



# Motion Controls: A Global Market Update

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IHS



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January 22 – 24, 2014 • Hilton Orlando Bonnet Creek, Orlando, Florida USA

# Presentation Overview

- About   
(formerly IMS Research)
- Research Methodology
- Motion Controls
  - Global Market Statistics
  - Global Market Trends
  - Regional Market Trends



Servo Motors



Servo Drives



Position Control  
Hardware

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# Research Methodology

## Base Year Data (2012): Primary Research

Collect  
Sales Revenue &  
Unit Shipment Data  
from Suppliers



Incorporate  
Quarterly Tracker  
Data



Interview  
Strategic Marketing  
Personnel &  
Product Managers

## Forecasting (2013 – 2017): Primary & Secondary Research

GDP & IP  
Forecasts from  
IHS Global Insights



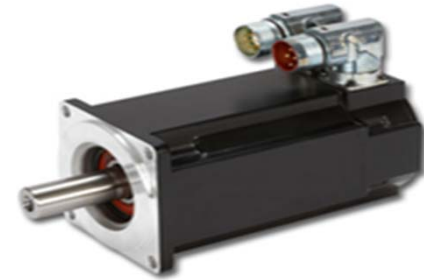
Machinery  
Production  
Forecasts from  
IHS Technology



Insight from  
Market Discussions  
on Under/Over  
Performing Market  
Segments

# Research Scope - Products

- Servo Motors
  - Integrated feedback device
  - Position control at all possible speeds
  - Excludes DC Brushless



- Servo Drives



- Position Control Hardware



- Software & Services

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# Research Methodology - Markets

## GMC Market

Motors and drives used with a general motion controller

## CNC Market

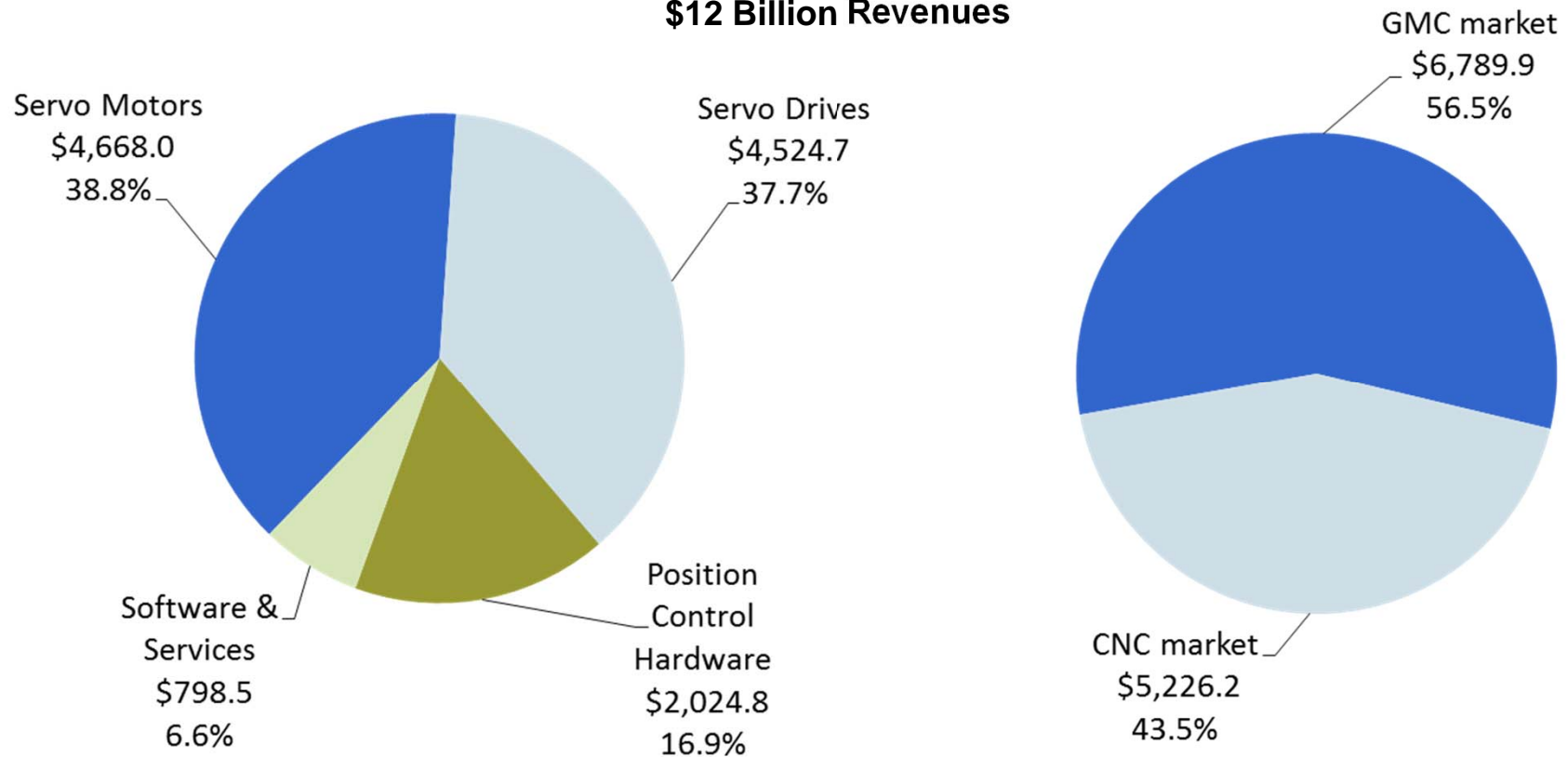
Motors and drives used with a CNC (a controller that programs in G-code and programs movements that will create a discrete part)

