It's a Great Time To Be in the Steel Industry!

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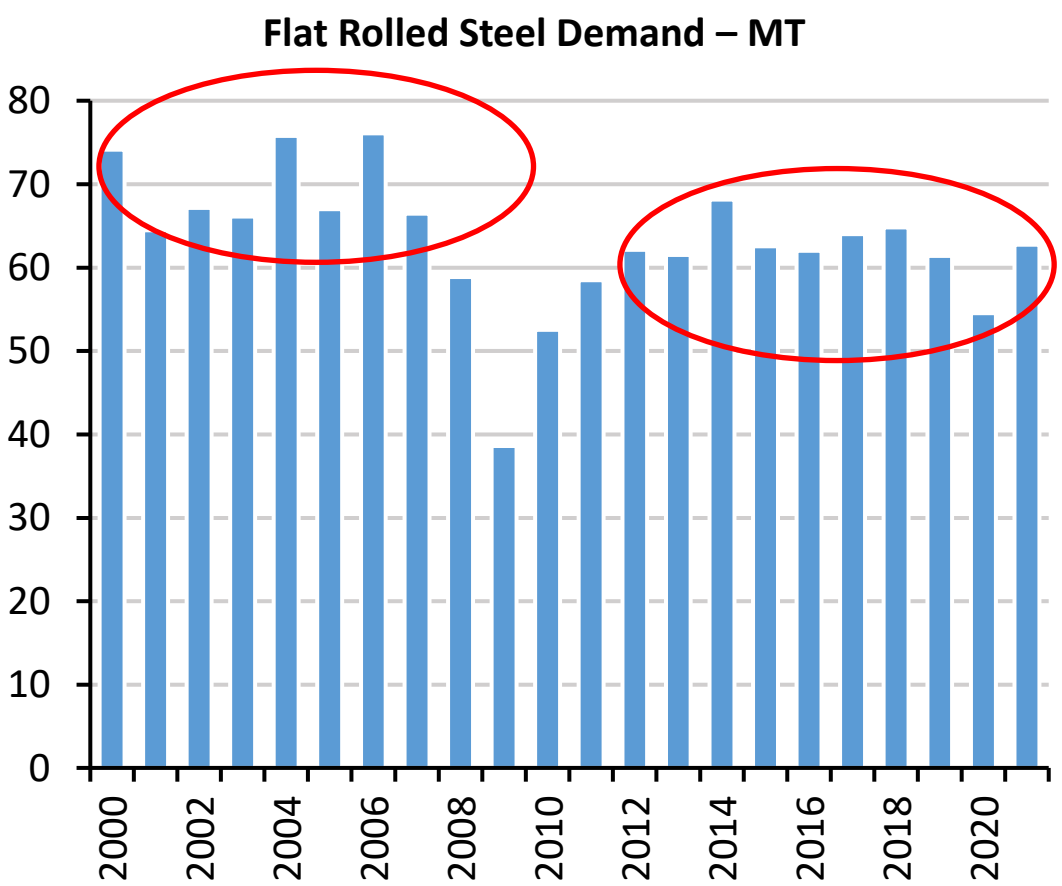
Introductory Remarks

It's the most exciting time in my 30-year career in steel!

- An iron ore company acquired its customers, then acquired a major scrap processor
- An integrated mill bought a minimill and is now building another
- A minimill is entering the aluminum flat rolled industry
- Another minimill is integrating downstream across multiple industries
- New scrap substitute facilities are proliferating
- Prices & spreads have decoupled from historical norms
- ESG is showing up everywhere – upstream & downstream
- Change used to be slow & methodical
- Change is now rapid & unpredictable
- What's next?

Steel Supply & Demand

Flat rolled demand has not returned to pre-financial crisis levels



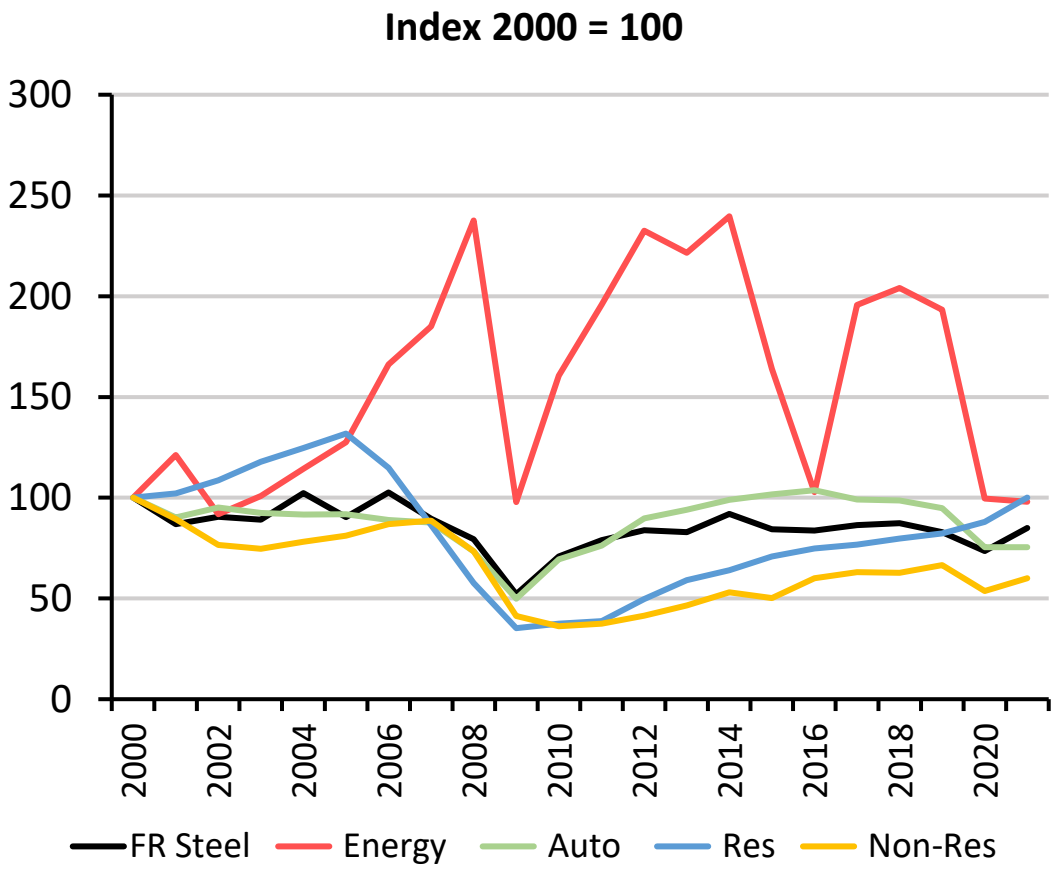
Source: AISI, SRA analysis & estimates

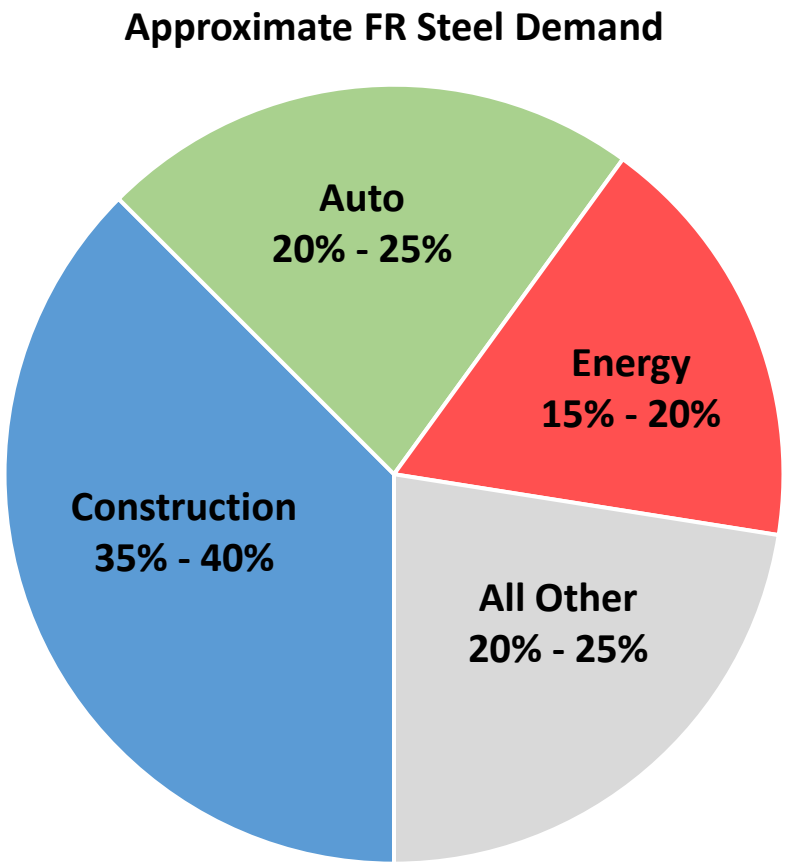
Key Issues to Consider

- Construction (largest market for steel) still lagging
  - Non-residential down ~ 35%
  - Residential down ~ 25%
- Indirect imports are growing
  - Steel content of finished goods (auto, appliance, etc.)
  - Off-shoring of manufacturing
- Down-gauging from increased strength of steel
  - Tonnage decreasing
  - Area (square feet) increasing
- Material substitution trends
  - Aluminum
  - Glass
  - Plastics

