

# 2018 Recycling Market Update

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# What we'll look at today

This talk will first discuss current market dynamics for recovered metallics, paper and plastics. We'll then look at Chinese import issues, and I'll conclude with some comments on what's ahead in overall recycling markets.

My presentation assumes the interest is in markets for residential recovered materials.

# Metallics

**GENERATION.** Weakening sales volumes for commodity beer and carbonated soft drinks are leading to slight declines in aluminum can volumes. Too, more consumers are buying fresh fruits and vegetables, thus impacting tin can generation.

# Metallics

**MARKET FUNDAMENTALS.** MRF operators can expect a modest rise in the value of metallics over the short-term. Mills have been able to boost prices for their finished goods, and this should help recycling markets in mid-2018.

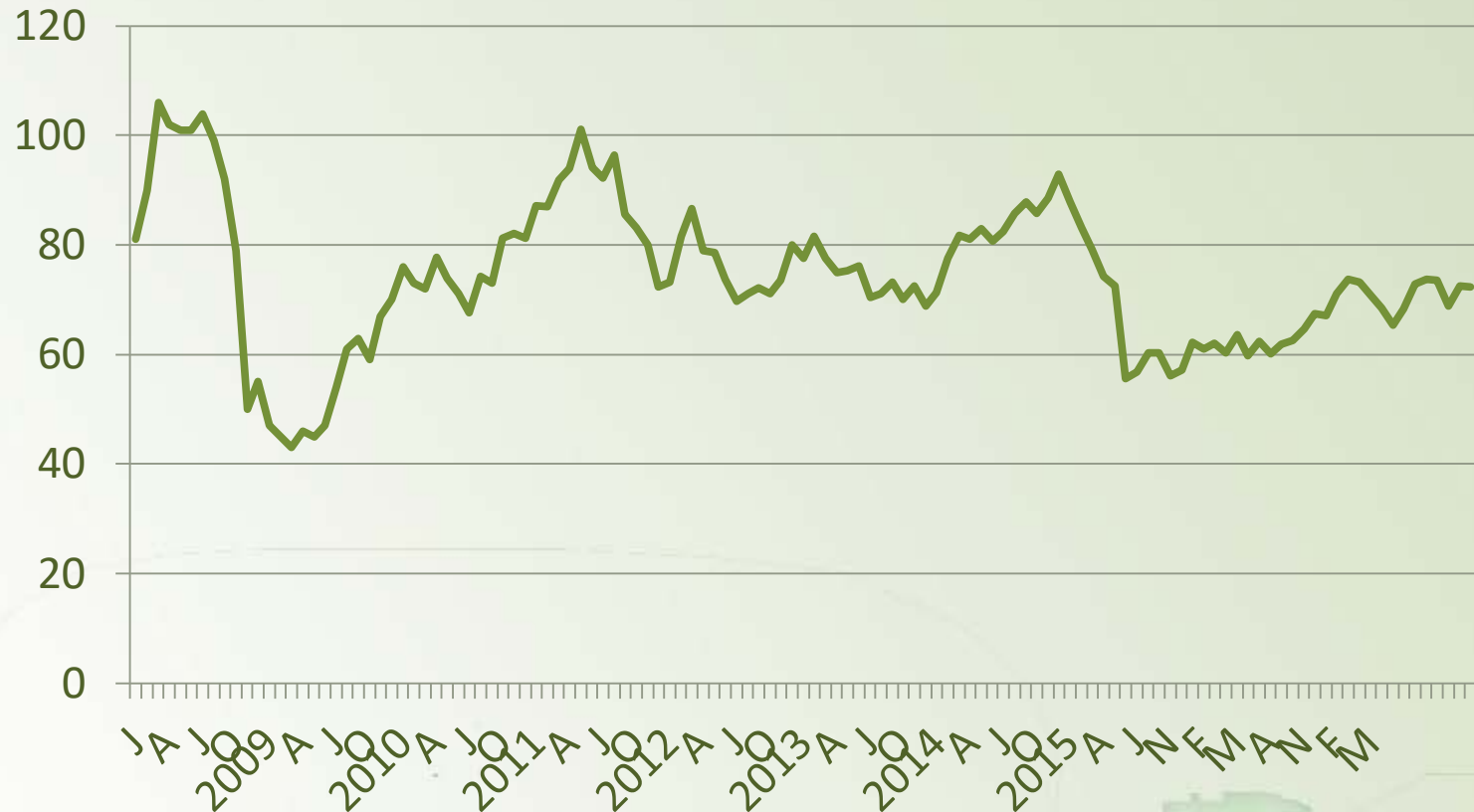
**LONG-TERM ASSESSMENT.** Three questions will weigh heavily on the longer-term

