

STEEL-INSIGHTS, I, I, C
Metals, Mining & Manufacturing Strategic Consulting



One If By Land, Two If By Sea, Will Imports Continue To Flood US Shores?

Presentation to:
A Private Client
Chicago, IL

by: Becky E. Hites, President
January 12, 2015



An Early American Battle Cry – Will the Continued “Invasion” of Foreign Imports Dominate Executive Management Strategy Discussions?



Or Will Q1's Challenges Be More Fundamental?

frozen climate change weather pattern stratospheric advisory bone chilling frostbite negative ice jet stream temperature wind chill blast winds low ozone warning

POLAR VORTEX

frigid below zero cold arctic northern drifting extreme polar freezing chill meteorologist north pole blowing winter severe clipper freeze snow



Pivotal Truths for 2015, and Some Questions

- We're at the bottom of the commodity price cycle.



– Gold prices topped out in 2011.



– Industrial metal prices topped out in early 2012.



– Grain prices topped out in latter part of 2012.



– Oil prices were the last commodity to top out in the summer of 2014.

Source: Peter Boockvar, The Lindsey Group, Chief Market Analyst

- Quantitative easing (QE) is ending.



– Stock market volatile as investors try to gauge impact.



– Will liquidity remain available?



– Rates will be increasing.

January Events to Watch



- European Central Bank (ECB) elections.
 - Manages the Euro; support through buying bonds.
 - European economies not yet “strong” or secure.
 - Not all EU country economies are “the same”.
 - Desire to create stability and confidence to increase investment.
 - Eastern border (Ukraine) instability.



- Greece back in the news threatening the stability of the EU.
 - Failure to obtain parliamentary majority for new president triggers a new snap election.
 - Continued ECB funding required to keep the country in the EU.

Value of Euro Has Fallen Back to Support Levels; Could Result in a Lost Decade for the European Economy

US Dollar to the Euro



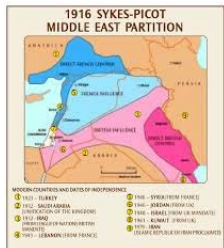
Source: Board of Governors, Federal Reserve System

Other Geopolitical Forces

- Russian economy headed into recession.



- Putin will continue to aggressively pursue country interests.
- Western sanctions will prove ineffective in changing behavior.
- Won't cause a “Western” country type response as their culture is accustomed to “harsh” conditions.
- Oil prices will remain under pressure as Saudi Arabia defends its non-US markets.
- Drop in the ruble has reduced the production cost for HRB there; World Steel Dynamics estimated \$290 per tonne in December.
- Will result in increased steel exports at reduced prices.

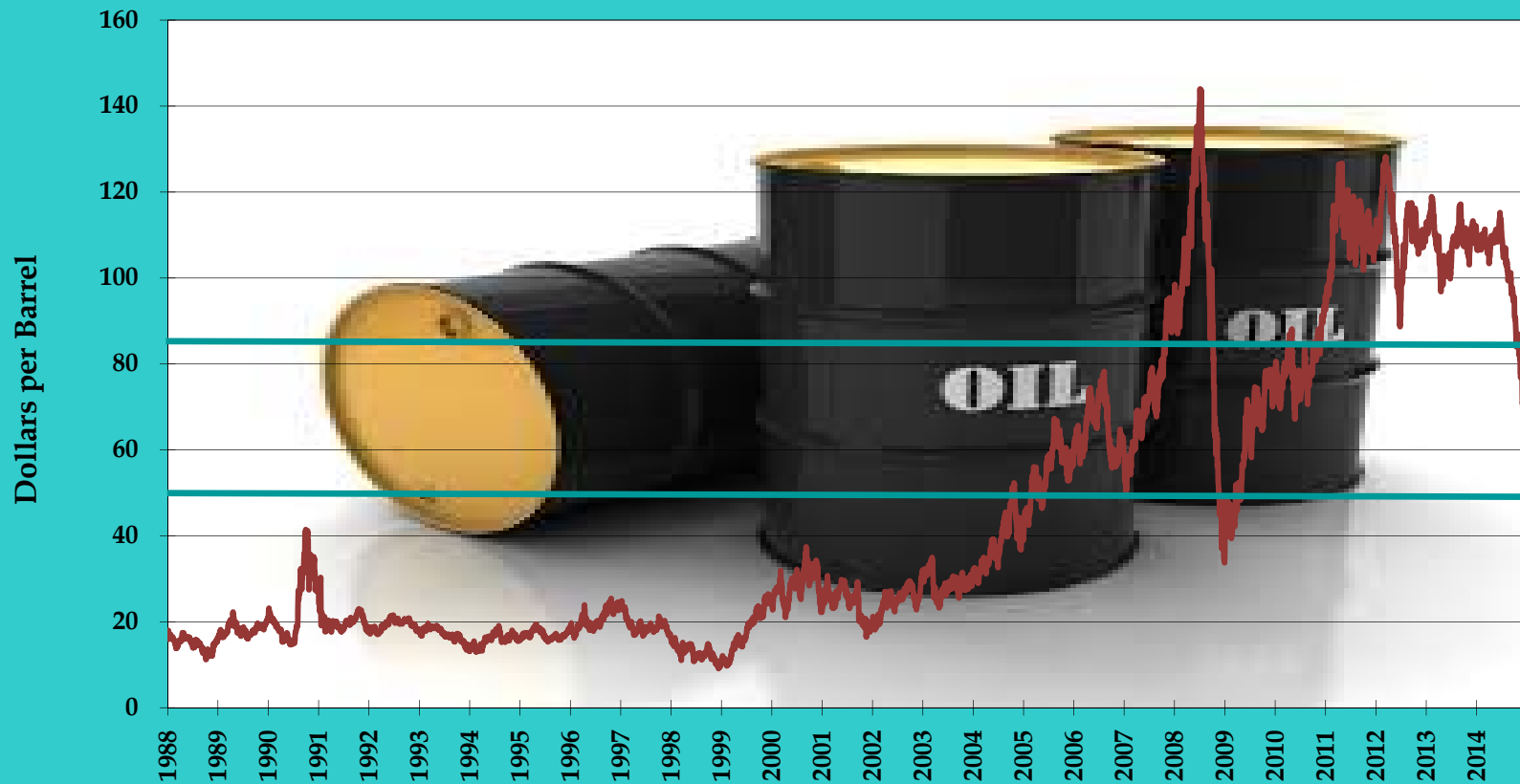


The Disintegration of the Post WWI Sykes-Picot World Allocations.

- Turmoil in the Middle East will very likely continue.
- Lower oil prices will pressure budgets.

Oil Has Dropped Well Below the \$85 per Barrel Marginal Cost of Production; Lowest Level in Over 5 Years; A Generational Event

Daily Oil Prices, Brent Crude, Europe



Source: Energy Information Administration (EIA)

Oil Prices Will Rebound Likely To The \$80 Per Barrel Level, But Probably Not This Year

- USA production is up 800K barrels per day (bpd), Iraq is up 700K bpd and Libya is down 450K bpd, for a net increase of 1050K bpd. Plus, Russia is exporting more oil. Demand is up 900K bpd.
- Libya would need to stop production completely (350K bpd now) for the world to be in balance
- US producers will get better at getting oil out of the ground.
- Gulf of Mexico 1.5 mm going to 1.9 mm. Lots of new infrastructure.
- Petrobras out of money in Brazil.
- Oil (production/exploration?) being cut in Alaska.
- Will take 2-3 years for the Saudis to knock out excess production (mainly Russia). "They have to beat the competition, basically Russia, into submission. We are not here yet so I think the pain will continue for a longer time." Oppenheimer's Fadel Gheit

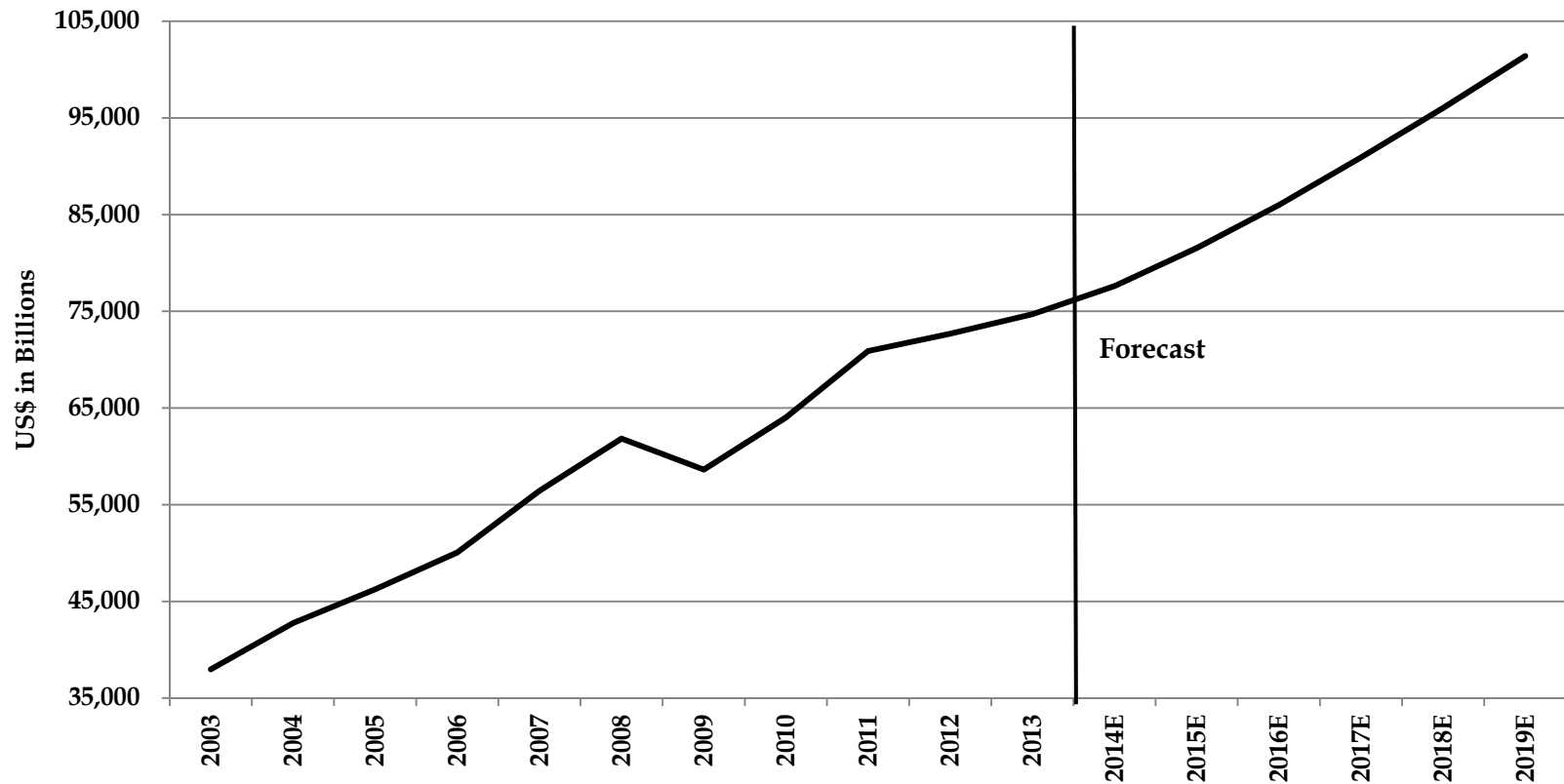
Source: Various experts, Squawk Box, Squawk on the Street

2015 Global Economic Outlook – Modest Growth Expected; But Not For All Countries

- Global growth at 3.3% in 2014 and 3.8% in 2015.
International Monetary Fund, October 7, 2014
- Our expectation is a better year for 2015 for the global economy, although there is quite a lot of divergence between the places that are performing well, and the places that still have more problems. *Jan Hatzius, Chief Economist, Goldman Sachs*
- China is accelerating 300 infrastructure projects valued at 7 trillion yuan (\$1.1 trillion) this year as policy makers seek to shore up growth that's in danger of slipping below 7%. *Bloomberg, January 6, 2015*
- USA could be the only country with an accelerating economic growth rate in 2015. *Squawk Box, January 7, 2015*

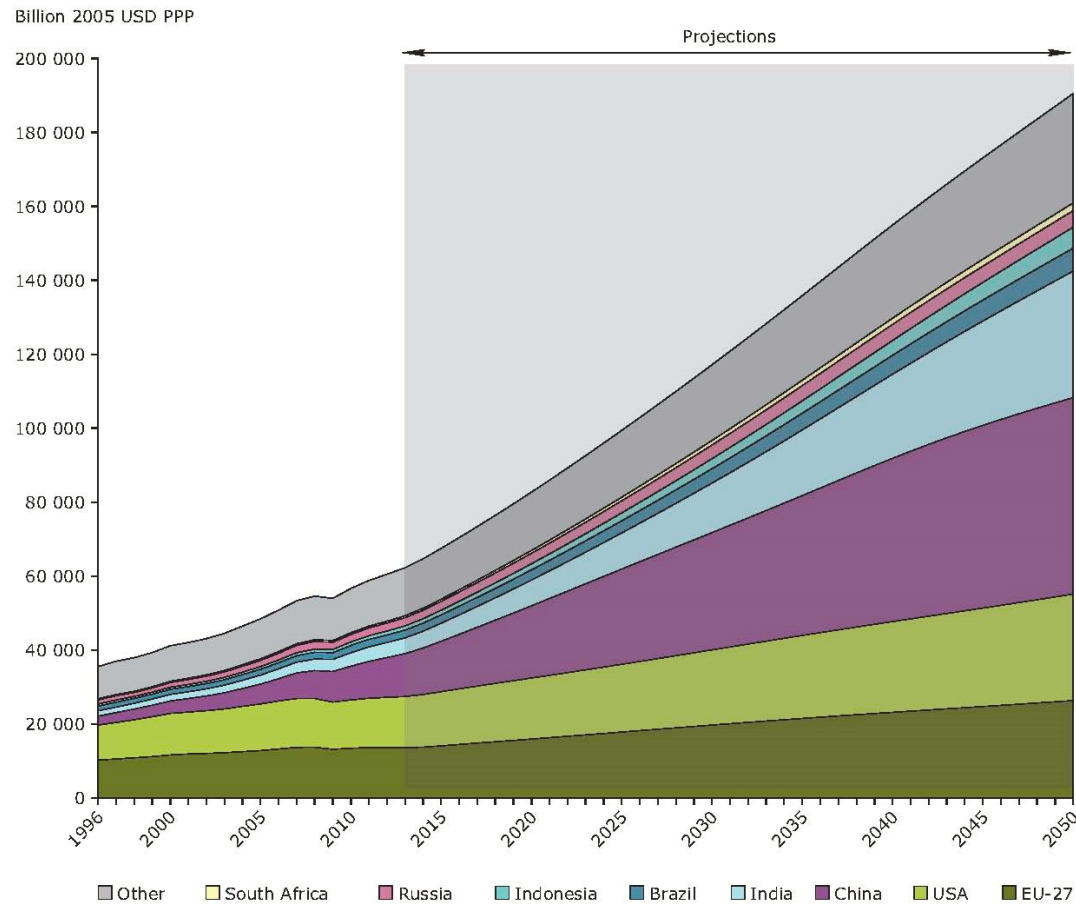
IMF GDP Forecasting Continued Strong Growth

Global GDP



Source: IMF's World Economic Outlook (WEO) Database

OECD Long-Term Economic Growth Forecast – To Triple by 2050



Note:
Source:

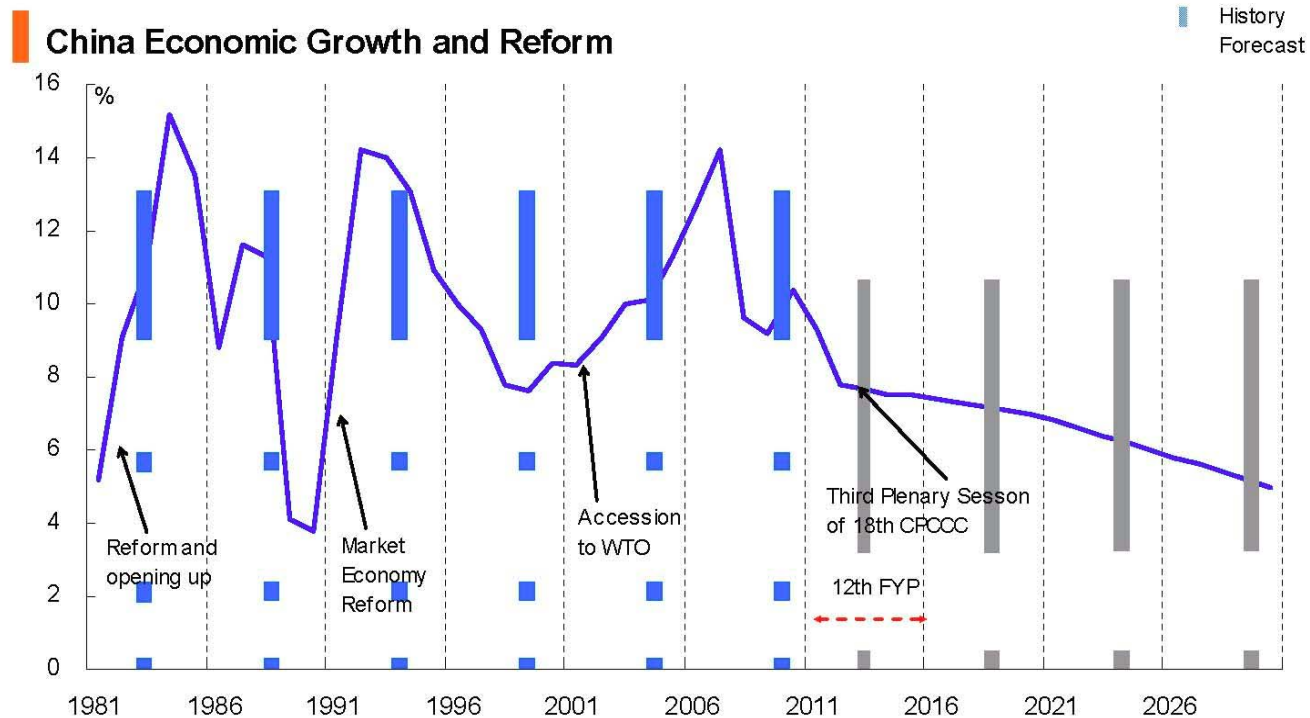
Gross domestic product expressed in billion 2005 USD at purchasing power parity. The EU figure comprises the aggregate economic output of EU Member States that are also members of the OECD. Those states together accounted for approximately 97 % of EU-28 GDP in 2012.
OECD, 2013a.

Source: European Environment Agency "Assessment of Global Megatrends - An Update Global Megatrend 5: Continued Economic Growth"

China's Third Plenary Session is Targeting Slower Growth And Hoping to Avoid a Hard Landing



China Economy Soft-landing Hopefully



Data: NBS

Source: JiangLi, BaoSteel Marketing Department, AISTech 2014, May 2014

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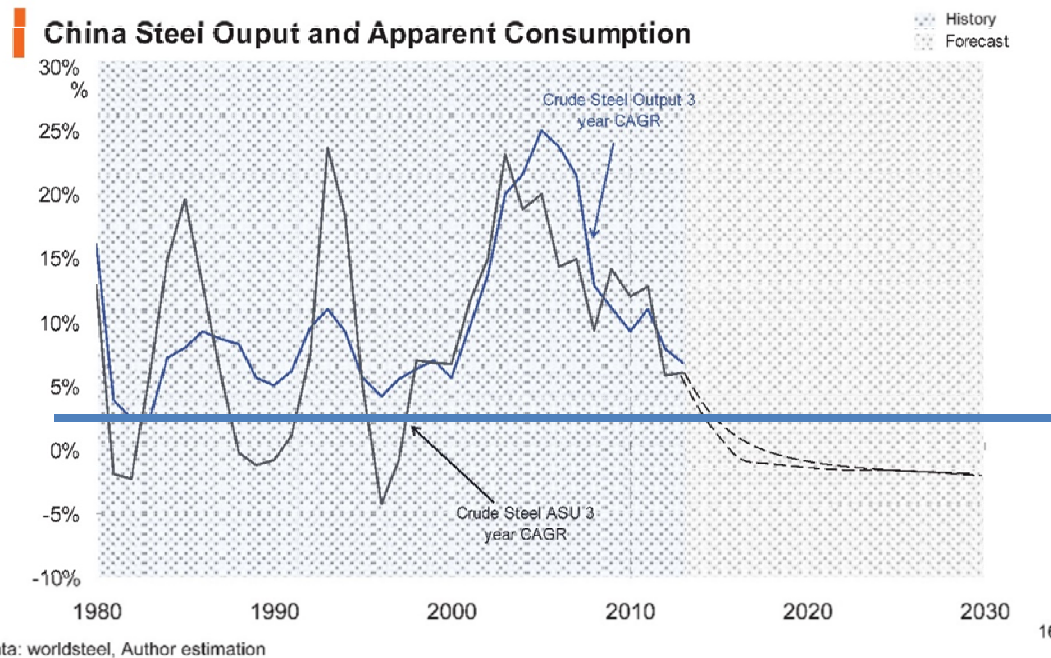
China Steel Production Growth Continues into 2015, But at a Much Lower Rate

CISA's unpublished forecast for 2015 is 834 million tonnes, which would be down from 2014's 851 million tonnes. Steel-Insights is forecasting a 2% growth rate to 873 million tonnes.



Market Demand Plateau

...is imminent



Source: JiangLi, BaoSteel Marketing Department, AISTech 2014, May 2014

Chinese Steel Industry Will Have Less Support And Resources

- As a part of the shift away from “supporting” growth in the steel industry:
 - Permits for new steel facility construction have become more difficult to get.
 - New emission reduction environmental regulations have required closure of “old, outdated” facilities.
 - Previously non-existent or minimal financing costs are now being imposed on both steel producers and steel traders (many thousands have left the industry as a result).
 - Export tax rebates being pared and/or eliminated.
- Will cut 27 million tonnes of steelmaking capacity in 2014, but started construction of 30 million tonnes of new capacity in 2013, so still a net capacity increase for 2014.
- Central government has established a target to reduce and eliminate coal produced electricity.
- Arguable if they’ll be able to achieve these targets, but if any ec can do it, the Chinese can because of their command structure.



