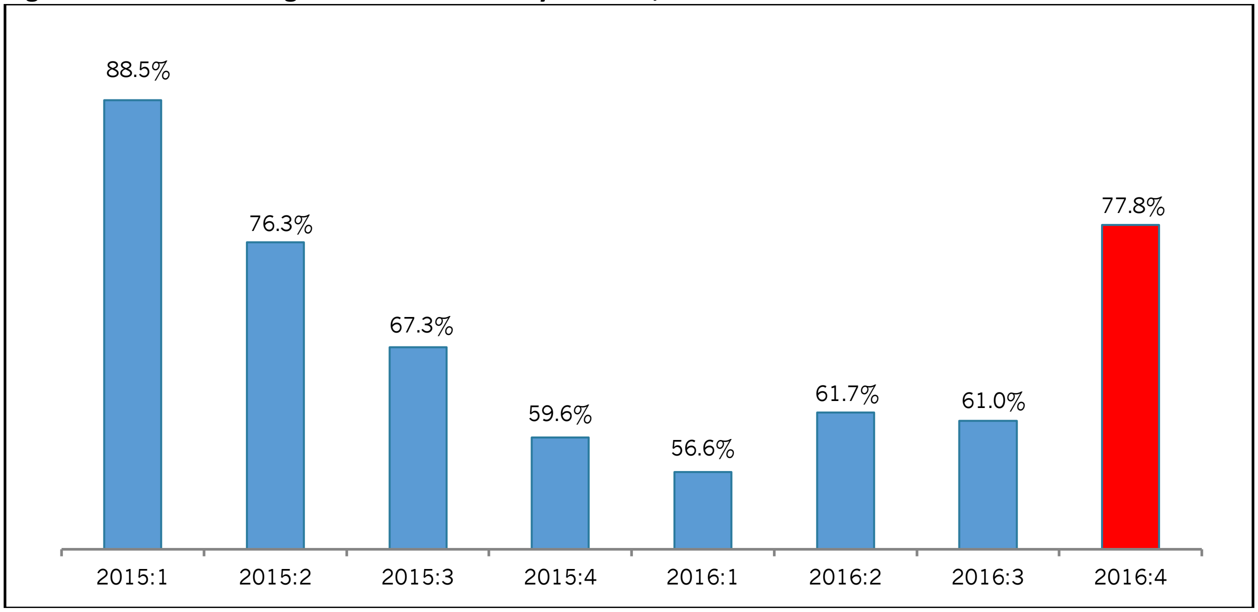
Percentage of Respondents Positive in Their Own Company's Outlook **77.8%** *(September: 61.0%)* Small Manufacturers: **69.6%** *(September: 48.7%)* Medium-Sized Manufacturers: **84.1%** *(September: 64.0%)* Large Manufacturers: **73.5%** *(September: 65.5%)*	**NAM Manufacturing Outlook Index** **53.3** *(June: 41.7 - revised)* **Expected Growth Rate for SALES Over the Next 12 Months** **↑ 3.0%** *(September: ↑1.9%)*
Expected Growth Rate for PRODUCTION Over the Next 12 Months **↑ 3.0%** *(September: ↑ 2.1%)*	**Expected Growth Rate for EXPORTS Over the Next 12 Months** **↑ 0.6%** *(September: ↑ 0.4%)*
Expected Growth Rate for CAPITAL INVESTMENTS Over the Next 12 Months **↑ 1.3%** *(September: ↑ 0.8%)*	**Expected Growth Rate for PRICES Over the Next 12 Months** **↑ 1.1%** *(September: ↑ 0.8%)*
Expected Growth Rate for FULL-TIME EMPLOYMENT Over the Next 12 Months **↑ 1.0%** *(September: ↑ 0.4%)*	**Expected Growth Rate for INVENTORIES Over the Next 12 Months** **↓ 0.1%** *(September: ↓ 0.7%)*
Expected Growth Rate for EMPLOYEE WAGES Over the Next 12 Months **↑ 1.7%** *(September: ↑ 1.7%)*	**Expected Growth Rate for HEALTH INSURANCE COSTS Over the Next 12 Months** **↑ 8.0%** *(September: ↑ 8.5%)*
"Do you think the United States is headed in the right direction, or is our country on the wrong track?" **RIGHT TRACK: 25.7% WRONG TRACK: 27.0% UNSURE: 47.3%** *(September: Right Track: 6.8%, Wrong Track: 76.6%, Unsure: 16.6%)*	

Summary

There is a sense of optimism in the air as we end 2016, especially since the election. Americans appear to be cautiously upbeat about growth moving forward, and equity markets have reached all-time highs, largely on a belief that the new administration will bring needed tax and regulatory reforms and a significant infrastructure package. At the same time, markets are also sensing that additional federal spending might bring about greater debt. Hence, the slumping bond market has sent yields up notably, even before the Federal Reserve raised interest rates in December. Likewise, the U.S. dollar has continued to strengthen, up more than 25 percent since June 2014 against major currencies, challenging manufacturers as they attempt to increase exports.

