I. Latest Motion Control Statistics
II. Looking Ahead to 2015
III. Economy & Current Events
IV. Conclusion
## 2014 Motion Statistics

### MCA Reported Orders and Shipments in $ Billions (USD)

<table>
<thead>
<tr>
<th>Year</th>
<th>Orders</th>
<th>Shipments</th>
<th>% North American</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>$1.53</td>
<td>$1.85</td>
<td>70.5%</td>
</tr>
<tr>
<td>2010</td>
<td>$2.05</td>
<td>$2.31</td>
<td>74.2%</td>
</tr>
<tr>
<td>2011</td>
<td>$2.60</td>
<td>$2.94</td>
<td>73.9%</td>
</tr>
<tr>
<td>2012</td>
<td>$2.55</td>
<td>$2.93</td>
<td>74.4%</td>
</tr>
<tr>
<td>2013</td>
<td>$2.40</td>
<td>$2.80</td>
<td>76.1%</td>
</tr>
<tr>
<td>2014*</td>
<td>$2.65</td>
<td>$3.08</td>
<td>77.5%</td>
</tr>
</tbody>
</table>

NOTE: Orders and Shipments are different primarily because more MCA participating companies supply shipment data than order data for 2009 to 2014.

### MCA Year-Over-Year Real Growth Rates (in Percent)

<table>
<thead>
<tr>
<th>Year</th>
<th>Orders</th>
<th>Shipments</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>-32.8%</td>
<td>-30.3%</td>
<td></td>
</tr>
<tr>
<td>2010</td>
<td>29.8%</td>
<td>23.4%</td>
<td></td>
</tr>
<tr>
<td>2011</td>
<td>19.0%</td>
<td>22.3%</td>
<td></td>
</tr>
<tr>
<td>2012</td>
<td>-3.4%</td>
<td>-1.0%</td>
<td></td>
</tr>
<tr>
<td>2013</td>
<td>-5.8%</td>
<td>-4.7%</td>
<td></td>
</tr>
<tr>
<td>2014*</td>
<td>9.8%</td>
<td>10.2%</td>
<td></td>
</tr>
</tbody>
</table>

*Projected
2014 Motion Statistics

Estimated Regional Markets – 2014 – (Billions $)

North America  Asia Pacific  Europe  Japan
2014 Motion Statistics

Average Growth Since the First Quarter of 2010

- Electronic Drives
- Motors
- Support Services
- AC Drives
- Actuators & Mech. Systems
- Motion Controllers
- AC Motors
- Sensors & Feedback Dev.
- Other Ancillary Components

0.0% 10.0% 20.0% 30.0% 40.0% 50.0%
2014 Motion Statistics

Relative Category Shares - 2014

- Motion Controllers
- Electronic Drives
- AC Drives
- Motors
- AC Motors
- Actuators & Mech. Systems
- Sensors & Feedback Dev.
- Other Ancillary Components
- Support Services
2014 Motion Statistics

Motion Controllers – Orders & Shipments – 2010 to 2014

<table>
<thead>
<tr>
<th>Orders</th>
<th>1Q 10</th>
<th>2Q 10</th>
<th>3Q 10</th>
<th>4Q 10</th>
<th>1Q 11</th>
<th>2Q 11</th>
<th>3Q 11</th>
<th>4Q 11</th>
<th>1Q 12</th>
<th>2Q 12</th>
<th>3Q 12</th>
<th>4Q 12</th>
<th>1Q 13</th>
<th>2Q 13</th>
<th>3Q 13</th>
<th>4Q 13</th>
<th>1Q 14</th>
<th>2Q 14</th>
<th>3Q 14</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>15</td>
<td>15</td>
<td>16</td>
<td>18</td>
<td>25</td>
<td>23</td>
<td>21</td>
<td>22</td>
<td>23</td>
<td>22</td>
<td>20</td>
<td>24</td>
<td>25</td>
<td>30</td>
<td>28</td>
<td>31</td>
<td>32</td>
<td>38</td>
<td>39</td>
</tr>
</tbody>
</table>

| Shipments | 18 | 16 | 18 | 18 | 22 | 25 | 23 | 23 | 24 | 23 | 23 | 24 | 29 | 28 | 31 | 33 | 40 | 38 |

<table>
<thead>
<tr>
<th>Millions $</th>
</tr>
</thead>
<tbody>
<tr>
<td>-</td>
</tr>
<tr>
<td>5.0</td>
</tr>
<tr>
<td>10.0</td>
</tr>
<tr>
<td>15.0</td>
</tr>
<tr>
<td>20.0</td>
</tr>
<tr>
<td>25.0</td>
</tr>
<tr>
<td>30.0</td>
</tr>
<tr>
<td>35.0</td>
</tr>
<tr>
<td>40.0</td>
</tr>
<tr>
<td>45.0</td>
</tr>
</tbody>
</table>
2014 Motion Statistics