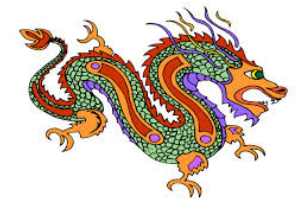
Chinese Steel Industry Has Competitive Challenges

- The Chinese mills are not low cost producers but are in the middle to the high end of the cost curve.
- The Chinese steel industry last made money in 2011.
- At AISTech 2014, a speaker from a leading Chinese steelmaker predicted that the “Chinese steel industry has just entered the early winter, and is yet to face its worst time ever.”



Local Chinese Provincial Governments Motivated By Revenues and Jobs to Keep Steel Industry Production High

- Offset somewhat by pollution issues from coal-fired electricity plants.
- Press is reporting that by 2020 in Beijing, the government is targeting the elimination of coal-fired electricity generation.
- Steel production has moved to the coast where imports of raw materials and exports of finished product is facilitated.
- Hebei Steel has announced plans to move 5 million tonnes of production to South Africa. The province has targeted 20 million tonnes to move off-shore, which will reduce pollution but keep the tax revenue in the province. West is skeptical about how successful these efforts will be. Hebei cut 15 mm tonnes of capacity in 2014.



China Net Exports at 47 Million Tonnes in 2013; Will Likely be 76 Million Tonnes for 2014; Don't Expect 2015 Exports to be Higher and Could Be Lower

China Steel Net Exports (million tonnes)

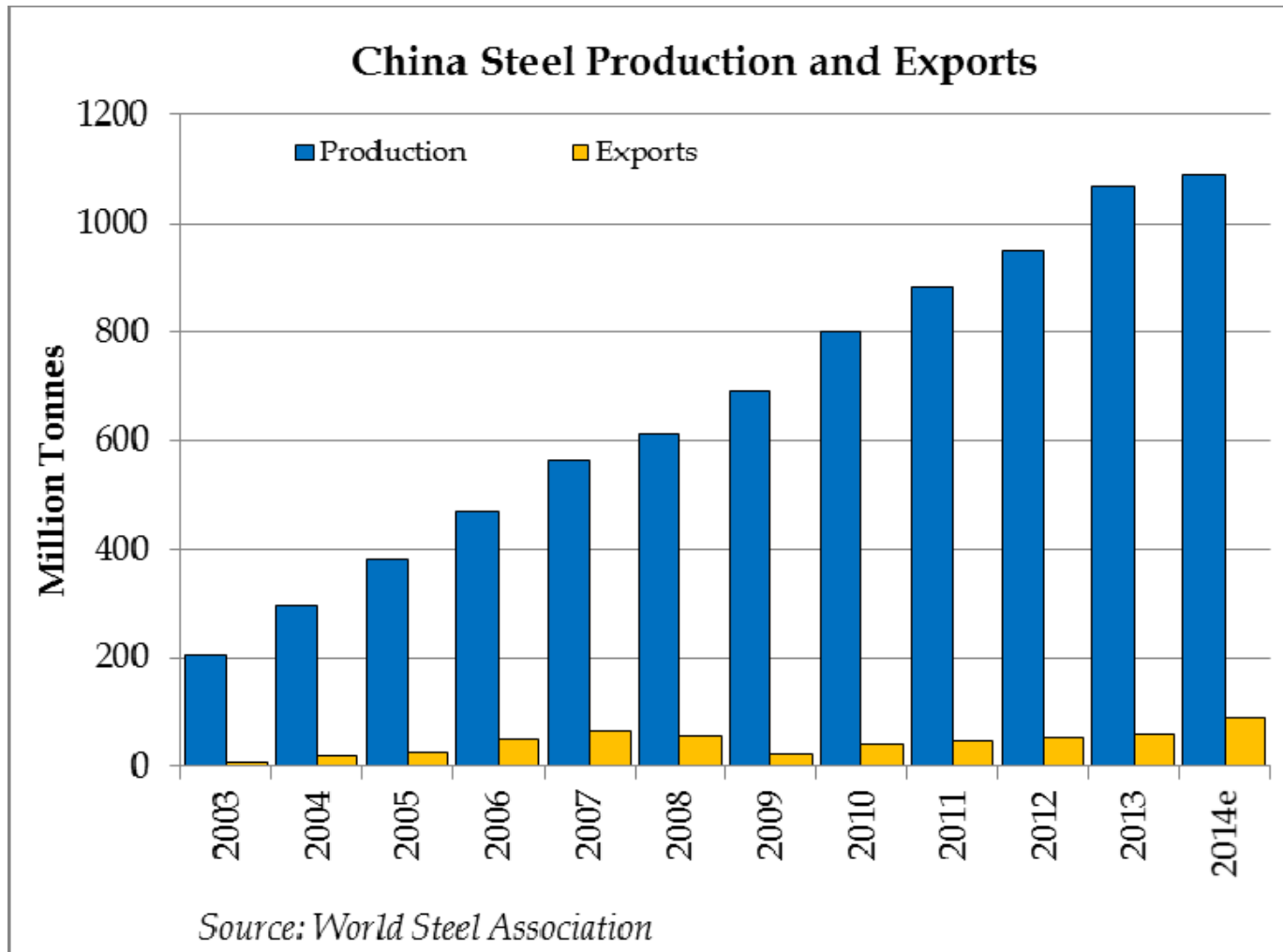
	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014e
China												
Imports	43.2	33.2	27.3	19.1	17.2	15.6	22.4	17.2	16.3	14.2	14.8	14.4
Exports	8.2	20.1	27.4	51.7	66.4	56.3	24.0	41.6	47.9	54.8	61.5	90.5
Net Exports	(35.0)	(13.1)	0.1	32.6	49.2	40.7	1.6	24.5	31.6	40.6	46.8	76.1
Imports Long Products	2.8	2.8	2.3	2.0	1.6	1.5	1.7	2.0	1.8	1.5	1.7	
Exports Long Products	3.1	5.7	7.7	15.1	23.6	18.5	5.5	9.2	11.6	17.6	23.5	
Net Exports Long	0.4	2.8	5.5	13.1	21.9	17.0	3.8	7.2	9.8	16.0	21.8	
Imports Flat Products	33.3	25.1	22.5	15.5	14.3	12.7	15.3	13.9	13.2	11.7	11.9	
Exports Flat Products	1.8	5.8	8.5	20.4	28.3	28.8	11.8	24.8	26.6	27.0	27.6	
Net Exports Flat	(31.4)	(19.3)	(14.0)	4.8	14.0	16.1	(3.4)	10.9	13.4	15.3	15.8	
Imports Tubulars	1.1	1.3	1.1	1.0	0.7	1.0	0.7	0.5	0.6	0.5	0.5	
Exports Tubulars	1.4	2.1	3.5	6.5	7.3	7.2	6.3	7.3	9.4	9.9	10.1	
Net Exports Tubulars	0.3	0.7	2.4	5.5	6.6	6.2	5.6	6.7	8.8	9.5	9.6	

Note: 2014 estimated based on reported results through November.

Source: World Steel Association, World Steel Dynamics, SBB Platts and Steel-Insights, LLC estimates



China Exporting 9.3% of Steel Production in 2014, Compared to the USA at 8.9%



Global Crude Steel Production Up 2% in 2015; Higher Growth from China, India, South Korea, Russia, Turkey & the USA

Crude Steel Production by Region

(million tonnes)

	2000	2005	2010	2011	2012	2013	2014e	2015e	2013-14	2014-15
China	128.5	355.8	638.7	702.0	724.7	822.0	851.5	872.8	3.6%	2.5%
Japan	106.4	112.5	109.6	107.6	107.2	110.6	110.8	111.2	0.2%	0.3%
India	26.9	45.8	69.0	73.5	77.6	81.2	83.1	85.6	2.3%	3.0%
South Korea	43.1	47.8	58.9	68.5	69.1	66.0	71.2	74.8	7.9%	5.0%
Other Asia	26.9	37.3	41.4	42.9	41.2	42.3	42.1	42.4	-0.4%	0.8%
EU-27	193.4	195.6	172.8	177.7	168.6	167.0	172.3	174.4	3.2%	1.2%
Russia	59.1	66.1	66.9	68.9	70.4	69.4	70.6	74.2	1.8%	5.0%
Ukraine	31.8	38.6	33.4	35.3	33.0	32.8	27.1	23.0	-17.5%	-15.0%
Other CIS	7.6	8.4	7.8	8.5	7.6	6.5	7.4	7.7	13.3%	4.4%
Turkey	14.3	21.0	29.1	34.1	35.9	34.7	34.0	35.0	-1.8%	3.0%
Other Europe	109.2	138.0	134.1	143.3	143.3	140.9	136.1	136.6	-3.4%	0.4%
NAFTA	135.4	127.6	111.6	118.7	121.6	119.3	121.5	124.5	1.9%	2.5%
USA	101.8	94.9	80.5	86.4	88.7	87.0	88.2	90.4	1.4%	2.5%
South America	39.1	45.3	43.9	48.2	46.4	46.0	45.4	44.4	-1.3%	-2.2%
Middle East	10.8	15.3	20.0	23.0	24.7	25.9	28.1	28.8	8.7%	2.2%
Africa	13.8	18.0	16.6	15.7	15.3	15.8	15.8	15.8	0.2%	-0.1%
Oceania	7.8	8.6	8.1	7.2	5.8	4.6	4.5	4.4	-2.4%	-2.5%
Total Global	849	1,156	1,433	1,537	1,553	1,648	1,690	1,723	2.5%	2.0%
Developed World	544	574	528	547	541	538	541	547	0.6%	1.1%
Developing World	305	582	905	990	1,012	1,110	1,149	1,177	3.5%	2.4%
Developed % of Total	64%	50%	37%	36%	35%	33%	32%	32%		
Developing % of Total	36%	50%	63%	64%	65%	67%	68%	68%		

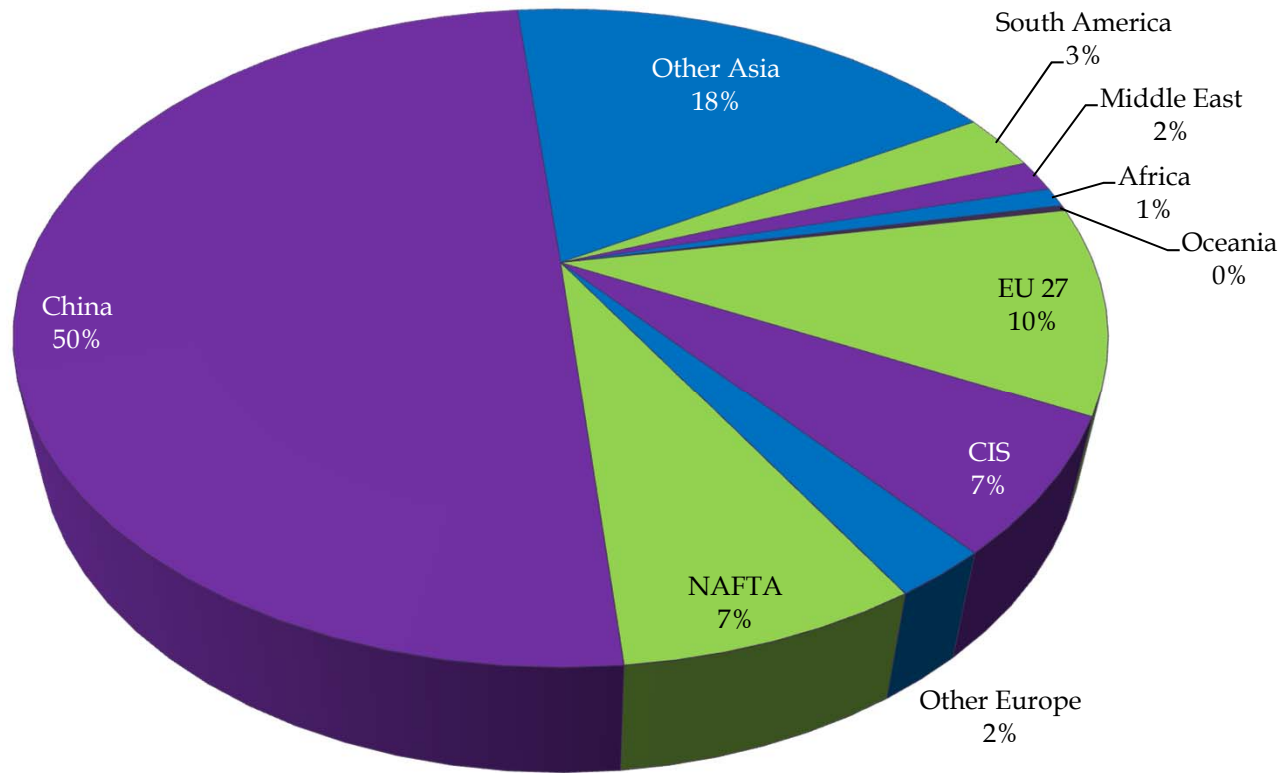
Source: World Steel Association, China Iron and Steel Association & Steel-Insights, LLC estimates

Global Steel Overcapacity Will Remain Significant

- One retired US steel executive has estimated that China alone has 250 million tonnes of overcapacity.
- The world economies are not longer synchronized, which means that weakness can move from market to market, and supply will chase demand.
- Turkey has “swing” capacity that comes in and out of the market depending on whether there’s a large enough metal margin to cover the purchase cost of raw materials and provide a profit. Mainly a factor in billet and long products at the low end of the food chain.
- South Korea has added significant capacity looking for a market.

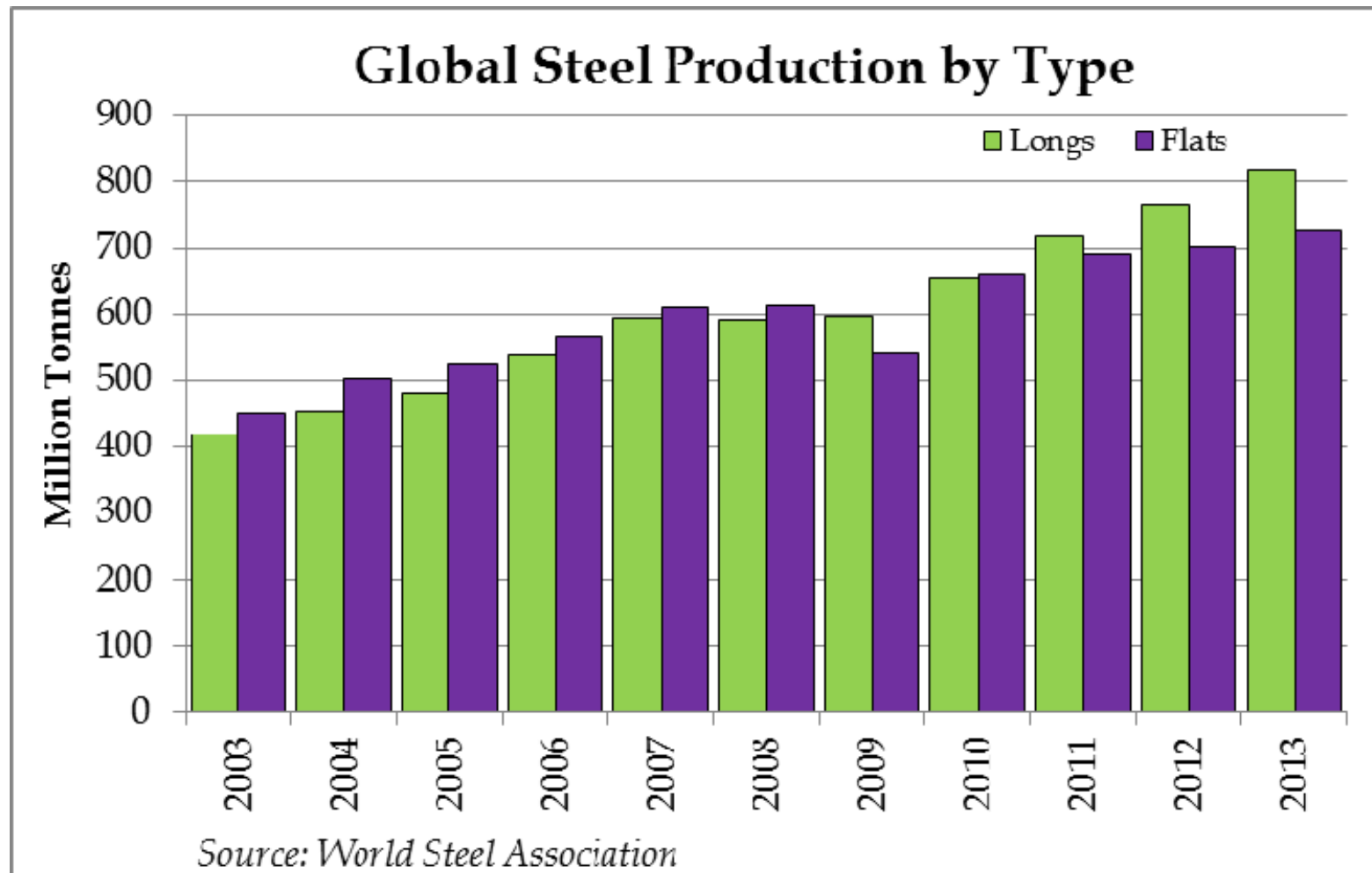
Colonial Model of Supply No Longer Holds True as Half of Global Crude Steel Production is in the Developing World Countries

Crude Steel Production by Region - 2013

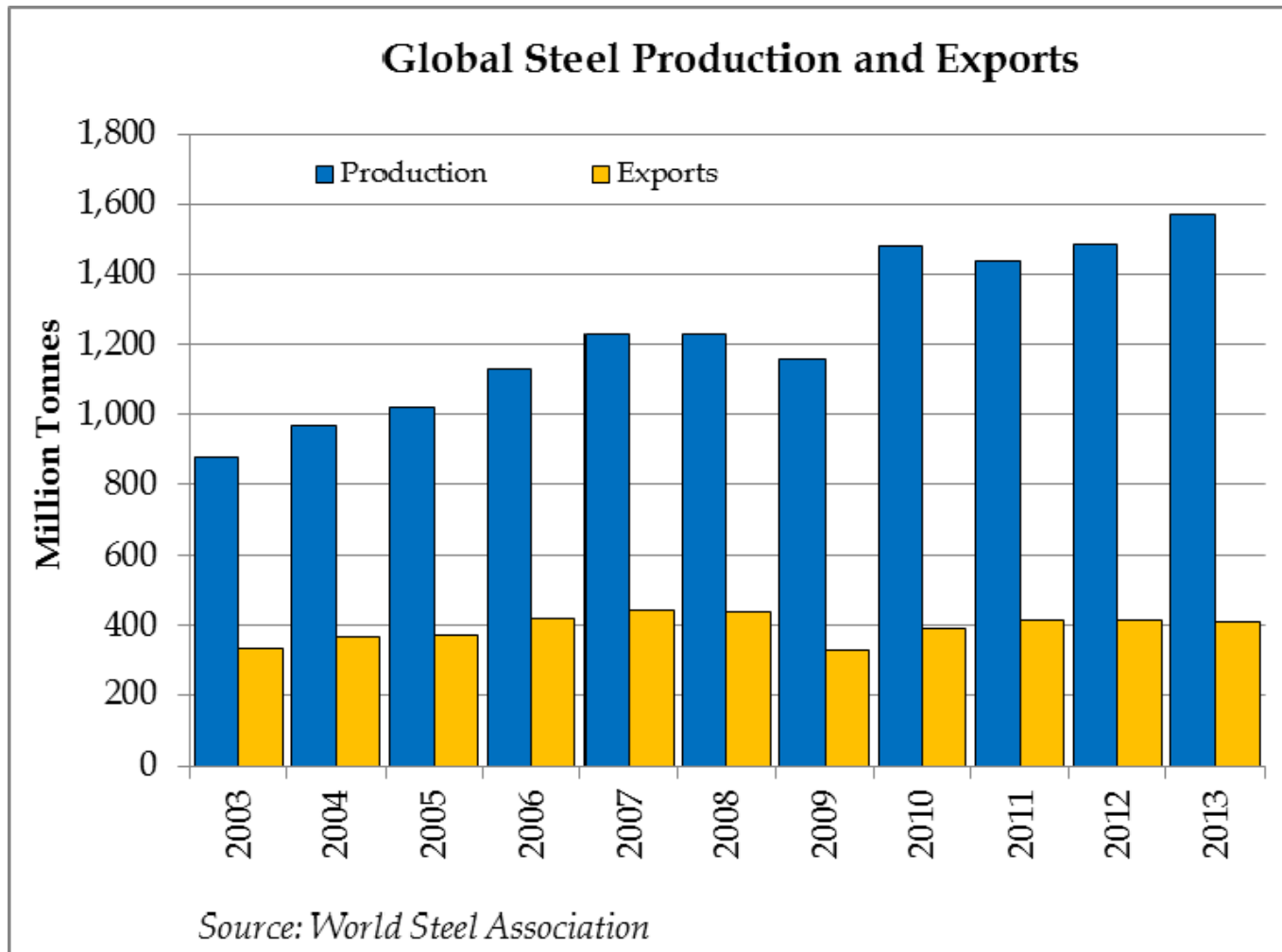


Source: World Steel Association

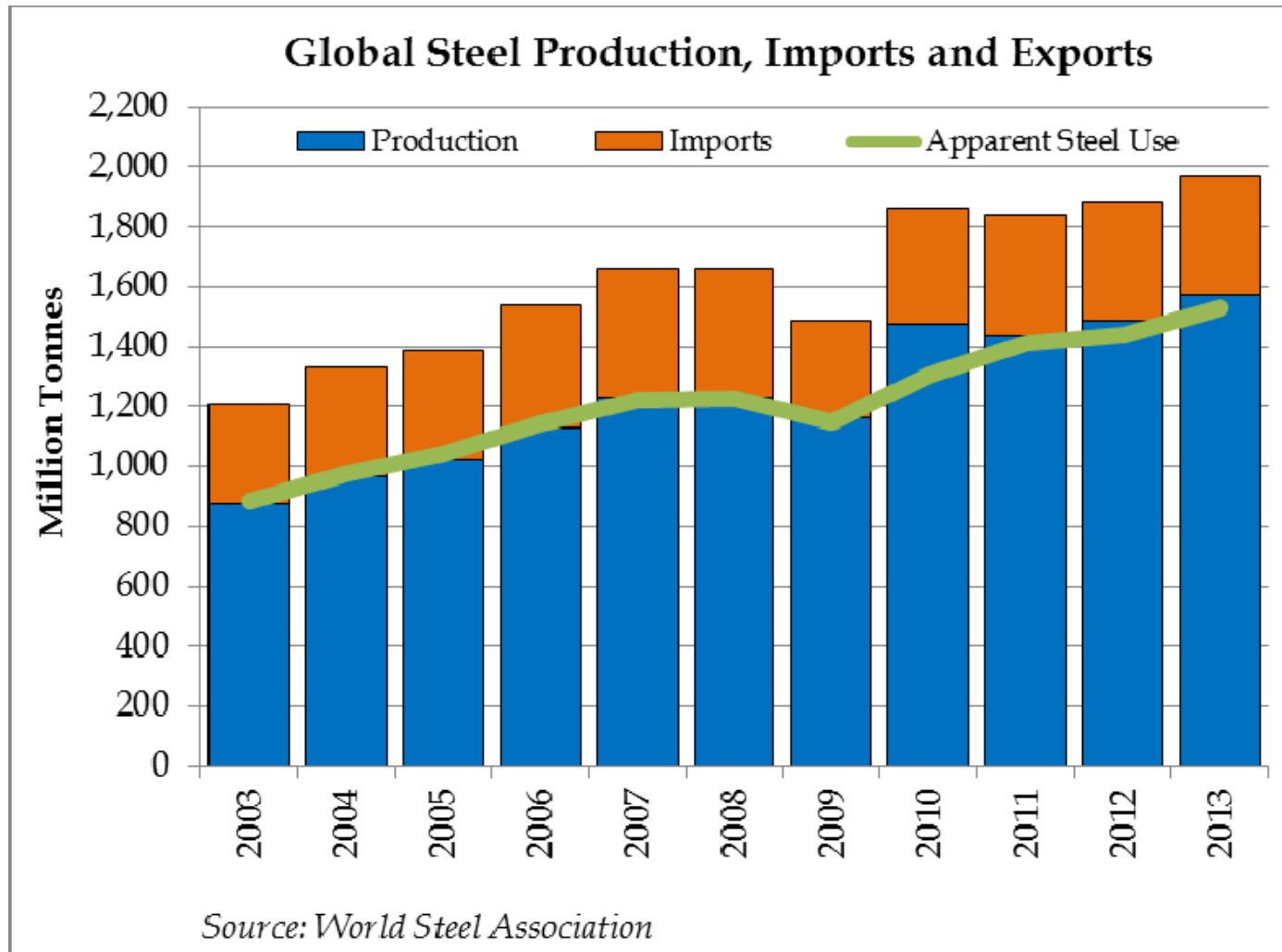
Long Steel Production Growing While Flat Steel Production Increasing Only Moderately