Steel Supply & Demand

Major demand drivers are not on the same business cycles

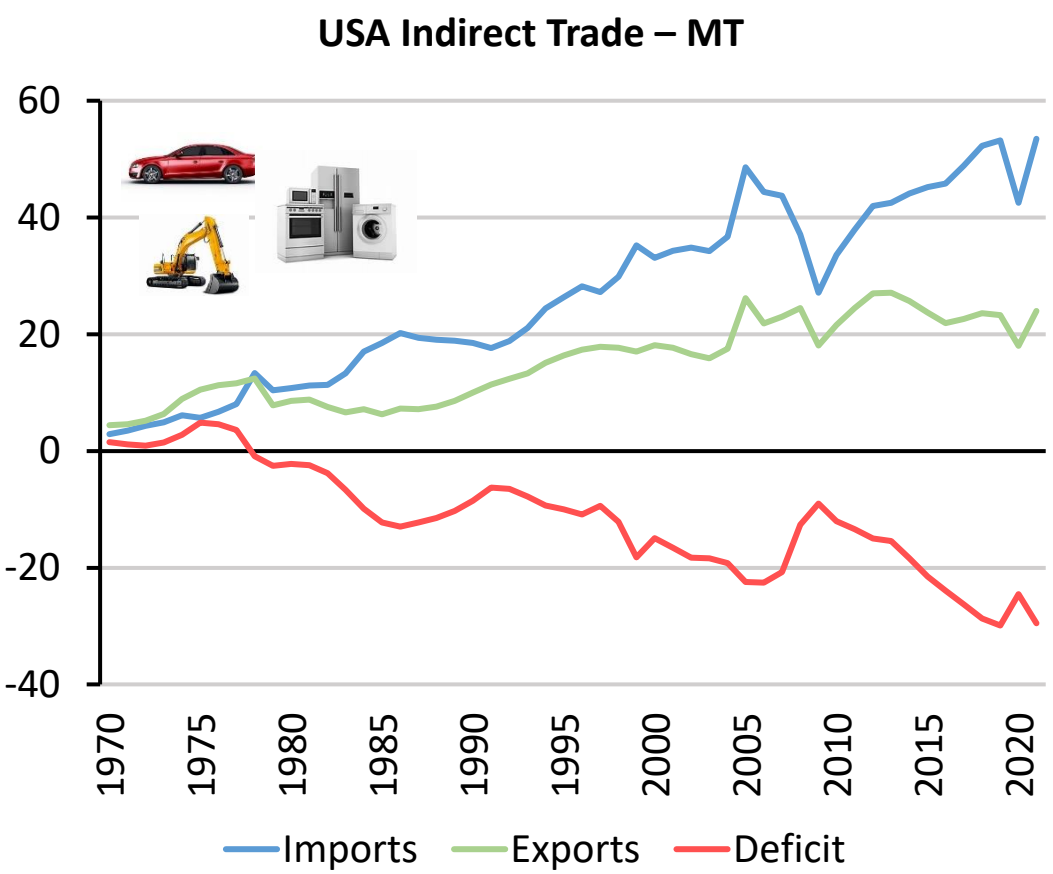


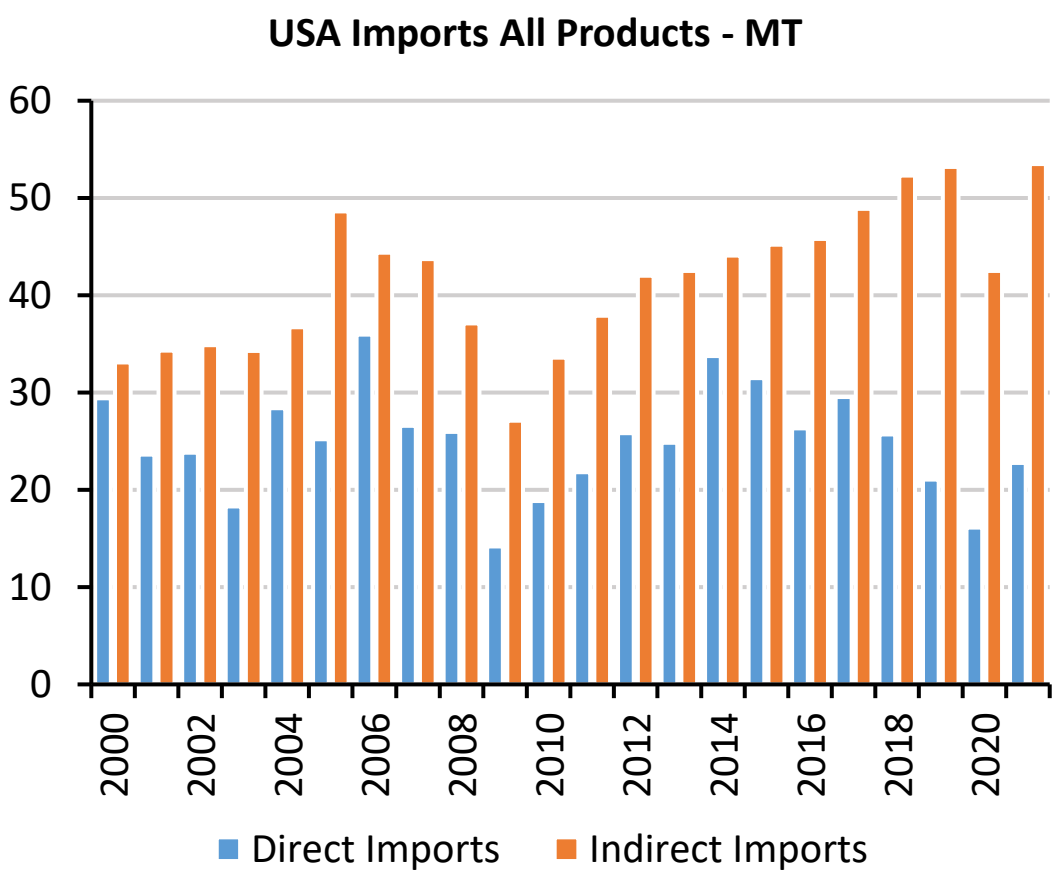


Source: Various industry trade resources, SRA analysis & estimates

Steel Supply & Demand

Indirect trade is bigger than you think

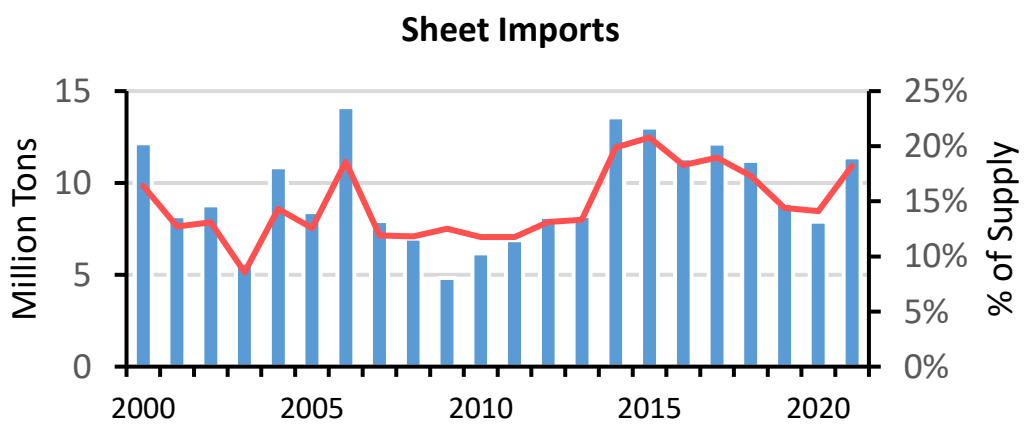


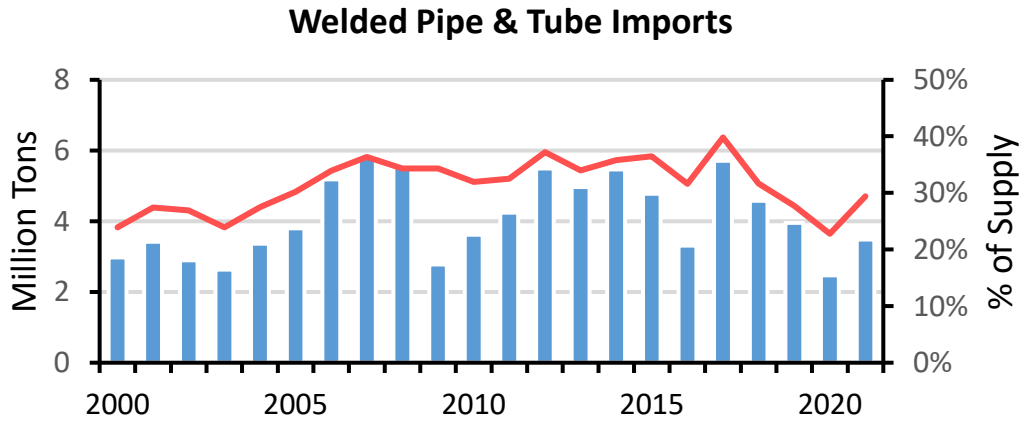


Source: AISI, WSA. Indirect trade = steel content of finished goods imports & exports (2020 & 2021 estimated).

Steel Supply & Demand

Flat rolled imports are still high by historical standards





Source: AISI, Preston, SRA estimates

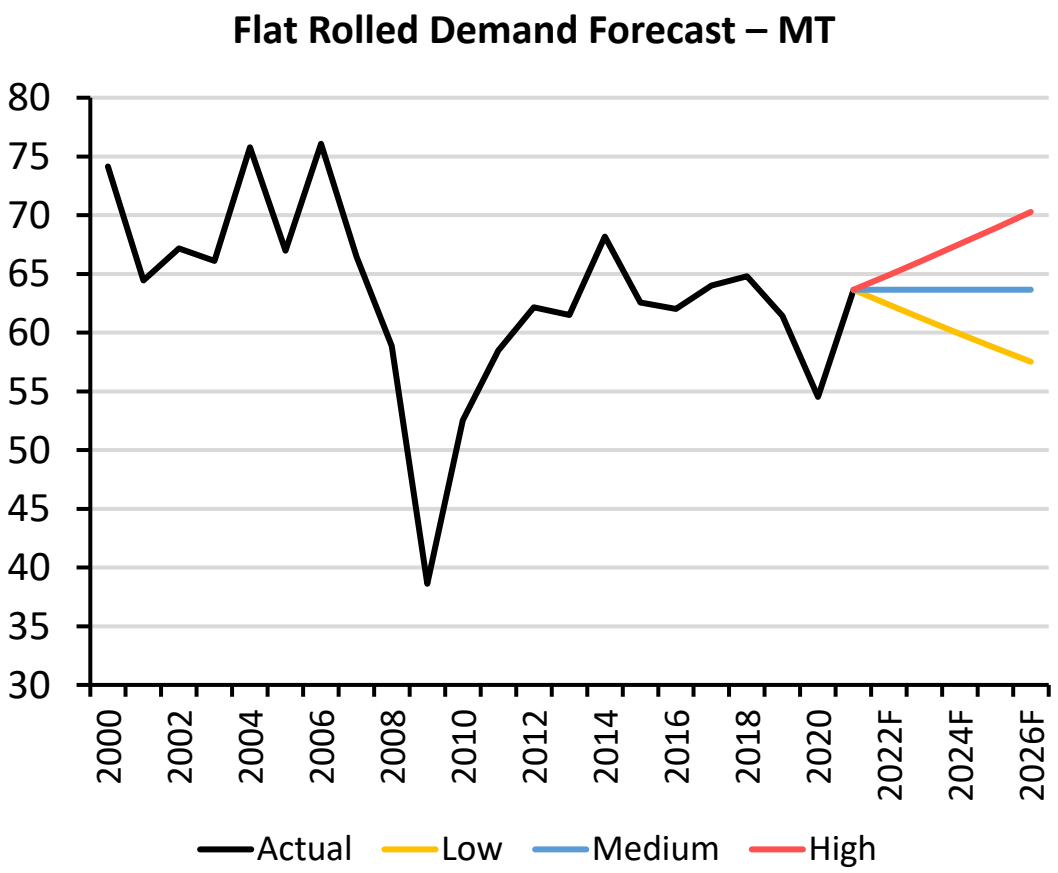
Sheet Equivalent Imports - MT

Imports	2017	2018	2019	2020	2021
Direct Sheet	12.1	11.2	8.9	7.9	11.4
Welded P&T	5.7	4.6	4.0	2.5	3.5
Total Direct	17.8	15.8	12.9	10.4	14.9
Indirect Deficit @ 65% FR	17.1	18.7	19.4	15.9	19.2
Total Direct & Indirect	34.9	34.5	32.3	26.3	34.1