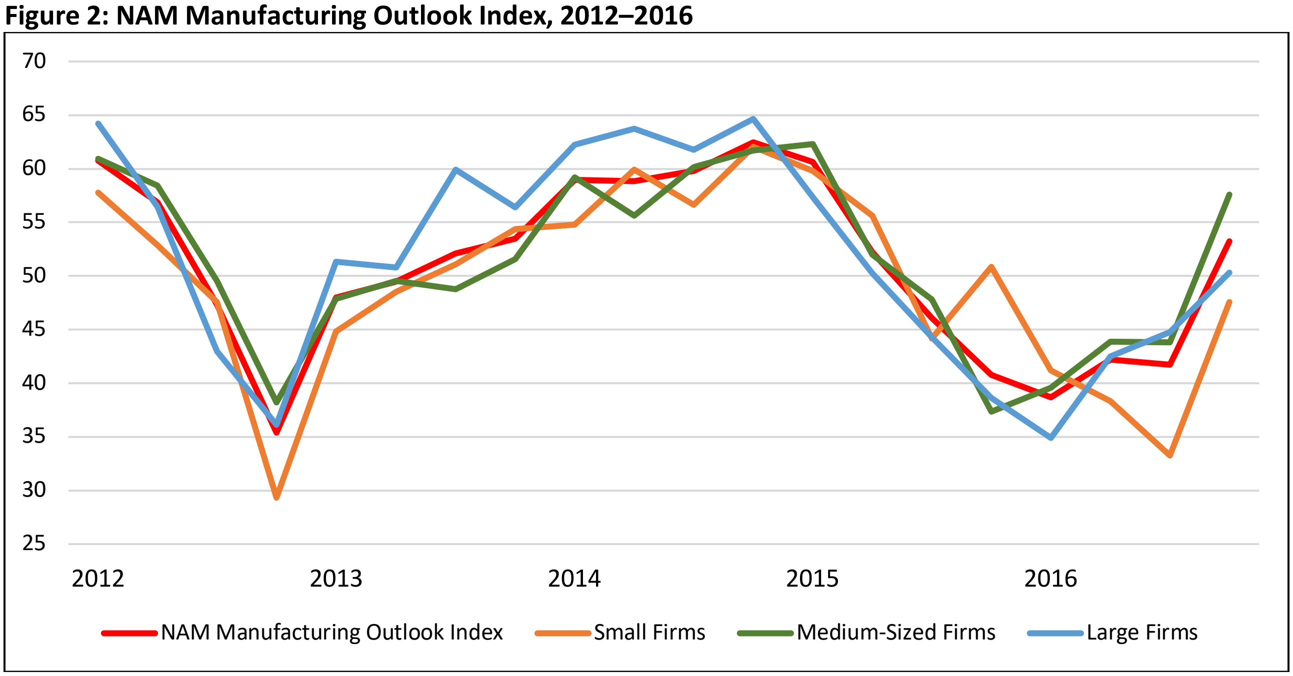
The strong dollar has been a major headwind to growth for manufacturers over the past two years, and as a result, production has been relatively stagnant over much of that time. U.S.-manufactured goods exports declined for the second straight year, as well, off 5.2 percent year-to-date through the third quarter. Nonetheless, there were signs of stabilization in the second half of 2016. Sentiment surveys have largely reported improved sentiment in recent months, with better demand and output data and modest growth.

Figure 1: Manufacturing Business Outlook by Quarter, 2015–2016



Note: Percentage of respondents who characterized the current business outlook as somewhat or very positive.

Figure 2: NAM Manufacturing Outlook Index, 2012–2016



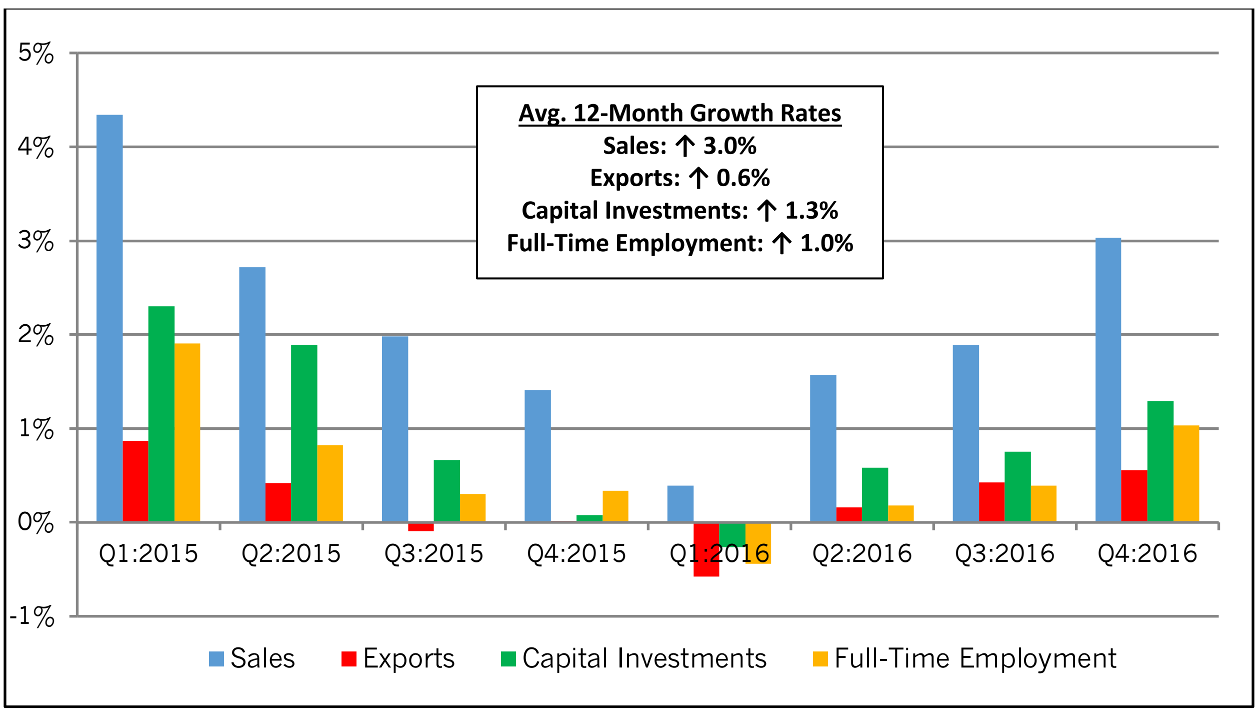
Source: National Association of Manufacturers.

This includes the NAM Manufacturers' Outlook Survey, with the percentage of respondents who are positive about their own company's performance at nearly a two-year high. Indeed, 77.8 percent of manufacturers are either somewhat or very positive about their own company's outlook in the latest survey, up from 61.0 percent in September (Figure 1). This was the highest level since the March 2015 survey and ended the five-quarter streak with this headline measure being below its historical average of 73.1 percent. As a result, the NAM Manufacturers' Outlook Index exceeded 50 – the threshold indicating the historic average – for the first time since the second quarter of 2015. The index rose from 41.7 to 53.2 in this release (Figure 2).