Global Exports Remained Essentially Flat From 2011 to 2013; US Dollar Strength Will Bring More Tonnes Into The USA – Expect Continued Trade Case Activity Throughout 2015

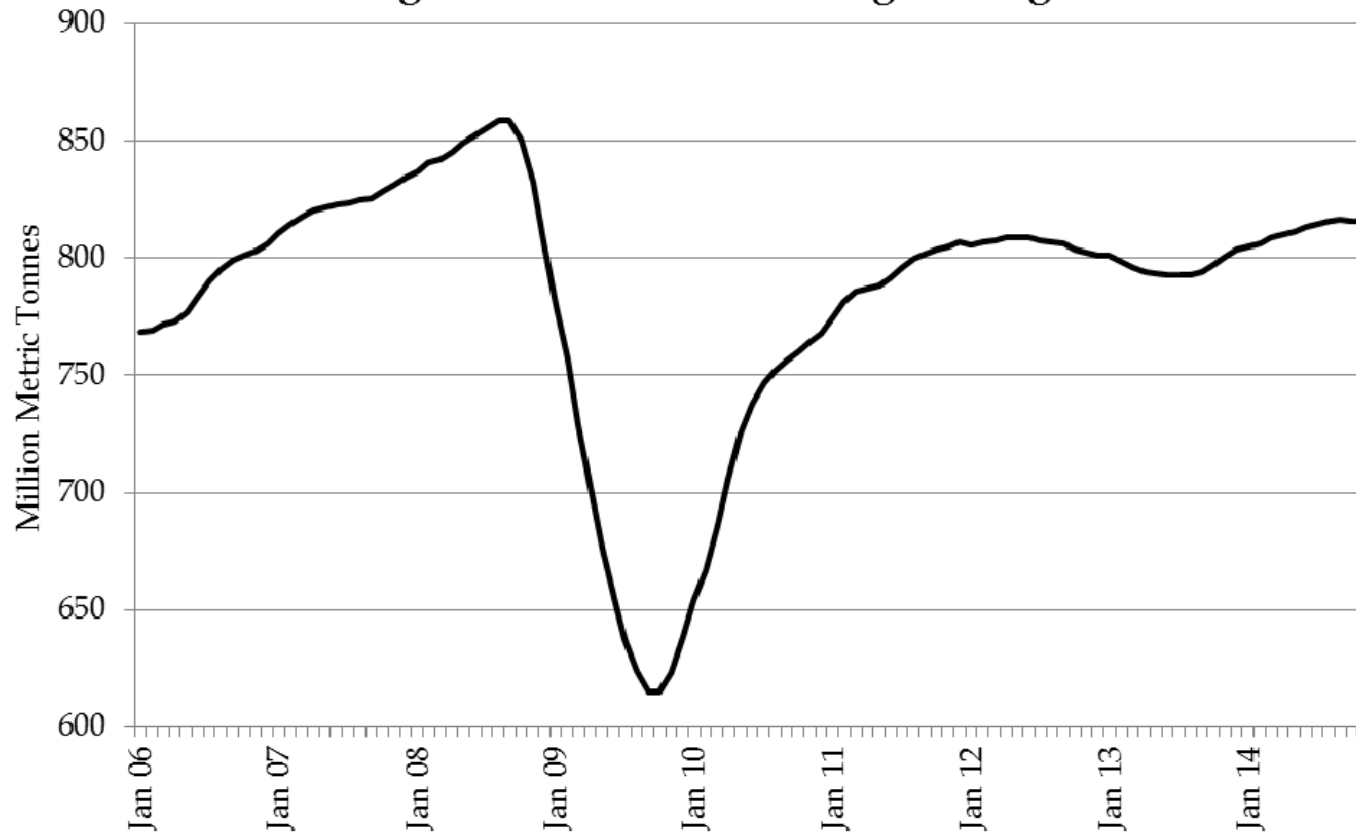


Global Consumption Grew by 6.6% in 2013



2014 Non-Chinese Steel Production Up Modestly

**World Ex China Monthly Crude Steel Production
Trailing Twelve Month Moving Average Annualized**



Source: World Steel Association

Pricing Power Has Shifted Away from the Mills Due to Oversupply, Not Lack of Demand

- Falling raw material price environment likely to continue throughout 2015.
- Significant global crude steelmaking overcapacity.
- Strong US dollar has lowered the cost of production in several countries, including Russia.
- New capacity in countries willing to be aggressive in “buying into” new markets.
- Recent trader quote to a large USA service center company; “Name your price; whatever you want to pay, I can make money on.”

Adam Smith's Invisible Hand Is Alive and Well

ADAM SMITH ON SELF-INTEREST

“In spite of their natural selfishness and rapacity,” business people “are led by an invisible hand . . . and thus without intending it, without knowing it, advance the interest of the society . . .”



More Challenging to Manage Business in a Falling Price Environment, But Necessary For Long-Term Health in a Capitalistic System

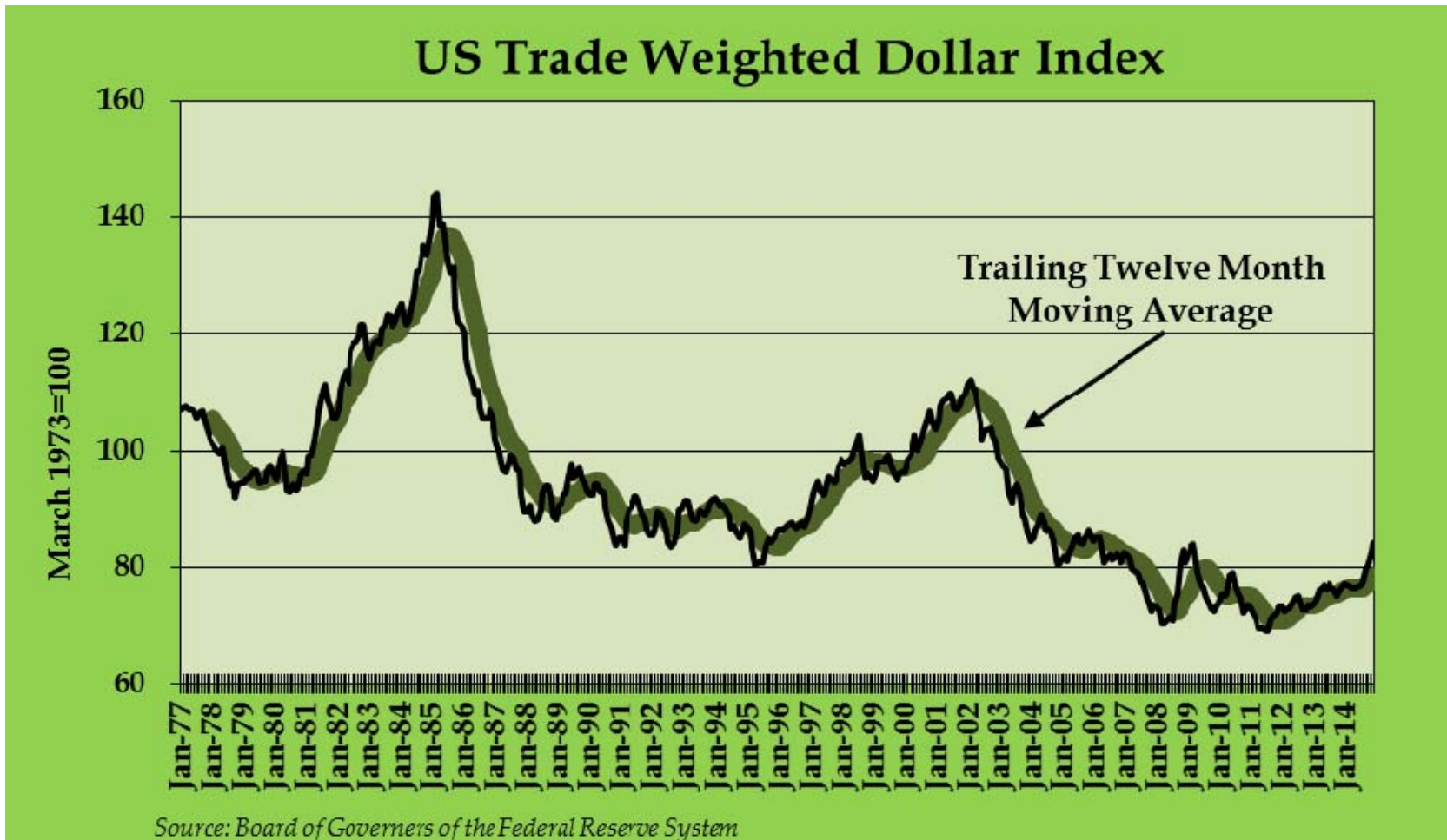
- Keeps steel competitive with alternative materials.
- Keeps the US steel industry “young”. Requires continual investment and improvement to stay relevant and cost competitive.
- Post WWII, the USA had new equipment, a growing global economy, and most of the global competition was distracted with rebuilding their societies.
- USA culture historically wins by “being better” and overcoming obstacles, not from the lack of a challenge. “Bring it on!”
- High cost, mis-managed companies need to reform, or be eliminated.

The World Changes; The Only Way to “Win” Is To Anticipate and Adapt – Critical Resources of the Past Can Become Irrelevant to the Future

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US Steel Producers Won't Get Any Near-Term Currency Help



USA Economy Doing Better Than Expected

- Q3 growth rate of 5%; “real” in 2009\$ 2.7%.
- 2015 forecast is for 2.8% growth.
- Falling energy prices will increase consumer disposable income.
- There’s hope for a break to the stalemate in Washington with the new Congress.
- Lower fuel prices open the door to the possibility of increased consumption taxes to fund the much needed transportation bill to rebuild deteriorating infrastructure.

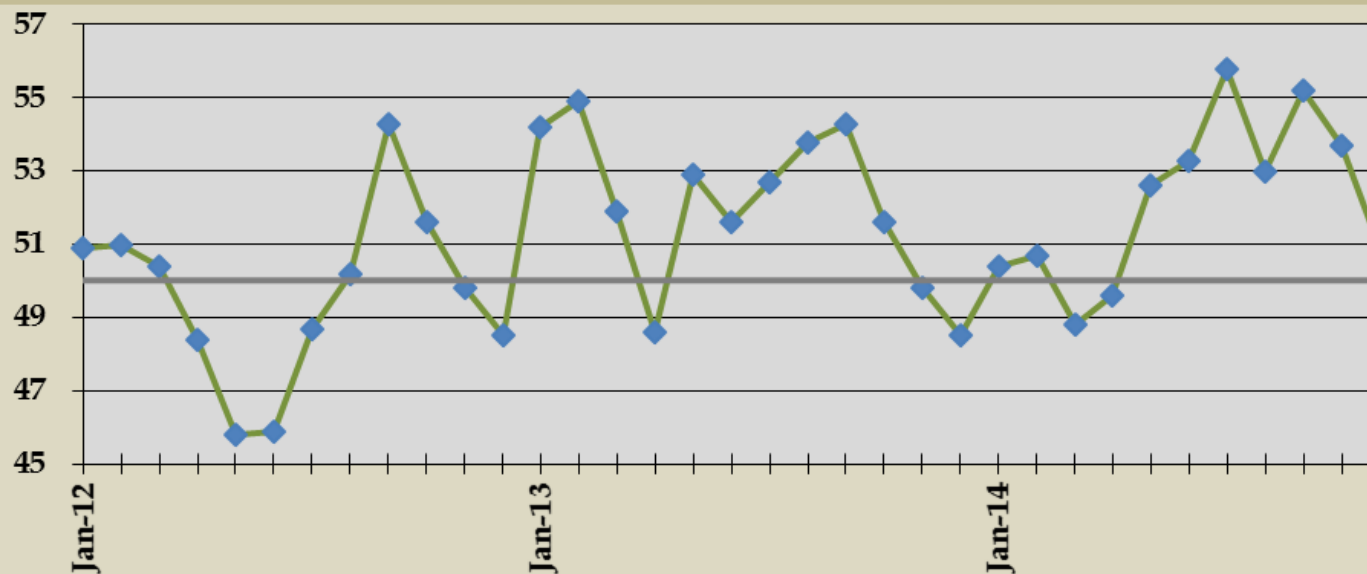
USA To Be Energy Independent Again – Accelerating the Return of Manufacturing

- The United States is well on its way to becoming largely self-sufficient in oil and gas and could overtake Saudi Arabia as the world's biggest supplier of hydrocarbons by 2020. Even if U.S. energy independence is still some time away, this is nonetheless a stunning turnaround from decades of U.S. dependence on imported energy sources and all the attendant geopolitical concerns. *The German Marshall Fund's Brussels Forum*
- I think it is realistic that the U.S. could be energy self-sufficient, energy secure, by the end of this decade. We're already the world's largest natural gas producer (and) last year crude oil production surpassed levels not seen since the 1980s. *Rex Tillerson, CEO, Exxon Mobil. CNBC Interview, January 2014*
- The U.S. is expected to surpass Saudi Arabia to become the world's top oil producer by 2016, the International Energy Agency (IEA) predicted in November, driven by a boom in the nation's shale oil output. *Rex Tillerson, CEO, Exxon Mobil. CNBC Interview, January 2014*
- The U.S. will be able to provide for all its own energy needs by 2035 as output of shale oil and gas accelerates and demand growth slows. The country, which became the world's biggest producer of liquid energy last year, will produce more gas and coal than it consumes. *BP Energy Outlook 2035, January 2014.*

Architecture Billings Index Above the Increased Activity Demarcation for the Past Seven Months; and in 9 of the Past 11 Months, and 18 of the Past 24 Months

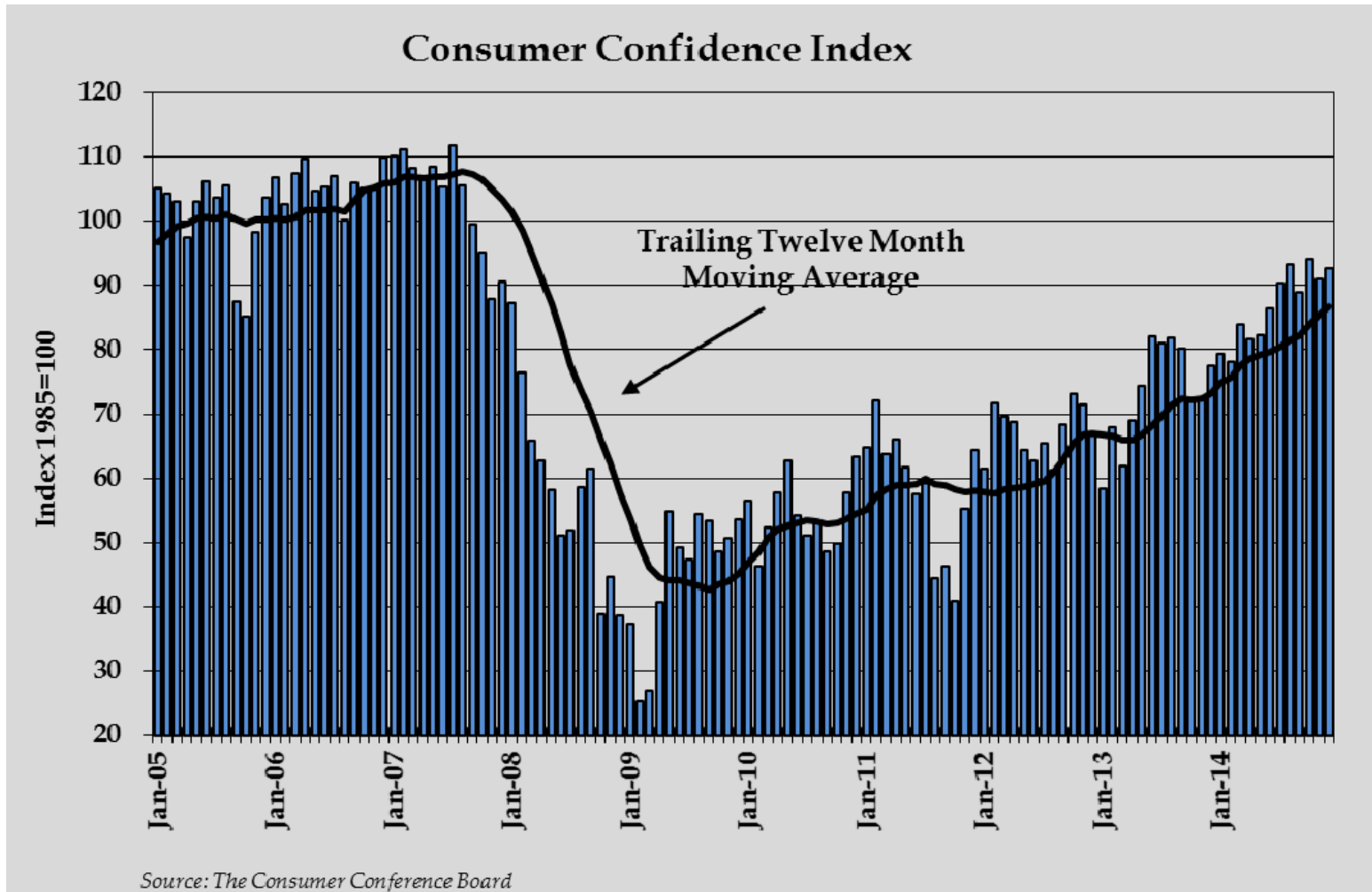
Architectural Billings Index

The ABI serves as a leading economic indicator for non-residential construction activity about a year out. If an equal share of firms report an increase as report a decrease, the score for that month will be 50. A score above 50 indicates that firms in aggregate are reporting an increase in activity that month compared to the previous month, while a score below 50 indicates that firms are reporting a decrease in activity.