33.0 MT Equals
11 Sheet Mills
At 3.0 MT Each

Steel Supply & Demand

Expect flat rolled demand to average about 65.0 MT over the next couple of years

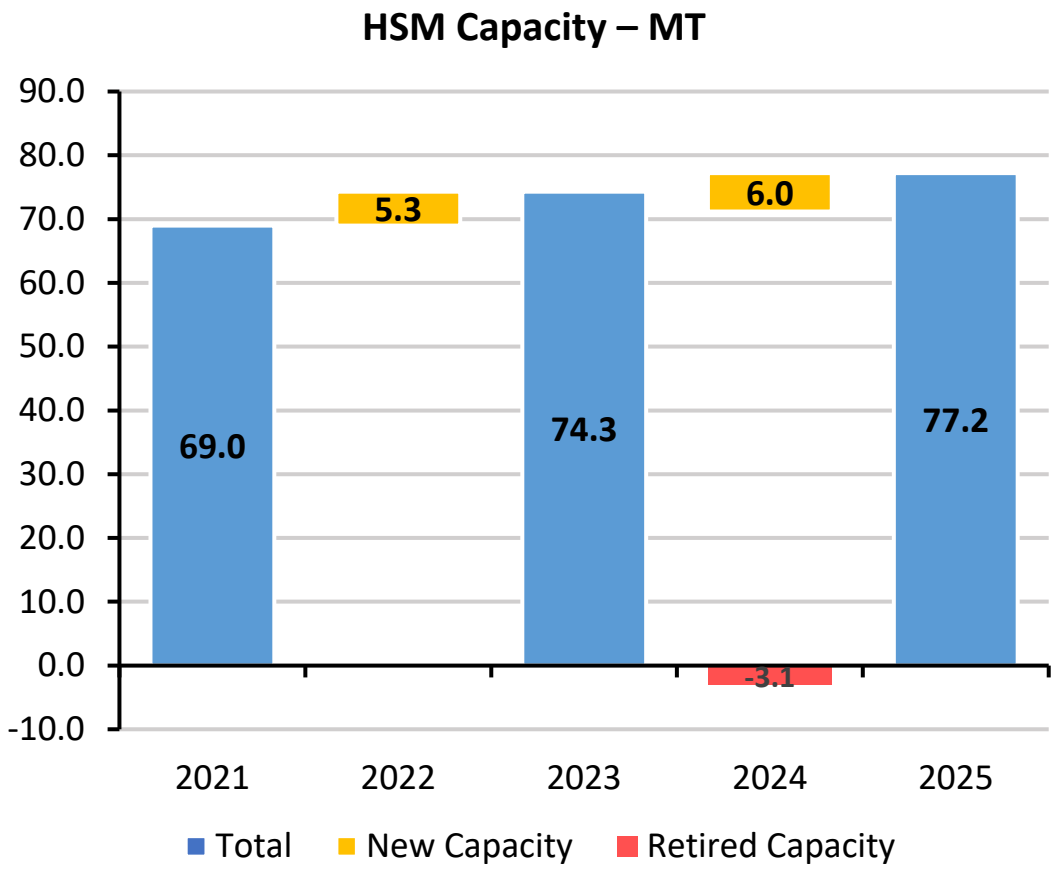


Source: AISI (history), SRA (forecast)

- Year 2021
  - 63.5 MT
  - Average last 10 years (pre –Covid)
- Low forecast
  - -2.0% CAGR
  - Deteriorating demand fundamentals (recession, off-shoring, etc.)
  - 2026F around recent trough
- Medium forecast
  - No growth
  - 2021 right in the middle
  - 2026F around long-term averages
- High forecast
  - +2.0% CAGR
  - Improving demand fundamentals (growing economy, re-shoring, etc.)
  - 2026F around recent peak

Steel Supply & Demand

Significant new HSM capacity is on the way

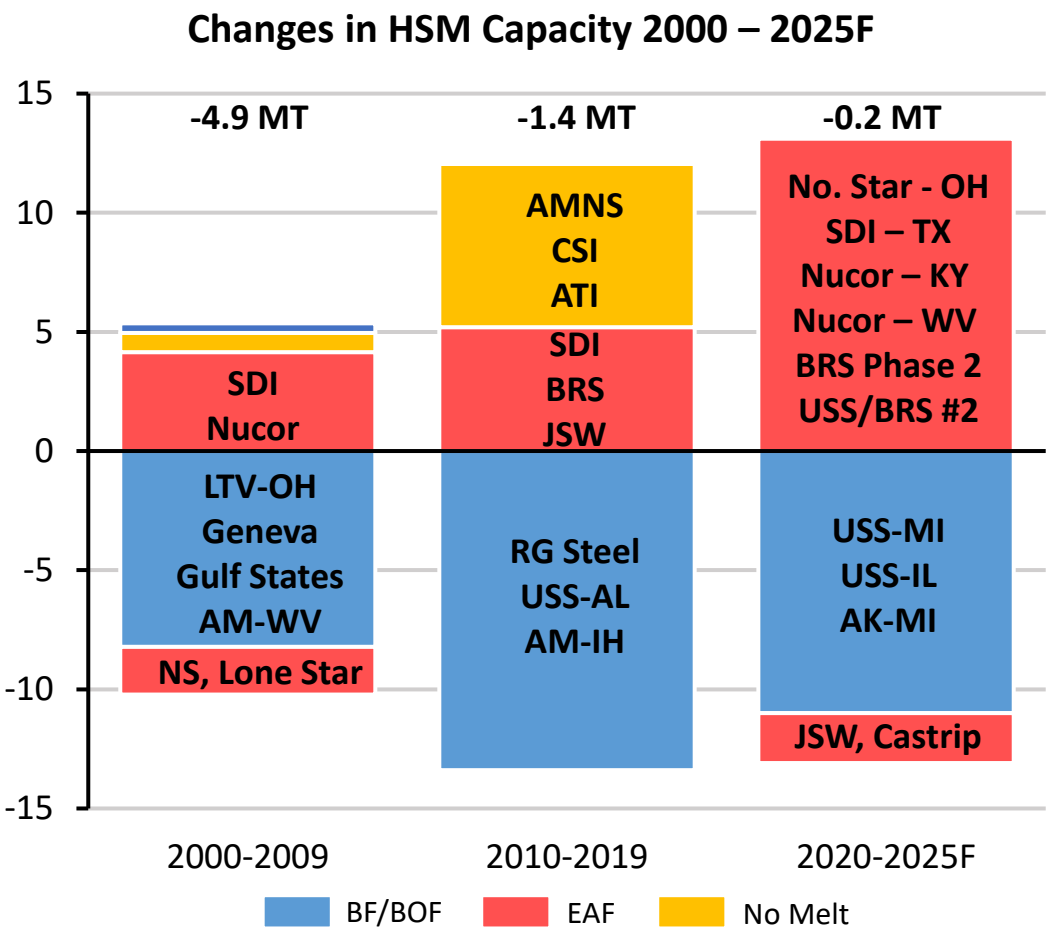


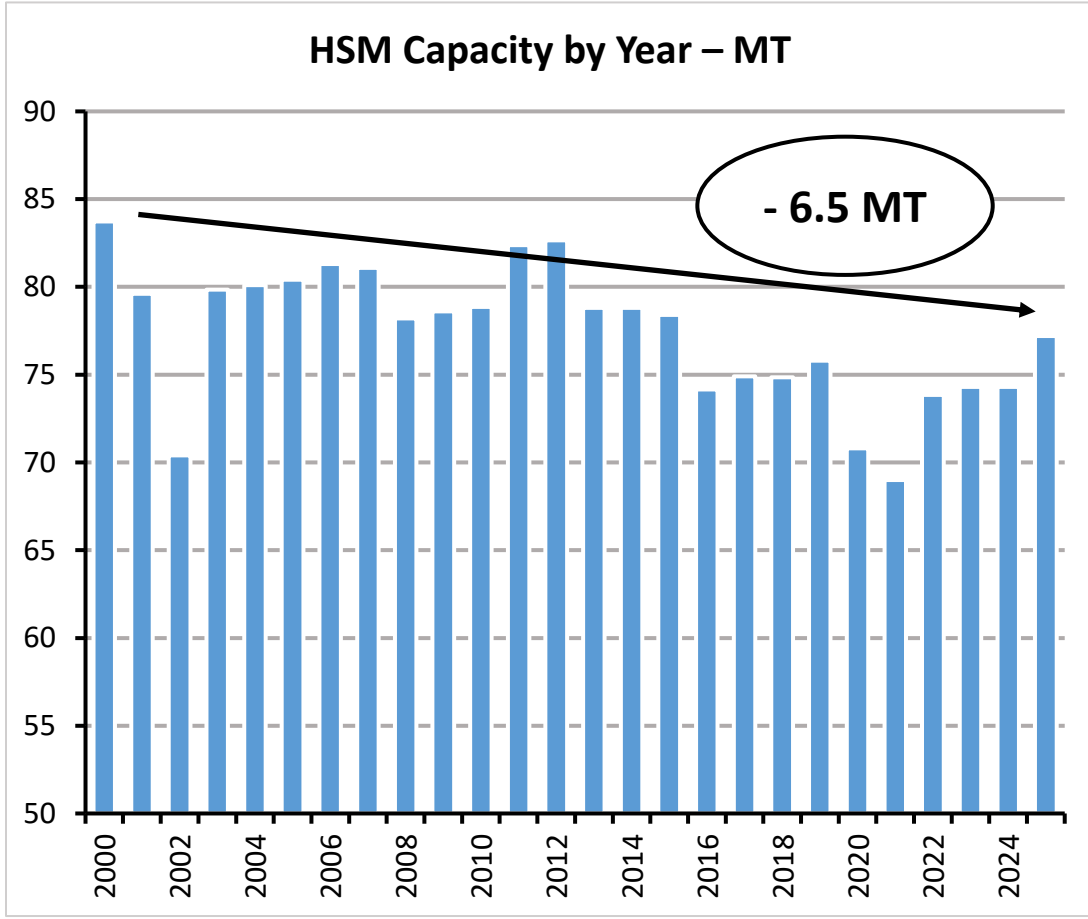
Source: SRA capacity database

- 2021 baseline = 69.0 MT
  - 67.4 MT end of 2020
  - 1.6 MT USS/BRS #1 Phase 2
- 2022 additions = 5.3 MT
  - 3.0 MT SDI-TX
  - 1.4 MT Nucor-KY expansion
  - 0.9 MT North Star-OH expansion
- 2024/5 additions = 6.0 MT
  - 3.0 MT USS/BRS #2 – AR
  - 3.0 MT Nucor – WV
- 2024/5 closure = 3.1 MT
  - 3.1 MT USS – IL (Granite City)