With that said, the outlook figure remains below its recent peak – achieved in December 2014 – of 91.2 percent of respondents being positive. As a reference, the NAM Manufacturers' Outlook Index stood at 62.5 in the fourth quarter of 2014 report. As such, it is clear that manufacturers remain somewhat cautious, even with some progress.

The answers to the question about whether the country is headed in the right direction serve as one piece of evidence that manufacturing leaders remain anxious, particularly in the aftermath of the election results. More manufacturers think that the country is headed in the right direction (up from 6.8 percent to 25.7 percent), which is encouraging. However, the "unsure" response jumped significantly (up from 16.6 percent to 47.3 percent), with many of those who might have marked "wrong track" (down from 76.6 percent to 27.0 percent) expressing a more-uncertain assessment of things. That will likely settle out in the coming months, particularly as the new Administration's plans take shape.

Figure 3: Expected Growth of Manufacturing Activity, 2015–2016



Note: Expected growth rates are annual averages.

As with previous surveys, firm size is one of the more important factors. In this latest survey, medium-sized manufacturers (e.g., those with between 50 and 499 employees) were the most upbeat, with 84.1 percent of those responding positive about their company's outlook. In comparison, small (e.g., those with less than 50 employees) and large (e.g., those with 500 or more employees) manufacturing leaders were less buoyant, with 69.6 percent and 73.5 percent positive in their outlook, respectively.

In terms of sales expectations, medium-sized businesses predict 3.8 percent sales growth over the next 12 months. This was followed by large firm respondents expecting 2.8 percent growth and small manufacturers seeing 1.5 percent gains in demand. As a whole, manufacturers completing the latest survey anticipated 3.0 percent growth in sales over the next year, up from 1.9 percent in September. To illustrate this shift since the last survey, the percentage feeling that sales would increase by at least 5 percent over the next 12 months grew from 26.6 percent in the third quarter to 36.2 percent in this release. This trend carried through to production data, as well. Production was also seen expanding by 3.0 percent in the current survey, up from 2.1 percent earlier. As with sales, medium-sized firms were the most optimistic, expecting 3.8 percent growth in demand, with small and large businesses forecasting 2.2 percent growth on average.

In addition, one's capital investment plans tended to increase with size. Smaller entities expected capital spending to decline by 0.1 percent in the next year; whereas, medium-sized and large manufacturers predicted capital investment growth of 1.7 percent and 1.0 percent, respectively. To help explain that result, 21.3 of the smallest respondents said that capital spending would increase in the next 12 months, with 66.0 percent noting no change. In contrast, 42.7 percent of medium-sized firms predicted capital spending growth, with an equal proportion expecting spending levels to stay the same.

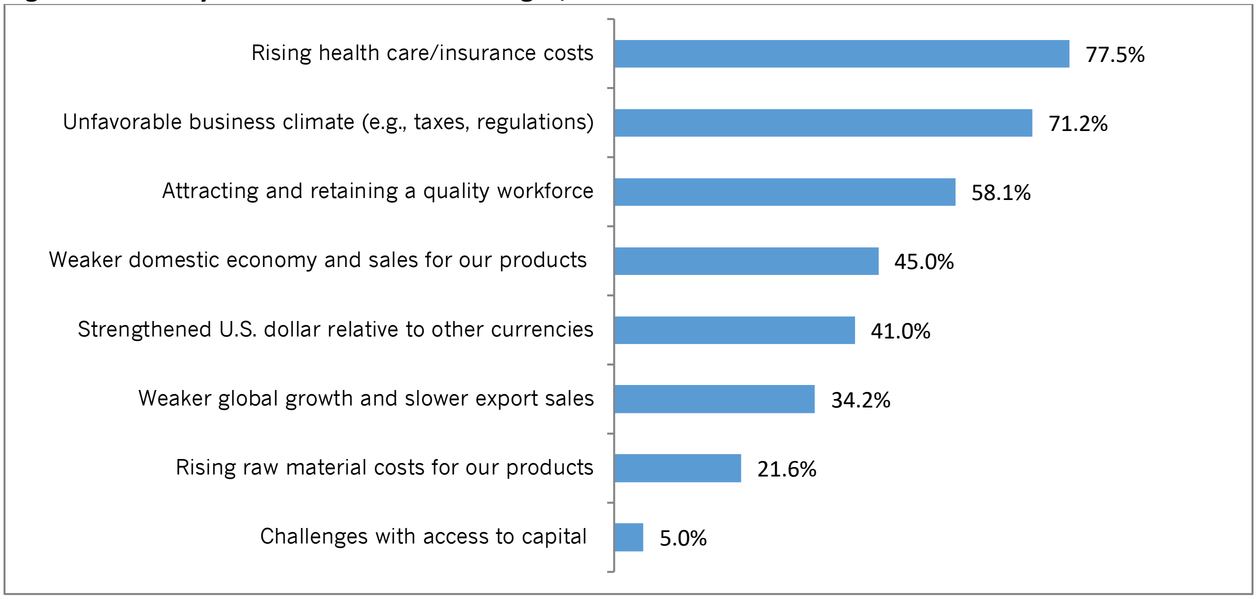
One of the other outlook determinants in this and prior surveys is trade. Of those companies anticipating increased exports over the next 12 months, 90.6 percent are positive in their outlook in this survey. In contrast, the positive outlook of respondents expecting their imports to remain the same fell to 77.0 percent; only 36.8 percent have a positive outlook among those predicting decreased exports over the next year. Overall, respondents expect exports to increase 0.6 percent over the next 12 months, up from a gain of 0.4 percent in the prior survey.

With a pickup in demand, businesses are somewhat more comfortable in their hiring plans, according to this survey. Full-time employment levels are expected to grow 1.0 percent over the next year, an improvement of 0.4 percent from what was seen in the prior release. Of those responding to the survey, 37.8 percent predict more employment in the next 12 months, with roughly half expecting no growth. Small and large manufacturers anticipate half of the growth in employment over the next year, 0.7 percent, as their medium-sized counterparts, 1.4 percent.