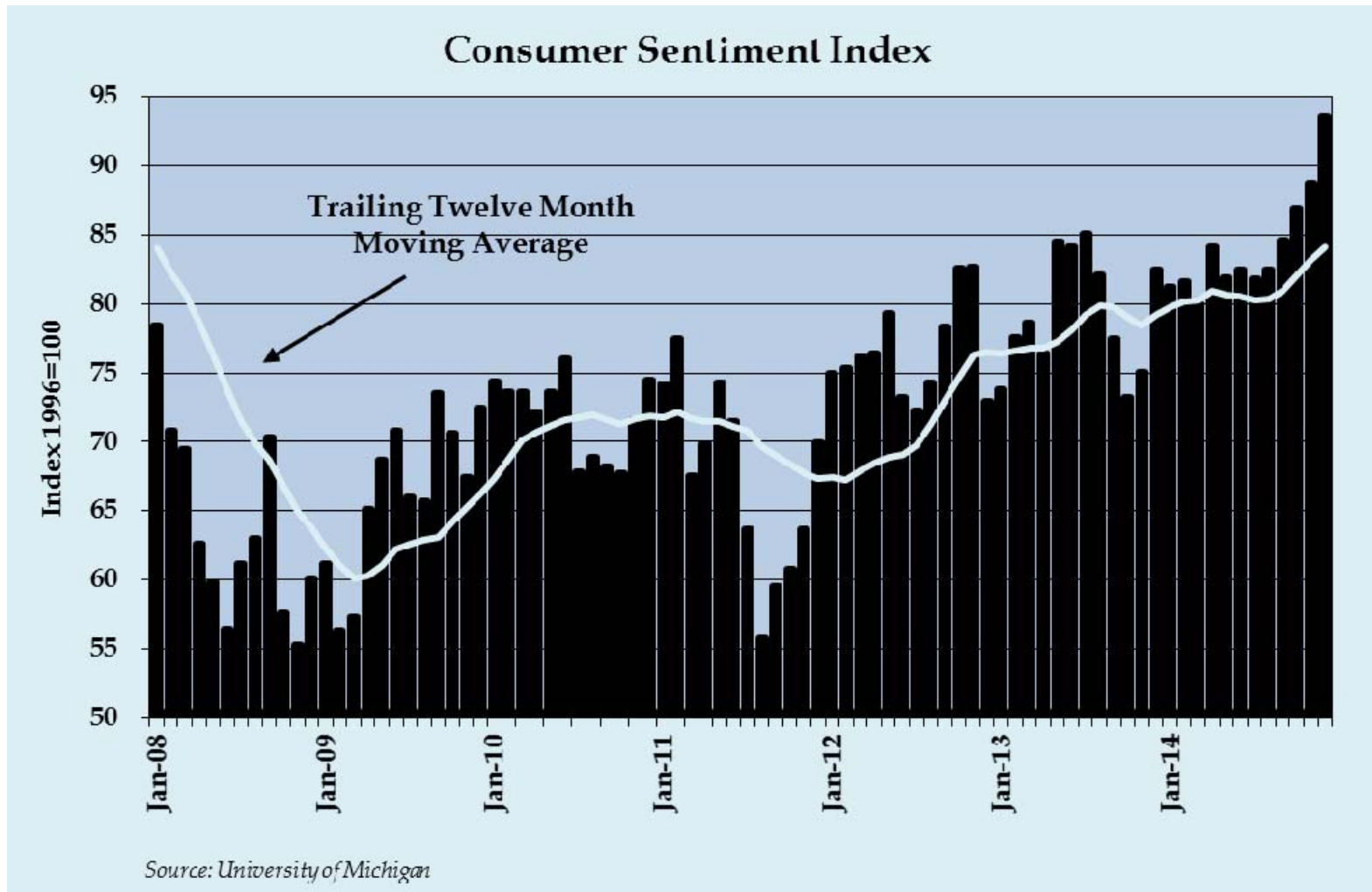


Source: The American Institute of Architects (AIA)

Consumer Confidence at a 5 Year High



Michigan's Consumer Sentiment Index Has Surged in Recent Months



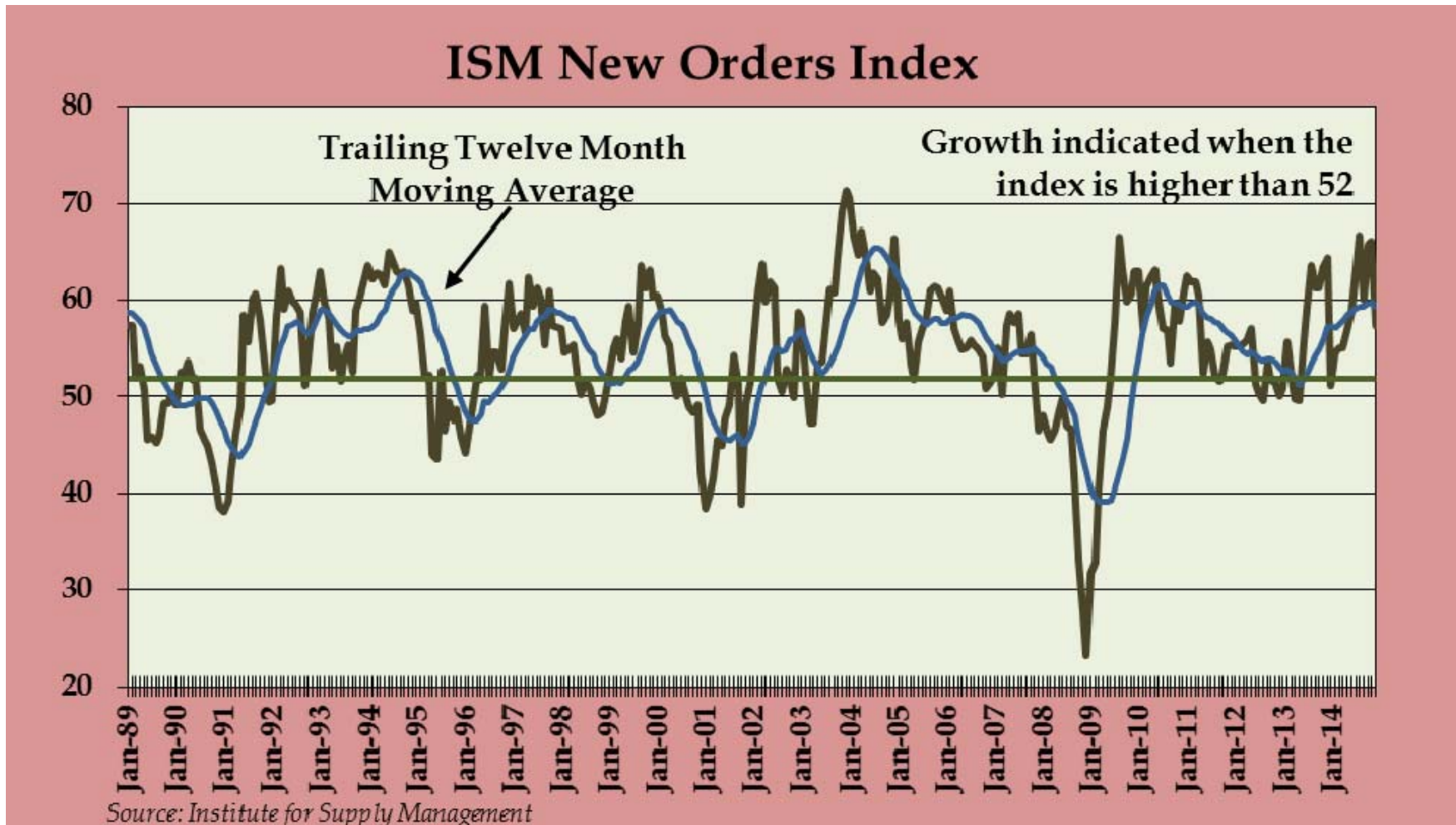
Industrial Production Continues to Set New Highs



Non-Defense Capital Goods Orders Have Been Running at \$70 Billion a Month



ISM New Orders Index Indicating Growth Since Feb 2014



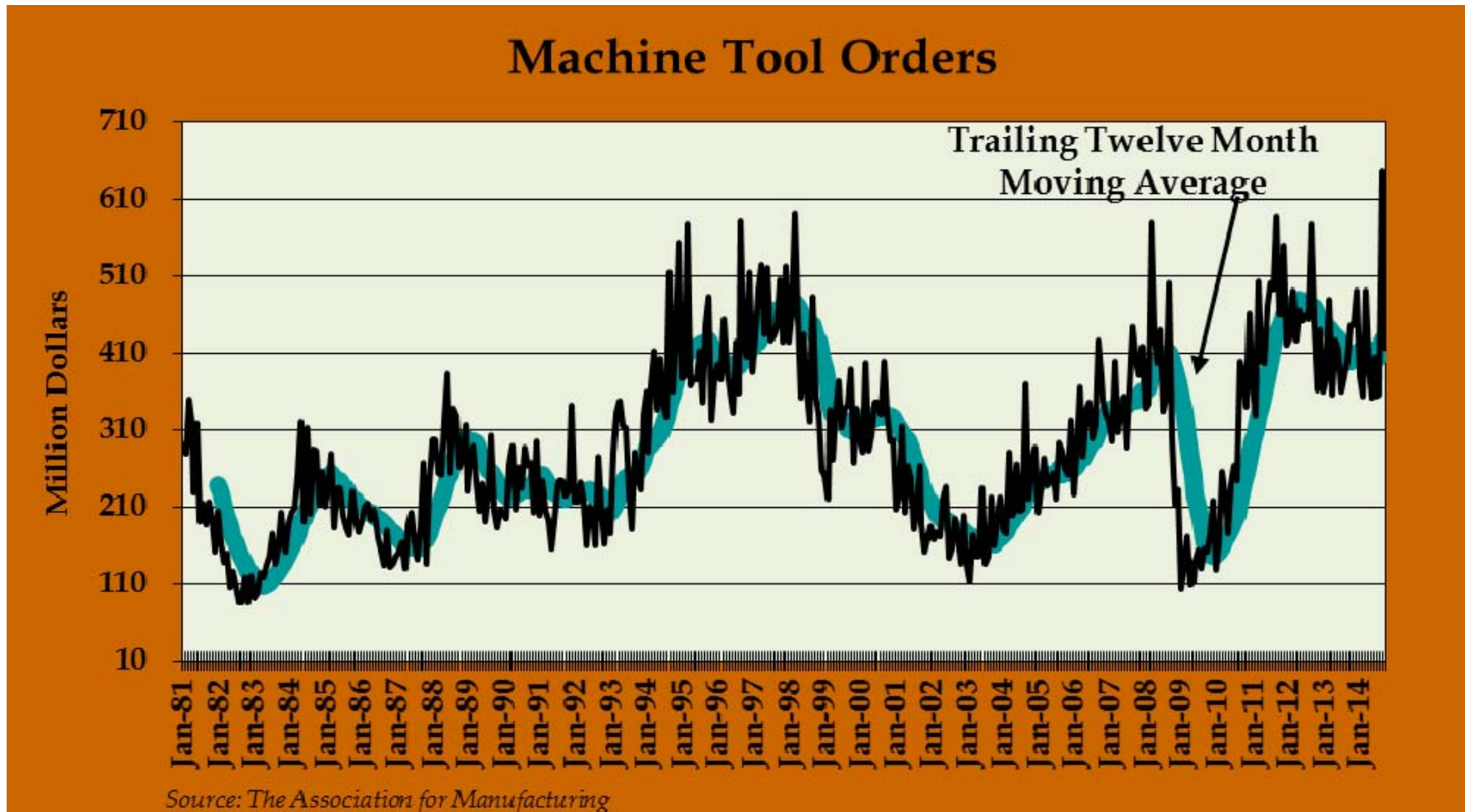
Chicago Purchasing Managers Index Turned Down Two Months Ago On A Trailing Twelve Month Moving Average Basis; At 60.8 Maybe a Warning Signal of Near Term Weakness



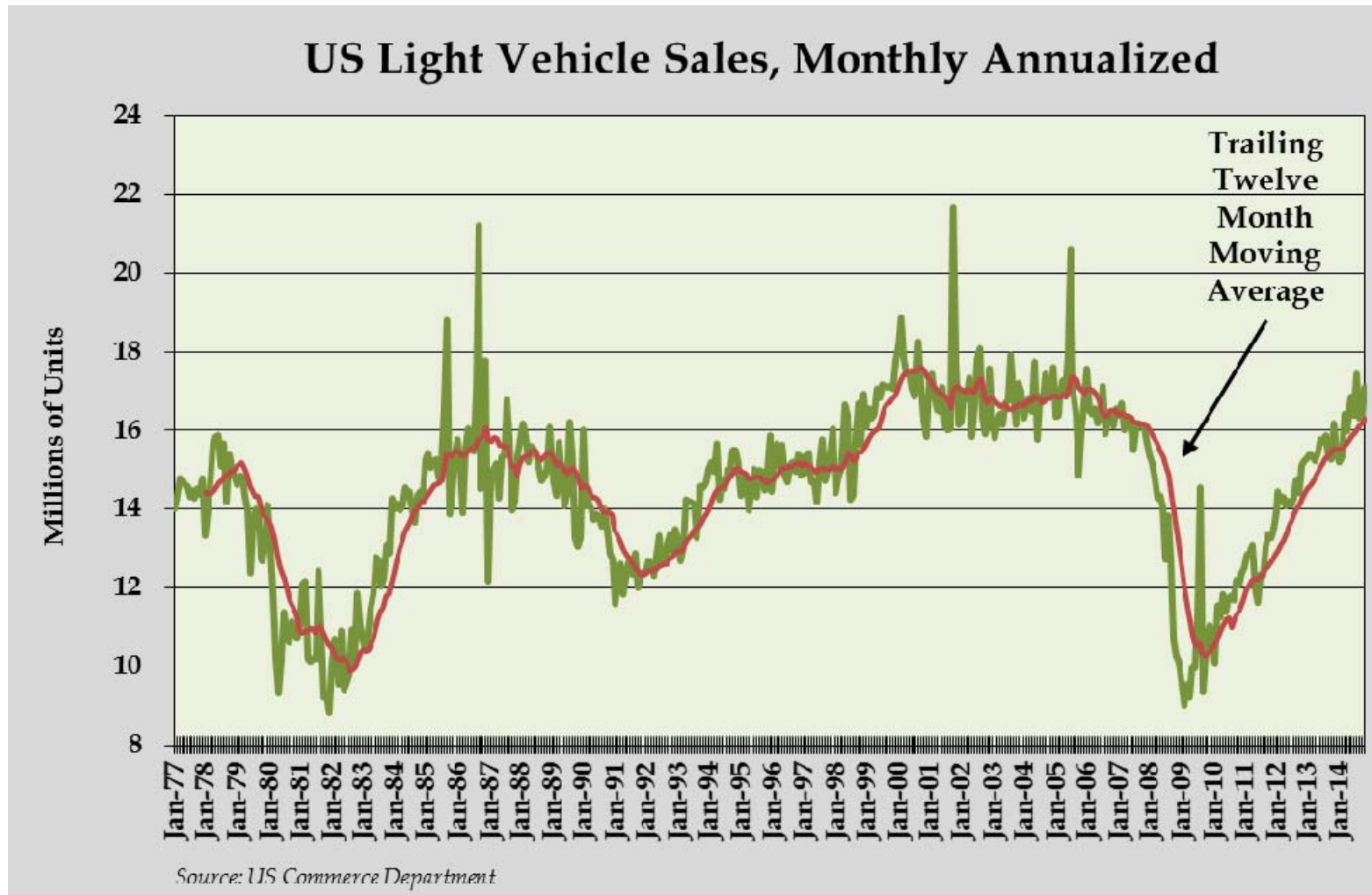
Manufacturing Sales Gaining Nicely With Reshoring



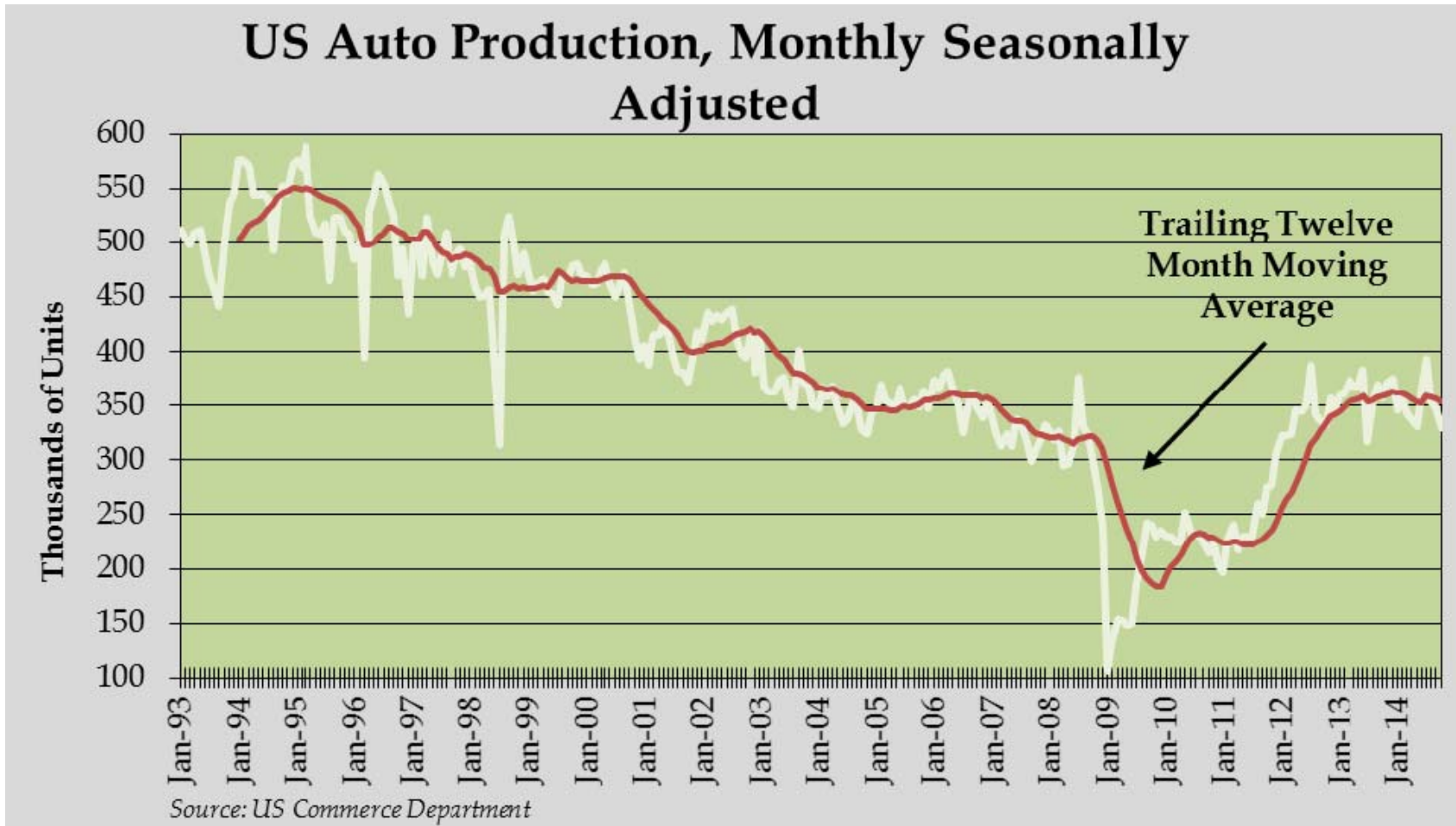
Machine Tool Orders Tracking the Mid-1990s Level



North American Auto Sales Expected to Reach 16.5 Million Units in 2014 and Remain Strong in 2015

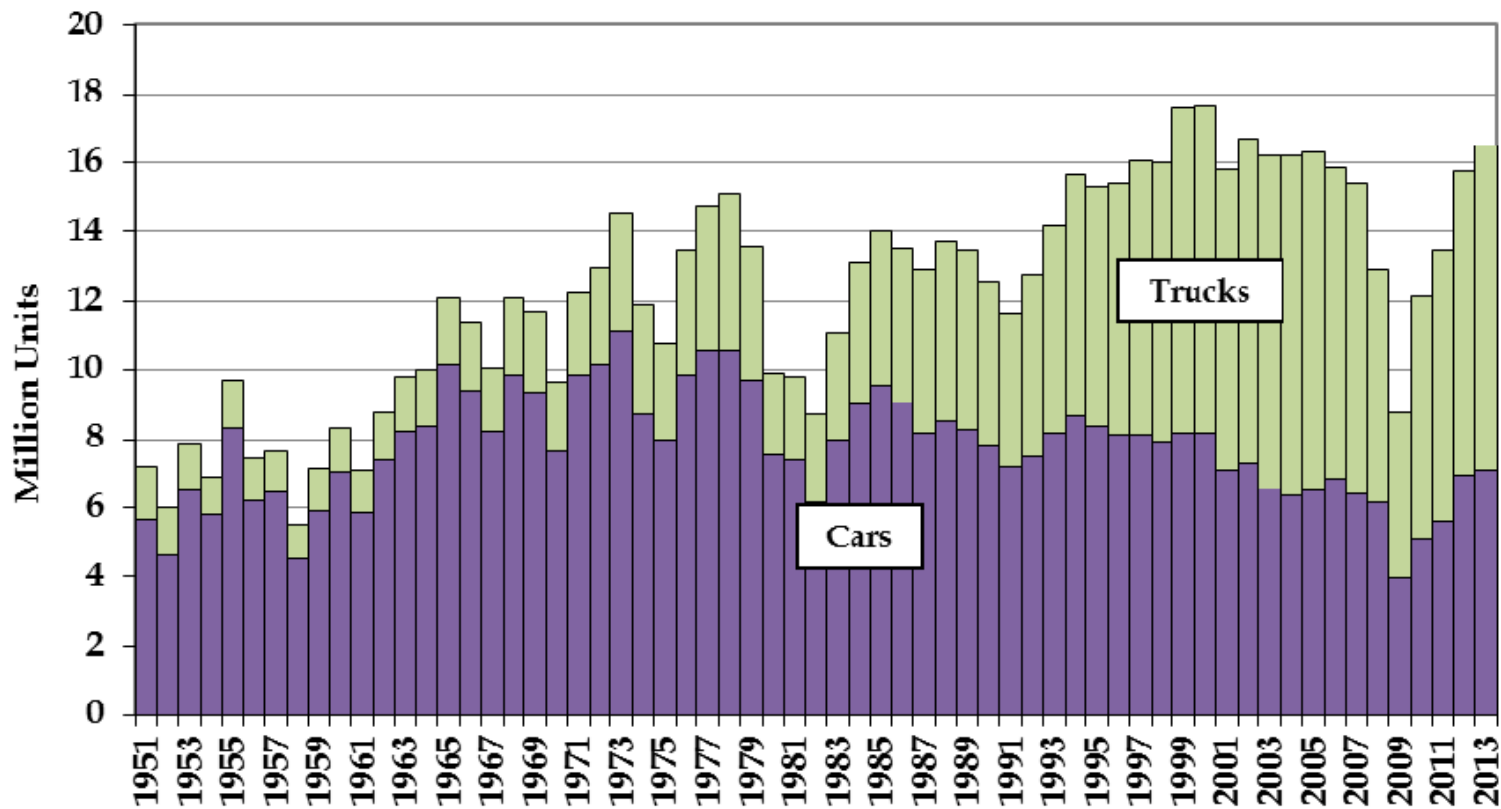


US Auto Production Has Recovered to Pre-2008 Levels, But Not Peak Early-1990 Levels



Trucks Represent 50% of the Market Since 1997; Hit 60% in 2004-05; Were 57% in 2013

North American Automotive Sales By Segment



Source: Ward's Automotive Statistics

CAFÉ Weight Targets Granted Aluminum a Big Victory for 2015 and Beyond

- In its October 2014 report “*AutoBodyWarfare: Aluminum Attack*” World Steel Dynamics estimates that aluminum sheet deliveries to US automakers will increase from half a million pounds to over 2.5 million pounds in 2018 for use in the Ford F-150.
- WSD predicts that trucks using steel will be able to easily meet CAFÉ standards until 2021, when presumably improvements in steel product performance will make the additional required light-weighting achievable.
- Aluminum is more expensive, and doesn’t deliver as much fuel savings benefit as one might expect.
- Good money after bad? Ford originally decided in 2009 to increase aluminum use in the F-150.
- Steel remains the metal of choice for strength, in our opinion, and in the opinion of many experts.