Steel Supply & Demand

HSM capacity is not changing … new technology is replacing old



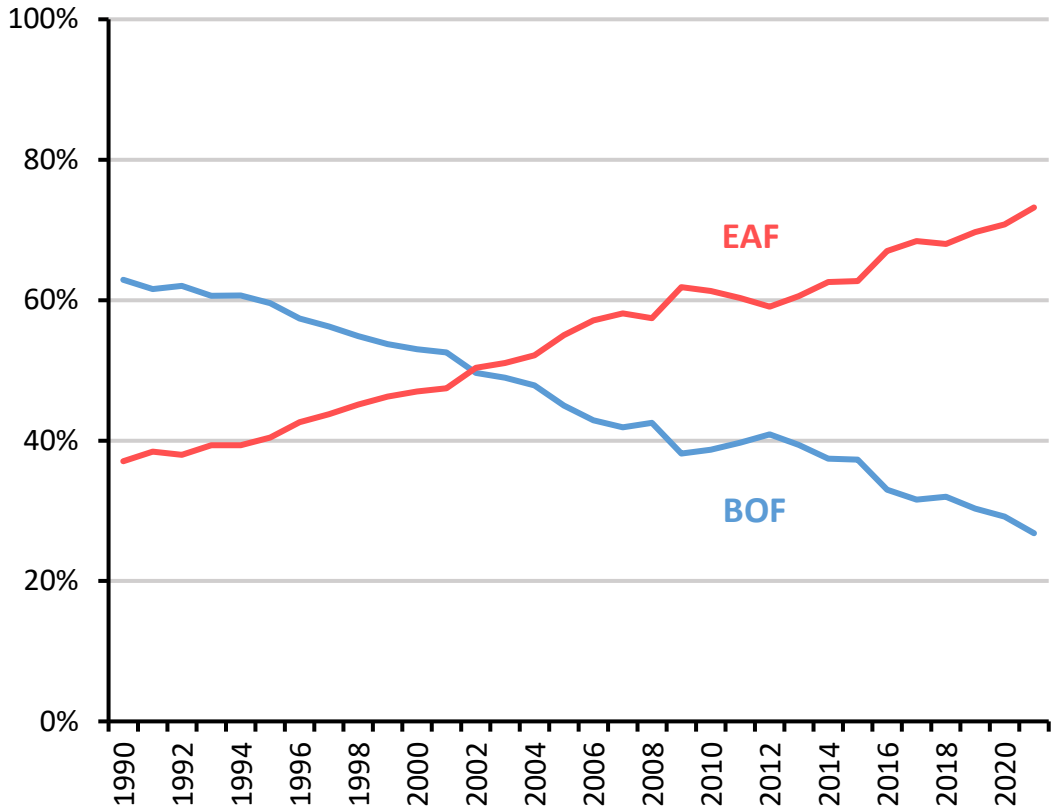


Source: SRA capacity database

Steel Supply & Demand

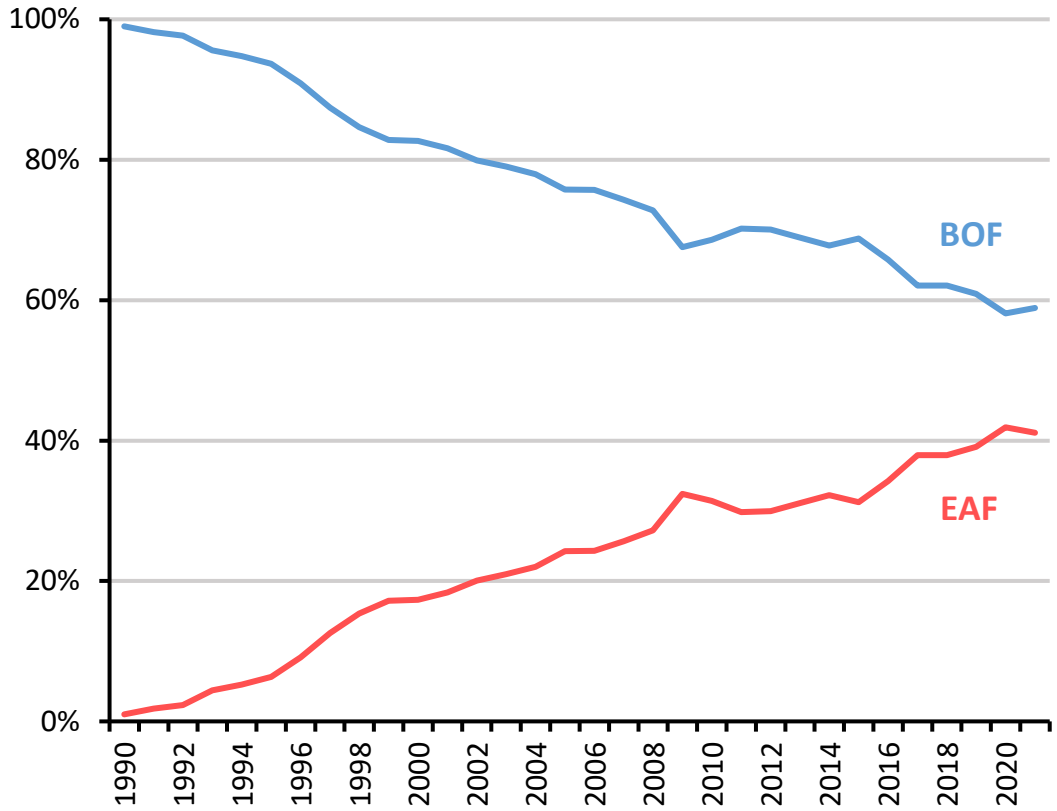
EAF share of flat rolled production is increasing