Meanwhile, manufacturers expect their inventories to edge down 0.1 percent over the next 12 months, declining for the seventh straight quarter. In this survey, 27.0 percent anticipate declining inventory stocks, with 45.0 percent predicting no change. There is, however, a silver lining from this decline. If demand picks up significantly, manufacturing output would have to accelerate substantially to match the increased sales.

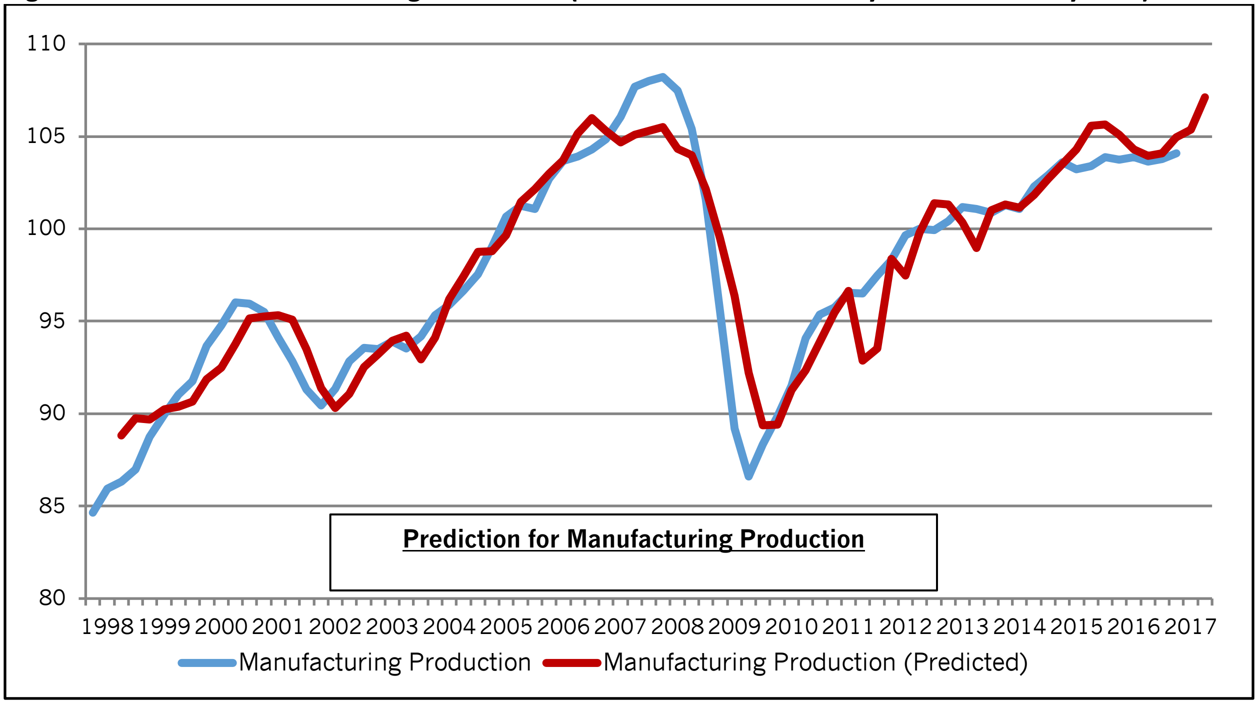
Rising health insurance cost were once again cited as major concern, noted by 77.5 percent of the manufacturers completing the survey as their top business challenge (Figure 4). They see these costs increasing 8.0 percent over the next 12 months. More specifically, 73.8 percent expect their premiums to increase by at least 5 percent on average in the next year, with 35.1 percent predicting costs to rise by at least 10 percent. Small and medium-sized firms anticipate premiums to jump faster in the next year than large manufacturers do, at 9.0 percent and 6.7 percent, respectively.

Figure 4: Primary Current Business Challenges, Fourth Quarter 2016



Note: Respondents were able to check more than one response; therefore, responses exceed 100 percent.

Figure 5: Predicted Manufacturing Production (North American Industry Classification System)



Note: Industrial production is predicted two quarters in advance by regressing NAM Manufacturers' Outlook Survey data as one of the independent variables, with data stretching back to Q4:1997. Other explanatory variables include current values for housing permits, the interest rate spread, personal consumption and the S&P 500.

Respondents also listed an unfavorable business climate as a top worry, with 71.2 percent noting it as a primary challenge, right behind health care costs. Indeed, manufacturers continue to be frustrated with the lack of comprehensive tax reform and with a perceived regulatory assault on their businesses. In addition, manufacturing leaders note ongoing challenges with attracting and retaining a quality workforce, mentioned by 58.1 percent of respondents in this survey.