	General Motion Controller	Computerized Numerical Controller
General Task	Control of Acceleration, Speed and Position of single motors or multiple coordinated electrical motors independent of the final application	Special purpose controller for controlling the processing of material on machine tools
Typical machinery applications	Packaging machinery, Textile machinery, Printing machinery, Semiconductor and Electronic Assembly machinery, Plastics Processing machinery, Metal Forming machine tools (presses, wire drawing), Food Processing machinery, etc.	Metal Cutting machine tools (milling, turning, grinding, tapping and drilling) Metal Forming machine tools (tube bending) Woodworking, Glass & Stone processing machine tools (milling, turning, grinding and drilling)
Typical supplier	Wide range of suppliers worldwide	Relatively small number of specialized suppliers like Siemens, Fanuc, Mitsubishi Electric, Heidenhain, Bosch Rexroth, GSK, KND, etc.

# The World Market for Motion Controls

## 2012 Motion Control Market Product Type Breakdown

\$12 Billion Revenues



\*percentages are in terms of revenues

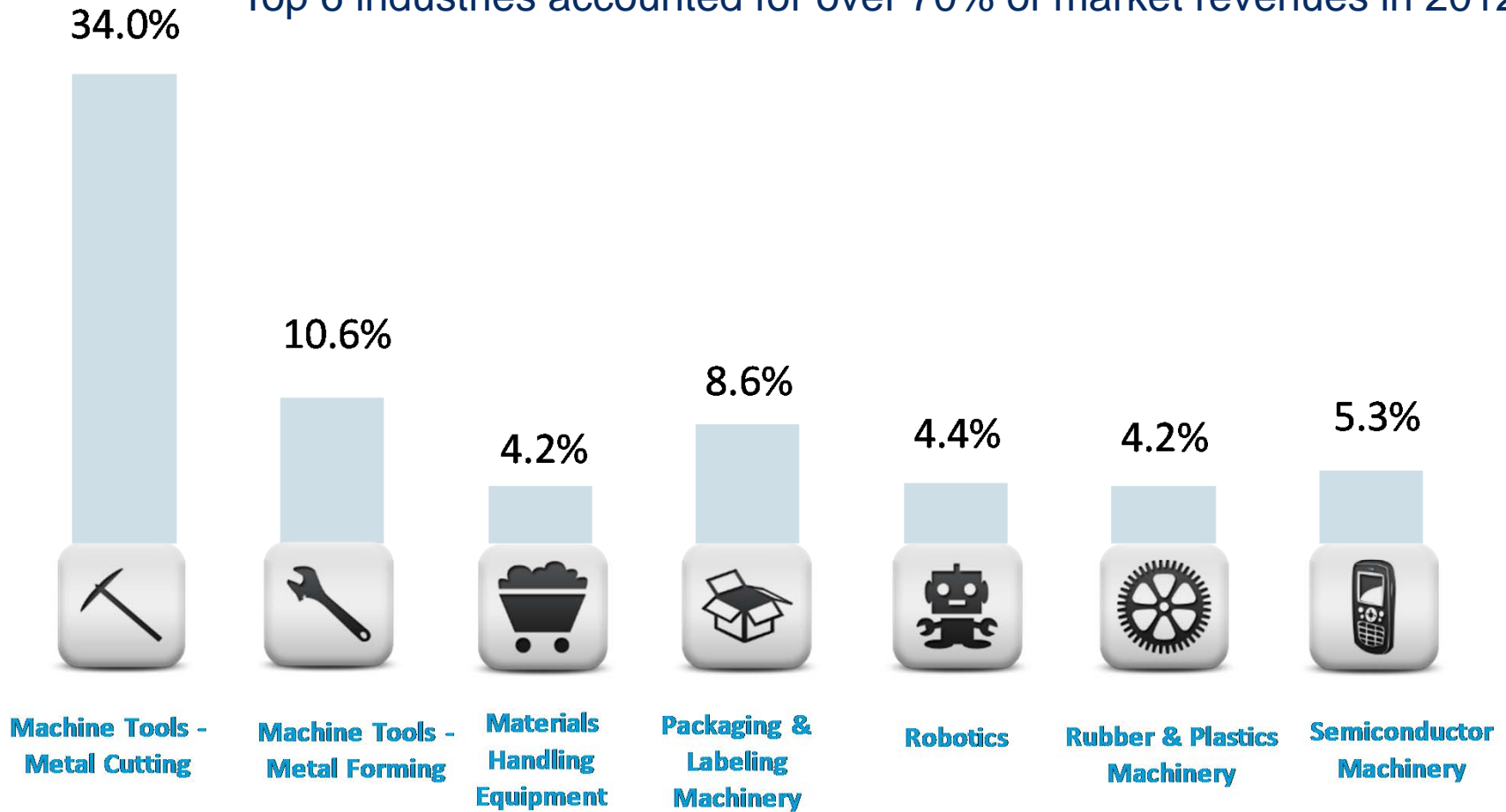
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# By Industry Sector - 2012