Raw Steel Production – Total Steel



Source: AISI

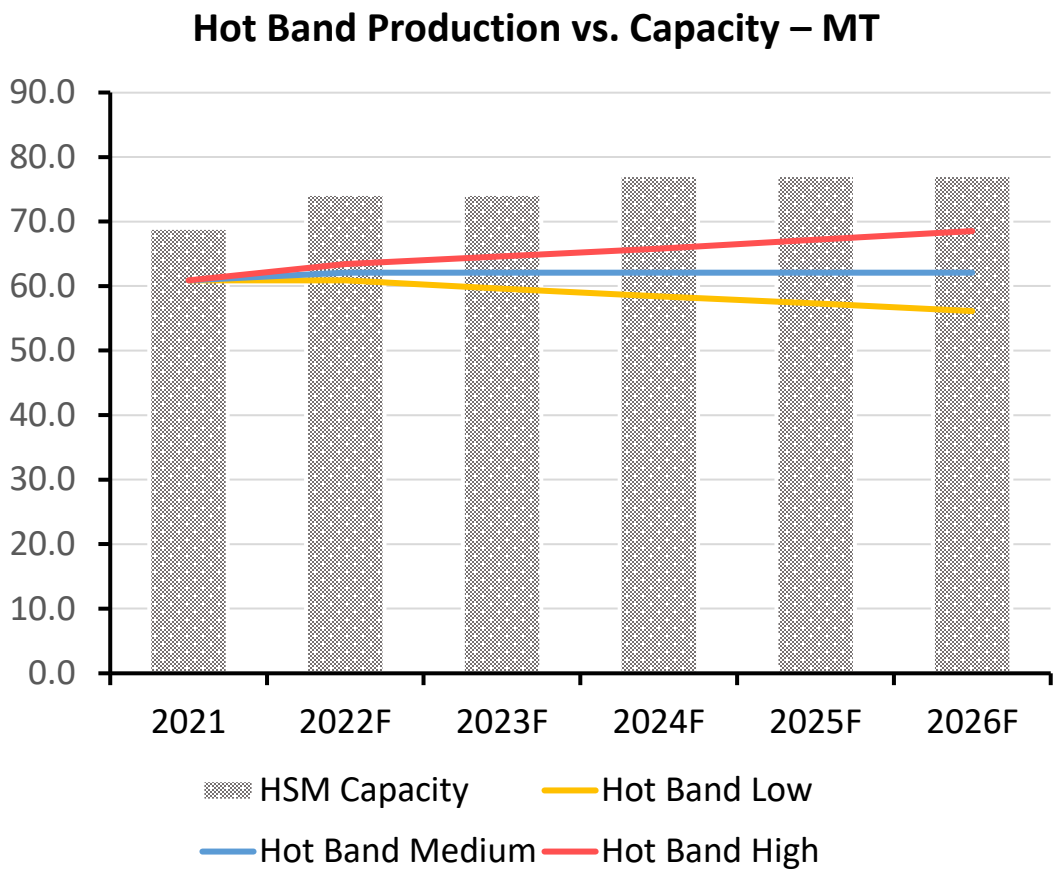
Raw Steel Production – Flat Rolled



Source: Company reports, SRA analysis & estimates

Steel Supply & Demand

Expect HSM capacity utilization to drop marginally

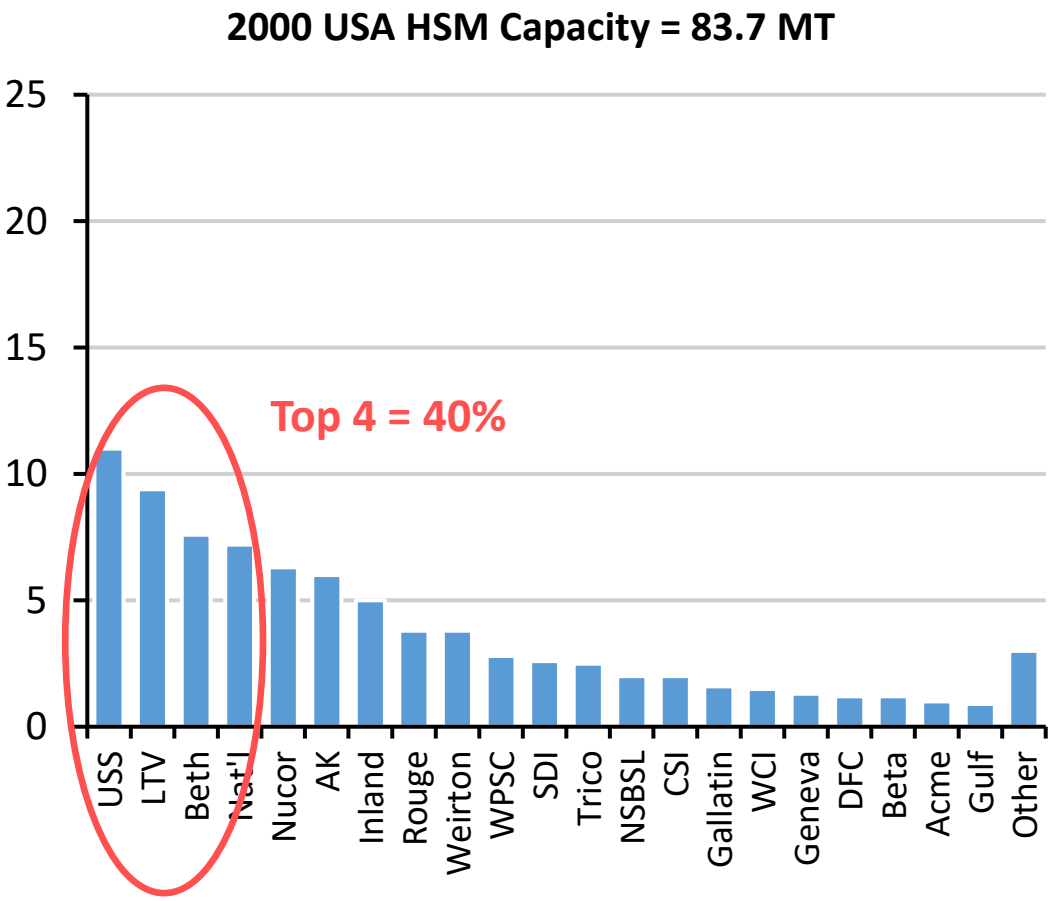


Source: SRA capacity database

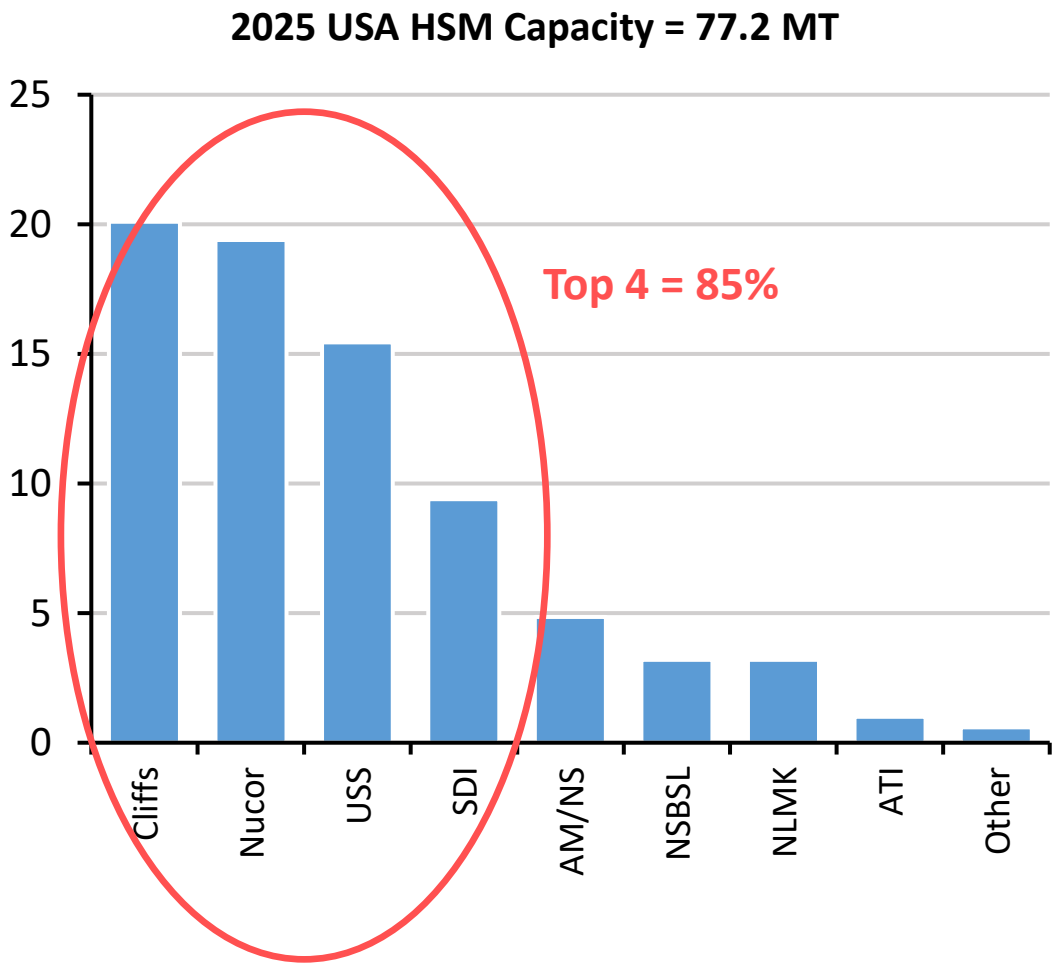
- Assumptions
  - Demand forecast = low (-2.0%), medium (0.0%), high (2.0%)
  - Imports = long-term average 17%
  - Exports = long-term average 8%
  - Hot band production = all flat rolled yielded to hot band
- Forecasted HSM Utilization
  - 2021 88.3%
  - 2026F low 74.2%
  - 2026F med 80.4%
  - 2026F high 87.0%
- Wildcards
  - Import levels
  - Additional capacity closures

Steel Supply & Demand

The flat rolled industry has consolidated



Source: SRA capacity database

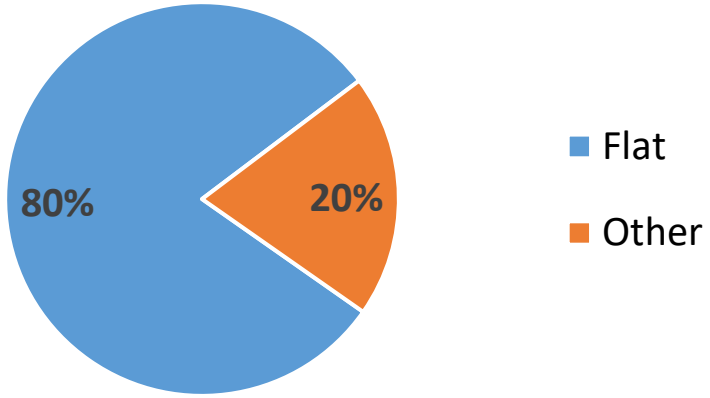


Scrap Supply & Demand

16.0 MT of new EAF capacity – mostly flat roll requiring higher quality scrap

Company	Capacity MT	Product Type	Start Up
SDI – TX	3.00	Flat Roll	Q1 2022
Nucor – KY	1.40	Flat Roll	Q3 2022
NSBSL – OH	0.90	Flat Roll	Q3 2022
Nucor – KY	1.20	Plate	Late 2022
CMC – AZ	0.50	Long	Early 2023
AM/NS – AL	1.65	Flat Roll	1H-2023
Nucor – NC	0.40	Long	2024
Nucor – AZ	0.60	Long	2024
CMC – East	0.50	Long	2024
Nucor – WV	3.00	Flat Roll	2024/5
USS/BRS – AR	3.00	Flat Roll	2024/5
Total New	**16.15**		

Source: Company announcements



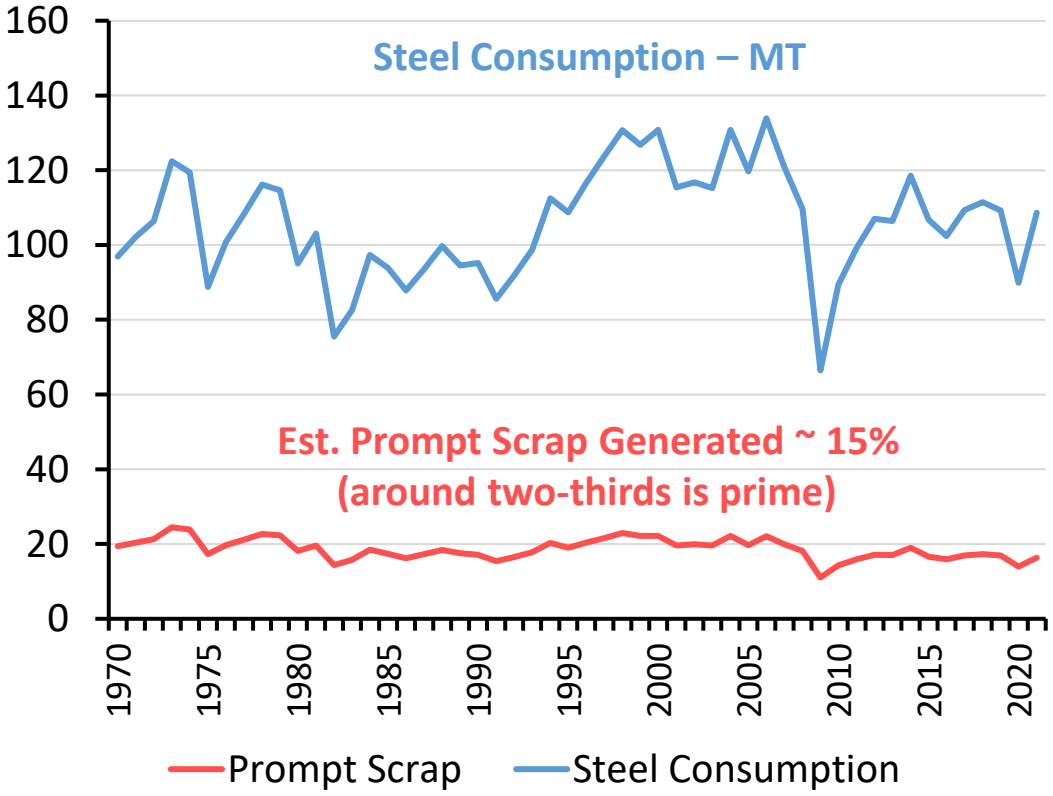
	Pig Iron DRI/HBI	Prime Scrap	Obsolete Scrap	Home Scrap
Flat Rolled	10%-30%	30%-50%	20%-40%	< 10%
Specialty Bar	5%-15%	20%-30%	55%-65%	< 10%
Long Products	--	--	> 90%	< 10%

