



GOVERNOR'S
RECYCLING SUMMIT

MICHIGAN RECYCLING COALITION
ANNUAL CONFERENCE



The Economics of Recycling

JoAnne Perkins, Cascade Carts Solutions
Tonia Olson, Michigan Waste & Recycling Association
Joe Pickard, Institute for Scrap Recycling Industries

May 3, 2016

Governor's Recycling Summit





Cascade Engineering likes to achieve its goals by finding something good to do, and making it good business.

Fred Keller
Founder & CEO



Cascade Engineering

Founded in 1973 by Fred Keller
Headquartered in Grand Rapids, MI

Markets

- Automotive
- Commercial Truck & Bus
- Compounded Polymers
- Furniture
- Material Handling
- RFID Systems
- Renewable Energy
- Solid Waste & Recycling
- Water Filtration



Sustainability



Innovation



Engineering



Manufacturing



Sustainability

We are a Triple Bottom Line company. Our success is not only defined by monetary gain but also on the positive impact we make on society and the environment.

Since 2003 we have produced our annual TBL report that quantifies our progress in these three key areas:

People – Social

Planet – Environmental

Profit – Financial



tbl

Certified



Corporation
bcorporation.net



Circular Economy

As an engineering manufacturer, Cascade values our role as part of the circular economy and we have a commitment to continuously improving our products and processes in an effort to minimize our impact and extend our product lifecycles.

- Cradle to Cradle products
- LEED Certified buildings
- Zero waste-to-landfill
- Reduced energy consumption
- Use of recycled materials



Commitment to Recycling

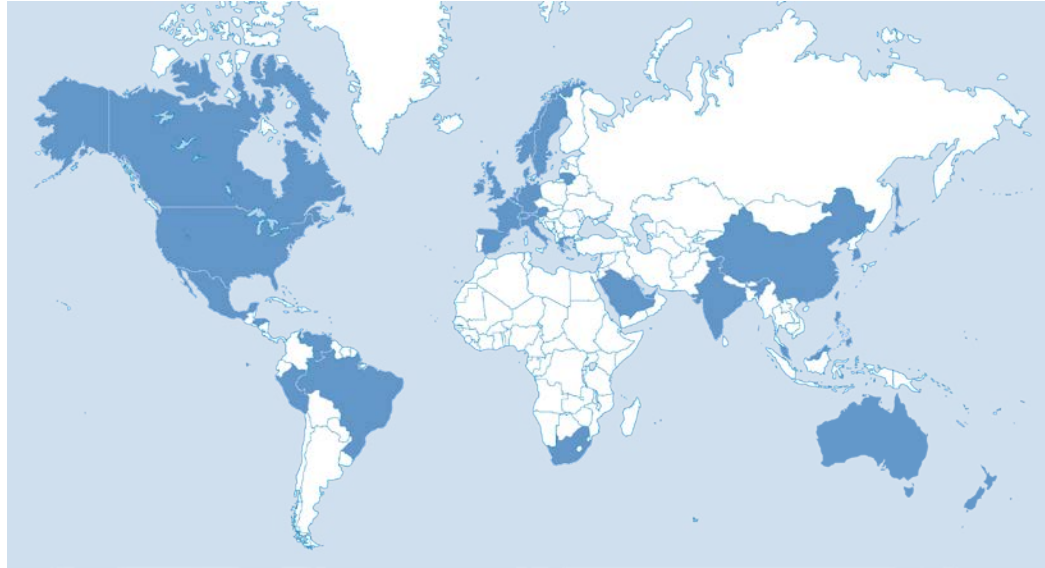
Business CAN positively impact our environment. A key pillar of our TBL philosophy is making a positive impact for a sustainable planet. Those benefits are extended to our customers.



ISRI: Voice of the Recycling Industry



Institute of
Scrap Recycling
Industries, Inc.