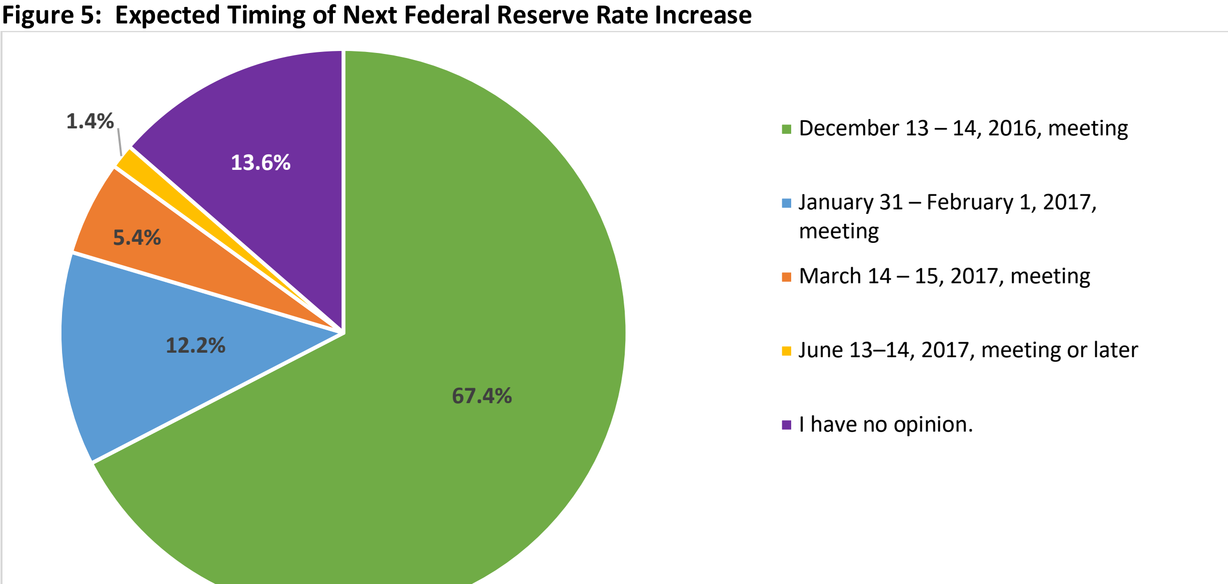
The current data suggest that manufacturing production should grow 3.0 percent year-over-year in the second quarter of 2017 (Figure 5). As such, it would indicate that activity should continue to pick up in the coming months, with output in the sector currently growing at a relatively stagnant pace. This finding comes from a regression model that explains more than 90 percent of the variation in manufacturing production since the NAM Manufacturers' Outlook Survey began in the fourth quarter of 1997. In addition to the business outlook figure from this survey, the model includes current values for housing permits, the interest rate spread, personal consumption and the S&P 500.

Special Questions

Monetary Policy

The Federal Open Market Committee (FOMC) of the Federal Reserve increased short-term interest rates at its December 15 – 16, 2015, meeting, and committee members have expressed a desire to continue the process toward normalization, perhaps as soon as its December meeting. The timing of this increase has been one of the larger conversations among business leaders and economists since the last rate hike. More importantly, it is worth noting that the number of increases in the federal funds rate has whittled down from an expectation of four at the beginning of the year to likely just one now – a more-dovish stance that speaks to ongoing challenges despite some economic progress.

Figure 5: Expected Timing of Next Federal Reserve Rate Increase



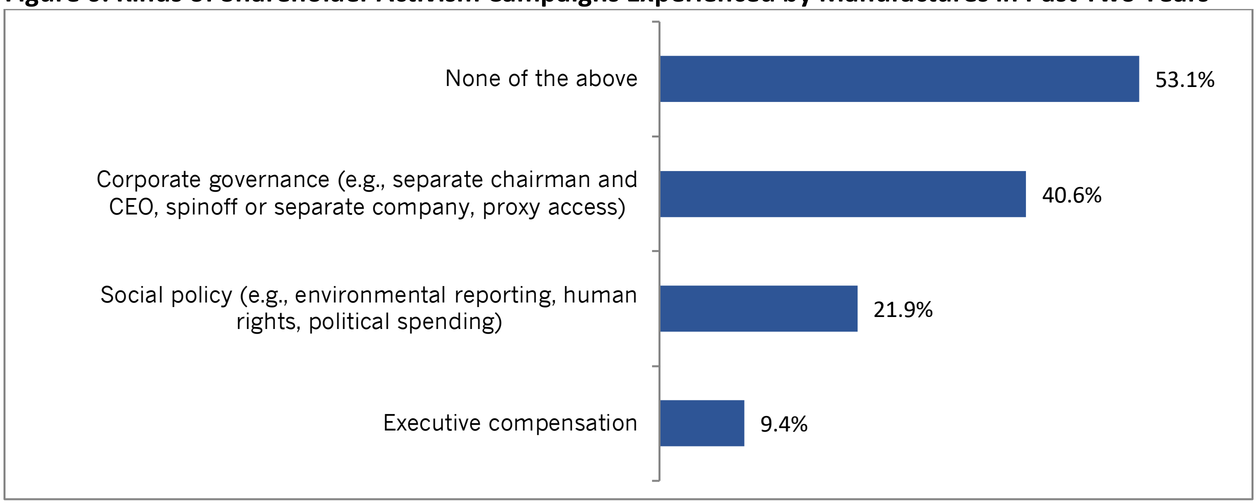
Note: *No one selected the May 2–3, 2017, meeting.*

We asked manufacturers when they thought the FOMC would next hike rates, and 67.4 percent of them said that the Federal Reserve would act at its December 13 – 14 meeting (Figure 5). In addition, 17.6 percent felt that the increased in the federal funds rate would occur in the first quarter of next year, with 13.6 percent having no opinion.

Shareholder Activism

Shareholder activism has gained a lot of attention lately, with reports suggesting that it is on the rise. We wanted to get a better sense of the size and scope of this issue. Of those completing the latest survey, 14.5 percent identified themselves as working for a public company, and for that group, 37.4 percent said that shareholder activism had increased at their company over the past two years. Digging a little deeper, those individuals said that the following campaigns were launched against them in the past couple years (Figure 6): corporate governance (40.6 percent), social policy (21.9 percent) and executive compensation (9.4 percent).

Figure 6: Kinds of Shareholder Activism Campaigns Experienced by Manufactures in Past Two Years



Note: Respondents were able to check more than one response; therefore, responses exceed 100 percent.

Infrastructure

One area where there was political agreement before the election was the critical need to address the deficiencies in our infrastructure. The President-elect has made infrastructure investment a priority, and the NAM has outlined our blueprint for how we can repair our roads, bridges, rail, airports, ports, waterways and energy infrastructure in our Building to Win proposal.