Top 6 industries accounted for over 70% of market revenues in 2012

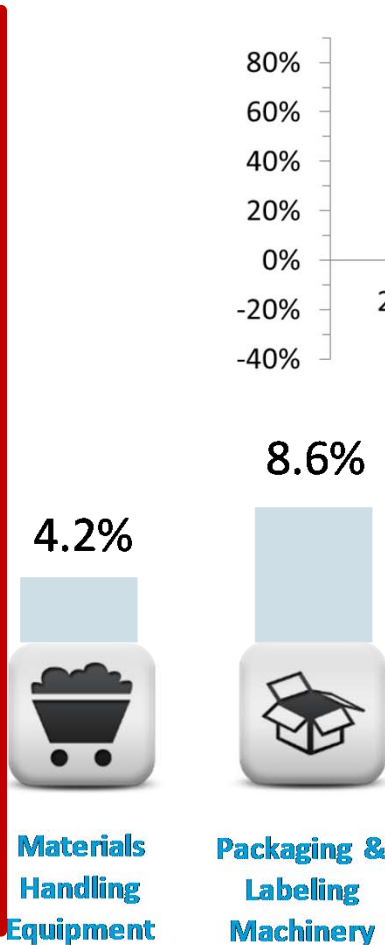
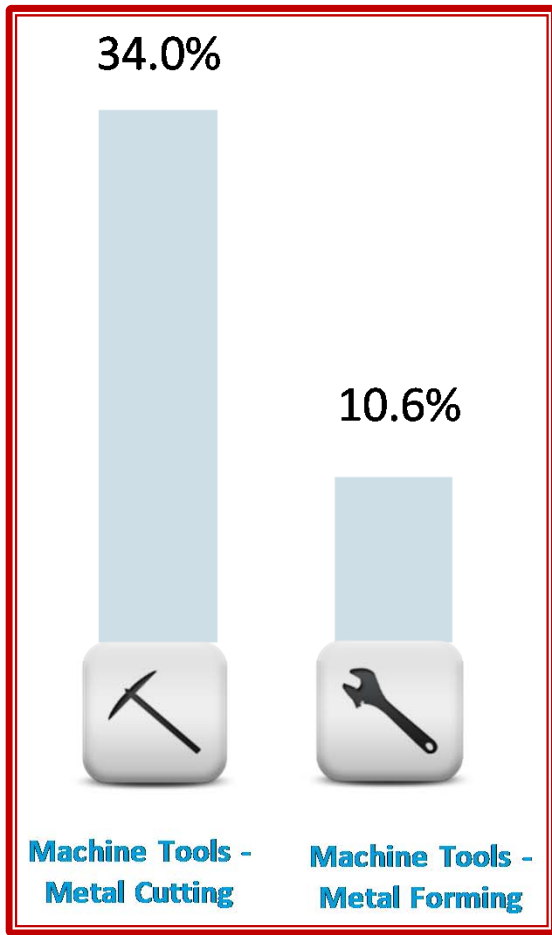


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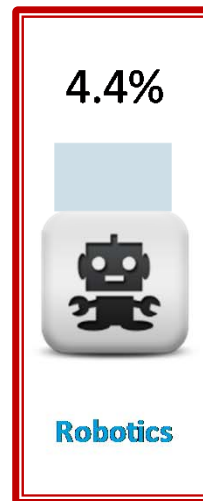
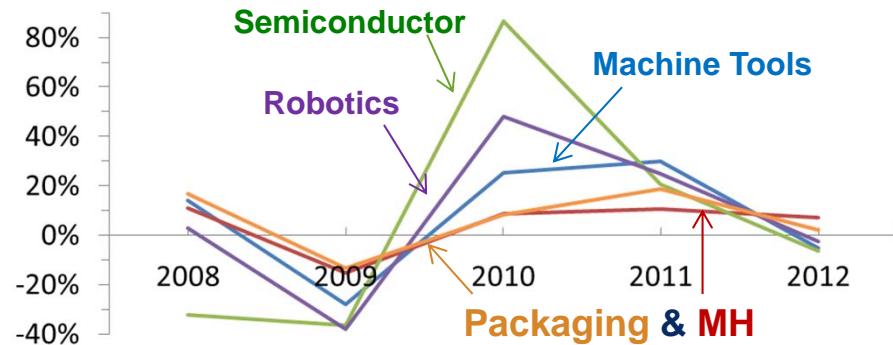
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# Volatile industries account for over 50% of market revenues



