

# **Status of the World Magnet Industry**

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Bonded Magnet Industries**

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*by*

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# Outline

- **Current Status – The West**
- **Current Status – China**
- **The Era of Consolidation**
- **The Era of Transition and Expansion**
- **U.S Import Statistics**
- **Western Bonded Magnet Production**
- **The Long-Term China Outlook**
- **Summary**

# Current Status : The West

- **The Good News...**
  - **Inventories are depleted**
  - **Market conditions are improving**
  - **Lead times are extending**
  - **Business conditions are generally positive**
- **The Bad News...**
  - **Commodity prices have skyrocketed**
  - **Medical costs are escalating**
  - **Customers are still moving to China**
  - **Chinese competitors remain an issue**

# Current Status : China

- **The Good News...**
  - **Local economy continues to grow**
  - **Export opportunities abound**
  - **Customers are moving to their doorstep**
  - **Excessive low-cost labor availability**
- **The Bad News...**
  - **Intense price competition is impacting margins**
  - **Sporadic electric power outages**
  - **Steel shortages push up prices**
  - **Banks are tightening credit policies**

# **The Era of Magnet Industry Consolidation is Ending**

- **Western consolidation is running out of steam**
- **Spin-offs are offsetting consolidations**
- **Smaller companies in distribution and fabrication will likely continue to consolidate**

# **The Era of Transition and Expansion is Well Underway**

- **The transition to China will continue**
  - Manufacturing for export
  - Sourcing
  - Selling to the local market
- **Expansion in China is strong**
  - Western investors will not need bank loans
  - Domestic sales and the export engine
  - Successful Chinese producers are expanding

## 2001-03 US Imports (Metal)

(\$ 000)	2001	2002	2003
Mexico	952	?	28,363
Japan	30,289	30,930	36,431
China	31,229	30,753	39,457
All Other	31,848	34,084	29,384
<b>Total</b>	<b>\$ 94,318</b>	<b>\$ ?</b>	<b>\$ 133,635</b>
<b>China %</b>	<b>33.1%</b>	<b>?</b>	<b>29.5%</b>

## 2001-03 US Imports (Ferrite)

(\$ 000)	2001	2002	2003
Mexico	10,938	11,282	9,369
Japan	9,717	9,569	10,475
China	28,445	31,130	38,822
All Other	29,710	30,136	31,342
<b>Total</b>	<b>\$ 78,810</b>	<b>\$ 83,308</b>	<b>\$ 90,008</b>
<b>China %</b>	<b>36.1 %</b>	<b>37.4 %</b>	<b>43.1 %</b>

# 2003 US Ferrite Imports

<b>(\$ Million)</b>	<b>Rigid</b>	<b>Flexible</b>
<b>CHINA</b>	<b>\$ 31,791</b>	<b>\$ 7,031</b>
<b>JAPAN</b>	<b>8,597</b>	<b>1,878</b>
<b>MEXICO</b>	<b>8,827</b>	<b>542</b>
<b>ALL OTHER</b>	<b>28,155</b>	<b>3,187</b>
<b>TOTAL</b>	<b>\$ 77,370</b>	<b>\$ 12,638</b>

# Current Estimates of Western Bonded Magnet Production (2003)

(\$ Million)	USA	Europe
Flexible	80	104
Rigid Ferrite	46	18
Rigid Rare Earth	18	33
<b>TOTAL</b>	<b>\$ 144</b>	<b>\$ 155</b>

# Western Industry Trends

- **Environmental regulations and medical cost escalation will continue to increase the cost structure of business**
- **Labor costs will continue to escalate**
- **Competitive market pricing will assure pressure on margins**
- **Some niche players will survive**
- **Local capital investment will be limited and investment in China will continue**

# Rational For Foreign Investment

- **China**  
(Manufacturing)

- **Market Size**
- **Export Ease**
- **Financial Incentives**
- **Cost Structure**
- **Infrastructure**

- **India** (Information Technology)

- **Educated Workforce**
- **Management Talent**
- **Rule of Law**
- **Transparency**
- **Regulatory Environment**