Electronic Drives – Orders & Shipments – 2010 to 2014

<table>
<thead>
<tr>
<th>1Q 10</th>
<th>2Q 10</th>
<th>3Q 10</th>
<th>4Q 10</th>
<th>1Q 11</th>
<th>2Q 11</th>
<th>3Q 11</th>
<th>4Q 11</th>
<th>1Q 12</th>
<th>2Q 12</th>
<th>3Q 12</th>
<th>4Q 12</th>
<th>1Q 13</th>
<th>2Q 13</th>
<th>3Q 13</th>
<th>4Q 13</th>
<th>1Q 14</th>
<th>2Q 14</th>
<th>3Q 14</th>
</tr>
</thead>
<tbody>
<tr>
<td>Orders</td>
<td>105</td>
<td>112</td>
<td>117</td>
<td>116</td>
<td>131</td>
<td>118</td>
<td>118</td>
<td>143</td>
<td>133</td>
<td>126</td>
<td>119</td>
<td>118</td>
<td>114</td>
<td>104</td>
<td>109</td>
<td>111</td>
<td>103</td>
<td>107</td>
</tr>
<tr>
<td>Shipments</td>
<td>123</td>
<td>133</td>
<td>150</td>
<td>141</td>
<td>163</td>
<td>157</td>
<td>150</td>
<td>177</td>
<td>166</td>
<td>163</td>
<td>154</td>
<td>150</td>
<td>144</td>
<td>144</td>
<td>145</td>
<td>142</td>
<td>143</td>
<td>150</td>
</tr>
</tbody>
</table>
2014 Motion Statistics


Orders

Shipments

<table>
<thead>
<tr>
<th>Quarter</th>
<th>1Q 10</th>
<th>2Q 10</th>
<th>3Q 10</th>
<th>4Q 10</th>
<th>1Q 11</th>
<th>2Q 11</th>
<th>3Q 11</th>
<th>4Q 11</th>
<th>1Q 12</th>
<th>2Q 12</th>
<th>3Q 12</th>
<th>4Q 12</th>
<th>1Q 13</th>
<th>2Q 13</th>
<th>3Q 13</th>
<th>4Q 13</th>
<th>1Q 14</th>
<th>2Q 14</th>
<th>3Q 14</th>
</tr>
</thead>
<tbody>
<tr>
<td>Orders</td>
<td>82.</td>
<td>88.</td>
<td>88.</td>
<td>93.</td>
<td>113</td>
<td>105</td>
<td>82.</td>
<td>125</td>
<td>122</td>
<td>103</td>
<td>94.</td>
<td>115</td>
<td>102</td>
<td>101</td>
<td>99.</td>
<td>102</td>
<td>108</td>
<td>116</td>
<td>117</td>
</tr>
<tr>
<td>Shipments</td>
<td>77.</td>
<td>87.</td>
<td>92.</td>
<td>99.</td>
<td>101</td>
<td>109</td>
<td>97.</td>
<td>129</td>
<td>120</td>
<td>113</td>
<td>104</td>
<td>121</td>
<td>104</td>
<td>106</td>
<td>101</td>
<td>106</td>
<td>109</td>
<td>119</td>
<td>120</td>
</tr>
</tbody>
</table>
2014 Motion Statistics

**Motors – Orders & Shipments – 2010 to 2014**

- **Orders**
  - 1Q 10: 201
  - 2Q 10: 190
  - 3Q 10: 196
  - 4Q 10: 215
  - 1Q 11: 236
  - 2Q 11: 260
  - 3Q 11: 229
  - 4Q 11: 216
  - 1Q 12: 234
  - 2Q 12: 231
  - 3Q 12: 222
  - 4Q 12: 222
  - 1Q 13: 211
  - 2Q 13: 211
  - 3Q 13: 206
  - 4Q 13: 220
  - 1Q 14: 218
  - 2Q 14: 222
  - 3Q 14: 238

- **Shipments**
  - 1Q 10: 215
  - 2Q 10: 212
  - 3Q 10: 231
  - 4Q 10: 246
  - 1Q 11: 254
  - 2Q 11: 288
  - 3Q 11: 280
  - 4Q 11: 260
  - 1Q 12: 266
  - 2Q 12: 272
  - 3Q 12: 256
  - 4Q 12: 256
  - 1Q 13: 255
  - 2Q 13: 253
  - 3Q 13: 250
  - 4Q 13: 253
  - 1Q 14: 261
  - 2Q 14: 266
  - 3Q 14: 286
The Bottom Line

Total Motion Control Orders and Shipments Thru 2015

Total Forecasted Growth for 2015:
Orders = 11.2%
Shipments = 8.1%
Expectations for 2015

How do you believe the Worldwide Motion Control Market will perform in 2015 relative to 2014?