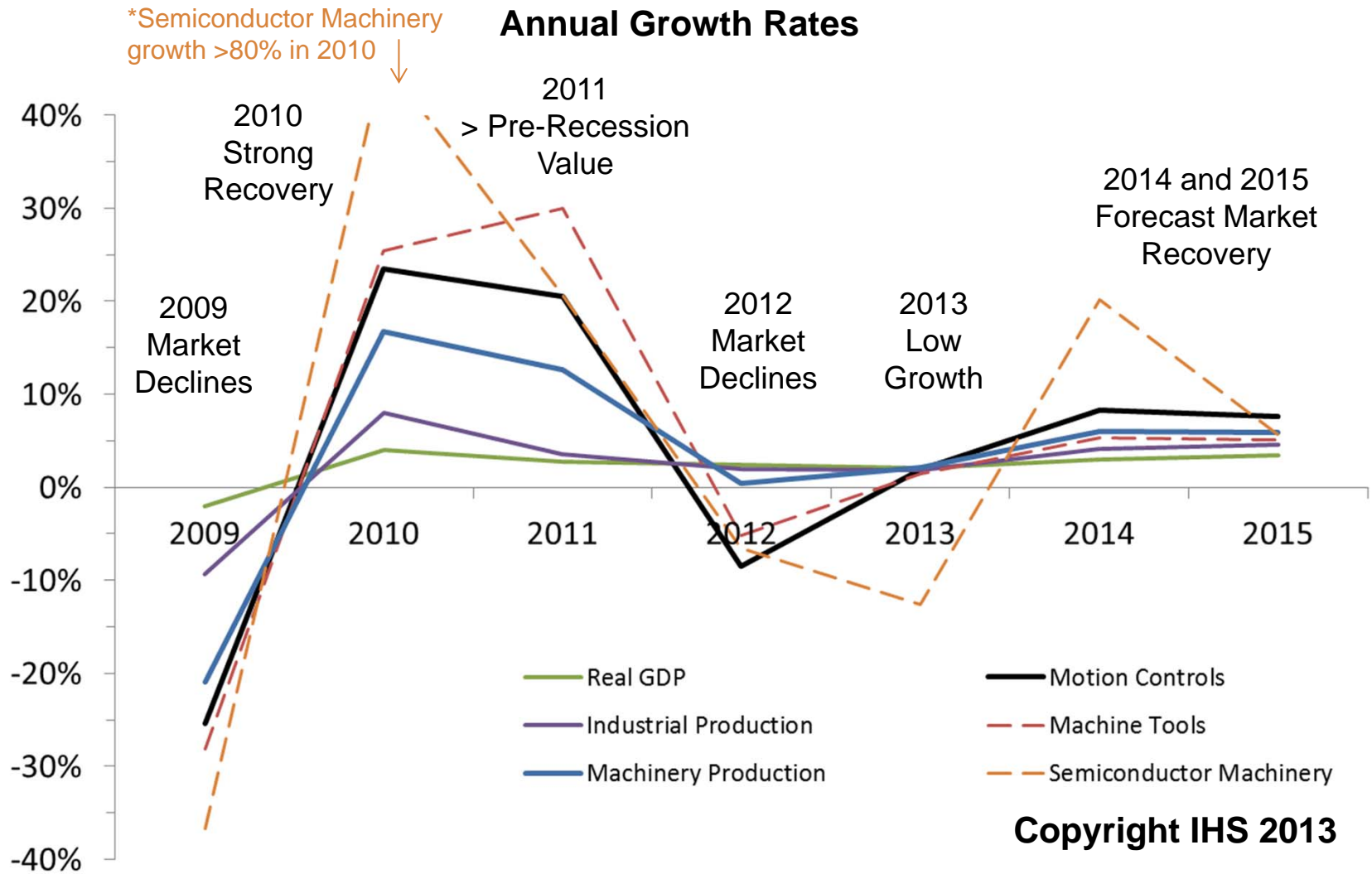
Machinery Production Growth



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# Volatile Market Growth



