

14 May 2018

China's import ban on recycling and the impacts for local government

Where did it come from, was it foreseeable and what can we do now?

Presented by Mike Ritchie



The specialists in recycling, waste and carbon



The role of China in global recycling markets

- China imported - **\$US18bn** of recyclables in 2016.
- **Half the world's exports of:**
 - Paper
 - Plastics



Economist.com

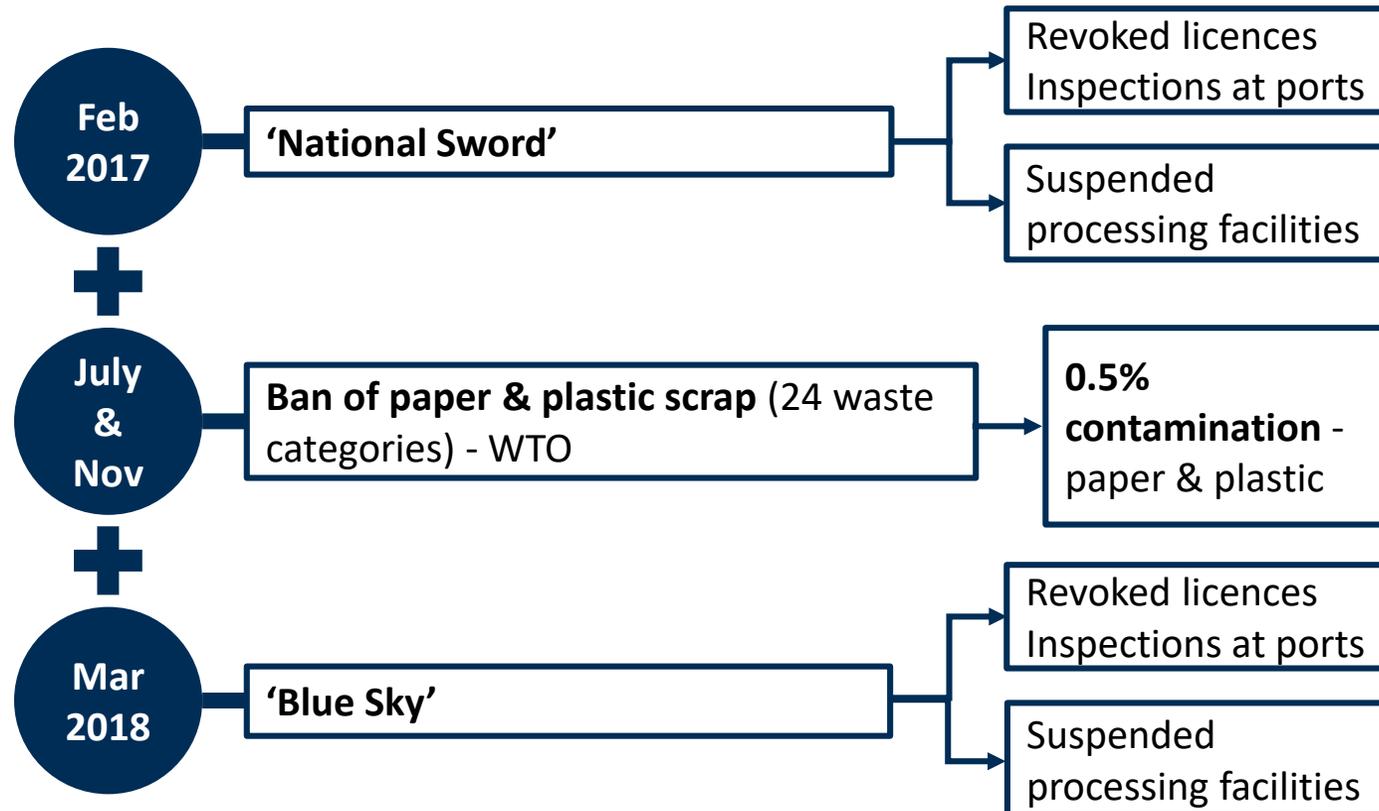
What is China's National Sword policy?