Higher Cost → Lower Cost

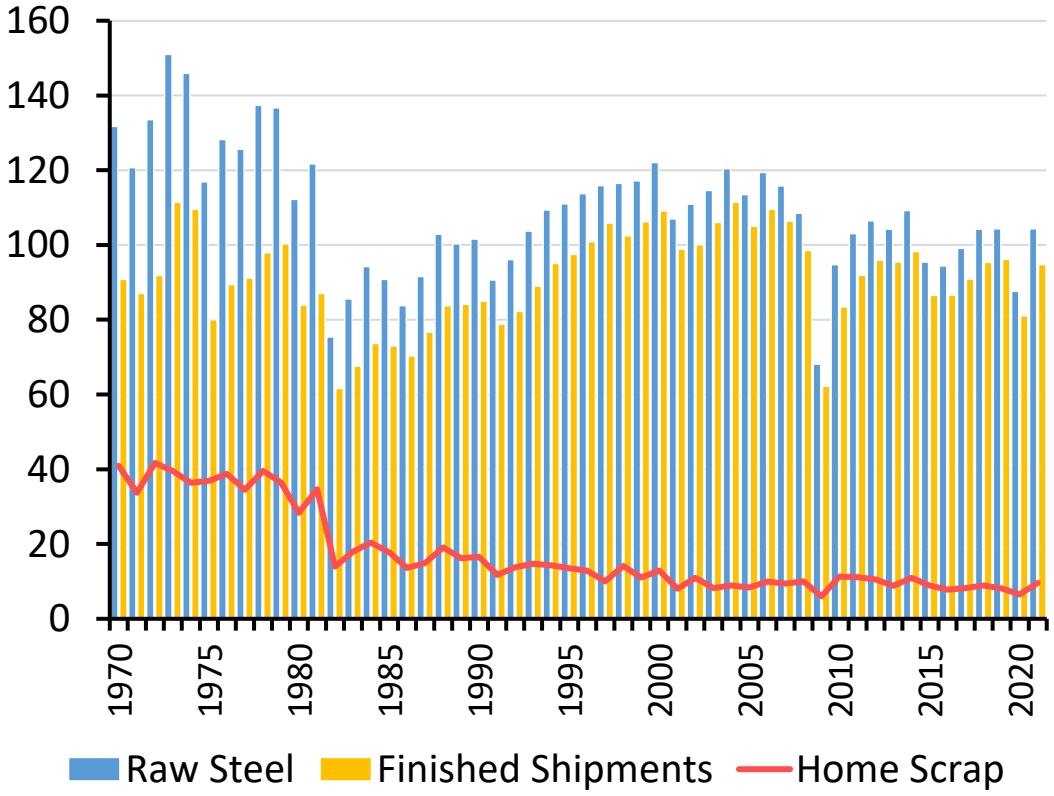
Scrap Supply & Demand

There are no new domestic sources of prime scrap

Prompt Scrap is Capped by Steel Consumption



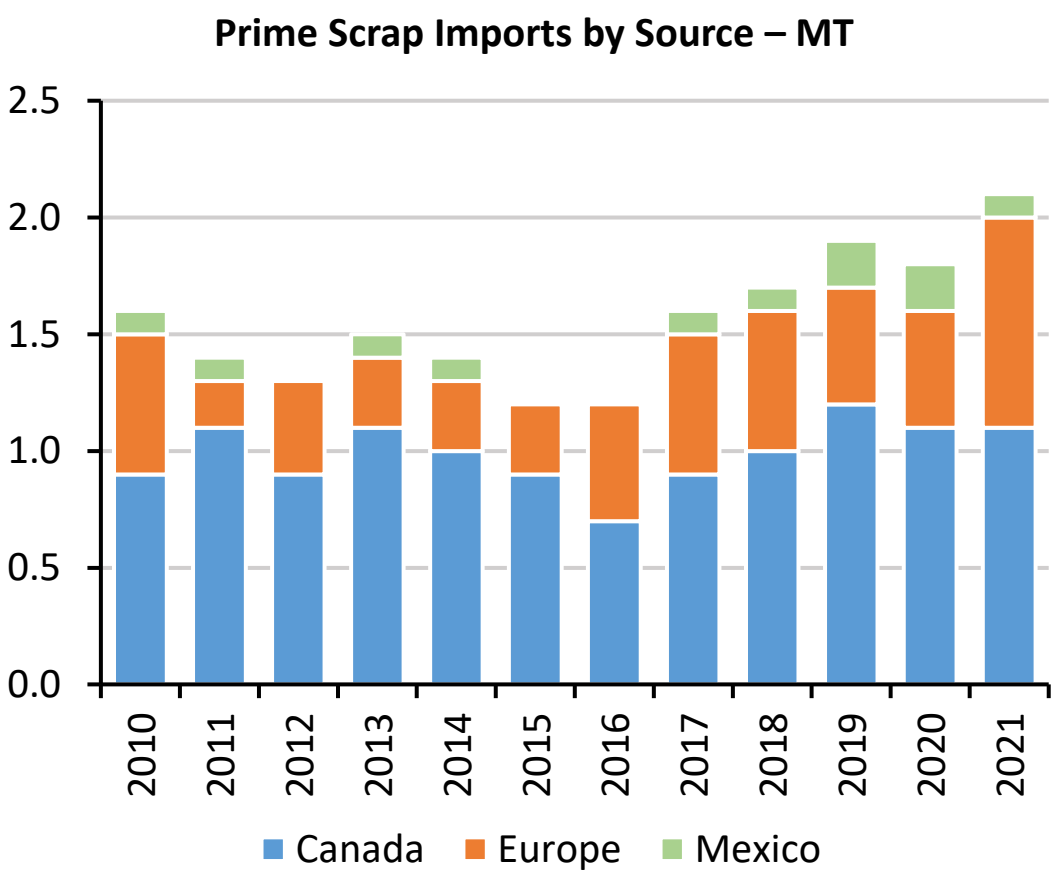
Home Scrap has Dropped 75% Over 50 Years



Source: SRA Scrap Model

Scrap Supply & Demand

Expect prime scrap imports to decrease

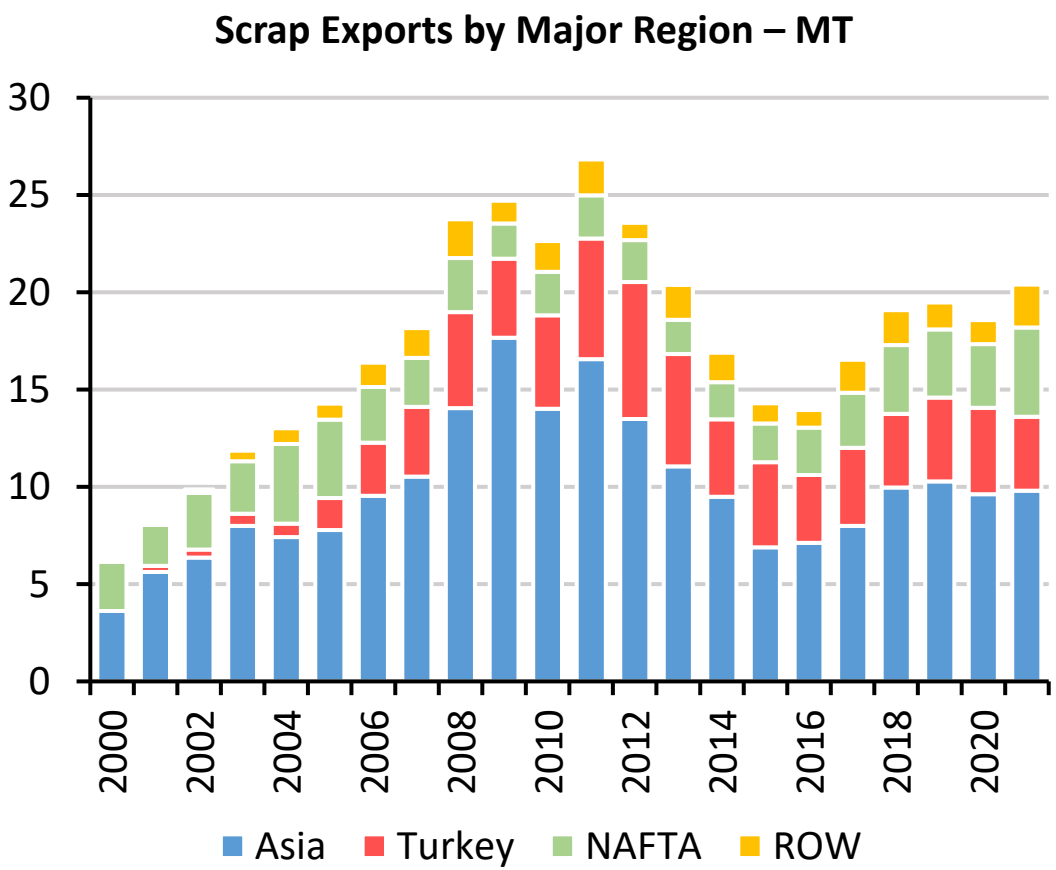


Sources: AISI, SRA analysis & estimates

- Prime scrap imports are growing
  - 1.5 MT early 2010's
  - 2.0 MT today
- Canada
  - 50% of current prime imports
  - Expected to decrease – Algoma new 3.7 MT EAF
- Europe
  - 40% of current prime imports
  - Expected to decrease – "Green Steel" movement
- Mexico
  - 10% of current prime imports
  - Expected to increase – SDI acquisitions

Scrap Supply & Demand

Virtually all scrap exports are obsolete grades



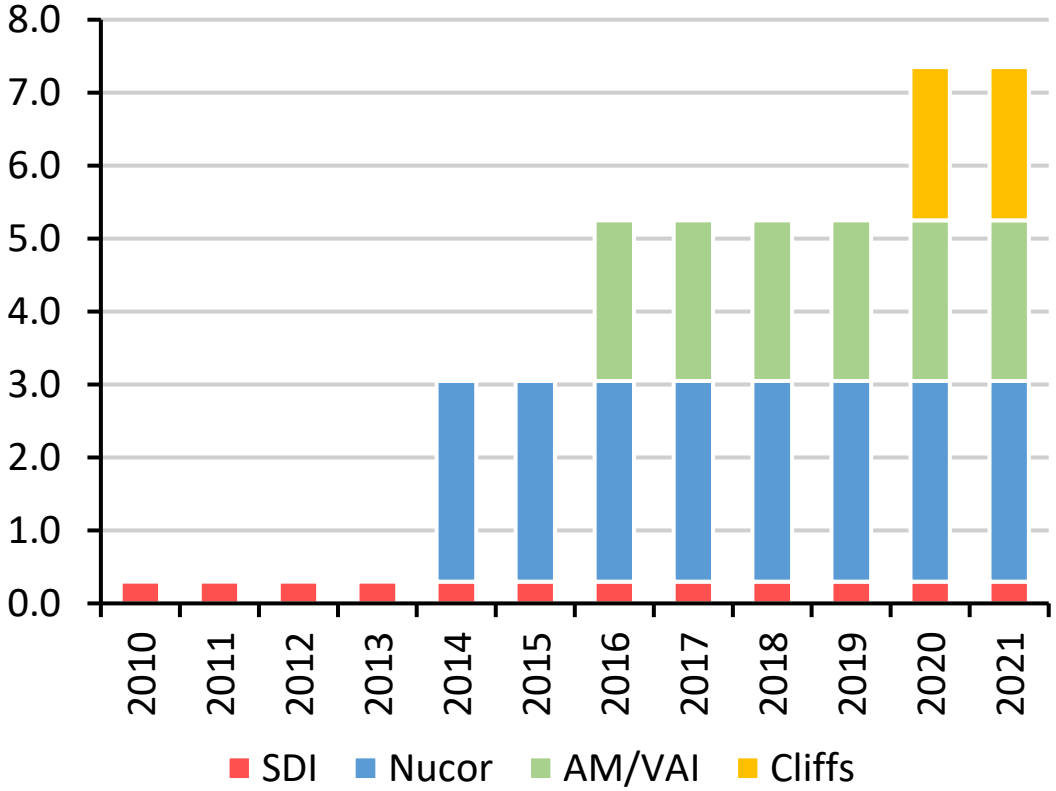
Source: AISI

HTS Code	Description	5-Yr. Avg KT	% of Total
7204410020	#1 Bundles	187	1.0%
7204410060	Borings, Shovelings, Etc.	20	0.1%
7204410080	Shavings, Trimmings, Etc.	78	0.4%
	Total Prime Grades	**285**	**1.5%**
7204490070	Shredded	5,922	31.7%
7204490020	#1 HMS	5,520	29.6%
7204490040	#2 HMS	787	4.2%
7204490060	Cut Plate & Structural	626	3.4%
7204100000	Cast Iron Waste & Scrap	1,415	7.6%
7204210000	Stainless Waste & Scrap	521	2.8%
7204290000	Alloy Steel Waste & Scrap	984	5.3%
Various	All Other Grades	2,611	13.9%
	Grand Total	18,671	100.0%