One Forecast Has Pounds Used Per Auto Growing from 343 in 2012 to an Estimated 550 in 2025

Transportation

A recent study by [Ducker Worldwide](#) indicates the average car or light truck produced in North America in 2012 will contain 343 pounds of aluminum, 9% of average curb weight. 27 pounds will be aluminum extrusion. As auto makers continue to improve fuel efficiency, Ducker expects overall aluminum content to increase to 550 pounds, and extrusion content to grow to 48 pounds, by 2025. But extrusion plays a big role in transportation beyond autos ([more](#))

Typical car/light truck extrusion applications

Links:

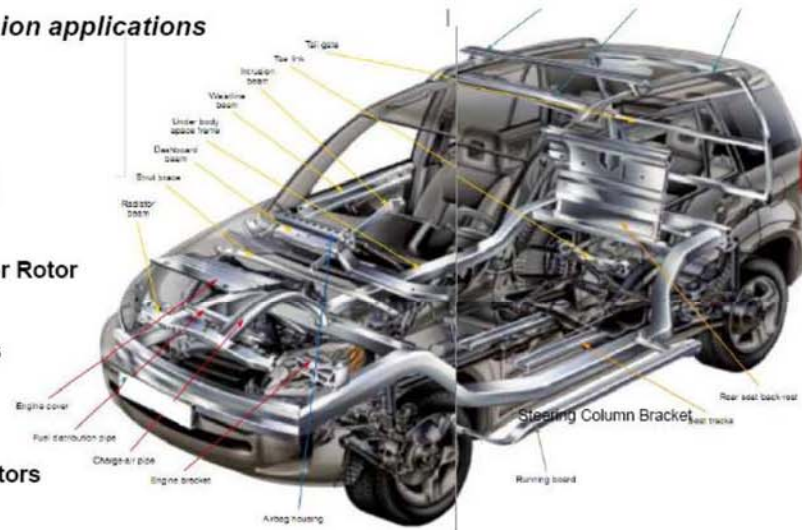
[Ford GT](#)

['12 Mercedes](#)

[Twisted Power](#)

www.aluminumintransportation.org

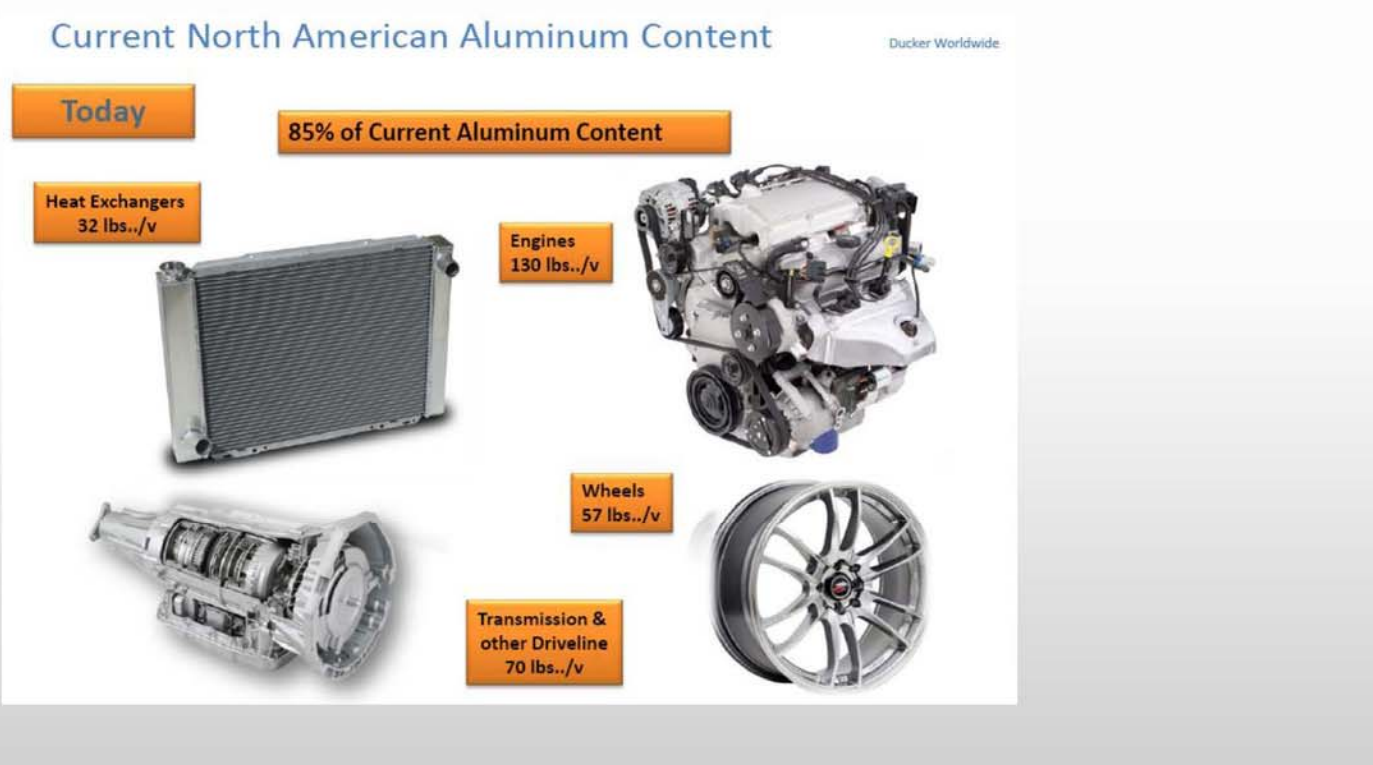
Turbo charger Rotor
Bumper beam & Crush bos
Engine/Frame Isolators



Source: *SBB Platts How the Aluminum Market Works*, Scott Stewart, Black Hawk Resources

Current Automotive Parts Using Aluminum

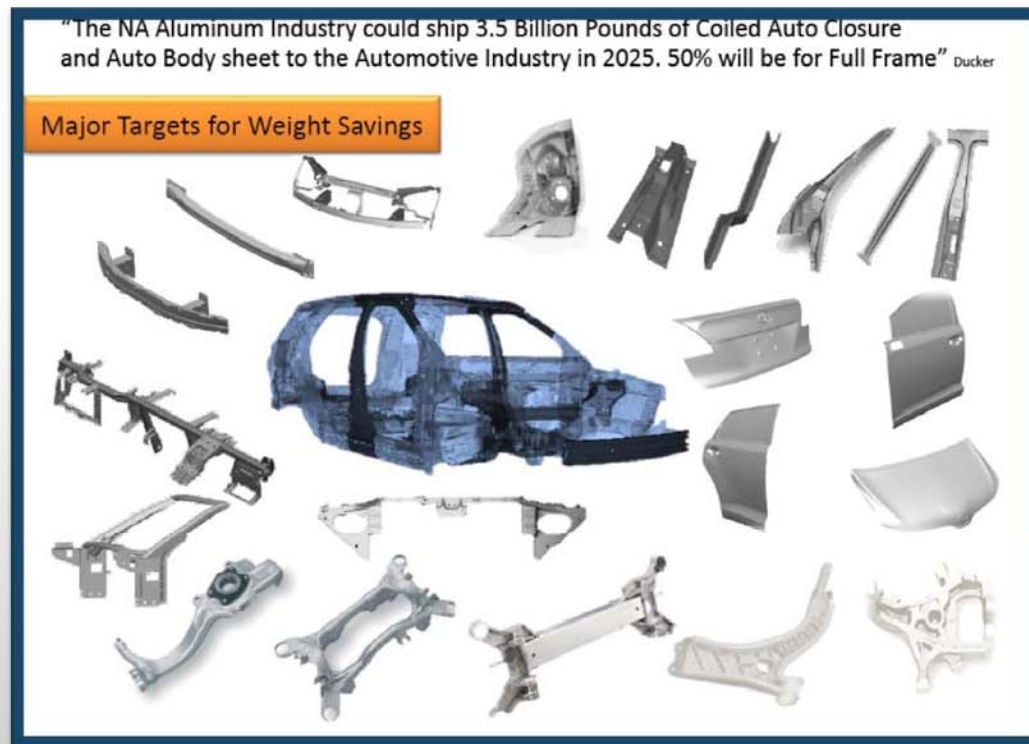
Automotive



Source: SBB Platts How the Aluminum Market Works, Scott Stewart, Black Hawk Resources

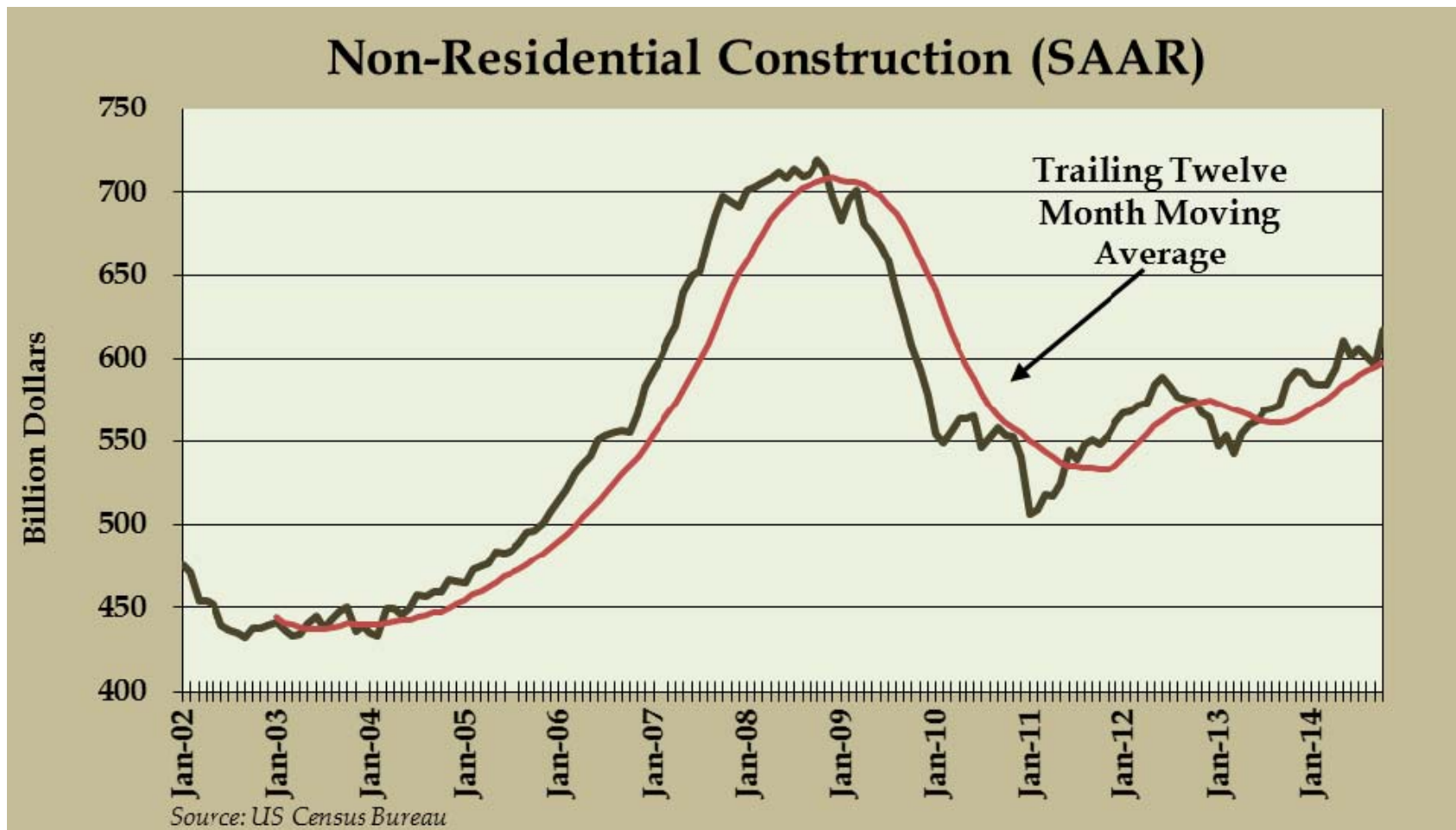
Targeted Automotive Applications for Aluminum

Automotive

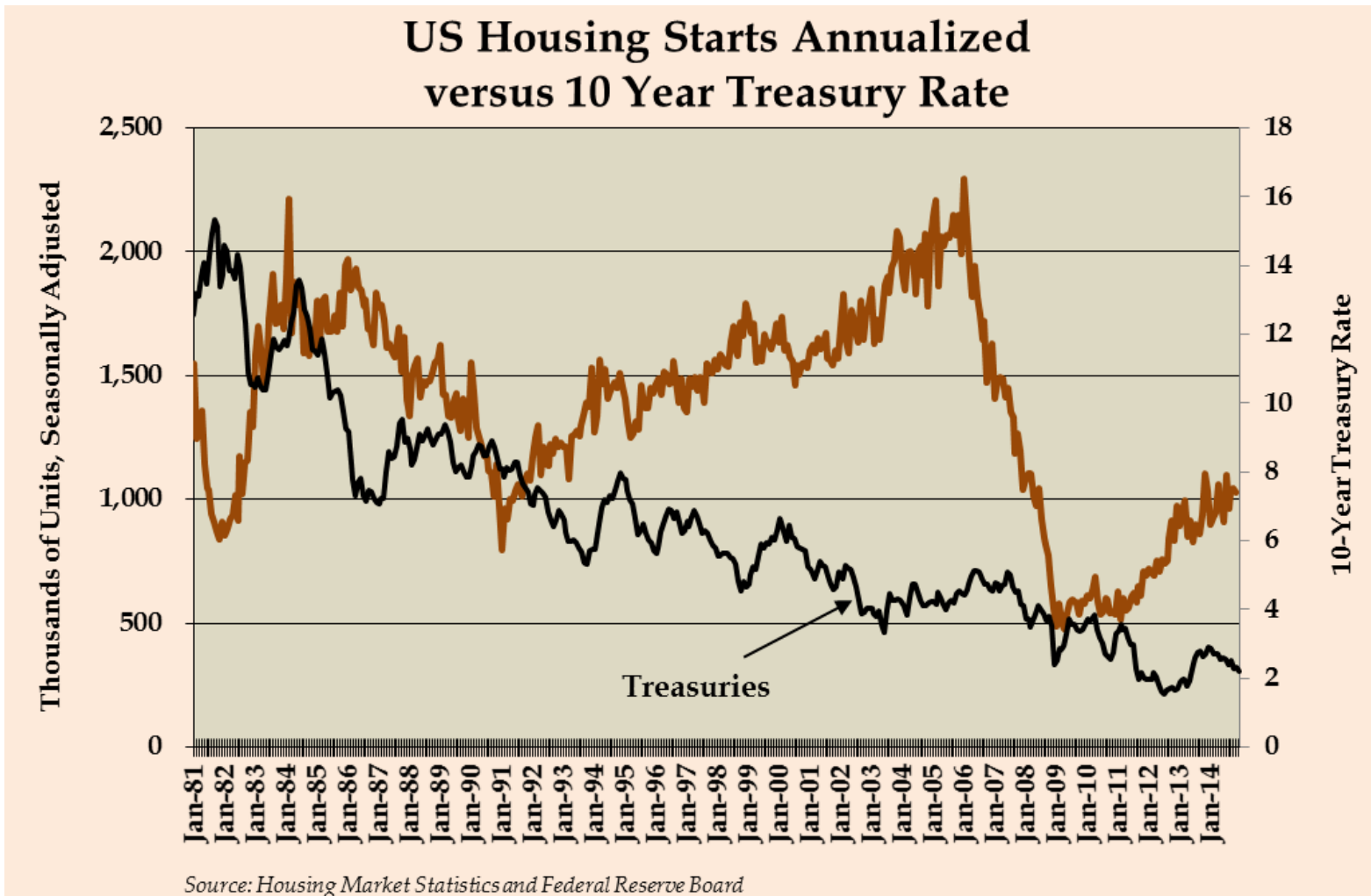


Source: SBB Platts How the Aluminum Market Works, Scott Stewart, Black Hawk Resources

Non-Residential Construction Around \$600 Billion Per Month in Clear Up Trend, But 15% Below Peak

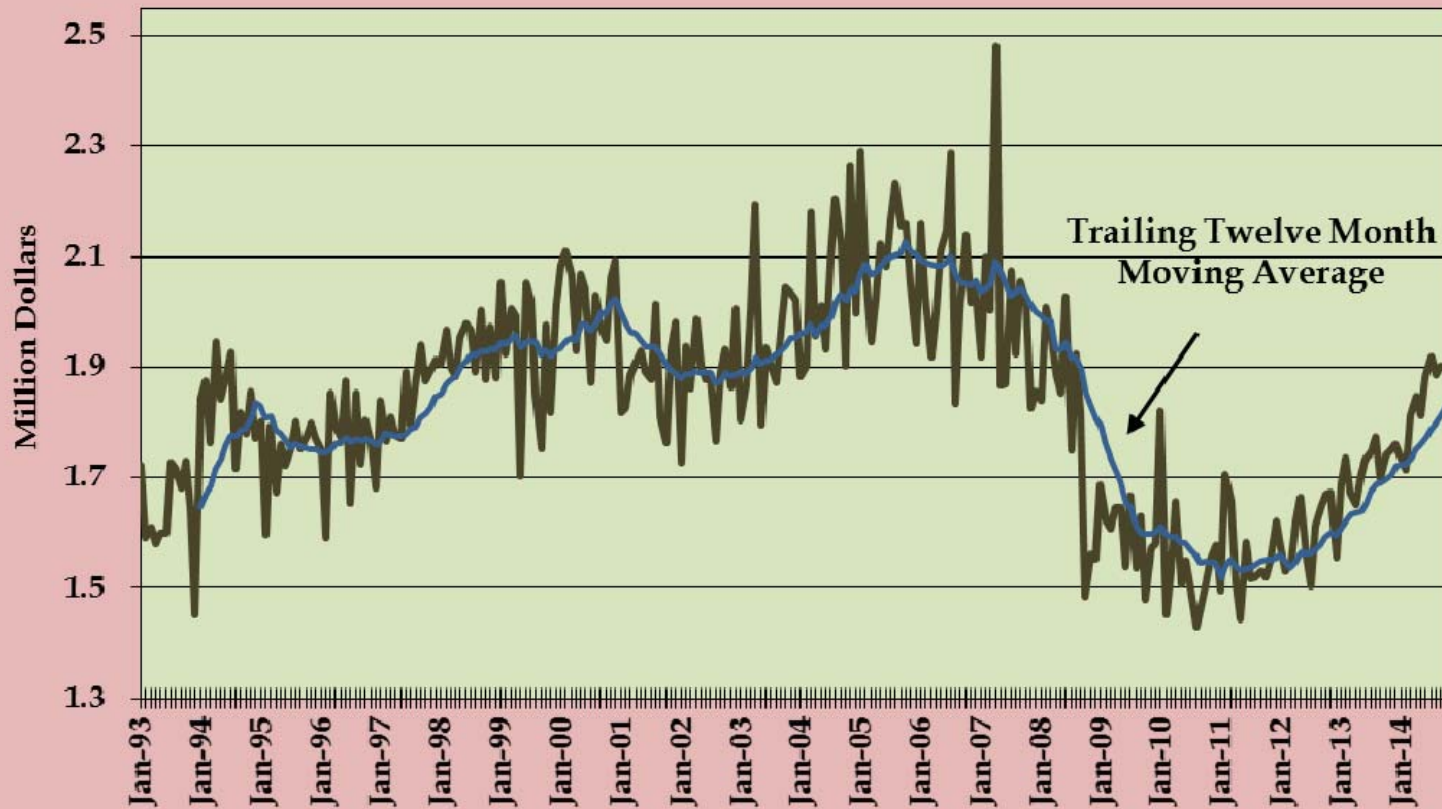


Housing Has Started To Recover; Lower Fuel Costs Could Empower Consumer Spending Here



