Assessing the industrial ventilation opportunity

- Although the market remains strong, there are signs of cooling overall and decline in some segments
- Manufacturing construction is positioned to outperform the overall market over the next several years
- Industry trends and conditions will continue to drive demand for ventilation services
- Industrial ventilation is worthy of consideration from a diversification perspective, as it may prove counter cyclical
- At $2.5B in annual spending and projected growth of 30% over the next 5 years, this could represent 12.5-15 million labor hours
What does the economy suggest?

Given the recent predictive flags raised, timing suggests a high-risk economic climate of landing into a recession as early as Q4 2019 and as late as Q1 2022.

- Yield Curve Inversion
- Money Supply
- New Home Sales
- Unemployment Rate
- Months Supply of Homes
- U.S. Trade Balance (BOP % Change)
- Lumber Sales
- MBS Held by Banks
- Copper Price (Doctor Copper)
- Rental Vacancy Rates
- Residential CPI
- Stock Market Performance
- Consumer Confidence (OECD)
- Heavy Duty Truck Sales
- Manufactured Goods, New Orders
- U.S. Trade Balance (Values)
- Unemployment Claims

Prediction Strength:
- > 50%
- 50%
- < 50%

Predictive Flag Raised:
- 2019
- 2020
- 2021
- 2022

High Risk Assessment
Moderate Risk Assessment
Low Risk Assessment
Optimism or cause for concern?

Let’s see what our peers think

FMI Nonresidential Construction Index (NRCI) 51.9 (Q3 2019)

AIA Architecture Billings Index (ABI) 49.1 (June 2019)
Industrial demand drivers

_strength of the market bodes well for manufacturing_

**US Index of Consumer Sentiment**

**US Unemployment Rate**
No expansion dies of an old age...

But momentum is sometimes hard to maintain

Total US Industrial Construction Spending Put in Place
US; Billions of current dollars
Source: FMI Q3 2019 forecast

1993-2018 trendline
Opportunity depends on where you sit
High growth sub-segments

Bio/ Pharma

Cold storage

Paper/ Packaging

LNG
Recession proof?
How different segments performed from 2006-2011

2006-2011 Percent Change in Construction Spending Put in Place
FMI Q3 2019 Forecast
Activity concentrates in fewer markets
Industrial ventilation market

Industrial ventilation spending (US); Installed and maintained
Billions of current dollars

- 2008: $1.50 (increase +67%)
- 2018: $2.50 (increase +30%)
- 2023: $3.25
Industrial ventilation drivers

Macro drivers
- Environmental consciousness/protection
- Occupant health and productivity
- Increasing energy demand
- Population growth/urbanization

Industry drivers
- Stricter regulations/compliance
- High performance and energy efficient facilities
- Industrial expansion
- Aging building stock
Venture capital invests almost $1 billion in construction tech

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New construction vs. existing stock

- New construction, 40%
- Existing stock, 60%
Required skills sets

- Rigging & hoisting
- Sheet metal and steel fabrication
- Advanced HVAC equipment courses
- Welding training
- Certification training
- Two-year technical degrees
- TAB certification
- Mechanical industry experience
- Airflow design application
- Mathematical and mechanical background
Capital equipment requirements

- Forklifts
- Cranes and man lifts
- Rigging equipment
- Welding equipment
- Plasma table
- Plasma table software
- Flow hoods
- Velometer
- Particle counters
Percent of work performed by union and non-union labor

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<th>Year</th>
<th>Union</th>
<th>Non-union</th>
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<tr>
<td>2008</td>
<td>35%</td>
<td>65%</td>
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<tr>
<td>2019</td>
<td>33%</td>
<td>67%</td>
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Union representation

*Holding roughly steady*
## Potential labor hours

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<th>Description</th>
<th>Value</th>
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<tr>
<td>Estimated industrial ventilation spending (2018)</td>
<td>$2,500M</td>
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<td>Approximate field and shop labor wages as a percent of spending (fully burdened)</td>
<td>40%</td>
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<tr>
<td>Industrial ventilation services hourly wage range (fully burdened)</td>
<td>$65- $80</td>
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<tr>
<td>Potential industrial ventilation field and shop labor hours</td>
<td>12.5- 15M</td>
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Questions and concluding thoughts

• How exposed are you to the next recession?
• Now is the time to begin making your Plan B
• Industrial facility and infrastructure investment, and particularly ventilation, looks promising
• Determine if this is an opportunity for you (consider location, type of owners, investment requirements)
• Execute your plan sooner rather than later
Thank you!

Jay Bowman
FMI Corporation
919.785.9336
jbowman@fminet.com