1,600+

Member
companies

3,000+

Recycling facilities
worldwide

39

Countries

Falling Prices + Uneven U.S. Mfg. + Weak Exports & Strong Dollar = Margins Disappear, Scrap Industry Consolidation Continues

ISRI Index: Jan 2011 - Mar 2016

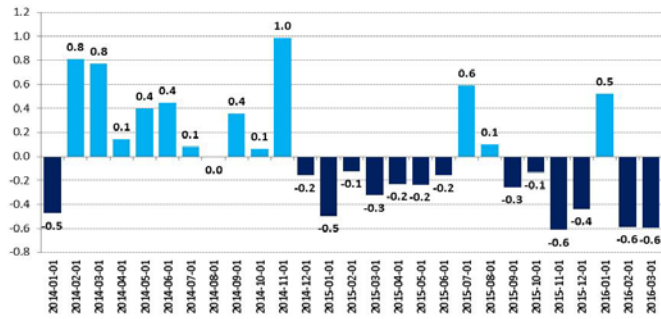
(Jan 1998 = 100)



Monthly Change in U.S. Industrial Production

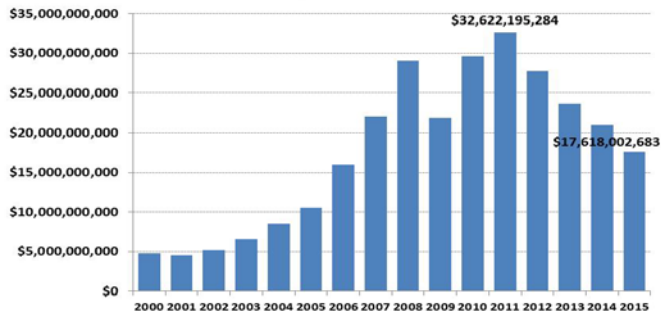
Jan 2014-Mar 2016 (%)

Source: Federal Reserve



Total U.S. Scrap Export Sales, 2000-2015 (\$)

Source: U.S. Census Bureau/U.S. International Trade Commission



FRED

Trade Weighted U.S. Dollar Index: Broad

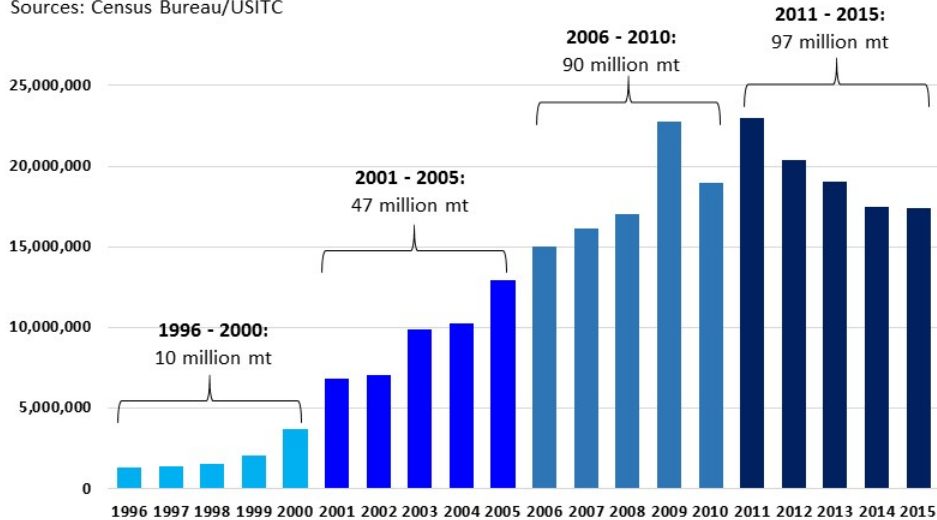


Source: Board of Governors of the Federal Reserve System (US)
research.stlouisfed.org

myf.red/g/48CA

U.S. Exports of All Scrap Commodities To China (incl. Hong Kong) 1996-2015 (metric tons)

Sources: Census Bureau/USITC



But excess commodity production in China, falling Chinese industrial prices, decelerating Chinese growth and slowing Chinese scrap import demand in recent years contributed to global deflationary pressure and weaker global scrap market conditions.

Searching for Signs of Life...

- **Few expecting a V-shaped recovery, but soft prices have impacts for supply (e.g. obsolete scrap supply) that can set a floor for the market**
- **Sentiment recently better towards commodities, but most analysts still expect prices to remain lower for longer**
- **Need for cutbacks in excess global primary commodity capacity and production/draw down stocks in order to rebalance commodity markets**
- **Need for U.S. exporters to develop new markets**
- **Focus on safety, operational efficiency, quality and product diversification**
- **Targeted investment**
- **Cyclical, evolving industry with long-term positive trends**
- **Opportunities for ISRI and the industry to educate policymakers and the public**
- **Scrap recyclers are resilient!**

