WEIGHOUNDAMOEWNIERBREAK



WHOME BUILDING BUILDING

imglip.com

Key Industry Impacts

	2018	2019	2020	2021	2022	2023
Reduced N.A. Printing & Writing Capacity	(555 kt)	(1,225 kt)	(2,315 kt)	(1,481 kt)	(59 kt)	?
Import Supply Chain Challenges						
More Pressure on Domestic Availability						
Mill Inventories Depleted						
Strict Allocations Implemented						
Inflation						

2022 N.A. Demand Forecast

According to RISI & PPPC

	CFS		UF	S
	RISI Feb. Paper Trader	PPPC Mar. P&W Bal.	RISI Feb. Paper Trader	PPPC Mar. P&W Bal.
Demand	1.7%	-8.2%	0.7%	-2.0%
Imports	8.4%	-4.4%	12.5%	6.0%
Shipments	-2.0%	-9.7%	-0.7%	-2.8%

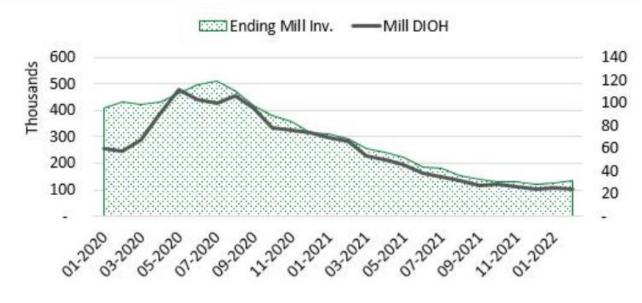


2022 N.A. Coated Freesheet Outlook

TTM Demand Walk (Tons in 000's)

158 2,758 828 (27)1,833 TTM Feb 2022 TTM Feb 2022 Imports Mill Inventory **Exports** Production Drawdown Demand

Impact of Inventory on 2022 Outlook



Inventory Needed to Get Back to "Normal"

- 1. Mills back to Q1 2020 DIOH
- 2. Add 45 days to distributors on sheets



Tons



2022 N.A. Coated Freesheet Outlook

	CFS			
	RISI Feb. Paper Trader	PPPC Mar. P&W Bal.	Back to "Normal"	
Demand	1.7%	-8.2%	-13%	
Imports	8.4%	-4.4%		
Shipments	-2.0%	-9.7%		

Availability Outlook



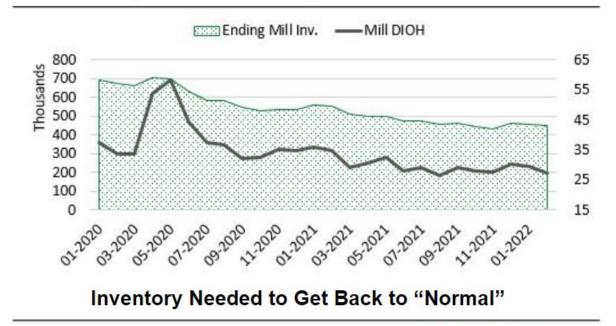


2022 N.A. Uncoated Freesheet Outlook

TTM Demand Walk (Tons in 000's)

102 697 6,486 (122)5,811 TTM Feb 2022 TTM Feb 2022 Imports Mill Inventory Exports Production Drawdown Demand

Impact of Inventory on 2022 Outlook



- 1. Mills back to Q1 2020 DIOH
- 2. Add 30 days to distributors on sheets



Tons



2022 N.A. Uncoated Freesheet Outlook

	UFS		
	RISI Feb. Paper Trader	PPPC Mar. P&W Bal.	Back to "Normal"
Demand	0.7%	-2.0%	-4%
Imports	12.5%	6.0%	
Shipments	-0.7%	-2.8%	

Availability Outlook

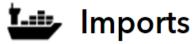




How Do We Get More?

Production

- Reduce the complexity
- Narrow the offering
- Capital investments



- Paper manufacturers earn spots back on vessels
- Costs decrease
- Reliability increases



Will inventories ever be rebuilt and allocations removed?

The inventory buffer is needed to remove allocations and absorb supply and demand volatility...

However, inventory isn't the only option for reinvestment...better ones may exist

Things will be different...

- New supply chains and service models will have to be tested and the successful ones are likely to remain in place
- New capabilities will need to be developed.
- Forecasting and planning into the future will become a necessity.
- Impact of sku rationalization likely to be long lasting
- Those that are flexible, have scale, and can plan will be better off