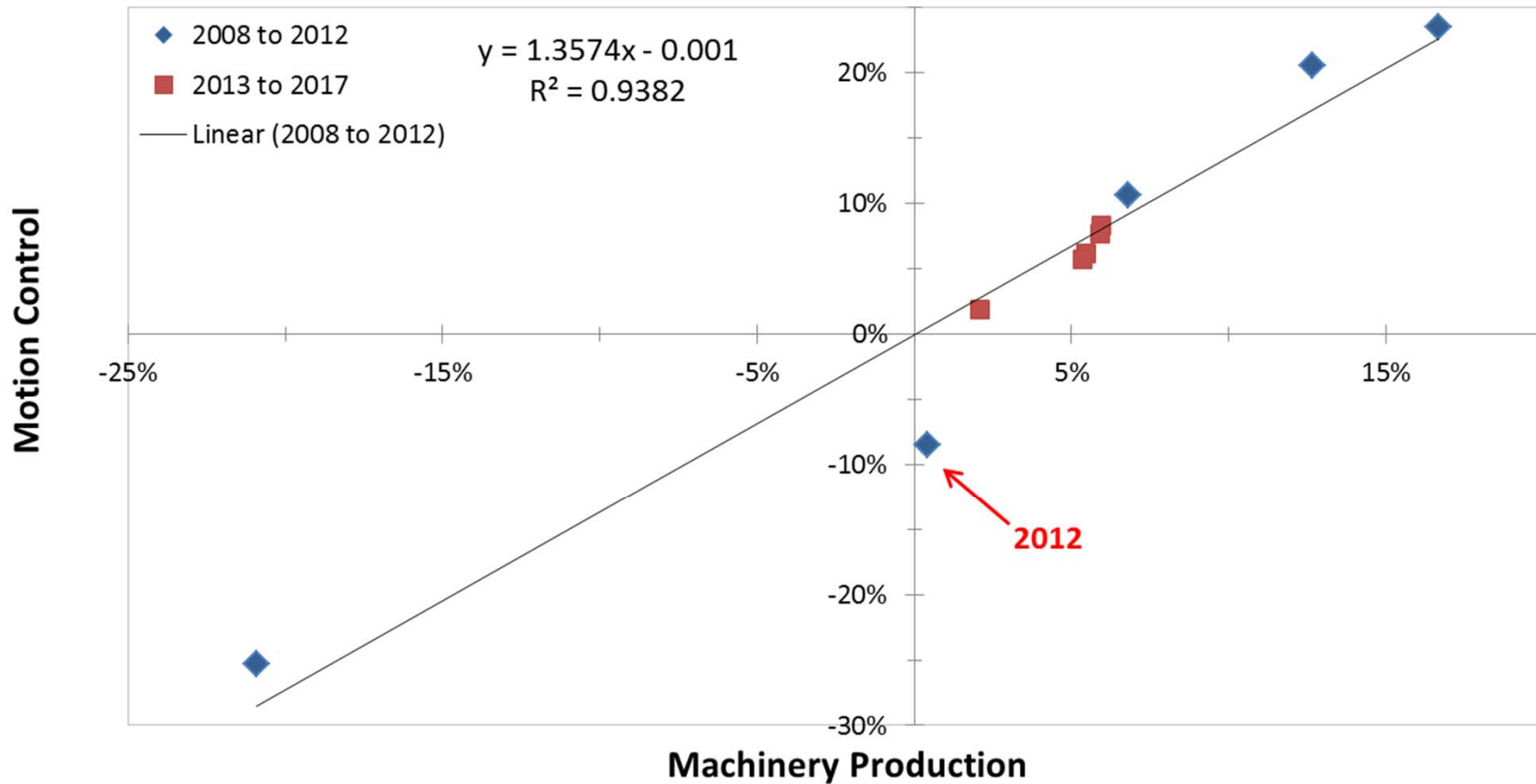
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# Correlation between Machinery & Motion