The goal:

“Imports of solid waste that can be substituted by domestic resources will be phased out by the end of 2019” – State Council of China

- it is NOT about contamination. It is about industry policy.

The actions:

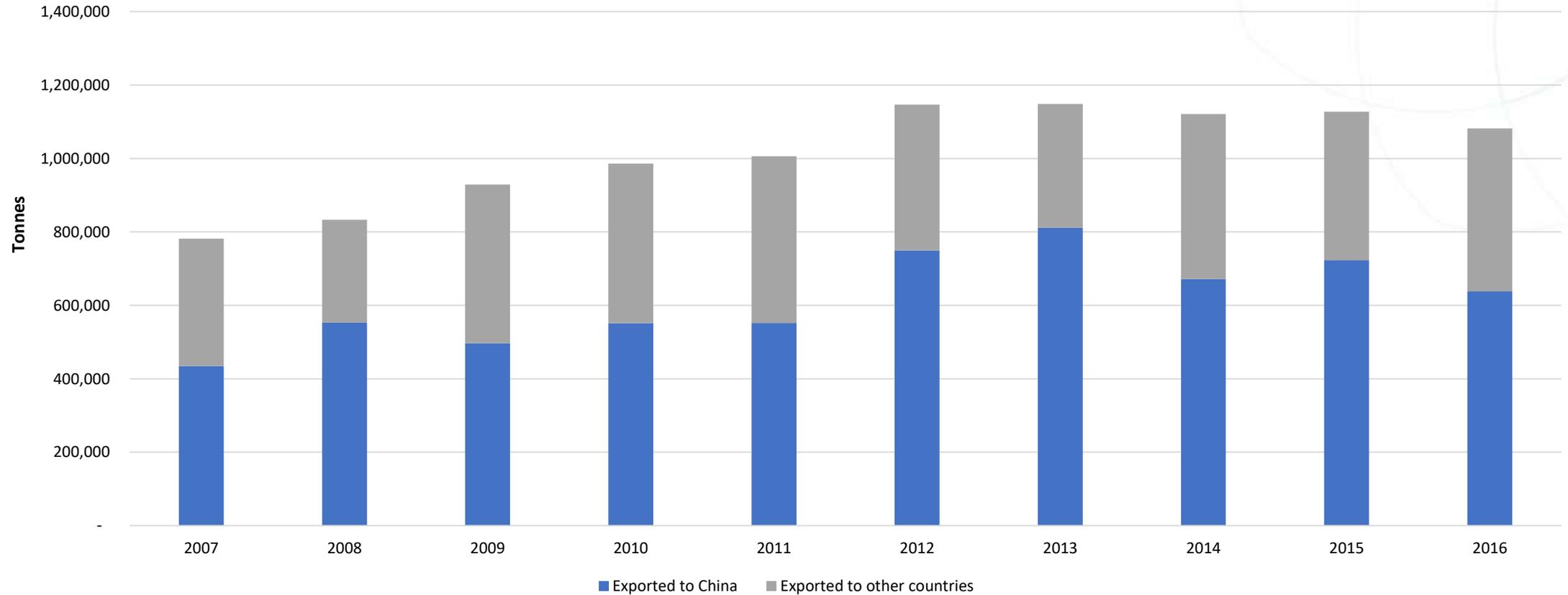


Note – MRFs were never designed to achieve 0.5%

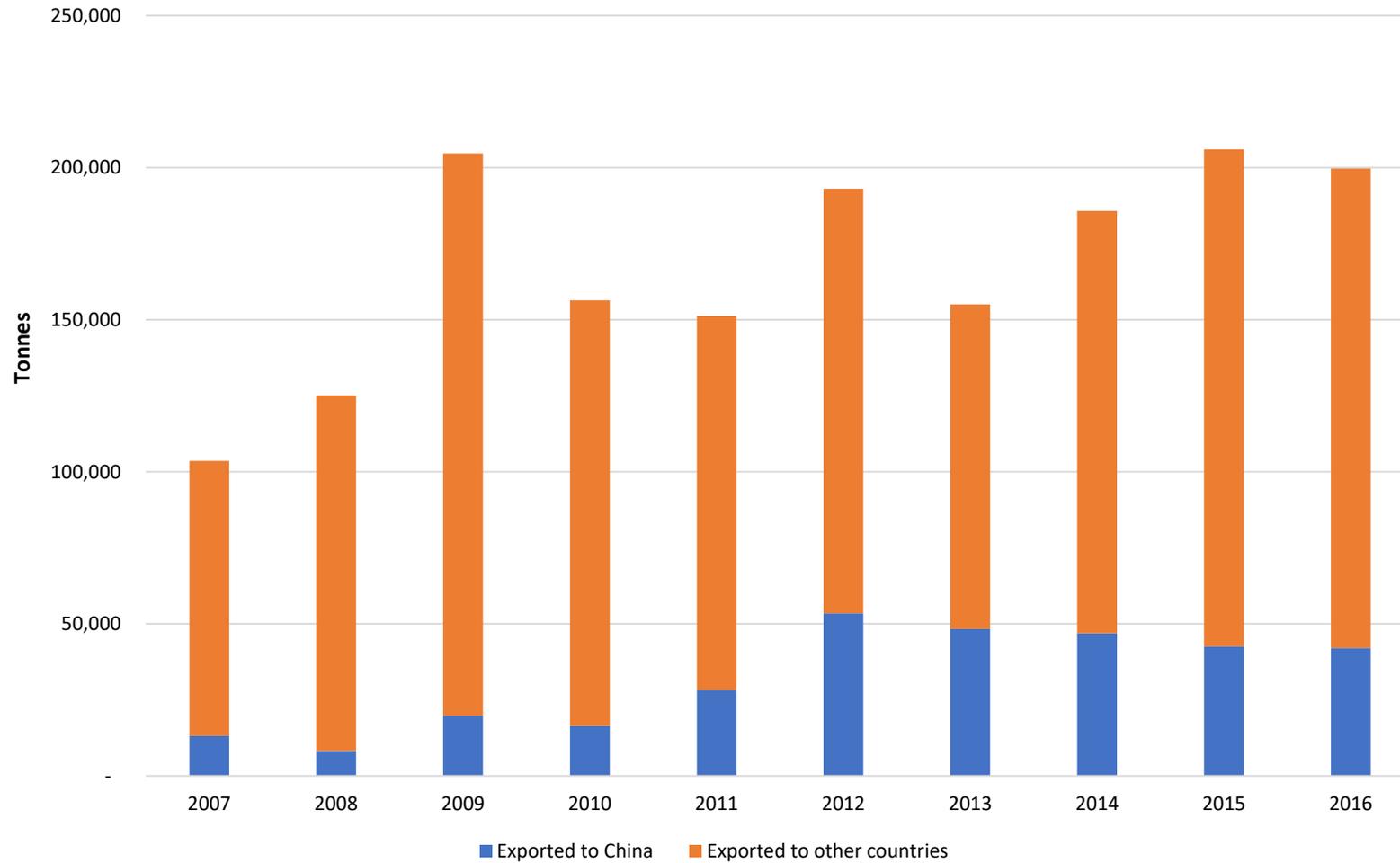
Some key points

- Sold product 600,000 t fibre; 40,000 t Plastic
- Glass is separate issue
- Contamination
 1. MRF contamination is not the same as export contamination
- It is efficient to capture the last 5% in the secondary reprocessor
 1. Therefore it is exported with 5% contamination
 2. Reflected in the price
 3. Keep recycling