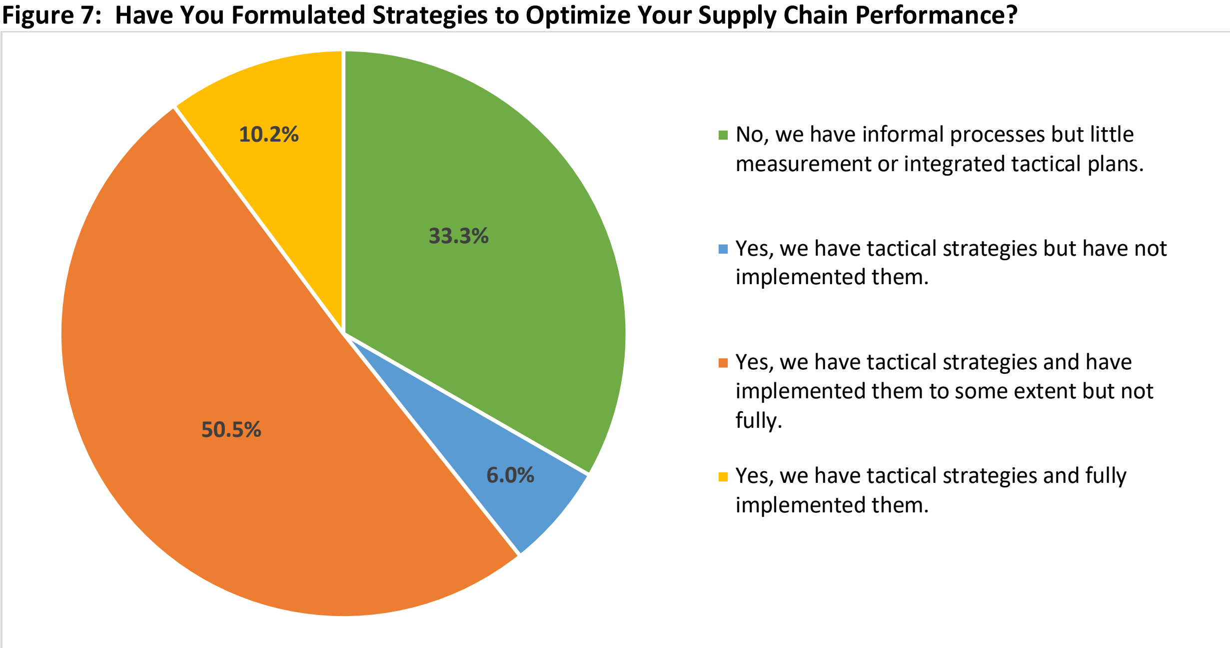
With that in mind, we asked those taking the latest survey about the current state of infrastructure in their region. Just over 71 percent felt that their regional infrastructure did not position them to best respond to the competitive demands of a growing economy over the next 10 to 15 years, with 13.8 percent suggesting that that it did. The remainder were unsure. Expanding that thought further, 97.8 percent of respondents agreed that an efficient infrastructure system reduces transportation bottlenecks and costs to get products to market as well as congestion that can disrupt a supply chain and shut down a shop floor in manufacturing today, with 37.2 percent strongly agreeing with that statement.

Meanwhile, 49.1 percent of manufacturers said that recent controversies over permits for energy projects has impacted their confidence in the nation's ability to build new infrastructure. In addition, 31.2 percent noted that those controversies had not had an impact, with roughly one-fifth of respondents uncertain.

Supply Chain Management

Manufacturers have focused a lot of attention of late on supply chain management. Such activities help to improve overall efficiency, to reduce redundancies globally and to hopefully lift quality standards operationally and for the products that are produced. In addition, smart efforts in supply chain management should also improve both profit margins and customer satisfaction, if done right. We wanted to find out what strategies manufacturers have already put into place. Encouragingly, two-thirds of respondents to this survey said that they had tactical strategies in place to optimize their supply chain performance (Figure 6). Yet, it was clear that there was a lot of room for those strategies to be improved. Just 10.2 percent felt that their supply chain management strategies had been fully implemented, with essentially half suggesting that their strategies had not been fully implemented even though they did have a plan.

Figure 7: Have You Formulated Strategies to Optimize Your Supply Chain Performance?



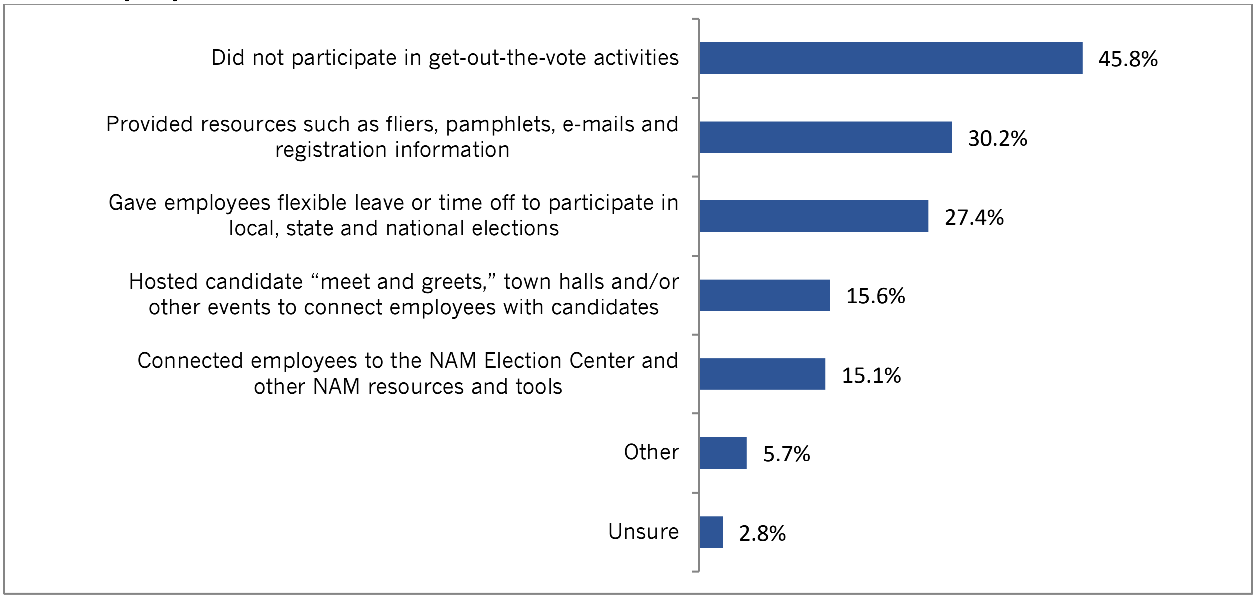
Get-Out-the-Vote Efforts

With the 2016 election season behind us, we wanted to assess how manufacturers utilized get-out-the-vote (GOTV) efforts to help promote pro-manufacturing candidates in this cycle. For its part, the NAM set up an Election Center, which was designed with input from our members and offers resources designed to make it easy to participate in get-out-the-vote (GOTV) activities. The intent was for manufactures to use this resource to educate their workforce on the policy issues that matter to their company's success.