# Metallics

**growth potential for steel and aluminum:**

- Will the U.S. economy continue to grow at 3-4 percent annually?**
- Will global demand for metals stay robust (scrap steel exports from the U.S. in 2017 rose 18 percent and aluminum shipments were up 16 percent)?**
- Will Congress and state and local governments fund infrastructure projects?**

# Aluminum can prices



# Paper

**GENERATION.** We will continue to see less white and more brown in the MRF mix. That said, bale volumes will not grow.

**MARKET FUNDAMENTALS.** The paper industry will continue to shutter antiquated mills. A few parties – such as Pratt Industries – will increase their role in the domestic paper recycling industry.

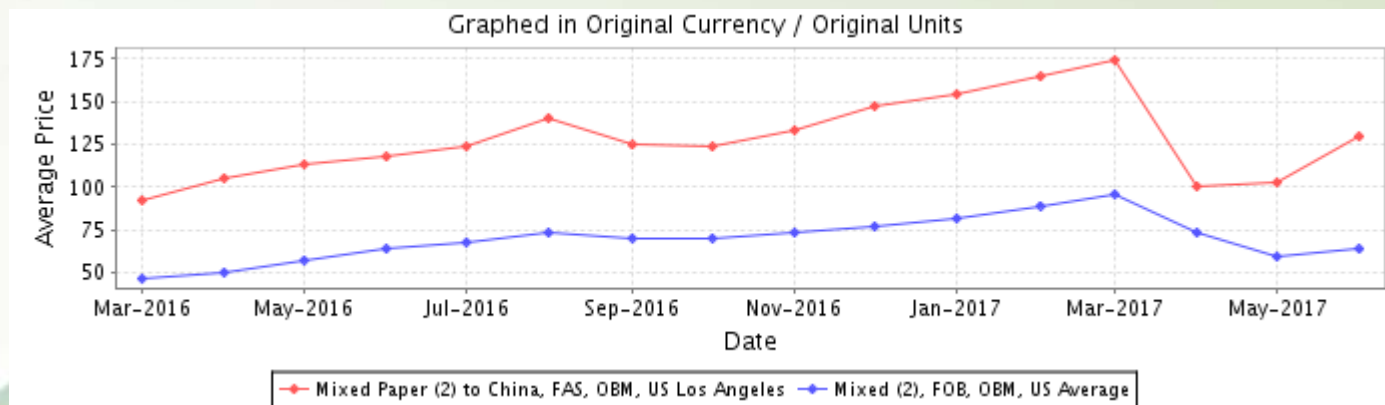
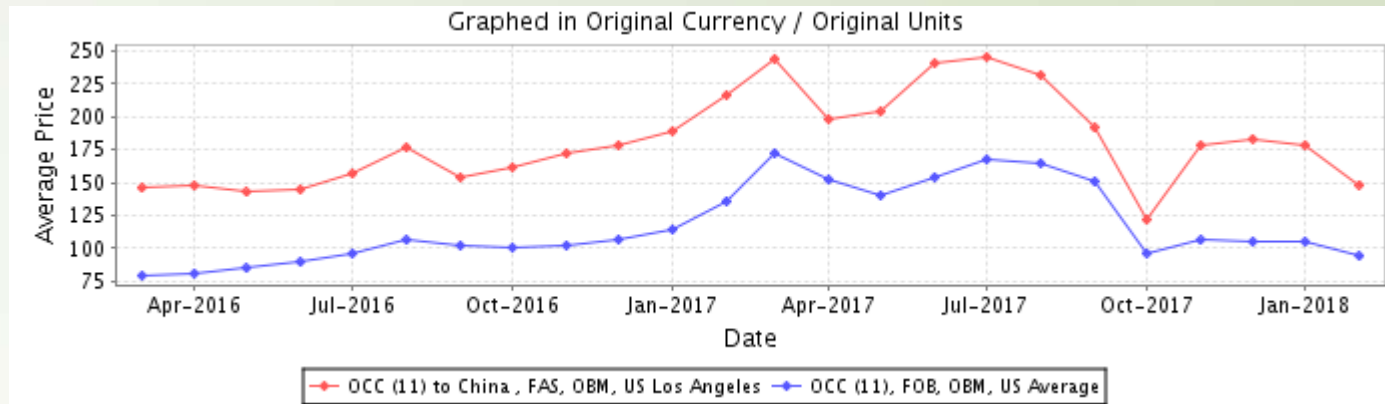