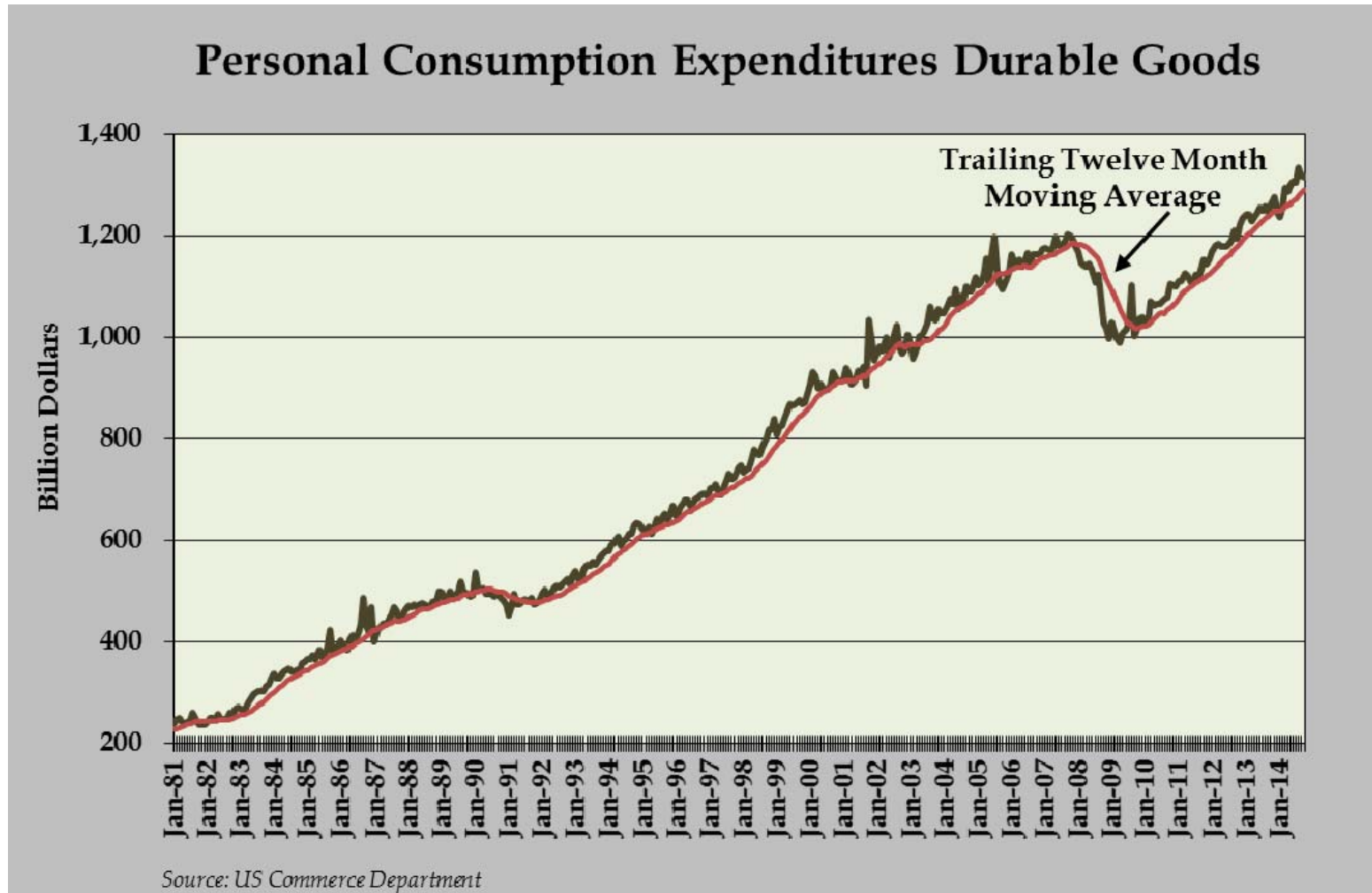
Appliance Purchases Follow Housing

New Orders, Durable Goods, Electrical & Appliance

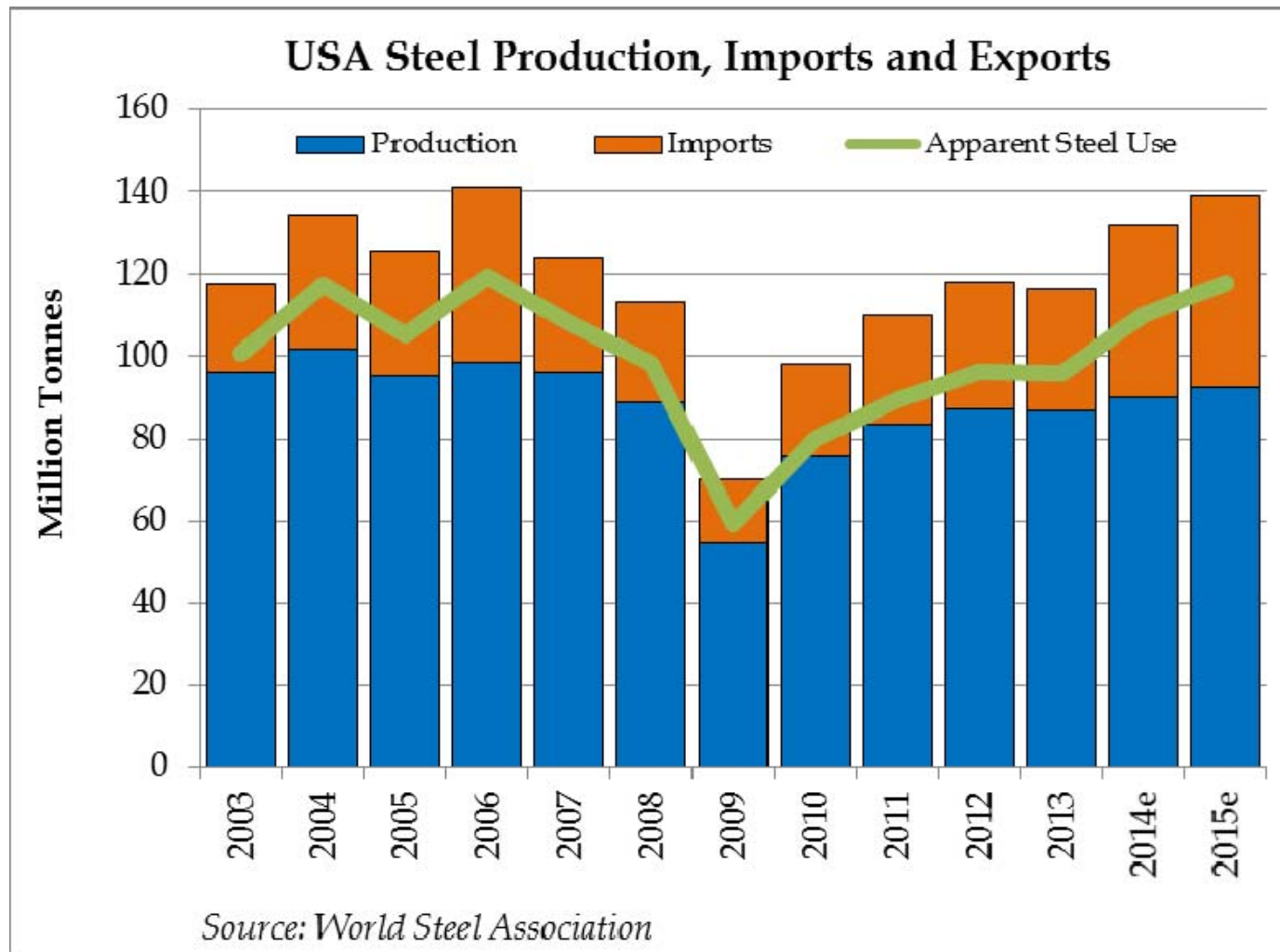


Source: US Commerce Department

Personal Consumption Expenditures on Durable Goods Setting 30 Year Highs



USA Steel Consumption Up An Estimated 12.5% in 2014; Forecasting Up 6.7% in 2015



USA Steel Shipments Highest Since 2008 and USA Steel Consumption Highest Since 2007

USA Steel Shipments, Imports, Exports & Consumption

(million tons)

Less Semis

	Shipments	Imports	Imports	Exports	ASC	Y-t-Y Chg
2000	109.6	38.7	6.8	6.6	134.8	5.8%
2001	98.6	30.2	5.5	6.1	117.0	-13.2%
2002	99.0	32.7	8.2	6.0	117.4	0.4%
2003	104.6	23.0	4.8	8.2	114.6	-2.4%
2004	111.0	35.8	7.2	7.9	131.6	14.8%
2005	103.2	32.1	6.9	9.5	118.9	-9.6%
2006	108.6	45.3	9.3	9.7	134.9	13.4%
2007	106.1	33.2	6.6	11.1	121.7	-9.8%
2008	98.4	32.4	5.9	13.4	111.4	-8.4%
2009	60.3	16.2	2.0	9.3	65.3	-41.4%
2010	83.4	23.9	5.0	12.0	90.3	38.3%
2011	91.9	28.5	6.6	13.5	100.3	11.1%
2012	95.9	33.5	7.6	13.7	108.1	7.7%
2013	95.4	32.2	7.3	12.7	107.6	-0.4%
2014e	99.2	44.4	10.3	12.2	121.0	12.5%
2015e	101.6	50.0	11.5	11.0	129.1	6.7%

(Note: 2014e annualized on 10 month trend through October 2014).

Source: AISI

USA Producing at the Mid-1990s Level

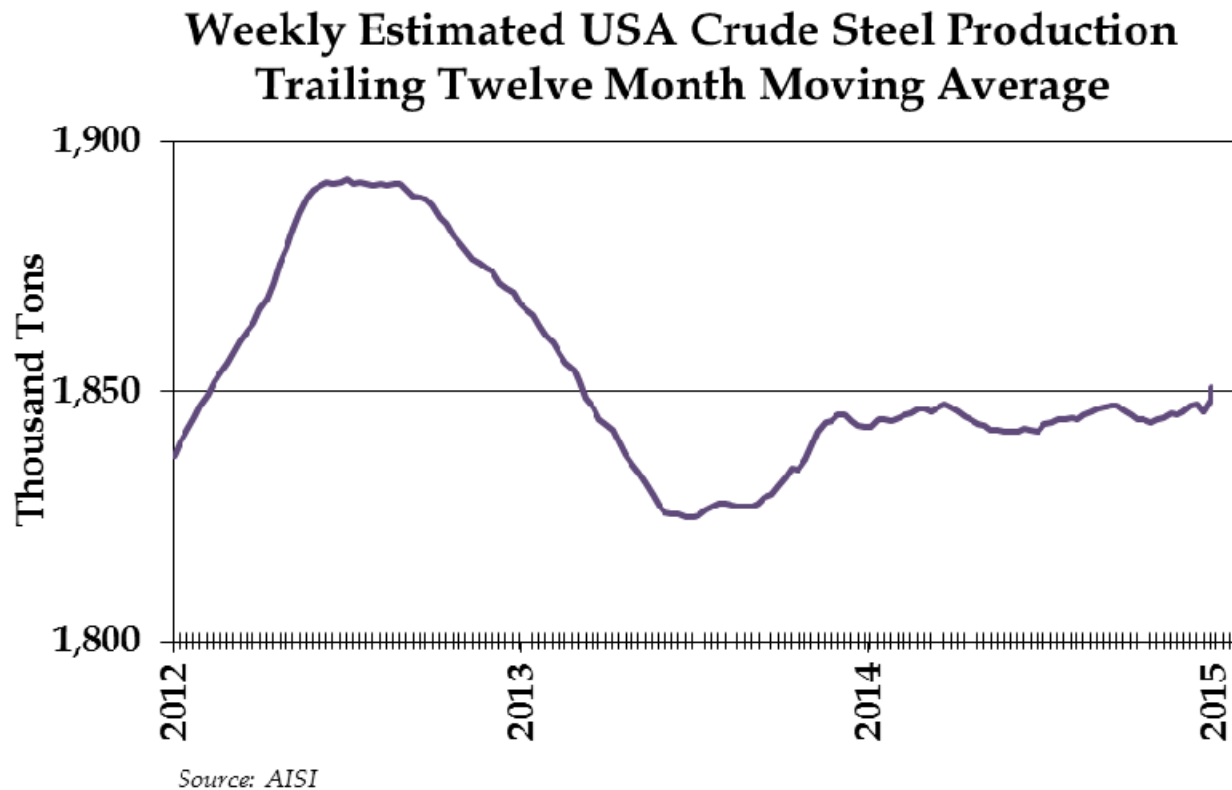
US Steel Shipments, Monthly Annualized



Source: AISI

Domestic Shipments at 1.899 Million Tons Per Week, or a 88.8 Million Finished Ton Annualized Rate

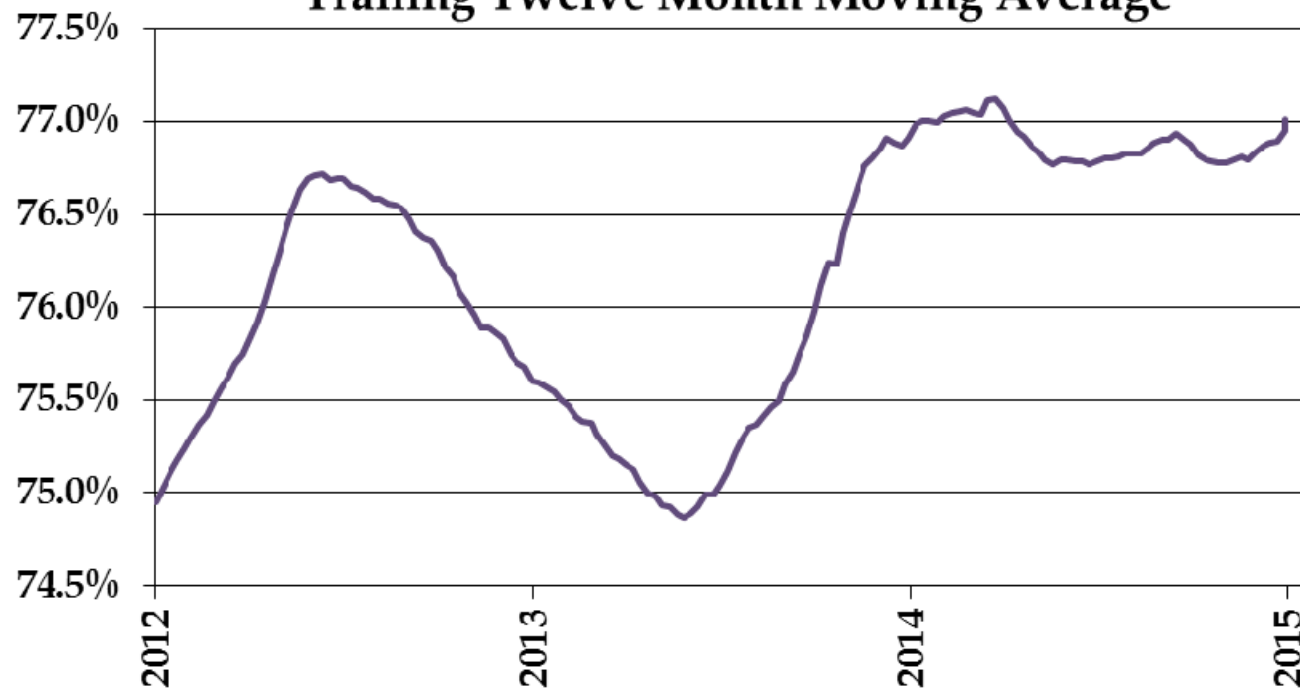
This run rate doesn't include the approximately 10 million tons per year of semis that now come into the USA systemically. Historically, semis were a "swing" factor in peak demand periods.



Utilization at 76.90% in 2014 versus 76.87% in 2013 – Mill Lead Times Are a Week Shorter Than This Time Last Year at 3.2 for HRB and 5.5 for CRC

Industry utilization is not “homogenous”. The flat mills are running fuller than the bar mills, and typically the EAF mills run fuller than the BF/BOF mills.

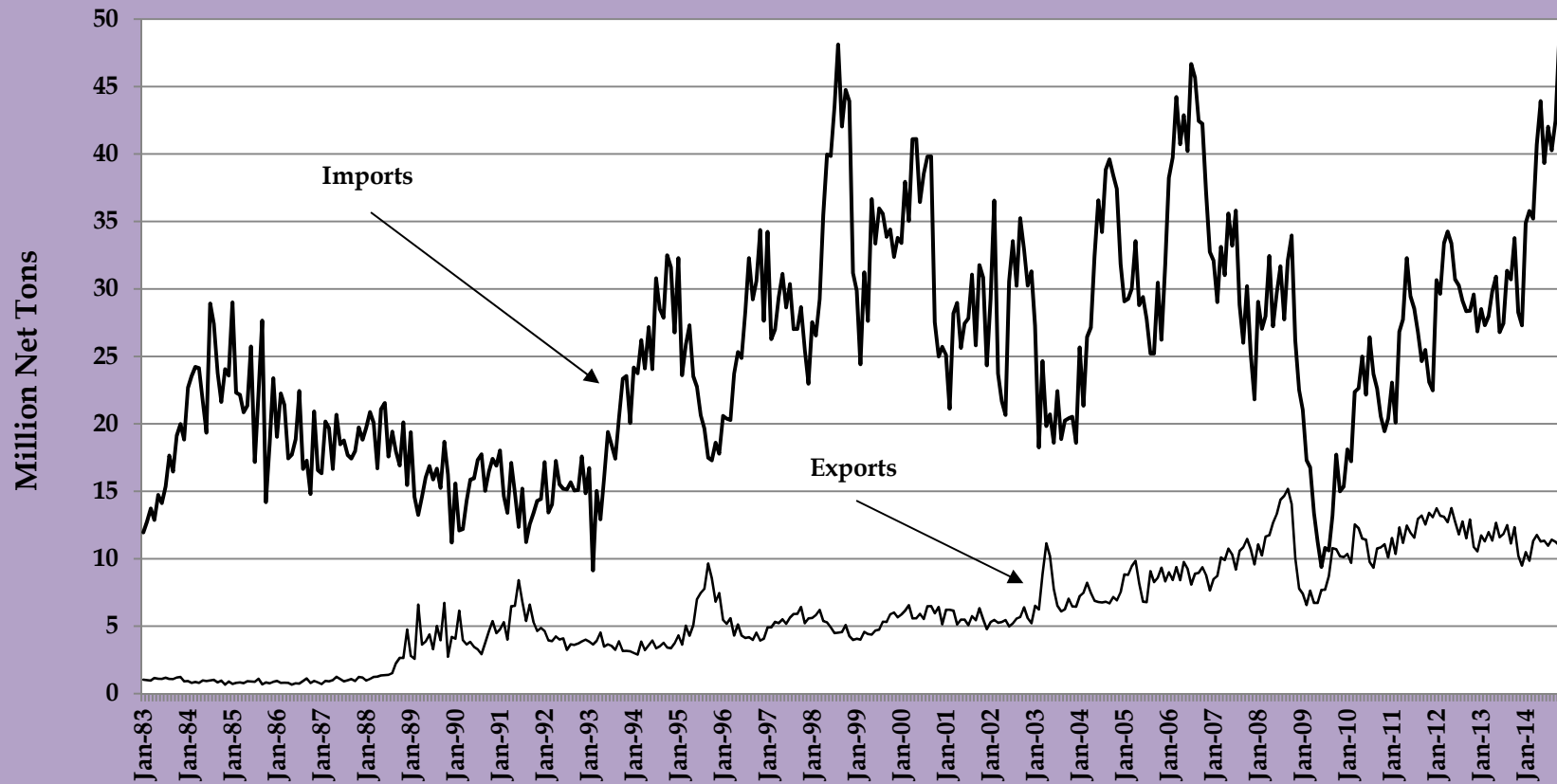
USA Raw Steel Production Utilization Rate Trailing Twelve Month Moving Average



Source: AISI

Imports Through November Were 40.6 Million Tons Compared to Exports Through October of 10.2 Million Tons

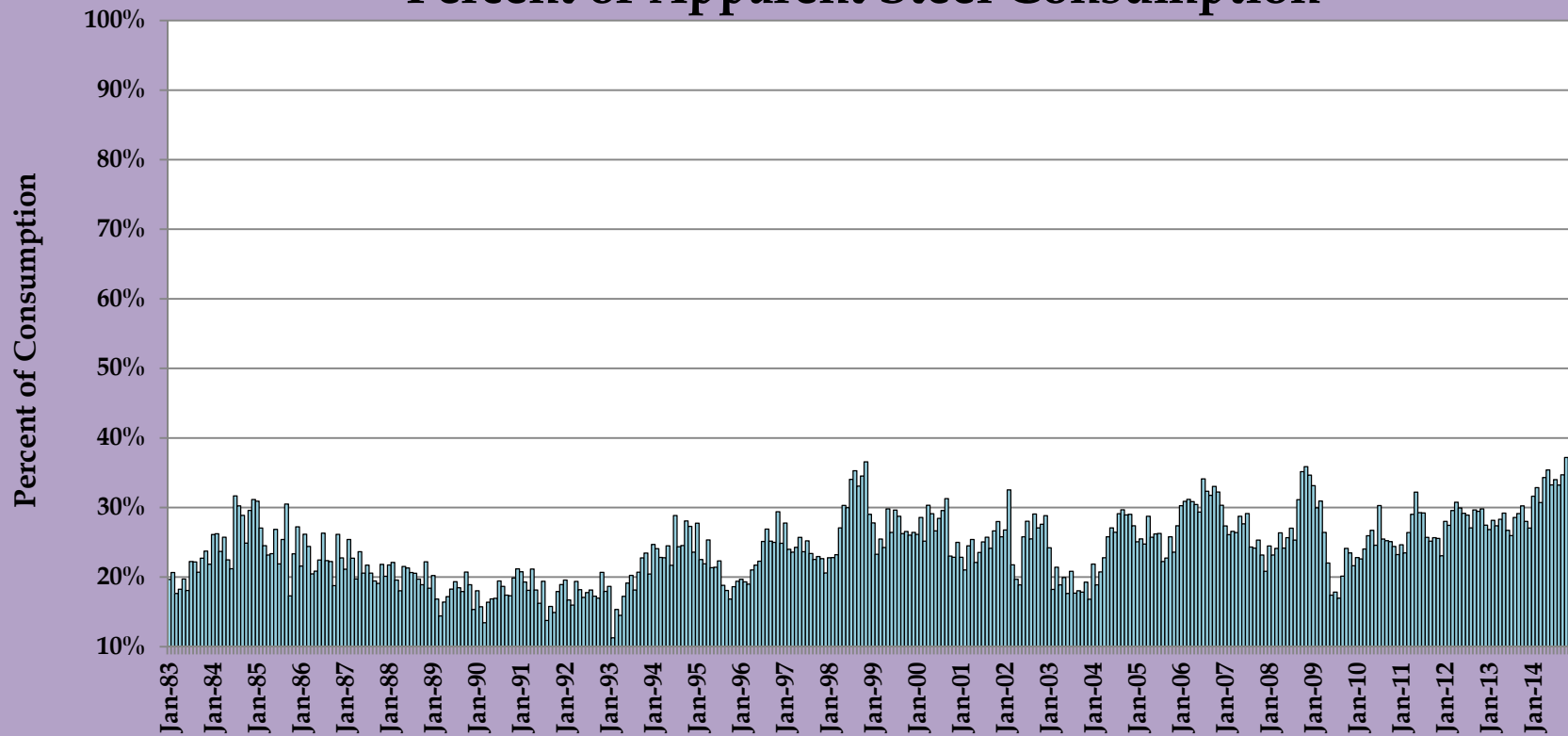
USA Monthly Steel Imports and Exports Annualized Rate



Source: AISI

Imports Today Account for About One-Third of USA Consumption; Historically Only Happens When Consumption Exceeds US Production