# **The Three China Economies**

**1. The Government Bureaucracy**

**2. The Domestic Market**

**3. The Export Engine**

# The Three China Economies

- **The Government Bureaucracy**
  - **Slow & heavily political**
  - **In need of consumer savings**
  - **Will gradually respond to world political pressures:**
    - **Exchange rates**
    - **Reduced trade barriers**
    - **Intellectual property reforms**

# The Three China Economies

- **The Domestic Market**
  - **Early investors lost money**
  - **Demand will increase substantially**
  - **Population is the driver**
  - **Capitalism will be the catalyst**
  - **Western investors are now seeing profits!**

# The Three China Economies

- **The Export Engine**
  - **The cornerstone of China's economic engine**
  - **Will maintain strength through economic cycles**
  - **The vehicle for western governments to maintain political pressure on Beijing**

# General Trends in China

- **The central government will continue to “manage” the economy**
- **Political pressure will result in modest currency exchange rate adjustment**
- **Some economic cycles will impact China’s short-term momentum**
- **Capitalism will prevail in the long run**

# **Magnetics Trends in China**

- **Continued technology advancements**
- **Continued world-wide market penetration**
- **Pricing pressure will ease as Chinese prices gradually increase**
- **Domestic market growth will be significant**
- **Industry consolidation will begin**

# China in Perspective

- **“Because China is modernizing more rapidly than any large society in history, whether you’ve been there dozens of times – or never been at all – it’s almost impossible to see it in perspective”**

» **Rik Kirkland**  
**Managing Editor**  
**Fortune Magazine**

# Capitalism in China is a Force

- **“Capitalism in China is only ten years old. We’re at the early stages of one of the greatest industrial revolutions in world history”**

» **Jim Walker**  
**CLSA Asia Economist**

# China's Automotive Industry

- **“Shanghai Automotive Industry Corp. will become one of the top ten car companies in the world within the next ten to fifteen years,”**

**» Graeme Maxton, British Consultant**

# China Steel Leads the World

- **“China is already the world’s largest steelmaker, producing 220 million tons last year – more than the U.S. and Japan combined.”**

» **Fortune Magazine  
October 4, 2004**

# China is a Major Oil Consumer

( Department of Energy - International Energy Agency)

## Million Barrels / Day

<b>1. United States</b>	<b>20.42</b>
<b>2. China</b>	<b>6.29</b>
<b>3. Japan</b>	<b>5.45</b>
<b>4. Germany</b>	<b>2.68</b>
<b>5. Russia</b>	<b>2.65</b>

# China is a Major Polluter

## **% of Worldwide Carbon Dioxide Emissions**

<b>United States</b>	<b>24 %</b>
<b>China</b>	<b>12</b>
<b>Russia</b>	<b>6</b>
<b>Japan</b>	<b>5</b>
<b>India</b>	<b>5</b>

# China's Growth Has Just Begun

- **“China’s economy (2003 GDP: \$1.4 Trillion) will overtake Japan’s by 2015 and America’s by 2039,”**

» **Goldman Sachs**

# Economic Cycles Will Not Deter China

- **“From a low base, the industrialization of China has had a long history of rapid growth. However, economic cycles will always come and go, and businesses must plan accordingly. China will become a rich country. *You can enjoy its wealth, too, if you are still in business*”**

» **Andy Xie, Economist, Morgan Stanley**

# China – Some Common Mistakes

- **“Let’s do a joint venture!”**
- **“Move into the interior: low cost labor”**
- **“Shanghai or Shenzhen - with the action”**
- **“I know somebody in China”**
- **“China’s not stable”**
- **“Too far, too complex & too costly”**

# **The Customer Continues to be the Driving Force in the Magnet Industry**

- **Customers will continue to relocate manufacturing, engineering and purchasing to Asia....especially China!**
- **Customers will be demanding Chinese sourcing at competitive prices**
- **Customers will continue to demand new technologies and materials development**

# Presentation Summary

- **The future of the magnet industry is clearly centered in China**
- **Most western magnet companies must establish a China capability in order to survive**
- **Either sourcing, manufacturing or selling**
- **The world market for magnets is a growth market – *those who adapt to change will be successful***

*Thank You !*

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