# Paper

**LONG-TERM ASSESSMENT.** Recycled-content fiber demand will continue to grow. But how can we grow fiber consumption in the U.S. in the short-term? Too, in comparison to plastics recycling, major and quick actions in the paper industry are not possible due to the size of each investment.



# Pricing for OCC and mixed paper (RISI)



# Plastics

**GENERATION.** The market is moving from sugary drinks to water and juices, thus affecting PET bales. For HDPE, generation generally rides the population curve (more children means more milk jugs, etc.).

**MARKET FUNDAMENTALS.** Demand for recovered containers exceeds collections. However, the value of plastics will remain

# Plastics

locked in a thin price band because of fairly cheap shale oil and natural gas (see charts).

**LONG-TERM ASSESSMENT.** Market actions will vary by resin. Nos. 1 and 2 should have a modestly vibrant market demand, while other grades will be confronted with extreme market volatility.

# HDPE milk jug bale prices



# PET bale prices



**QUESTIONS ???????**

# The disruptor: China

China is undergoing significant change under President Xi Jinping. The government has initiated major anti-corruption and pollution-control initiatives, and this is affecting global recycling markets. A second factor is the sizable changes in the Chinese economy, with its vast and surging middle-class.

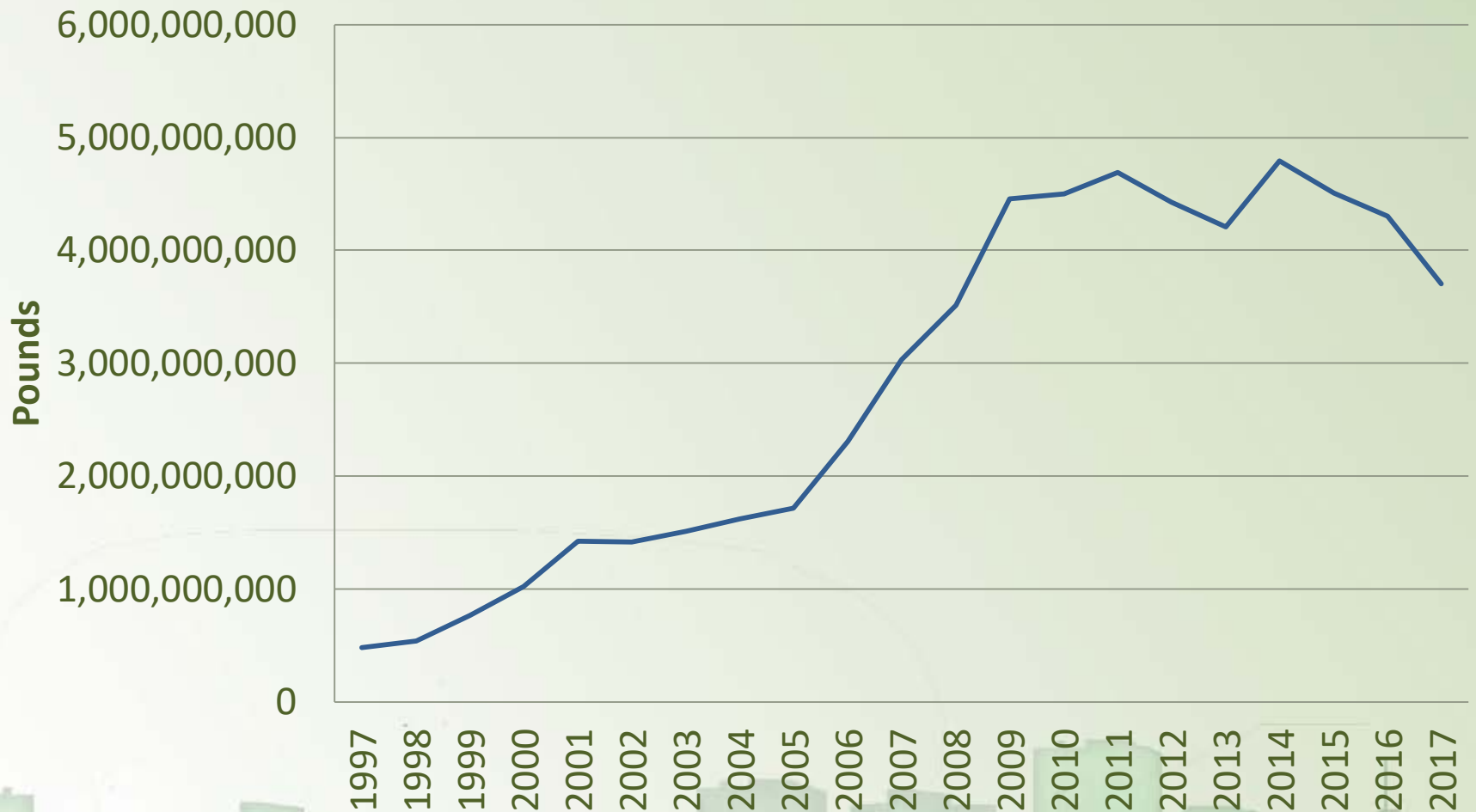


# **This has produced change**

**China has been cutting imports of scrap plastics and paper for the past three years. This is the result of many factors:**

- Rising use of virgin fiber and resins.**
- Increased recycling collections in China.**
- Large increases in plastics and paper consumption in that country.**

# Plastics exports from the U.S.



# Change prevails

**Federal action comes at a time of rising environmental attention in China, with social media exposure of environmental problems being a key driver.**

**The Chinese Federal Environmental officials are focused on specific types of facilities.**



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# Change prevails

Thus, over the past three-plus years, the Chinese government has undertaken two campaigns (Green Fence and the National Sword).

We have a timeline on our website for your use.



# Timeline for Chinese actions

## February 2013: Green Fence goes up

China [launches intensive inspections](#) of incoming loads of scrap material, a policy that is in fact an effort to enforce import regulations passed in 2006 and 2010. Though it is officially slated to end in November 2013, insiders note it could be restarted at any time.