As the NAM's political programs have grown, we are constantly looking for feedback from our members on how they utilize our GOTV programs so that we can continue to make our resources as useful as possible. To that end, we asked our members about these initiatives, and it is clear there is a lot of work to do to get manufacturers to be more fully engaged in the election process with their employees.

Of those answering the survey, 45.6 percent did not participate in GOTV activities with their workforce, with 2.8 percent unsure (Figure 8). Of those companies that did engage, 30.2 percent distributed resources such as flyers, pamphlets, e-mails and registration information, with 27.4 percent providing flexible leave or time off to participate in elections. In addition, 15.6 percent hosted "meet and greets" with candidates, and 15.1 percent utilized the NAM Election Center and other NAM resources and tools. There were also 5.7 percent who checked "Other" on this question, and their responses mostly entailed encouraging their employees to vote, with many holding frequent all-employee meetings about the state of the business (including issues that might impact them).

Figure 8: What Are You Doing to Promote GOTV Efforts, Education and Participation for Employees at Your Company?



Note: *Respondents were able to check more than one response. Therefore, responses exceed 100 percent.*

<u>Note</u>

This survey has been conducted quarterly since 1997, with the NAM's membership submitting this quarter's responses from November 17 to November 30. In total, 224 manufacturers from all parts of the country, in a wide variety of manufacturing sectors and in varying size classifications responded this quarter. Aggregated survey responses appear below. The next survey is expected to be released on Wednesday, March 8, 2017.

Survey Responses

1. How would you characterize the business outlook for your firm right now?
    a. Very positive – 13.1%
    b. Somewhat positive – 64.7%
    c. Somewhat negative – 18.1%
    d. Very negative – 4.1%

    Percentage that is either somewhat or very positive in their outlook = 77.8%

2. Over the next year, what do you expect to happen with your company's overall sales?
    a. Increase more than 10 percent – 8.1%
    b. Increase 5 to 10 percent – 28.1%
    c. Increase up to 5 percent – 33.0%
    d. Stay about the same – 19.5%
    e. Decrease up to 5 percent – 4.5%
    f. Decrease 5 to 10 percent – 3.2%
    g. Decrease more than 10 percent – 3.6%

    Average expected increase in sales consistent with these responses = 3.0%

3. Over the next year, what do you expect to happen with your company's overall production levels?
    a. Increase more than 10 percent – 9.0%
    b. Increase 5 to 10 percent – 24.0%
    c. Increase up to 5 percent – 34.8%
    d. Stay about the same – 22.2%
    e. Decrease up to 5 percent – 4.5%
    f. Decrease 5 to 10 percent – 1.8%
    g. Decrease more than 10 percent – 3.6%

    Average expected increase in production consistent with these responses = 3.0%

4. Over the next year, what do you expect to happen with the level of exports from your company?
    a. Increase more than 5 percent – 5.5%
    b. Increase 3 to 5 percent – 7.8%
    c. Increase up to 3 percent – 16.5%
    d. Stay about the same – 61.5%
    e. Decrease up to 3 percent – 3.7%
    f. Decrease 3 to 5 percent – 2.8%
    g. Decrease more than 5 percent – 2.3%

    Average expected increase in exports consistent with these responses = 0.6%

5. Over the next year, what do you expect to happen with prices on your company's overall product line?
    a. Increase more than 10 percent – 1.4%
    b. Increase 5 to 10 percent – 4.5%
    c. Increase up to 5 percent – 35.7%
    d. Stay about the same – 50.7%
    e. Decrease up to 5 percent – 5.9%
    f. Decrease 5 to 10 percent – 0.9%
    g. Decrease more than 10 percent – 0.9%

Average expected increase in prices consistent with these responses = 1.1%

6. Over the next year, what are your company's capital investment plans?
   a. Increase more than 10 percent – 10.9%
   b. Increase 5 to 10 percent – 10.0%
   c. Increase up to 5 percent – 17.6%
   d. Stay about the same – 46.2%
   e. Decrease up to 5 percent – 6.3%
   f. Decrease 5 to 10 percent – 2.7%
   g. Decrease more than 10 percent – 6.3%

   Average expected increase in capital investments consistent with these responses = 1.3%

7. Over the next year, what are your inventory plans?
   a. Increase more than 10 percent – 0.9%
   b. Increase 5 to 10 percent – 9.9%
   c. Increase up to 5 percent – 16.2%
   d. Stay about the same – 45.0%
   e. Decrease up to 5 percent – 18.5%
   f. Decrease 5 to 10 percent – 5.0%
   g. Decrease more than 10 percent – 4.5%

   Average expected increase in inventories consistent with these responses = –0.1%

8. Over the next year, what do you expect in terms of full-time employment in your company?
   a. Increase more than 10 percent – 1.4%
   b. Increase 5 to 10 percent – 10.0%
   c. Increase up to 5 percent – 26.4%
   d. Stay about the same – 50.5%
   e. Decrease up to 5 percent – 8.2%
   f. Decrease 5 to 10 percent – 1.8%
   g. Decrease more than 10 percent – 1.8%

   Average expected increase in full-time employment consistent with these responses = 1.0%