Annual Market Growth - Source: IHS



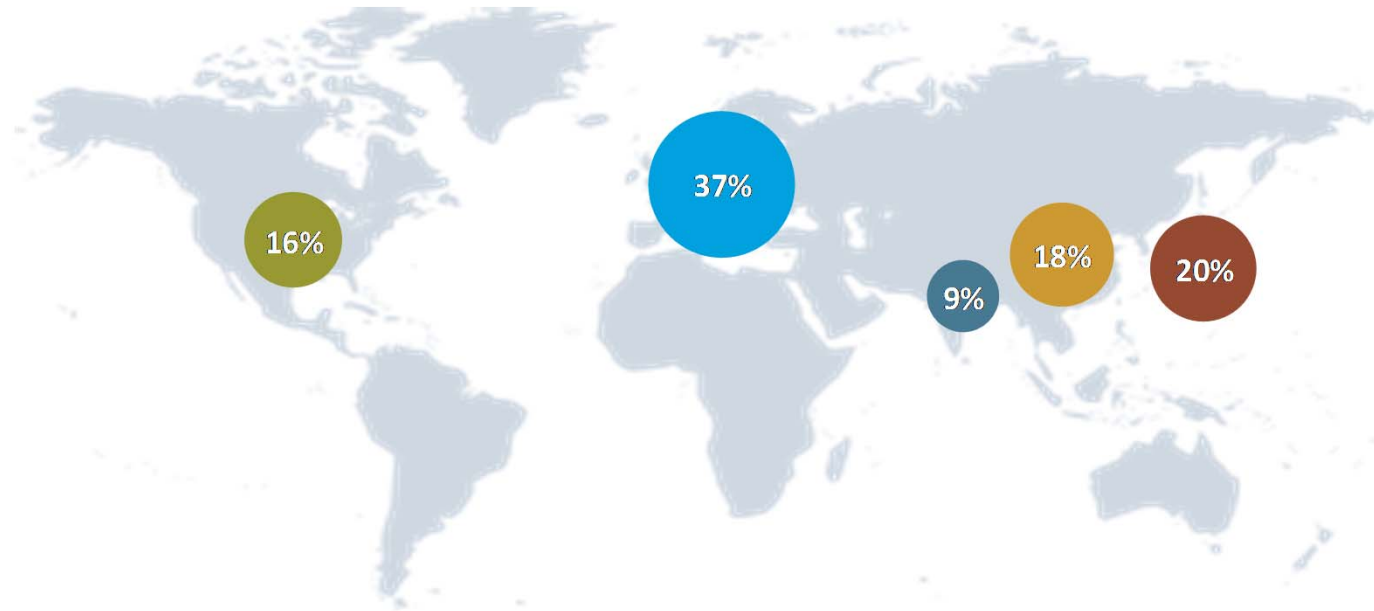
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# By Region

(excluding software & services)



Revenues (2012)	<b>\$1.8bn</b>	<b>\$4.2bn</b>	<b>\$2.1bn</b>	<b>\$1bn</b>	<b>\$2.2bn</b>
	<b>Americas</b>	<b>EMEA</b>	<b>China</b>	<b>Rest of Asia</b>	<b>Japan</b>
CAGR (2012 - 2017)	<b>5.3%</b>	<b>4.8%</b>	<b>9.2%</b>	<b>8.0%</b>	<b>4.2%</b>

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# Regional Trends

(forecasts in constant dollars at the 2012 rates of exchange)

## EMEA

- European Sovereign Debt Crisis, decreased import demand from China, exchange rate results in market decline of ~ 4% for motion in 2012.
- Another year of declines in GDP and machinery production in Eurozone in 2013, producing a relatively flat year for the motion-control market.
- Eurozone emerges from recession in 2014 and motion-control market rebounds.

## Americas

- Bright spot in 2012, with nearly 6% growth.
- Growth in 2013 falls below 2%, constrained by machine tools and semiconductor sectors and, which are expected to recover and boost growth in 2014.

## China

- Market decline of 21% due to overcapacity issues in 2012.
- Textile industry recovered and fueled growth in GMC market, while CNC market continued to decline in 2013.
- Forecasting double digit growth years for motion in 2014 and 2015.