## Early-April 2017: Pivot back toward quality

Reports out of China indicate National Sword is also being used to assess overall material quality, not just the legality of permits used to import loads. Customs officials are believed to be [checking every container](#) entering the country at certain ports, which causes delays for material shippers.

## Mid-April 2017: A ban on the way?

A [meeting of top Chinese leaders](#), including President Xi Jinping (below), covers environmental reform possibilities. Delegates recommend "regulations should be enhanced to 'significantly' reduce the categories and volume of waste imports," according to a state media report. The China Scrap Plastic Association's Steve Wong, who was in attendance, says government officials suggested "a ban on solid waste imports by category."



## November 2015: Another two-month customs crackdown

Chinese authorities [frame this effort](#) as one looking to ensure Chinese scrap processors are handling material according to the procedures laid out in their individual licenses. This initiative is seen as different from Green Fence because it inspects importer practices and not loads on the dock.

## February 2017: National Sword announced

This Chinese action has a [specific focus on halting smuggling operations](#), meaning those groups using illegal permits to import materials. Inspection scrutiny is directed toward bales of low grade plastics as well as paper with high moisture content.

## February - March 2017: Tightening the screws

Enforcement action is [heightened](#) on criminal activity, particularly permit fraud inside China. Authorities arrest 90 suspects and confiscate 22,100 metric tons of foreign scrap material in the first weeks of National Sword enforcement.



## Late-April and Early-May 2017: Export unrest

Exporters [describe import fees doubling](#) over the course of a few weeks and extreme challenges in trying to move materials into China.

## Late-May and Early-June 2017: Searching for answers

Officials from U.S. trade group the Institute of Scrap Recycling Industries

Easy-to-digest rundown of all the key China import events, starting with Green Fence in 2013.

Links to dozens of stories by Resource Recycling staff.

Available at [resource-recycling.com/recycling](http://resource-recycling.com/recycling)

# Change prevails

These initiatives included specific actions:

- inspect 1,600 paper mills and plastics reclamation plants, and shutter many of them.
- impose bans on the import of certain grades through import license restrictions (mixed paper, mixed plastics, etc.) and bale inspections.
- impose tight bale standards (0.5 percent).