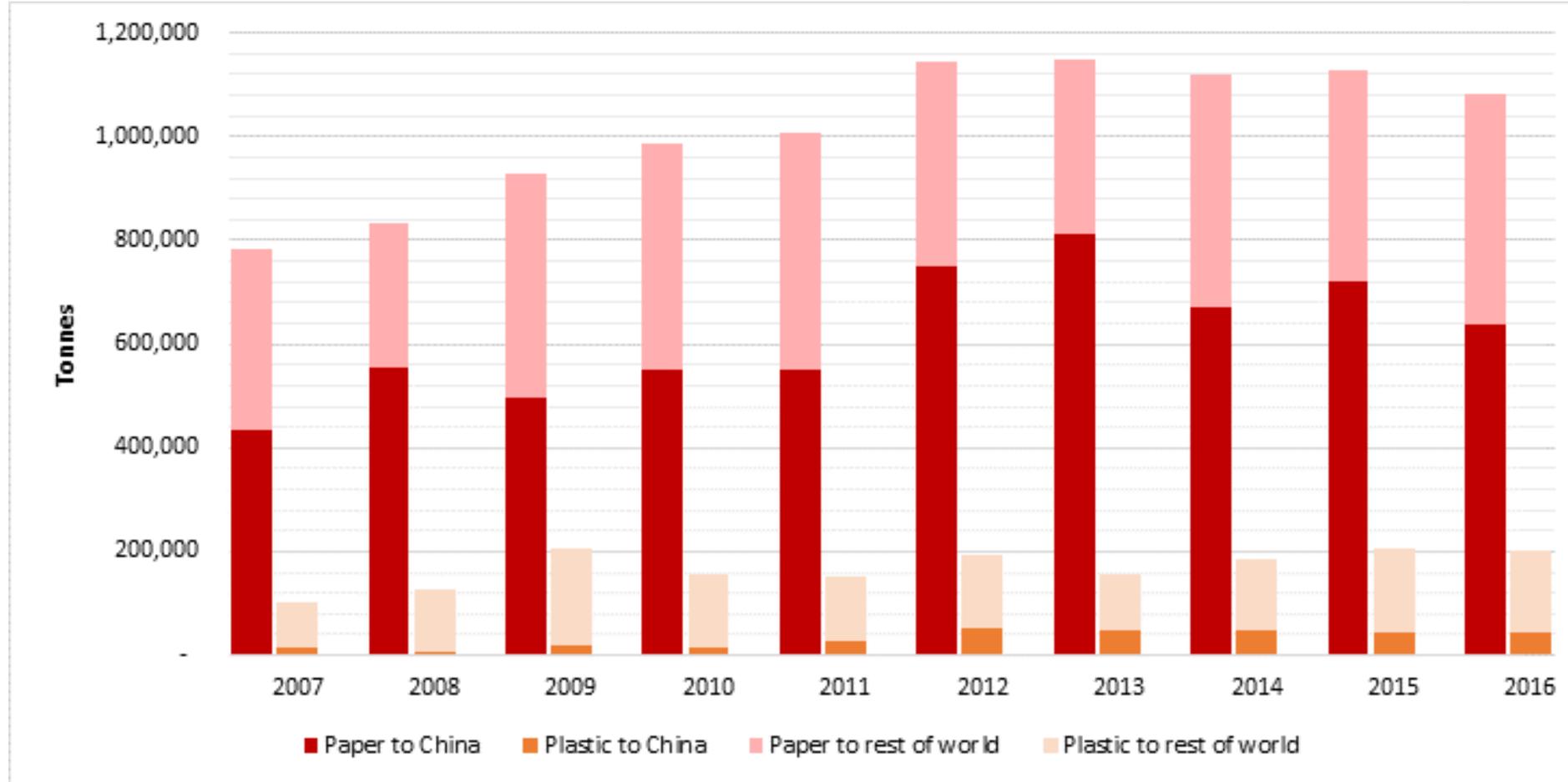
Australian exports of Cardboard (1.6mt)