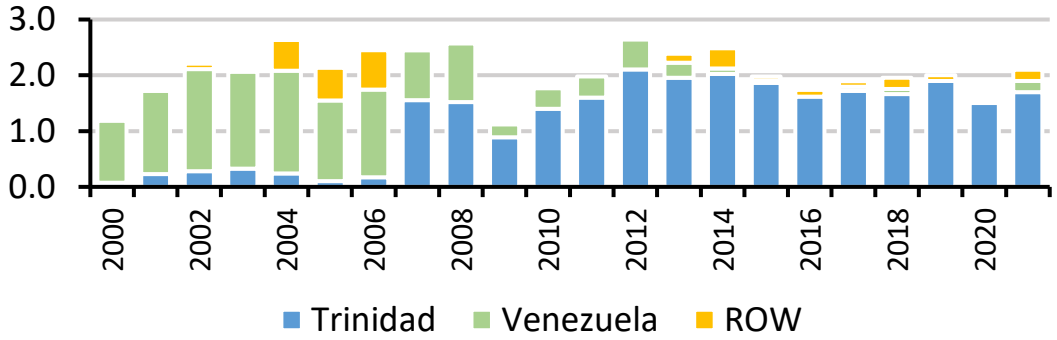
Scrap Supply & Demand

Investments in DRI/HBI are proliferating

Domestic DRI/HBI Capacity is Growing – MT



DRI/HBI Imports are Not Growing – MT



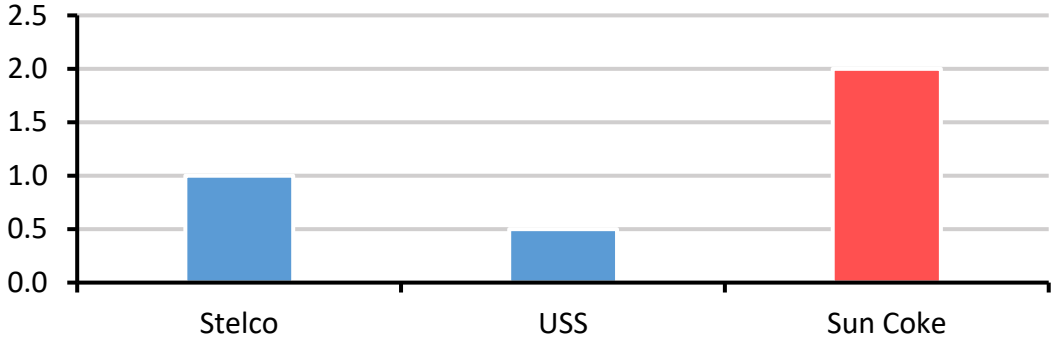
- Imports from Trinidad & Tobago are captive to Nucor
- Substantial other North American capacity
  - AM – 9.0 MT in Mexico & Canada (including AM Dofasco)
  - Ternium – 3.0 MT in Mexico
- USS DR-grade pellets investment
  - Feedstock to DRI/HBI producers
  - Support potential future investment in DRI/HBI

Sources: Company reports, AISI, Midrex

Scrap Supply & Demand

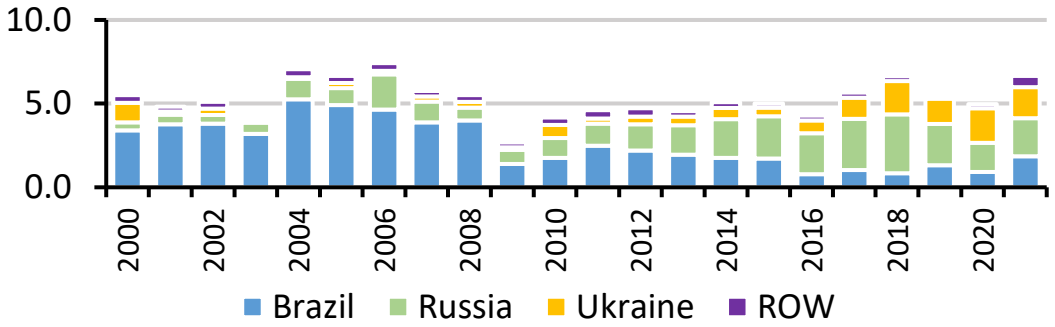
So are investments in pig iron

New Pig Iron Capacity – MT

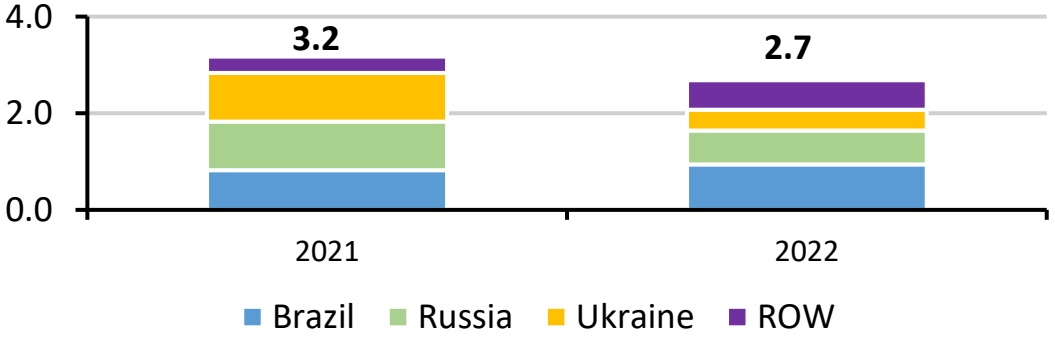


- Stelco 2001
- USS – Gary
  - Under construction
  - Production to be captive to BRS
- Sun Coke proposed deal
  - Acquire Granite City BF's
  - Produce 2.0 MT of Pig Iron
  - USS 100% offtake for 10 years

Pig Iron Imports are Not Growing – MT



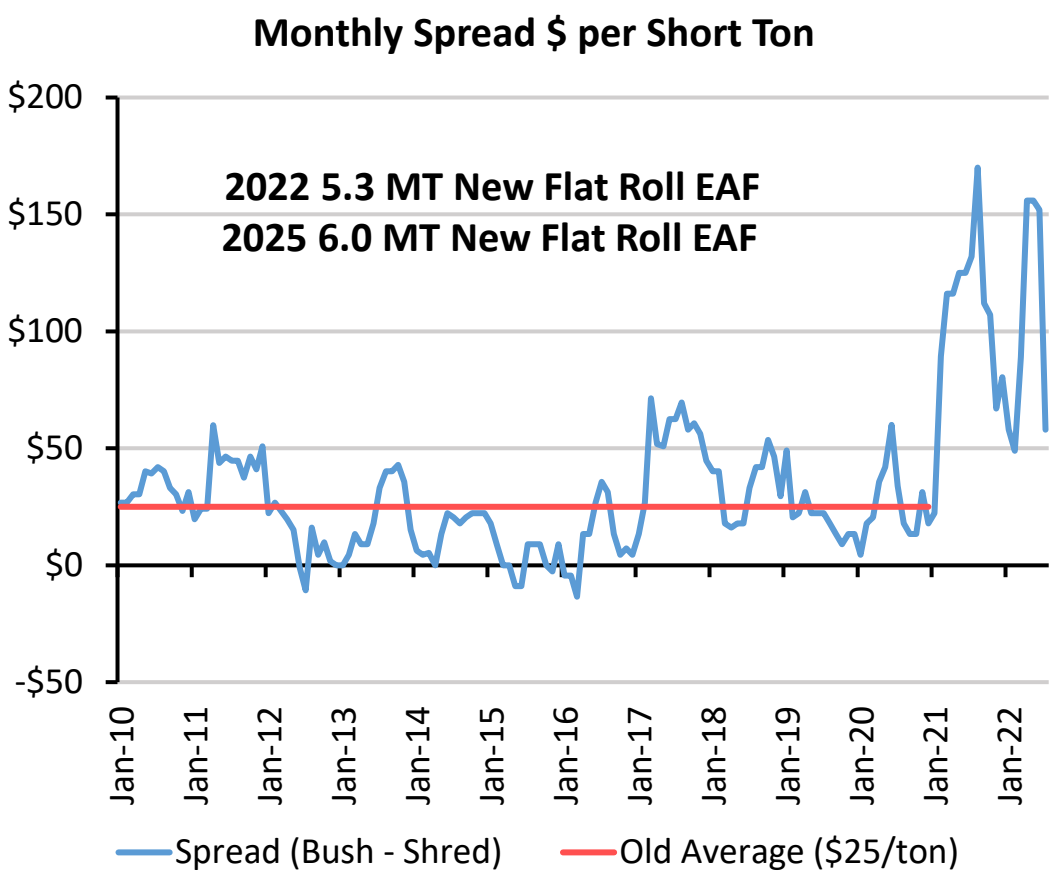
Pig Iron Imports June YTD – MT



Source: AISI

Scrap Supply & Demand

Is prime scrap the next precious metal?