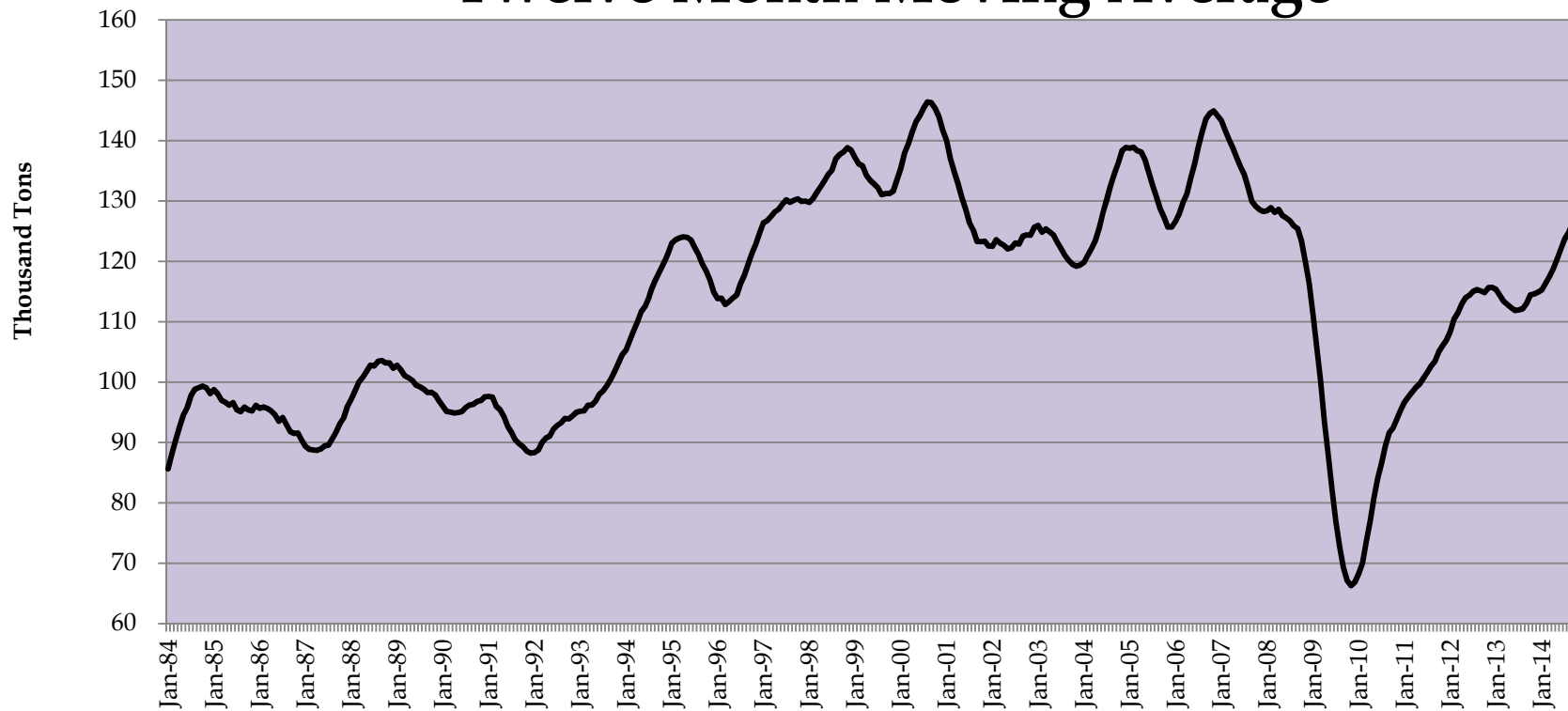
USA Monthly Annualized Rate of Imports as a Percent of Apparent Steel Consumption



Source: AISI

USA Steel Consumption Has Seen a Nice Improvement in 2014, Approaching 130K tpm

USA Monthly Apparent Steel Consumption Twelve Month Moving Average



Source: AISI

USA Mills Are Only Partially Benefiting Due to High Imports Which Have Taken Market Share

USA Steel Consumption / Shipment Outlook

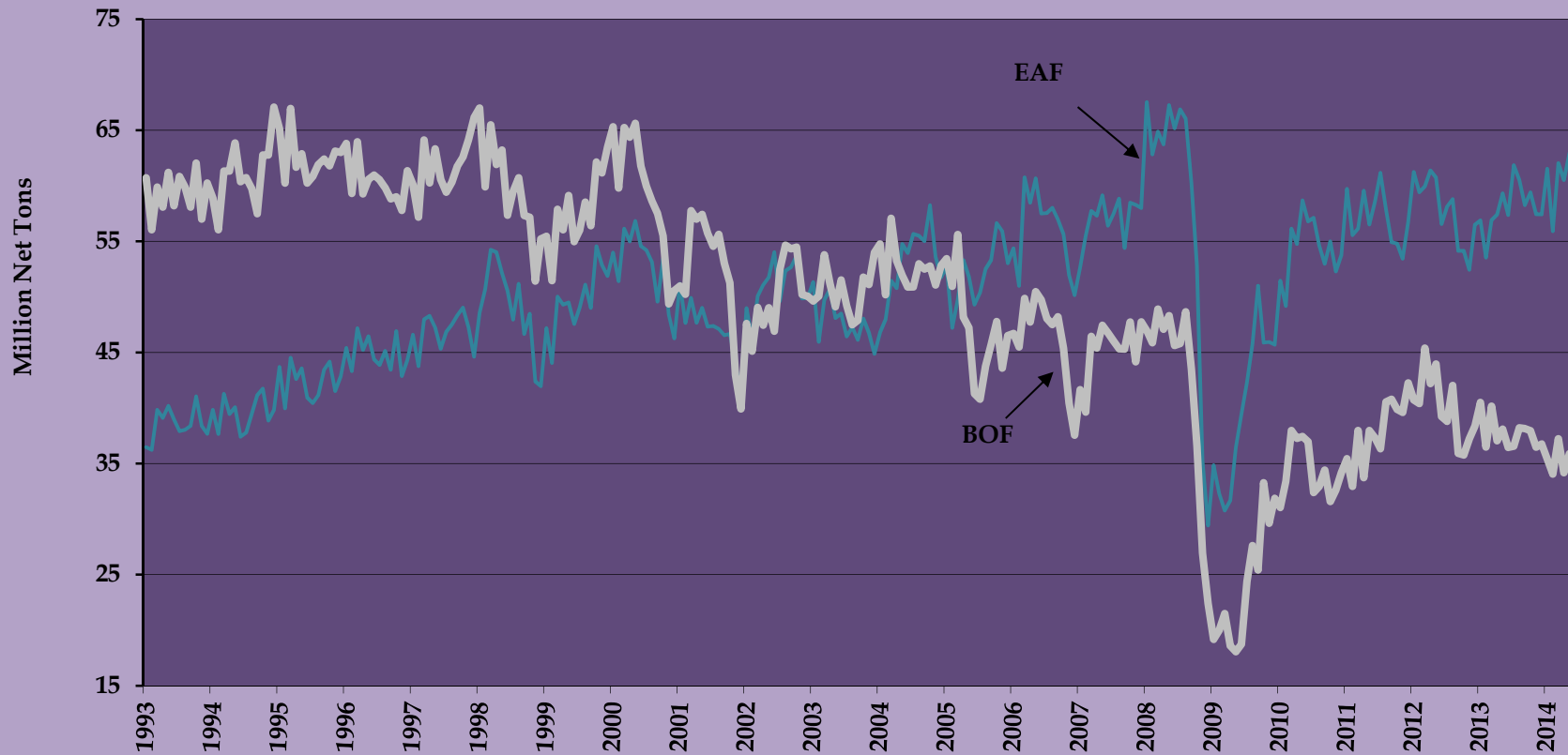
(million short tons)

	<u>1995</u>	<u>2000</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014e</u>
First quarter	24.9	28.6	28.2	27.1	27.8	26.3	27.5	13.3	20.5	22.5	25.4	23.6	23.9
Second quarter	24.4	28.5	29.0	25.6	28.8	26.5	27.7	13.5	21.7	22.3	24.7	23.8	24.9
Third quarter	24.0	27.3	27.4	25.7	26.8	27.1	26.2	16.8	20.8	23.7	23.5	24.5	25.3
Fourth quarter	24.2	24.7	26.8	26.6	26.1	26.5	17.1	18.6	20.4	23.4	22.3	23.5	25.1 e
Shipments	97.5	109.1	111.4	105.0	109.5	106.4	98.5	62.2	83.4	91.9	95.9	95.4	99.2
Plus: Imports	24.4	38.0	35.8	32.1	45.3	33.2	31.9	16.2	23.9	28.5	33.5	32.2	44.4 e
Less: Imported semis converted to finished products by AISI-reporting companies	5.0	8.6	7.4	6.9	9.3	6.6	5.9	2.0	5.0	6.6	7.6	7.3	9.6 e
Less: Exports	7.1	6.5	7.9	9.4	9.7	11.1	13.5	11.9	13.5	13.5	13.7	12.7	12.2 e
Subtotal: Apparent steel demand	109.8	131.9	131.9	120.8	135.8	121.9	111.0	64.5	88.9	100.3	108.1	107.6	121.8
Less: Est. user/buyer inventory build	-2.0	-2.0	8.1	-6.4	6.6	-2.5	-4.0	-10.0	4.0	1.5	1.0	-0.3	1.0
Equals: Actual steel consumption	111.8	133.9	123.8	127.2	129.2	124.4	115.0	74.5	84.9	98.8	107.1	107.9	120.8
% change	2.0%	3.1%	7.1%	2.8%	1.6%	-3.7%	-7.6%	-35.2%	14.0%	16.5%	8.3%	0.8%	12.0%

Source: AISI & Steel-Insights, LLC estimates

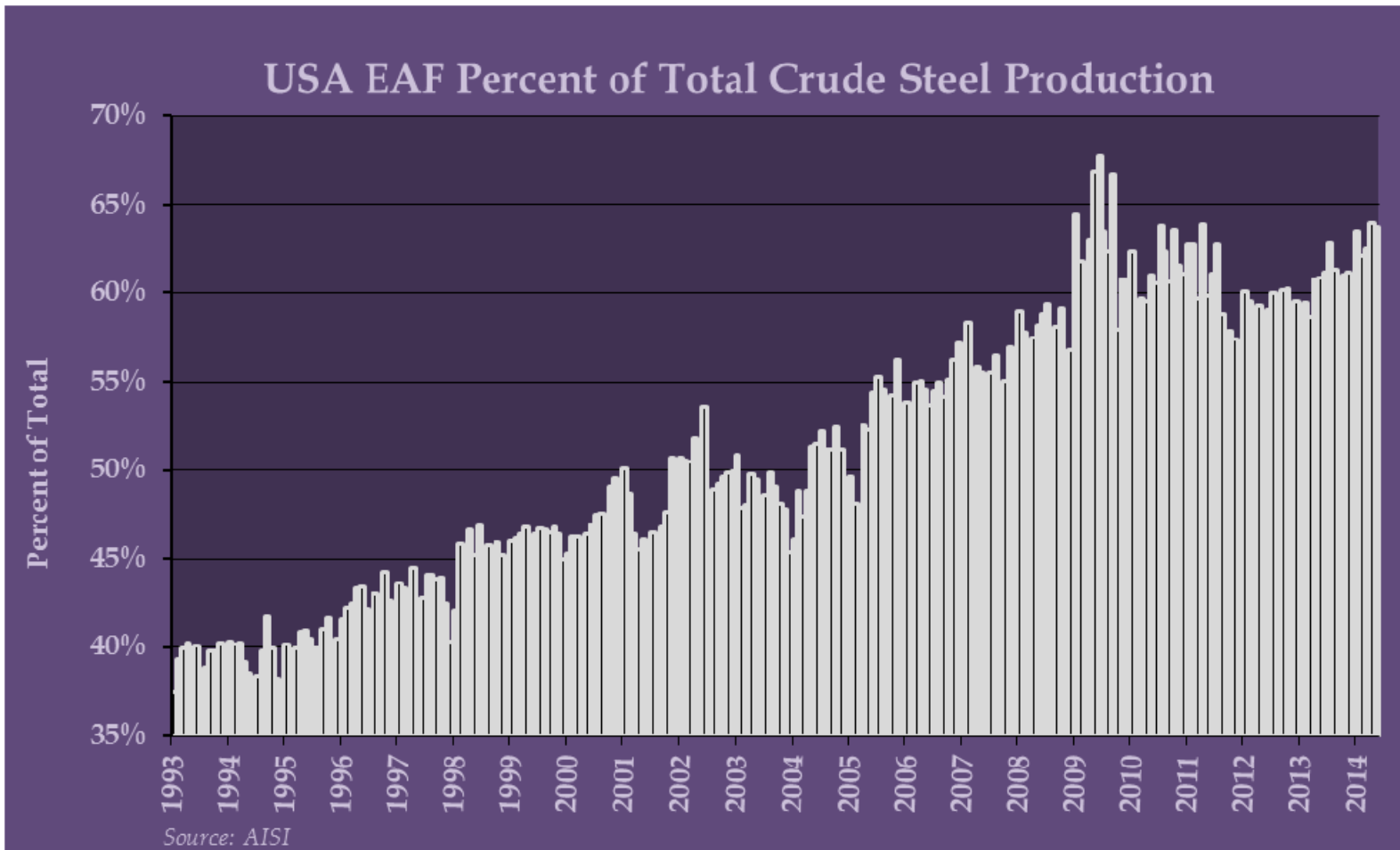
EAF-Based Steelmaking Dominates Now, But Hasn't Taken More Share in the Last Few Years

USA BOF and EAF Annualized Monthly Crude Steel Production



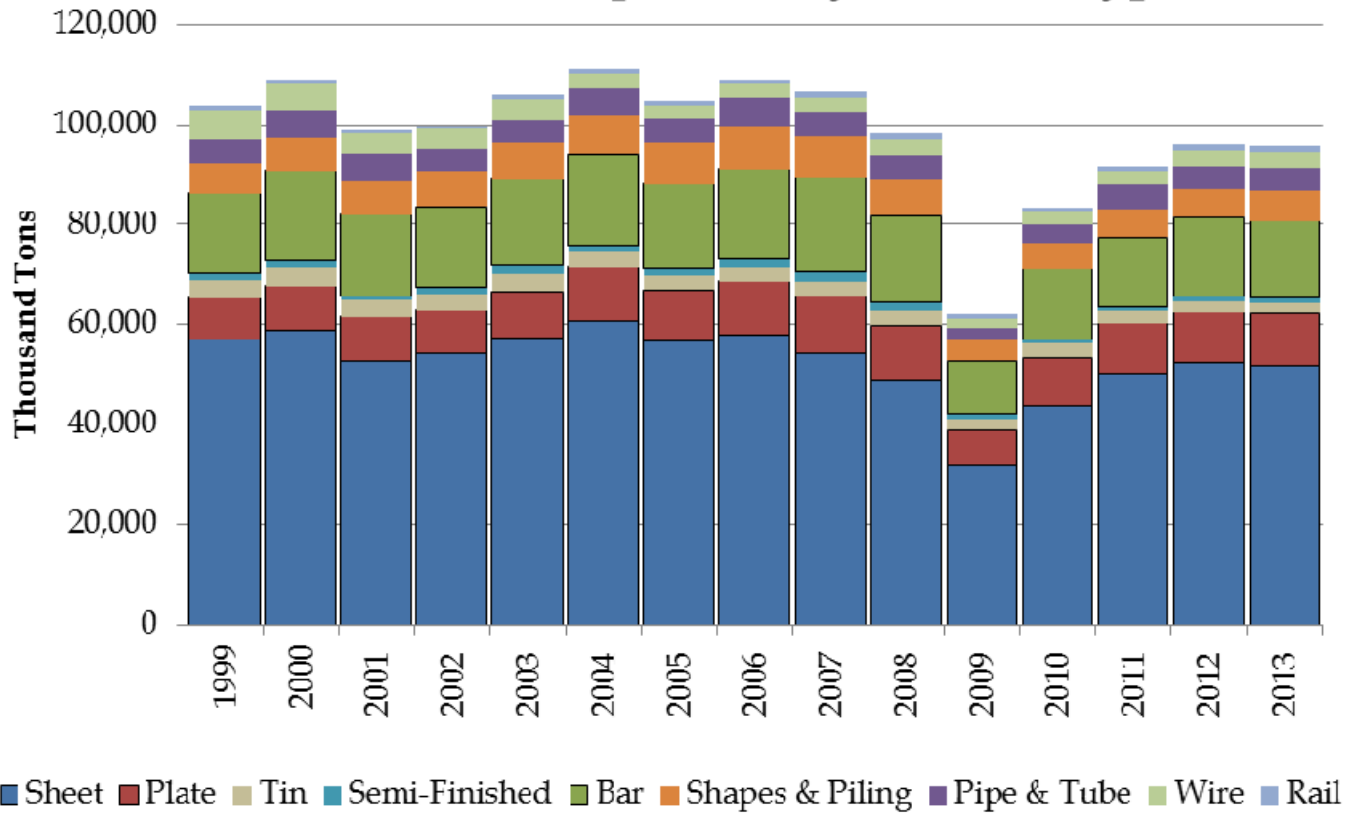
Source: AISI

EAF Steelmaking Represents 58-60% of the USA Market



USA Finished Steel Shipments Off Slightly in 2013 versus 2012

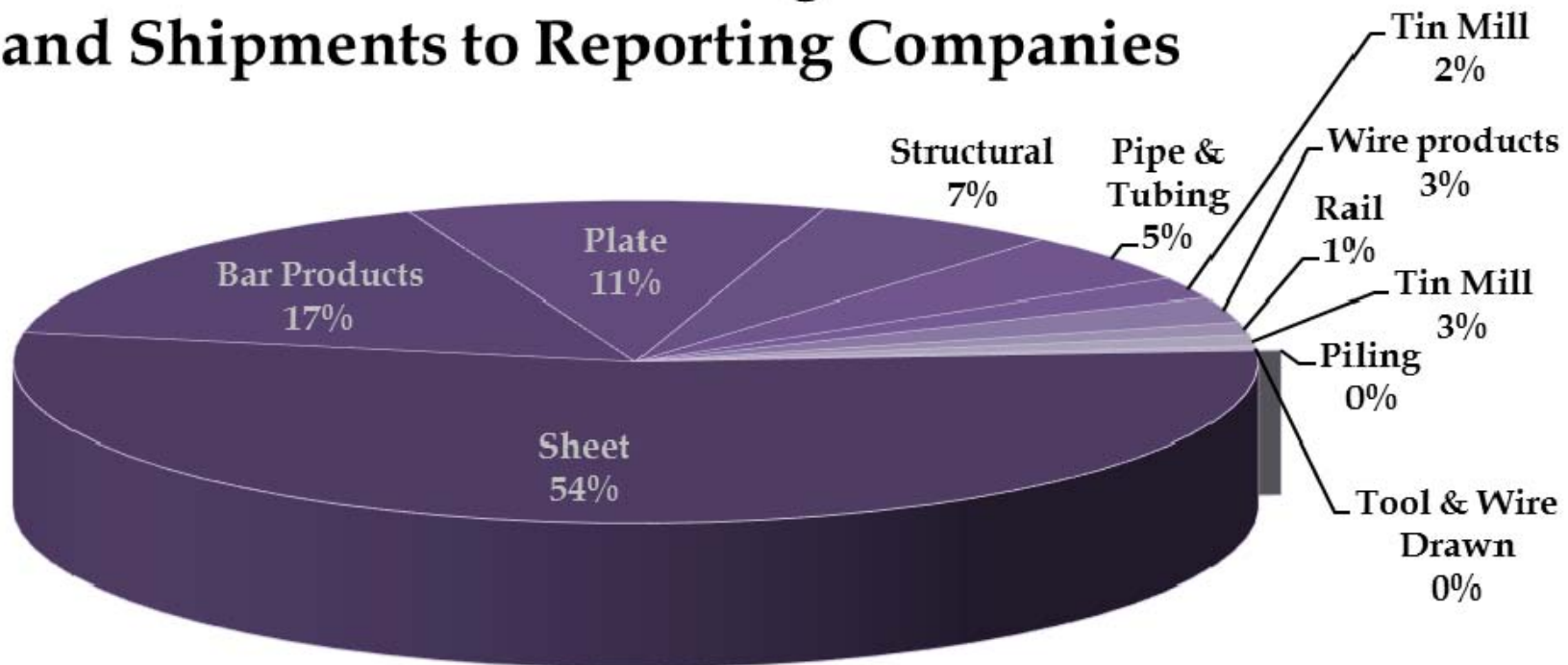
USA Steel Shipments by Product Type



Source: AIST

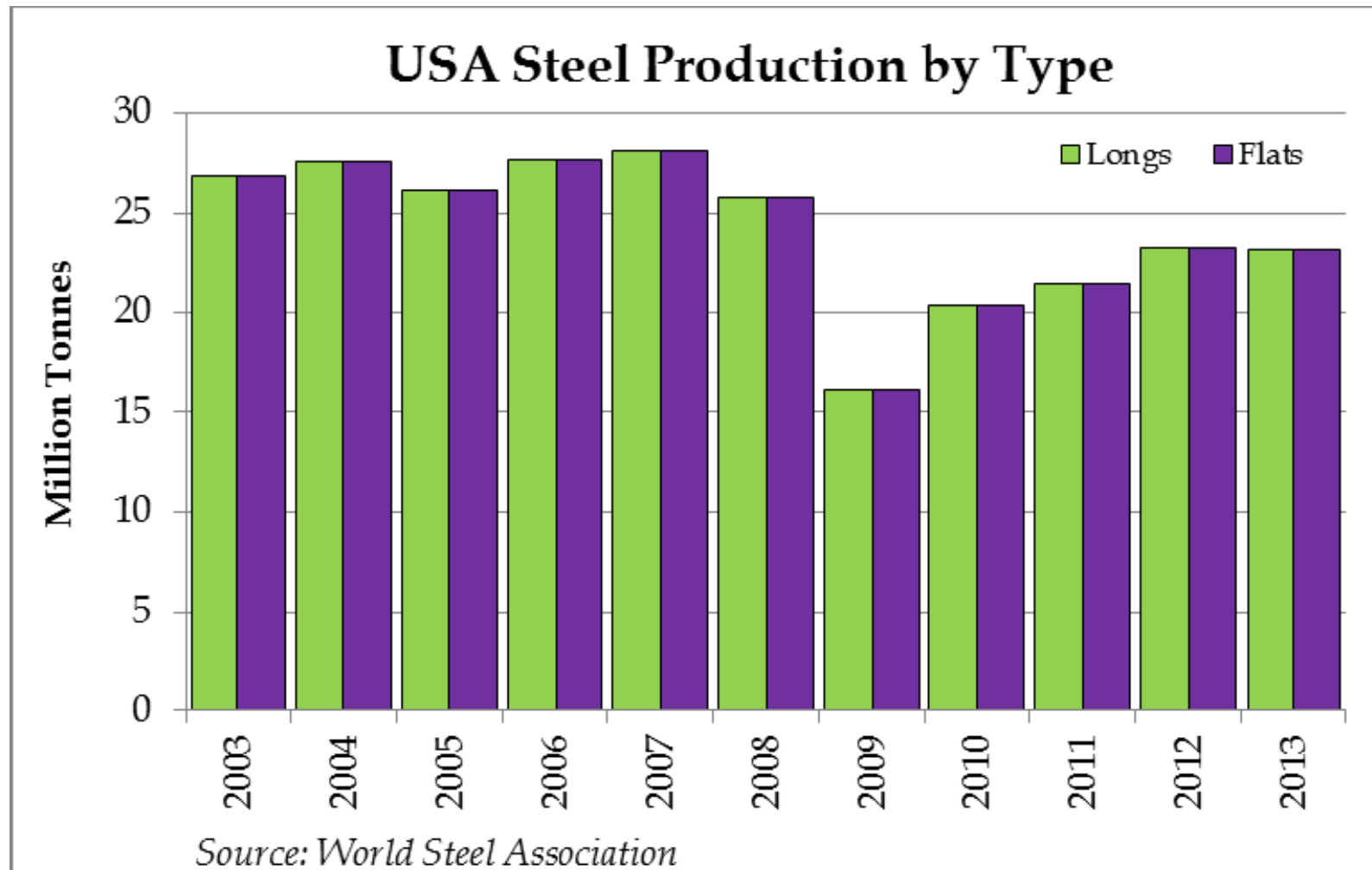
Sheet Accounts for Over Half The Shipments; Followed By Bar at 17% and Plate at 11%