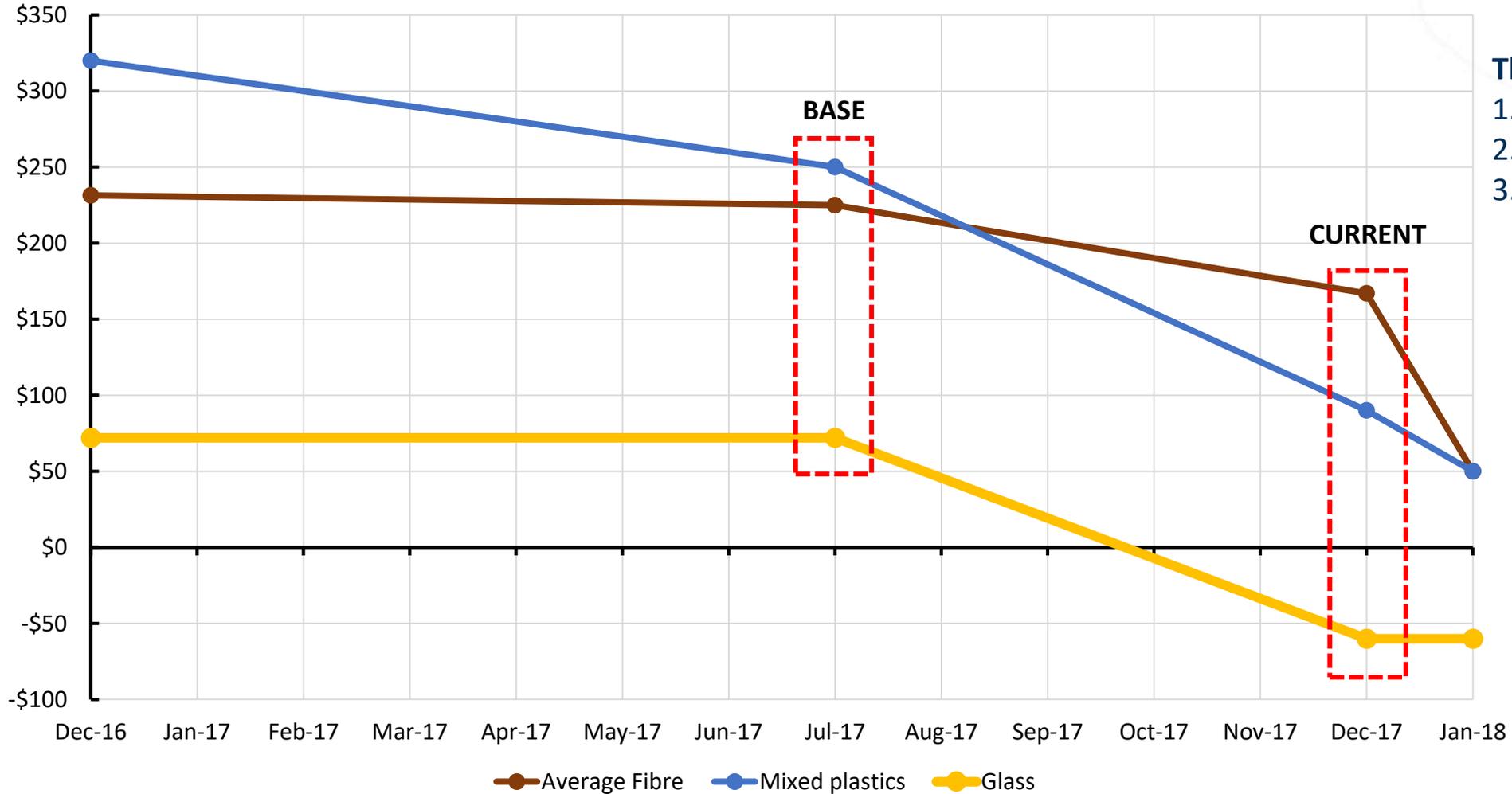
Australian exports of Plastics (0.4mt)