- 11% expect > 10% growth
- 89% expect between 1% and 10% growth
Expectations for 2015

Factory Automation will remain important.

Robotics, Life Sciences, Food & Consumer Goods, and Semiconductors are all industries to watch as well.
Expectations for 2015

MCA Membership’s Hottest Regions In 2015

- United States - West: 80.00%
- United States - East: 77.78%
- Asia: 68.89%
- United States - Midwest: 68.89%
- United States - South: 55.56%
- Europe - West: 51.11%
- Mexico: 26.67%
- South America: 24.44%
- Canada: 20.00%
- Europe - East: 17.78%
- Australia: 4.44%
- Africa: 2.22%
### Expectations for 2015

**Advances in which motion control technology will have the greatest impact on the overall market in 2015?**

<table>
<thead>
<tr>
<th>Technology</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Motion Controllers</td>
<td>31.11%</td>
</tr>
<tr>
<td>Actuators &amp; Mechanical Systems</td>
<td>24.44%</td>
</tr>
<tr>
<td>PLCs</td>
<td>8.89%</td>
</tr>
<tr>
<td>AC Drives</td>
<td>6.67%</td>
</tr>
<tr>
<td>Motors</td>
<td>6.67%</td>
</tr>
<tr>
<td>Other (please specify)</td>
<td>6.67%</td>
</tr>
<tr>
<td>Electronic Drives</td>
<td>6.67%</td>
</tr>
<tr>
<td>Sensors &amp; Feedback</td>
<td>6.67%</td>
</tr>
<tr>
<td>Support &amp; Services</td>
<td>2.22%</td>
</tr>
</tbody>
</table>
Manufacturing Trends

RIA Robot Data – North America – Units Ordered

*Projected
Manufacturing Trends

Domestic Auto Production – Monthly – Not Seasonally Adjusted

Graph showing domestic auto production from Jan-10 to Jul-14.
Manufacturing Trends

Semiconductor Market Billings – Americas
(Thousands $, 3-Month Moving Averages)
Manufacturing Trends

Manufacturing Trends

U.S. Industrial Production (2007 Levels = 100)
Reshoring Manufacturing to U.S.

Interest in reshoring manufacturing to U.S. (%)

- **2012**:
  - Yes, we will consider doing this in the near future: 37%
  - Yes, we are actively considering doing this, although we have not made a final decision: 18%
  - Yes, we will move production to the U.S. in the next two years: 8%
  - Yes, we are already actively doing this: 7%

- **2013**:
  - Yes, we will consider doing this in the near future: 54%
  - Yes, we are actively considering doing this, although we have not made a final decision: 17%
  - Yes, we will move production to the U.S. in the next two years: 8%
  - Yes, we are already actively doing this: 13%

- **2014**:
  - Yes, we will consider doing this in the near future: 54%
  - Yes, we are actively considering doing this, although we have not made a final decision: 20%
  - Yes, we will move production to the U.S. in the next two years: 8%
  - Yes, we are already actively doing this: 16%

**Sources:** BCG Manufacturing Survey, February 2012, August 2013, and August 2014.

**Note:** Numbers in the bar charts have been rounded; percentage changes outside the bar charts are based on the actual numbers before rounding. Question asked: “Given the fact that Chinese wage costs are expected to grow, do you expect your company will move manufacturing to the United States?” Question asked only of companies that currently manufacture in China. N = 1
Executives are Looking to Automate

Manufacturing executives believe automation and advanced manufacturing will promote the following:

- Reduce costs and increase their competitiveness
- Allow them to benefit from being closer to suppliers and customers

The U.S. is strongly positioned to benefit from manufacturers that seek to increase regionalization, especially as automation costs decline

Note: Task stated: "Please select how much you agree or disagree with each of the following reasons for change." N = 252.
“Intelligent Enterprise”

WAREHOUSE EXPANSION PLANS OVER NEXT 5 YEARS

Source: Motorola White Paper - From Cost Center to Growth Center: Warehousing 2018

- 51% Decreasing
- 66% Increasing
- 70% Increasing
- 33% Decreasing
- 39% Increasing
- 45% Increasing
- 54% Increasing
- 54% Increasing

Key Areas:
- Annual Inventory Turns
- Equipping Staff with Technology
- Automation of Processes
- Size of Current Location(s)
- Number of Locations
- Number of Employees
- Volume of Items Carried
- Number of SKUs Carried

DECORATING INCREASING
Perfect Time to Get Involved!

**MCA Statistical Program**
- Gain access to FULL quarterly reports!
- Simple and straight forward process
- Manufacturers and distributors can both participate

**MCA Statistics Committee**
- Meets quarterly to determine statistical direction
- Great way to gain visibility and get connected
Thank You!

Alex Shikany
Director of Market Analysis
MCA

Phone: (734) 994-6088
Twitter: @AlexShikany
Email: ashikany@robotics.org