9. Over the next year, what do you expect to happen to employee wages (excluding nonwage compensation, such as benefits) in your company?
   a. Increase more than 5 percent – 2.7%
   b. Increase 3 to 5 percent – 18.0%
   c. Increase up to 3 percent – 61.7%
   d. Stay about the same – 15.8%
   e. Decrease up to 3 percent – 0.9%
   f. Decrease 3 to 5 percent – 0.5%
   g. Decrease more than 5 percent – 0.5%

   Average expected increase in employee wages consistent with these responses = 1.7%

10. Over the next year, what do you expect to happen to health insurance costs for your company?
    a. Increase 15.0 percent or more – 13.5%
    b. Increase 10.0 to 14.9 percent – 21.6%
    c. Increase 5.0 to 9.9 percent – 38.7%
    d. Increase less than 5.0 percent – 16.7%

   e. No change – 6.8%
   f. Decrease less than 5.0 percent – 0.5%
   g. Decrease 5.0 percent or more – *none*
   h. Uncertain – 2.3%

   Average expected increase in health insurance costs consistent with these responses = 8.0%

11. Do you think the United States is headed in the right direction, or is our country on the wrong track?
    a. Right direction – 25.7%
    b. Wrong track – 27.0%
    c. Unsure – 47.3%

12. What are the biggest challenges you are facing right now? (Check all that apply.)
    a. Weaker domestic economy and sales for our products to U.S. customers – 45.0%
    b. Weaker global growth and slower export sales – 34.2%
    c. Strengthened U.S. dollar relative to other currencies – 41.0%
    d. Challenges with access to capital or other forms of financing – 5.0%
    e. Unfavorable business climate (e.g., taxes, regulations) – 71.2%
    f. Increased raw material costs – 21.6%
    g. Rising health care/insurance costs – 77.5%
    h. Attracting and retaining a quality workforce – 58.1%

13. What is your company's primary industrial classification?
    a. Chemicals – 6.8%
    b. Computer and electronic products – 2.3%
    c. Electrical equipment and appliances – 4.5%
    d. Fabricated metal products – 29.7%
    e. Food manufacturing – 2.3%
    f. Furniture and related products – 2.3%
    g. Machinery – 12.6%
    h. Nonmetallic mineral products – 2.7%
    i. Paper and paper products – 2.7%
    j. Petroleum and coal products – 0.9%
    k. Plastics and rubber products – 5.9%
    l. Primary metals – 5.0%
    m. Transportation equipment – 4.5%
    n. Wood products – 4.1%
    o. Other – 14.0%

14. What is your firm size (e.g., the parent company, not your establishment)?
    a. Fewer than 50 employees – 21.2%
    b. 50 to 499 employees – 48.2%
    c. 500 or more employees – 30.6%

<u>SPECIAL QUESTIONS</u>

Monetary Policy

The Federal Open Market Committee (FOMC) of the Federal Reserve increased short-term interest rates at its December 2015 meeting, and committee members have expressed a desire to continue the process toward normalization, perhaps as soon as December.

15. When do you think the Federal Open Market Committee will act next to hike rates?
    a. December 13–14 meeting – 67.4%
    b. January 31 – February 1, 2017, meeting – 12.2%
    c. March 14–15, 2017, meeting – 5.4%
    d. May 2–3, 2017, meeting - *none*
    e. June 13–14, 2017, meeting or later – 1.4%
    f. I have no opinion – 13.6%

Shareholder Activism

16. How is your company structured?
    a. Public company – 14.5%
    b. Privatively held S corporation, LLC, partnership, etc. – 54.5%
    c. Privately held C corporation – 30.9%

17. Please answer only if you answered (a) to question 16. According to reports, shareholder activism is on the rise. How much has shareholder activism increased for your company over the past two years?
    a. No change – 62.5%
    b. Shareholder activism has increased slightly – 31.3%
    c. Shareholder activism doubled – 6.3%
    d. Shareholder activism tripled - *none*

18. Please answer only if you answered (a) to question 16. What kinds of shareholder activism campaigns has your company experienced over the past few years? *(Check all that apply.)*
    a. Corporate governance (e.g., separate chairman and CEO, spinoff or separate company, proxy access) – 40.6%
    b. Executive compensation – 9.4%
    c. Social policy (e.g., environmental reporting, human rights, political spending) – 21.9%
    d. None of the above – 53.1%

Infrastructure

19. Do you believe that the current state of our U.S. infrastructure, and especially infrastructure in your region, is positioned to respond to the competitive demands of a growing economy over the next 10–15 years?
    a. Yes – 13.8%
    b. No – 71.1%
    c. Unsure – 15.1%

20. In manufacturing today, an efficient infrastructure system reduces transportation bottlenecks and costs to get products to market as well as congestion that can disrupt a supply chain and shut down a shop floor.
    a. Strongly agree – 37.2%
    b. Agree – 60.6%
    c. Disagree – 0.5%
    d. Strongly disagree - *none*
    e. Unsure/no opinion – 1.8%

21. Have recent controversies over permits for energy projects impacted your confidence in our ability to build new infrastructure?
    a. Yes – 49.1%
    b. No – 31.2%
    c. Unsure – 19.7%

Supply Chain Management

22. Have you formulated strategies to optimize your supply chain performance?
    a. No, we have informal processes but little measurement or integrated tactical plans – 33.3%
    b. Yes, we have tactical strategies but have not implemented them – 6.0%
    c. Yes, we have tactical strategies and have implemented them to some extent but not fully – 50.5%
    d. Yes, we have tactical strategies and fully implemented them – 10.2%

Get-Out-the-Vote Efforts

23. What did your company do to promote get-out-the-vote efforts, education and participation for employees at your company? (Check all that apply.)
    a. Provided resources such as fliers, pamphlets, e-mails and registration information – 30.2%
    b. Connected employees to the NAM Election Center and other NAM resources and tools – 15.1%
    c. Hosted candidate "meet and greets," town halls and/or other events to connect employees with candidates – 15.6%
    d. Gave employees flexible leave or time off to participate in local, state and national elections – 27.4%
    e. Did not participate in get-out-the-vote activities – 45.8%
    f. Other – 5.7%
    g. Unsure – 2.8%