Relative importance – it is all about fibre



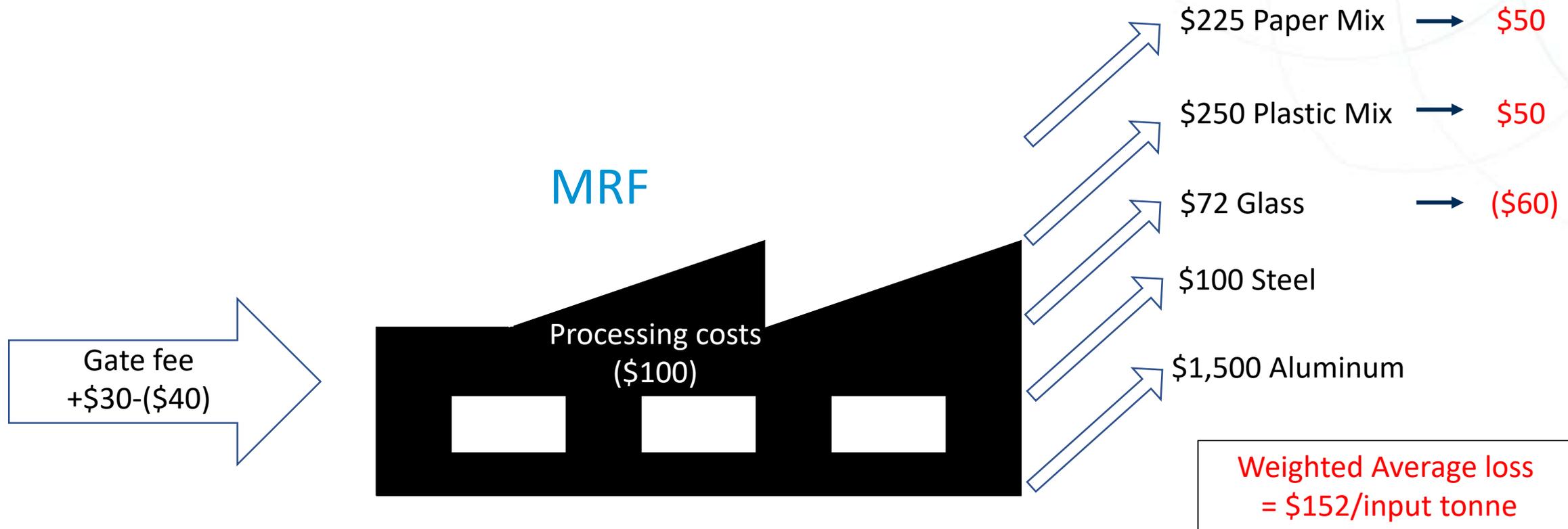
The impacts on commodity prices – China Product Glut & Glass Crash



The impacts:

1. Reduced import licenses
2. Oversupply
3. Crash in price globally

The impacts on MRF's



- MRFs are no longer profitable at new commodity prices and existing gate fees

Impacts on MRF gate fee

Material category	input %	BASE	CURRENT	DIFFERENCE	Weighted loss in output value (\$/t MRF input)	
		Historical average sale price (\$/t)	Jan18 average sale price (\$/t)	Drop in price (\$/t output)		
Paper and paper products (mixed fibre)	55%	\$225	\$50	\$175	\$96	National Sword
Plastics (mixed plastics)	8%	\$250	\$50	\$200	\$16	National Sword
Glass	30%	\$72	-\$60	\$132	\$40	Aust. Market
Ferrous material	2%	N/A	N/A	N/A		
Non-ferrous material	1%	N/A	N/A	N/A		
Other	2%	N/A	N/A	N/A		
TOTAL	100%				\$152	

Or \$112 without glass...