# Change prevails

This, of course, has created mass confusion, warehousing of material, landfilling of bales, etc. All of this is comes with the lack of information. In terms of today's Chinese recycling markets, everyone is an expert and no one is an expert. The lack of transparency in Chinese governmental actions makes for a chaotic marketplace.

**China is tightening the screw and we have to respond**

**U.S. companies concerned at China's proposed ban**

*Largest waste firms say their recycling loads are certified and clean.*

**China's War on Foreign Garbage**

Imported recycling has been a boon for China. So why ban it?

**What comes next after China's scrap ban surprise?**

National Sword '17: Recycling just got harder in Oregon, US, thanks to China decision

TOP STORY

Recycling hits a snag

**Recyclables may hit Chinese wall**

**Recycling Corner: A Dear John Letter from Xi Jinping**

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# Now the fake news: a few predictions

This is the weakest part of today's presentation. As suggested, the cause of no surety is the opaqueness of Chinese actions. So we'll just add to the confusion with our best guess of what's ahead.



# **Now the fake news: predictions for paper**

I would contend bale standards will be loosened slightly and the flow of mixed paper will slightly improve for three reasons. With the closure of hundreds of small, polluting mills, the power in paper recycling moves more toward the giants (Nine Dragons, Lee & Man, etc.), who have considerable political influence. Second, the local recycling collection industry is



# **Now the fake news: predictions for paper**

already rebelling against tight bale standards. And lastly, the big users of recycled containerboard (Nike, Walmart, Target, etc.) will threaten to take their orders elsewhere if they can no longer buy large quantities of cheap boxes. The threat of closing modern mills and laying off adequately paid workers will be a powerful weapon.

# Now the fake news: predictions for paper

Thus, my prediction: a continuing – but not startling -- decline in shipments to China of all grades, coupled with a slight easing of bale standards.

Shipments to other countries will rise. Consider this data on 2017 exports from the U.S.:

- exports to China down 18 percent
- shipments to India up 24 percent

# Now the fake news: predictions for paper

- exports to Vietnam up 22 percent
- shipments to Indonesia up 16 percent.

And remember again, Chinese demand for U.S. fiber is declining without import restrictions.

# **Now the fake news: predictions for plastics**

**In comparison to China's recycled paper industry, its plastics recycling sector is less politically influential and far more horizontal (many, many small producers). Thus, the ban will effectively kill the market for mixed plastics, especially for large rigids (pails, buckets, crates, etc.).**

# **Now the fake news: predictions for plastics**

**We're already seeing this trend, with Chinese import permits flowing with some regularity to large paper producers, while the government is being very restrictive on plastics import permits. For instance, the first five rounds of permits saw only 21,300 metric tons of plastics imports allowed, versus 3.5 million metric tons for all of 2017.**

# So what does this all mean?

First, China's actions have aided U.S. plastics reclaimers and recovered paper mills. Volumes are available and bale quality has improved. Not everyone in the U.S. recycling industry is unhappy!

However, bale quality improvement produces higher processing costs.

# So what does this all mean?

Third, onshoring will occur. For example, two-dozen Chinese plastics recycling executives are heading to Nashville next week to seek potential U.S. partners in the establishment of U.S.-based washing, flaking and extruding operations.

Fourth, Southeast Asian countries will increase



# So what does this all mean?

their demand, often with Chinese investment. This is already happening. Here's data for U.S. plastics exports in 2017:

- China down 35 percent
- Thailand up 400 percent
- Malaysia up nearly 295 percent
- Vietnam up 105 percent
- India up 34 percent

# **Now the fake news: general predictions**

**We are seeing a surge in interest in state and local recycling market development initiatives, especially with a focus on mixed paper.**

**Success, however will likely be more on plastics due to the lower cost of entry into the business and the quickness of project initiation and completion.**

# **Now the fake news: general predictions**

**However, all of this comes at a time when several other factors are affecting recycling markets. A major issue in today's recycling system is freight. Costs are rising, trucks are not available and relief does not appear on the horizon.**

**Too, you can expect more consolidation in the recycling industry, with buyers becoming**

# Now the fake news: general predictions

fewer, but bigger.

# Disclaimer

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# Drop me a line

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