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# Market Shares - 2012

## Top Suppliers

1) **SIEMENS**

4) The Drive & Control Company **Rexroth**  
Bosch Group

2)  **MITSUBISHI  
ELECTRIC**

5)  **YASKAWA**  
*The Drive for Quality™*

3)  **FANUC**

6) **Rockwell  
Automation**

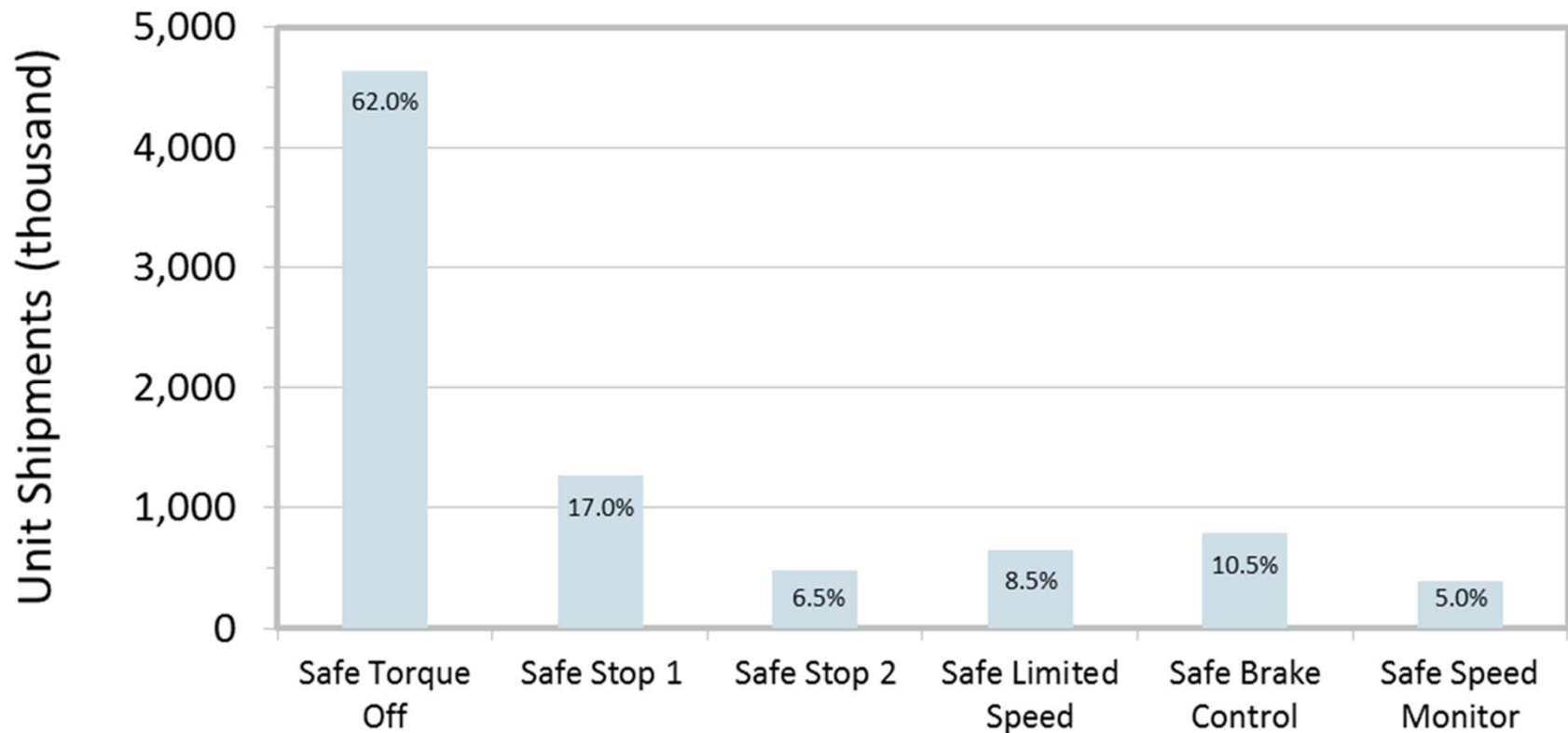
Top 6 suppliers accounted for nearly 60% of market revenues in 2012

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 Association for  
Advancing  
Automation

# Servo Drives by Safety Feature - 2012



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# Contact Information



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