Glass in Australia



- Closed 3 furnaces
- Cheaper to import green bottles from Mexico
- Price collapse \$72/t → -\$60
- Glass now being recovered for road base

The impacts on Australian recycling

- MRF operators seeking gate fee increases
- Under mechanisms:
 - Change in Law;
 - Force Majeure (“Act of God”); and
 - Unforeseen circumstances



The impacts on Australian Councils and households

- Increased MRF costs
 - Estimated to be ~\$112/t (National Sword)
 - Estimated to be ~\$152/t (National Sword + Glass)
- Rate increase to cover the increased MRF cost:
 - ~\$31/hh/year (National Sword)
 - ~\$43/hh/year (National Sword + Glass)
- Approx 4% NOT including on-shore costs or future falls

Average household
generates 5.4 kg/wk¹ or
280kg/yr

¹ Source: NSW Local Government WARR Data Report

Government responses



- NSW Gov't
 - \$47 m - grants and Council costs to 1 July
 - \$2.5 non-levy area, \$35m ERA/RRA, \$9 contestable
 - Advisory Committee established
- Vic Gov't
 - \$13m "rescue package"
 - cover extra costs to Councils to 1 July
 - \$70/tonne
 - Task Force established
- SA - Feb 2018 -\$300k support secondary reprocessing



What is actually happening?

- Recyclables ARE still being exported, albeit at lower prices
- Recycling gate fees ARE increasing
 - but they remain lower than landfill gate fees due to landfill levies

Mid term – Circular Economy - “on-shore” reprocessing

Accept the lower sale price of exporting to other Asian countries

Cost \$100-150/t

Only available if Asian markets are able to absorb

OR

Operate MRFs to 99.5% quality

Up to \$400/t

OR

On-shore secondary reprocessing

value-add to product

Plastic and Glass most likely

Est \$250/t

Cost benefit has not been done – limited markets for plastic pellets and glass. Unlikely fibre mill will be “on-shored”.

- Note CDS in NSW worth \$150-200/t

Once only Opportunity

- DON'T THROW THE BABY OUT WITH THE BATHWATER
- Don't argue to incinerate recyclables
- Improve what we have today:
 - National campaign to reduce contamination
 - Improve MRF capture
 - Improve secondary reprocessing “on-shore”
 - Embed Circular Economy principles into Government policy
 - Get government interested in waste!!

Once only Opportunity

\$150m ACOR proposal :

- \$90m infrastructure
 - MRF improvements = \$30m matched
 - Glass = \$20m matched
 - Plastic = \$10m matched
 - Fibre = \$30m matched
- \$30m positive procurement;
- \$30 education and contamination reduction



Conclusion – don't let a crisis go to waste

- Is stopping recycling the only option for Australia?
 - **NO**
- This would mean an effective cost increase to councils of 400% to 500%.
 - **No. 4% for fall so far. Another 4% for on-shore costs**
- Would a likely 2% hike in rates be accepted by ratepayers and will it be enough?
 - **Yes. But 4%**
- How do you manage existing waste contracts?
 - **Accept or negotiate or reject. Preferably the former.**
- What message does this send to our enviro-conscious generation?
 - **We are not exporting waste; we will onshore more processing**
- Have we got sufficient landfill capacity to absorb this additional waste?
 - **It does NOT need to be landfilled.**
- Are there other economically viable solutions in the long term?
 - **Yes.**

What needs to happen?

Short term

Gate fee negotiations - \$40/hh/yr

Council contract renegotiations

(Get a good consultant!!!)

Mid term

\$150m ACOR proposal

Purchasing policies by government to increase demand

"On-shore" reprocessing capacity – fibre glass and plastic

Glass processing into sand – application to roads

Continue exporting to Asia – especially fibre

Use CDS (in NSW) to compensate MRFs. But keep separate.

thank you

- Commercial
- Strategy
- Planning
- Auditing
- Education
- Modelling
- Engineering
- Due diligence

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