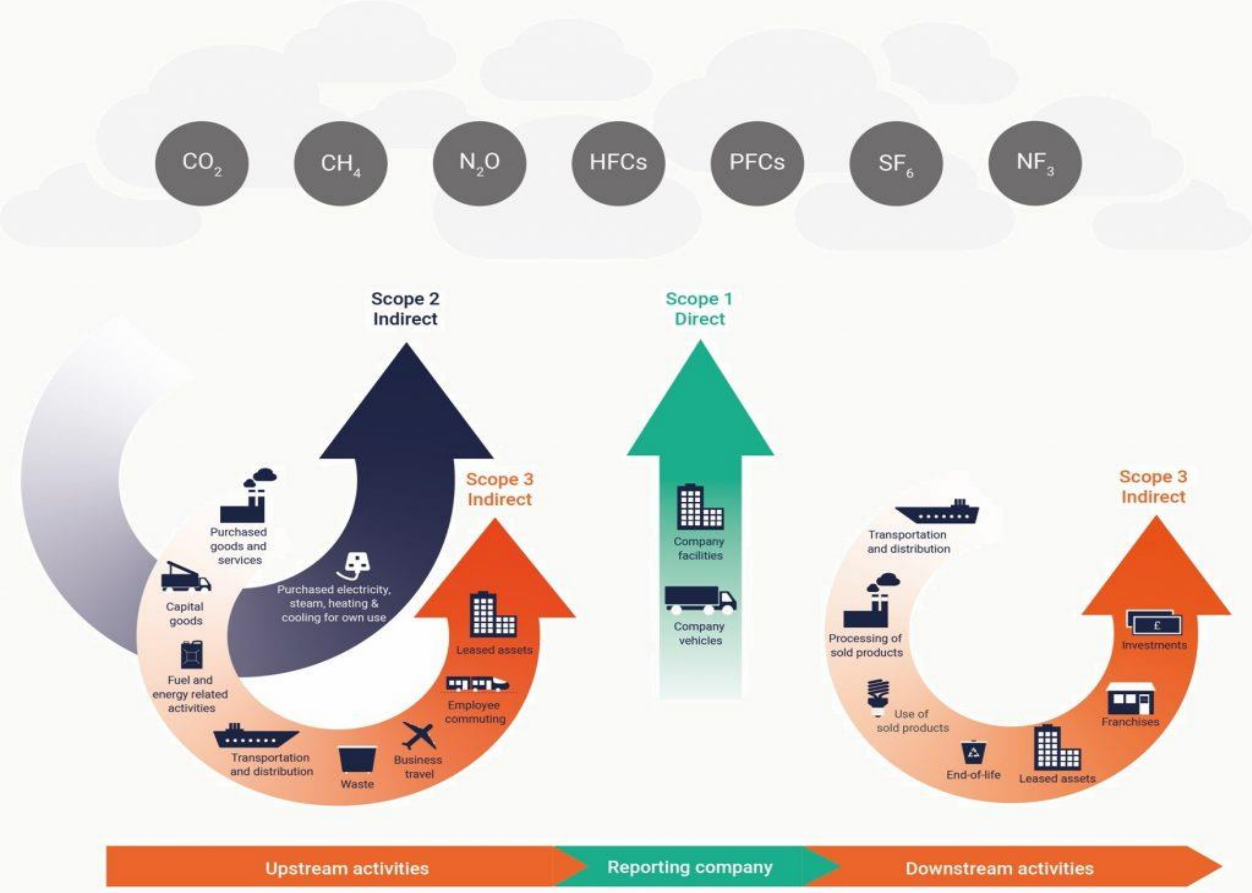


Source: SMU (data thru July 2022)

- Prime scrap challenges
  - New flat rolled capacity requires high-quality metallics
  - No new domestic supply of prime without significant re-shoring of manufacturing
  - Prime imports could be curtailed as other countries pursue green steel initiatives
  - Limited merchant market for DRI/HBI
  - Limited merchant market for pig iron
- Prime scrap solutions
  - Better melting practices
  - Higher quality shredded – lowering the copper content
  - More local pig iron – Stelco, USS, Sun Coke
  - More local DRI/HBI
  - More imports of pig iron & DRI/HBI

Decarbonization of Steel

Greenhouse gas protocol is the "GAAP" of emission accounting



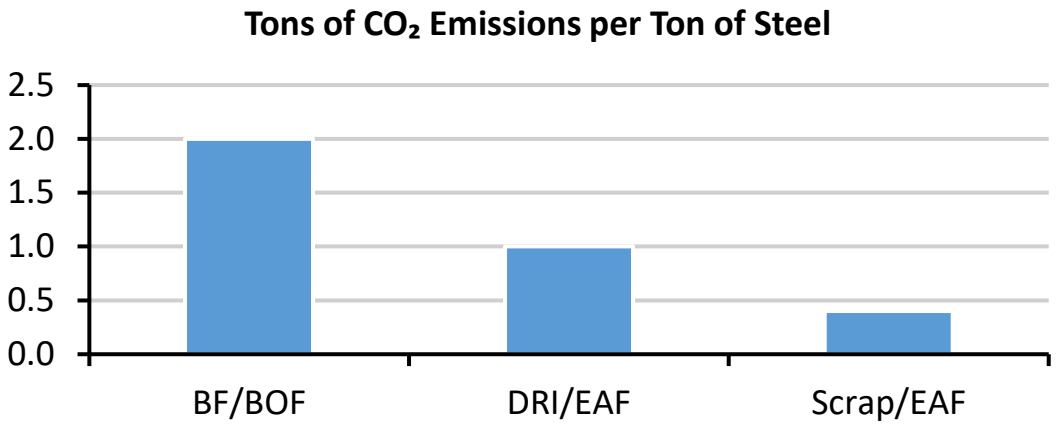
Source: Greenhouse Gas Protocol

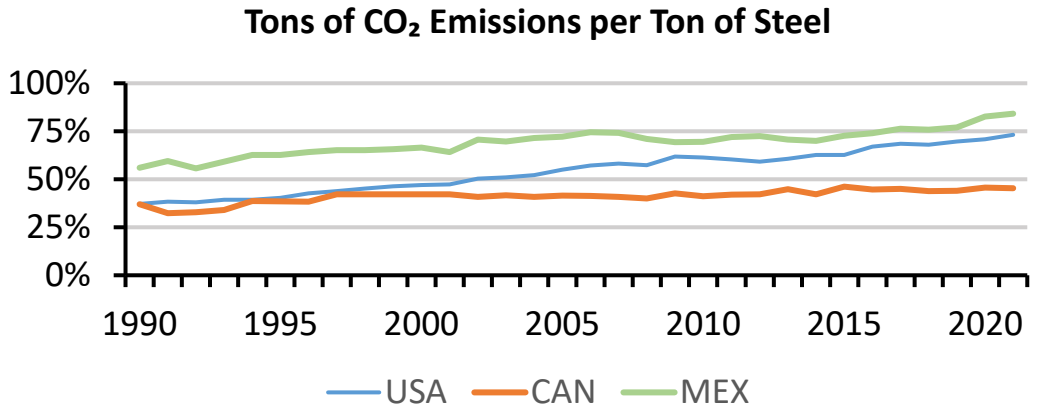
General Observations

- Current focus is Scope 1 & 2
  - Direct emissions – company facilities
  - Indirect emissions – purchased goods
- Scope 3 adds more complexity
  - Various proposals under development
  - One company's Scope 1 is another company's Scope 3
- Situation is fluid – issues to watch
  - SEC proposed rule
  - Carbon border adjustment mechanism (CBAM)
  - Demand & premium for "green" steel

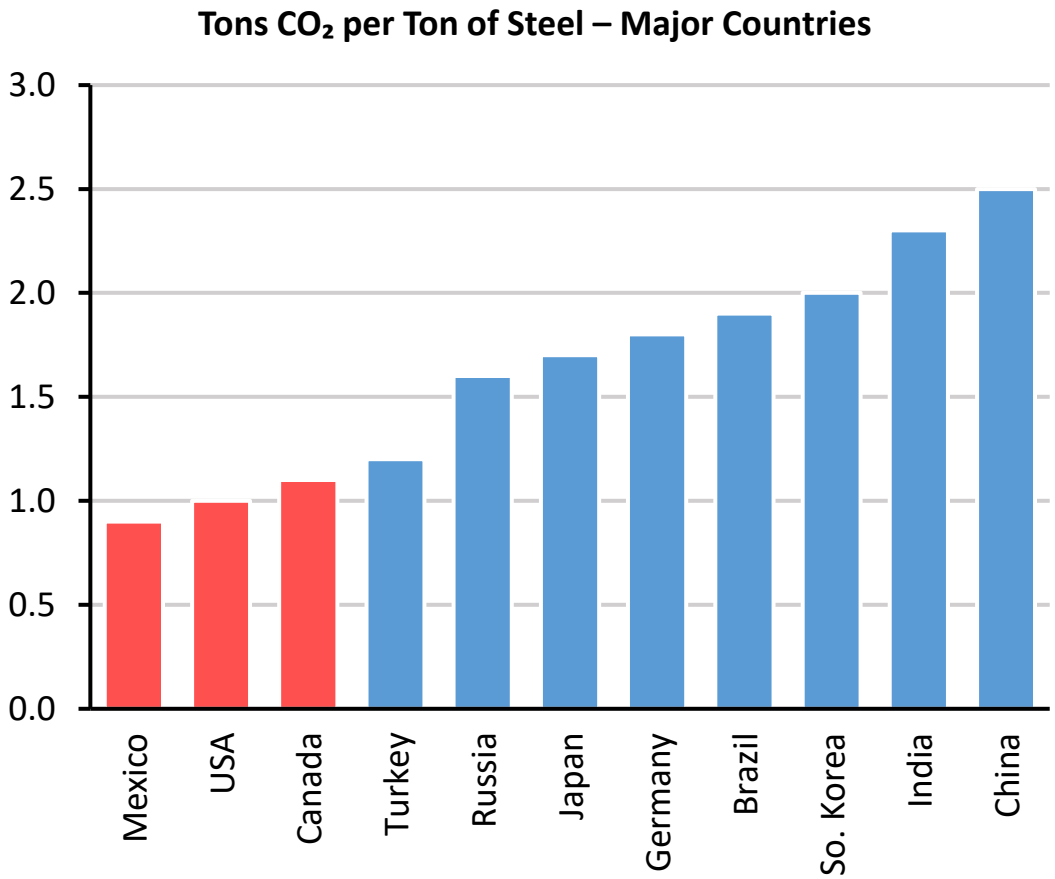
Decarbonization of Steel

NAFTA countries sit well on the world stage





Sources: AISI, WSA, Midrex (CO_2 data)



Source: Global Efficiency Intelligence 2019 Report

Concluding Remarks

It's a great time to be in the steel industry!

- The great rationalization
  - New technology replacing old
  - Investments in new technology are required to keep the industry competitive
- Higher prices are here to stay – get used to it
  - Prime scrap challenges
  - Industry consolidation
  - ESG compliance costs
  - New industry leadership & new ideas
- ESG issues are emerging – what's next?
  - Scope 3 emissions
  - CBAM developments
- The industry is changing – think differently!
  - Don't look backward – the old industry structure and historical relationships no longer apply
  - Look forward – it's a new industry with new challenges & opportunities