USA Steel Shipments by Product 2013 98.3 Million Tons Including Semi-Finished and Shipments to Reporting Companies

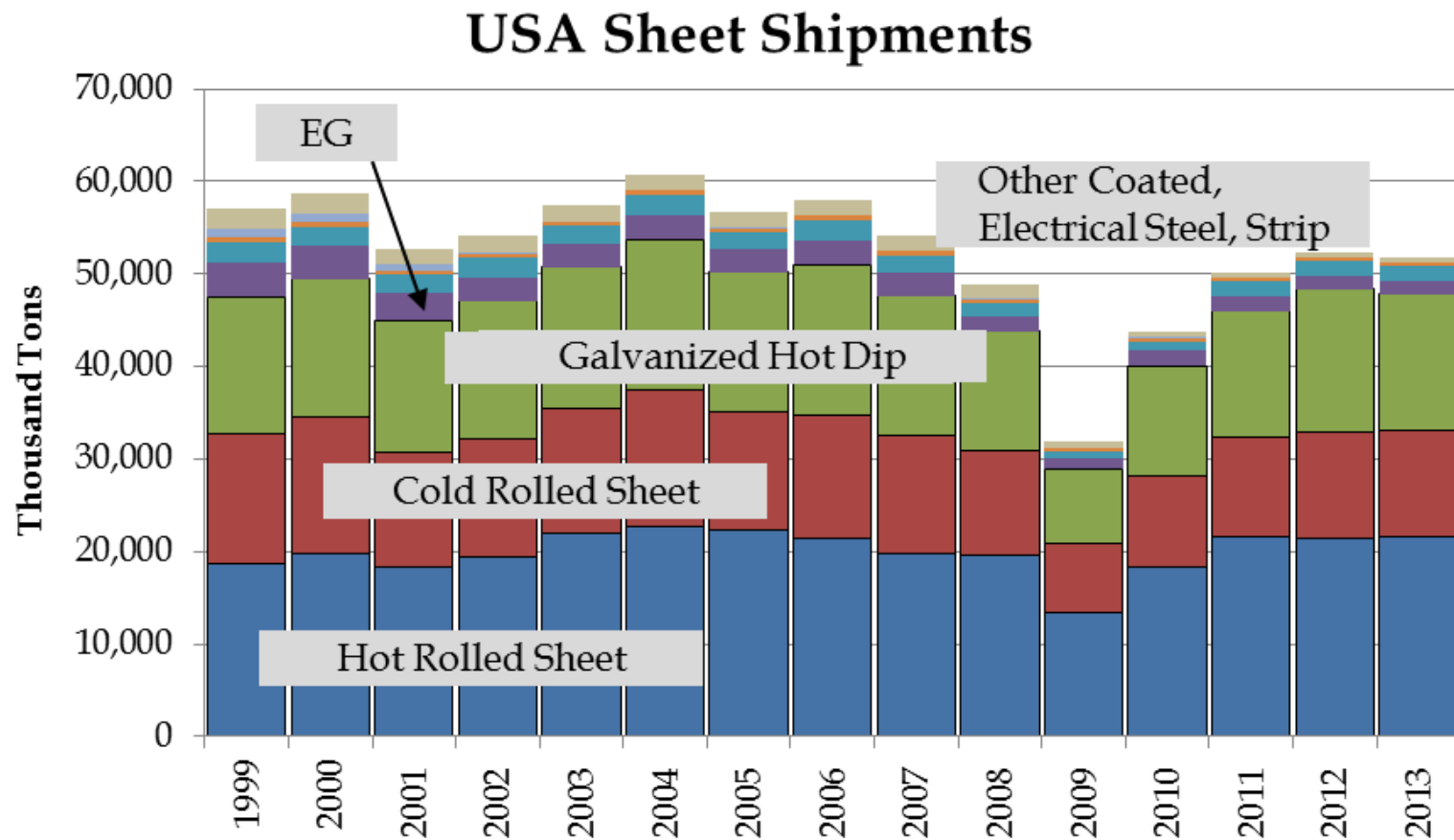


Source: AISI

On A Consolidated Basis, the US Market is Split Equally Between Long and Flat Products



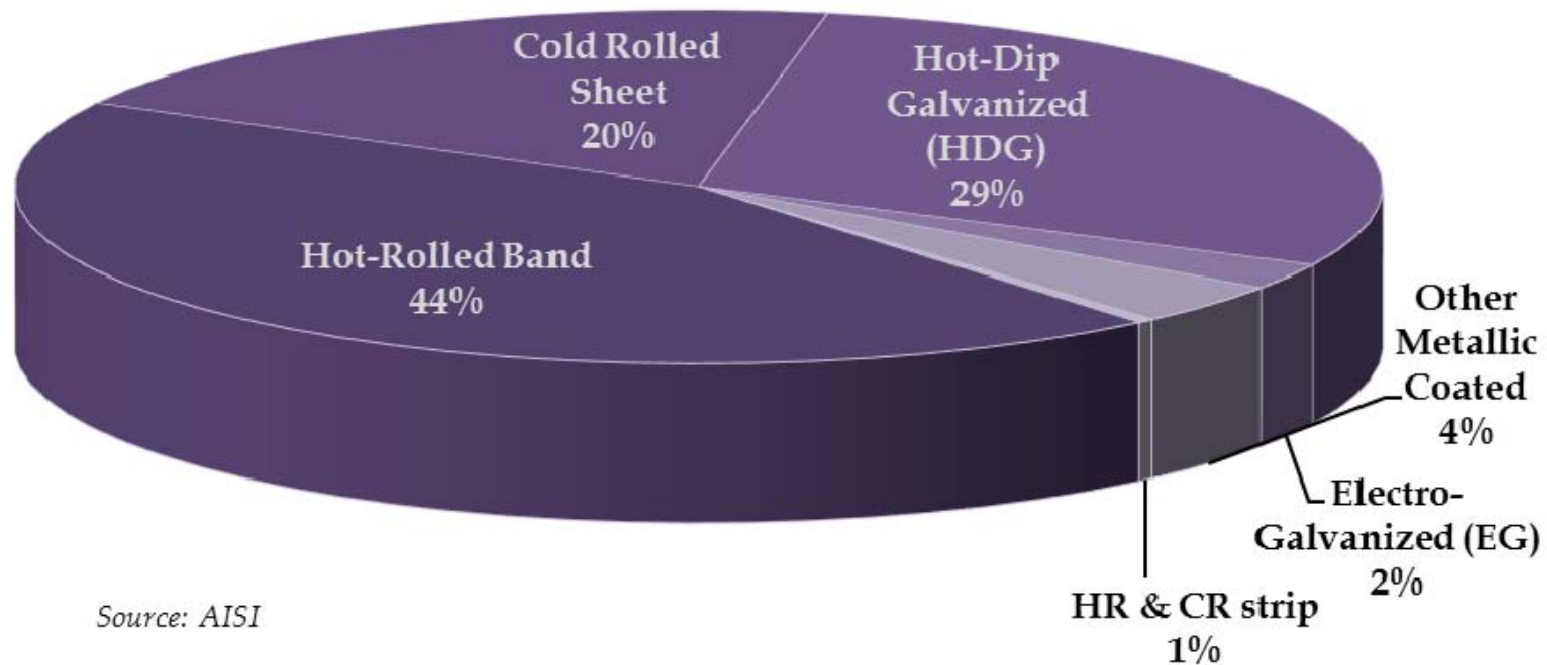
USA HRB/CRC Shipments Flat For Three Years



Source: AISI

Hot-Rolled Band Still Predominates Sheet

USA Domestic Consumption of Carbon Sheet 2013



Source: AISI

Carbon Sheet Imports in 2013 at 14.8% of ASC, up from 14.1% in 2012; Exports at 8.9% Compared to 8.8% in 2012

USA Carbon Sheet Shipment Configuration 2013

	Shipments	Imports	Exports	ASC	%
Hot-Rolled Band	21.3	3.0	1.0	23.2	44%
Cold Rolled Sheet	10.1	1.6	1.0	10.7	20%
Hot-Dip Galvanized (HDG)	14.7	2.1	1.3	15.5	30%
Electro-Galvanized (EG)	1.5	0.1	0.4	1.3	2%
Other Metallic Coated	1.6	0.7	0.3	2.0	4%
HR & CR strip	0.1	0.3	0.6	-0.2	
Total	49.3	7.7	4.6	52.4	
Percent of ASC	94.1%	14.8%	8.9%		

Source: AISI

Sheet Imports Likely to Continue to Increase in 2015

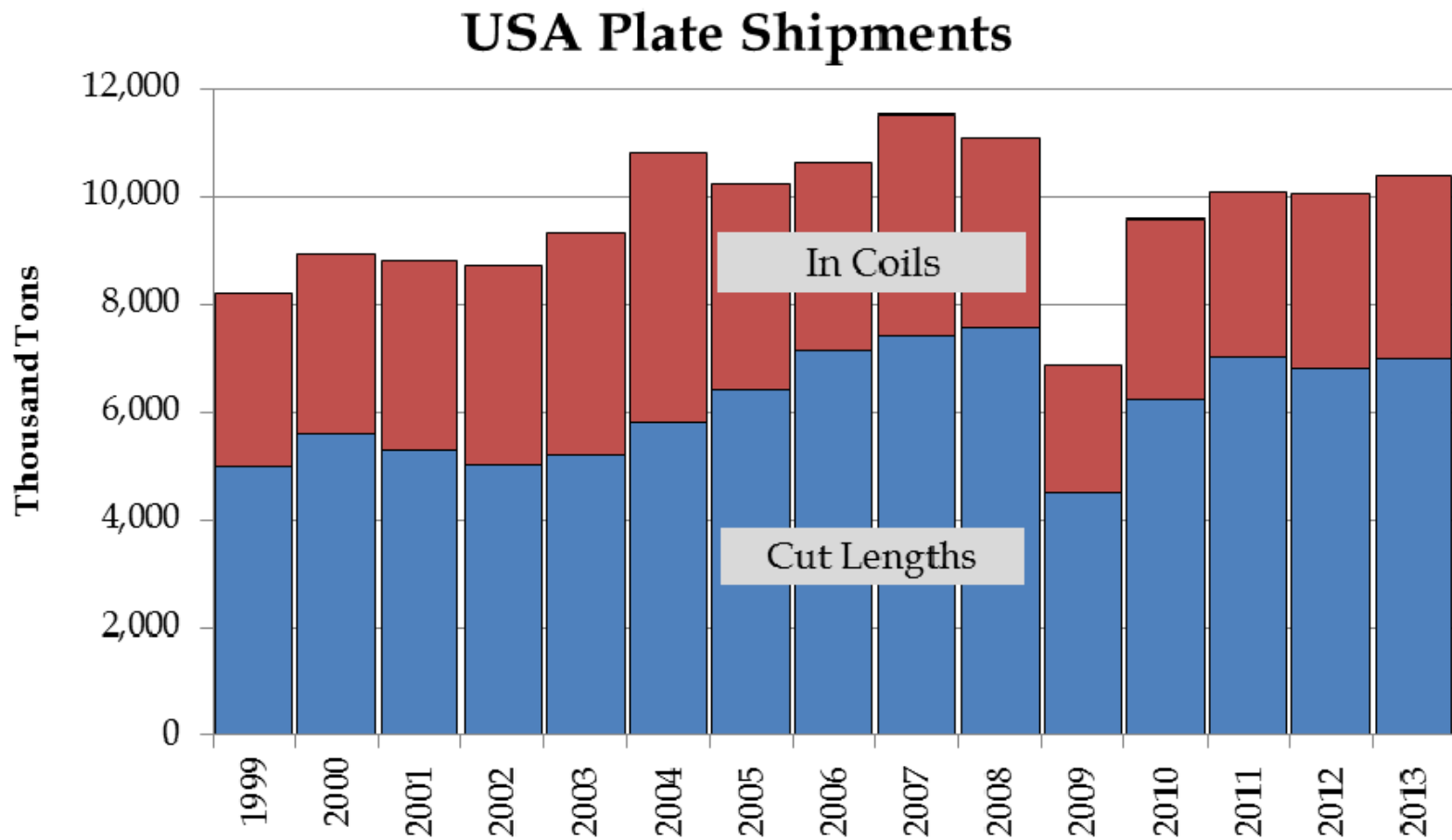
USA Sheet Product Shipments and Apparent Consumption

(thousand net tons)

	2006	2007	2008	2009	2010	2011	2012	2013	2014e	2015e
Hot Rolled										
Shipments	21,409	19,872	19,629	13,394	18,259	21,676	21,442	21,559	22,465	22,914
Exports	675	1,118	1,056	790	966	778	929	1,037	1,125	1,024
Imports	5,076	2,684	2,770	1,739	2,397	2,664	2,816	2,982	4,125	4,848
Apparent Consumption	25,810	21,439	21,343	14,343	19,690	23,563	23,329	23,503	25,465	26,739
Import % of ASC	19.7%	12.5%	13.0%	12.1%	12.2%	11.3%	12.1%	12.7%	16.2%	18.1%
Cold Rolled										
Shipments	13,281	12,607	11,339	7,475	9,999	10,695	11,552	11,518	12,164	12,408
Exports	645	767	870	641	917	1,035	1,083	988	1,305	1,354
Imports	3,661	1,801	1,439	1,138	1,221	1,393	1,621	1,571	2,889	3,626
Apparent Consumption	16,297	13,642	11,908	7,971	10,303	11,053	12,090	12,101	13,749	14,680
Import % of ASC	22.5%	13.2%	12.1%	14.3%	11.9%	12.6%	13.4%	13.0%	21.0%	24.7%
Galvanized Hot Dip										
Shipments	16,358	15,190	12,808	8,104	11,764	13,614	15,331	14,706	15,451	15,760
Exports	835	1,010	988	800	1,058	1,253	1,324	1,322	1,370	1,381
Imports	3,648	2,011	1,822	1,033	1,421	1,462	2,002	2,077	3,124	3,268
Apparent Consumption	19,171	16,191	13,642	8,337	12,126	13,823	16,009	15,461	17,205	17,647
Total ASC	68,166	57,615	51,602	33,205	45,212	52,029	55,143	54,937	60,324	63,111
Net Imports	10,206	3,471	2,775	1,235	1,436	1,831	2,749	3,069	6,195	7,925
Import % of ASC	15.0%	6.0%	5.4%	3.7%	3.2%	3.5%	5.0%	5.6%	10.3%	12.6%

Note: Electrical Sheet & Strip Steel-Insights & Stitt Consultancy estimates

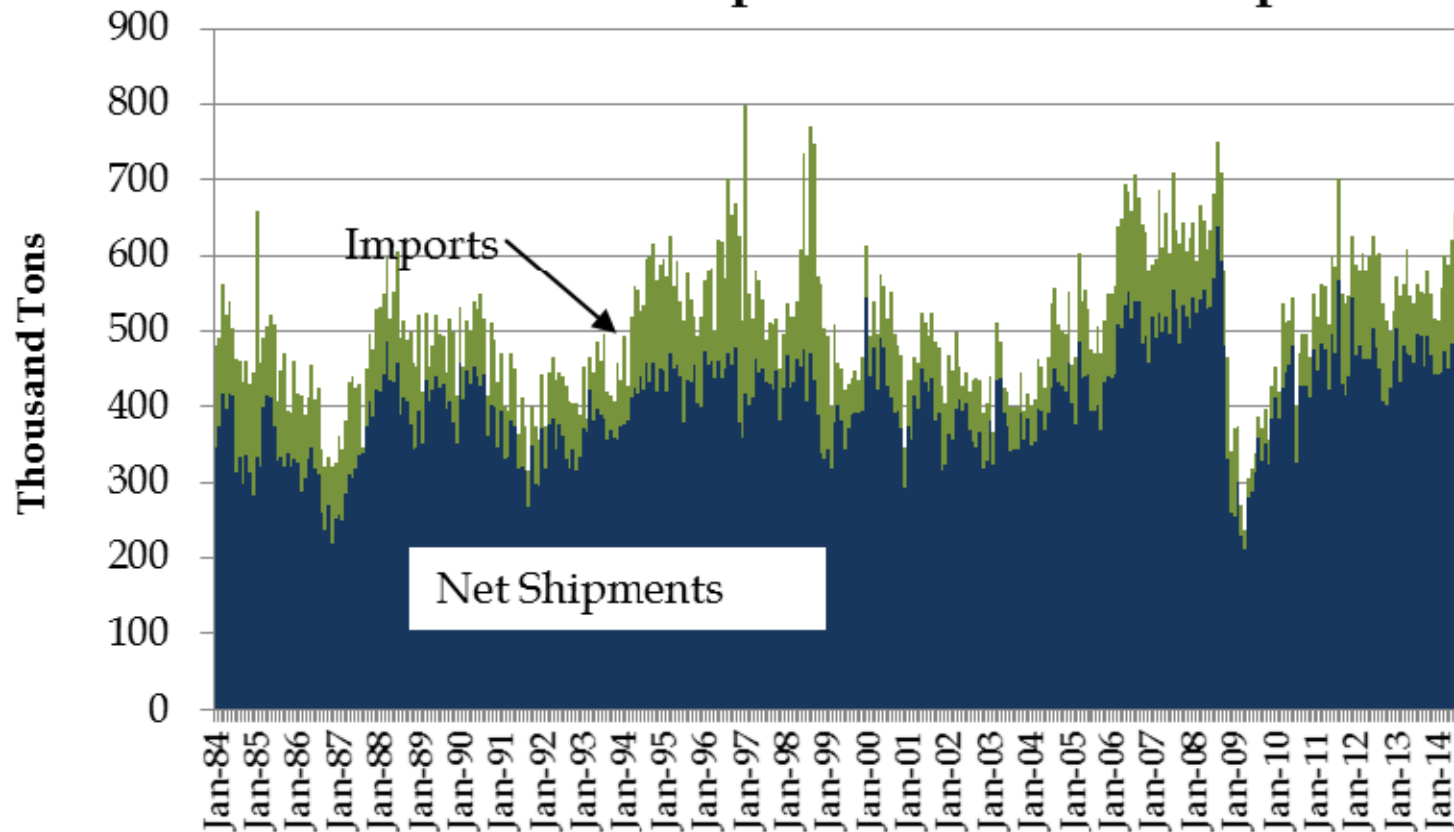
USA Plate Market Up Modestly in 2013



Source: AISI

Plate Market Imports Have Become More Significant; Impacted Pricing in 2014

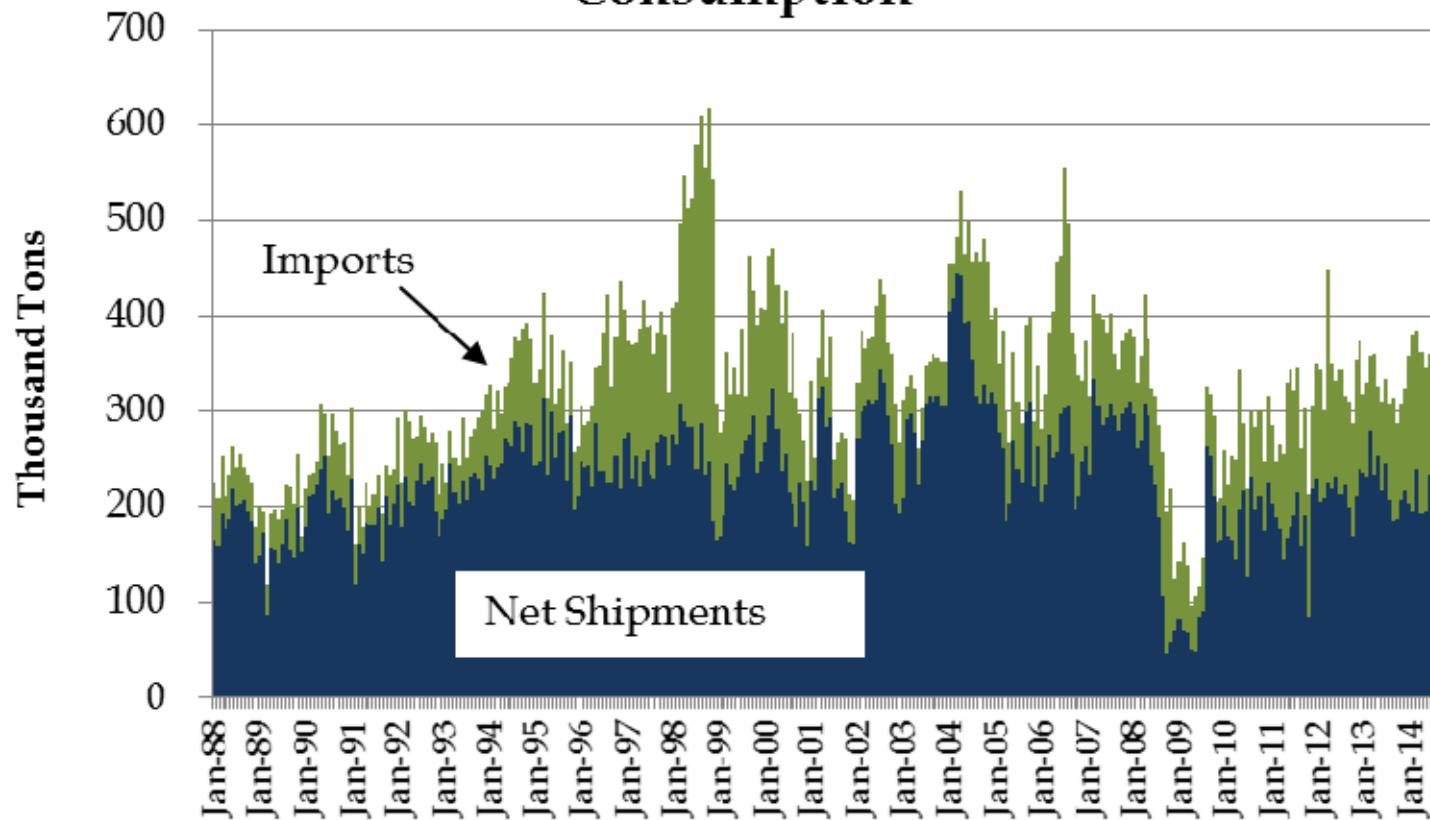
USA Plate CTL Shipments and Consumption



Source: AISI

Domestic Shipments Flat While Imports Growing in PIC

USA Plate in Coils Shipments and Consumption



Source: AISI

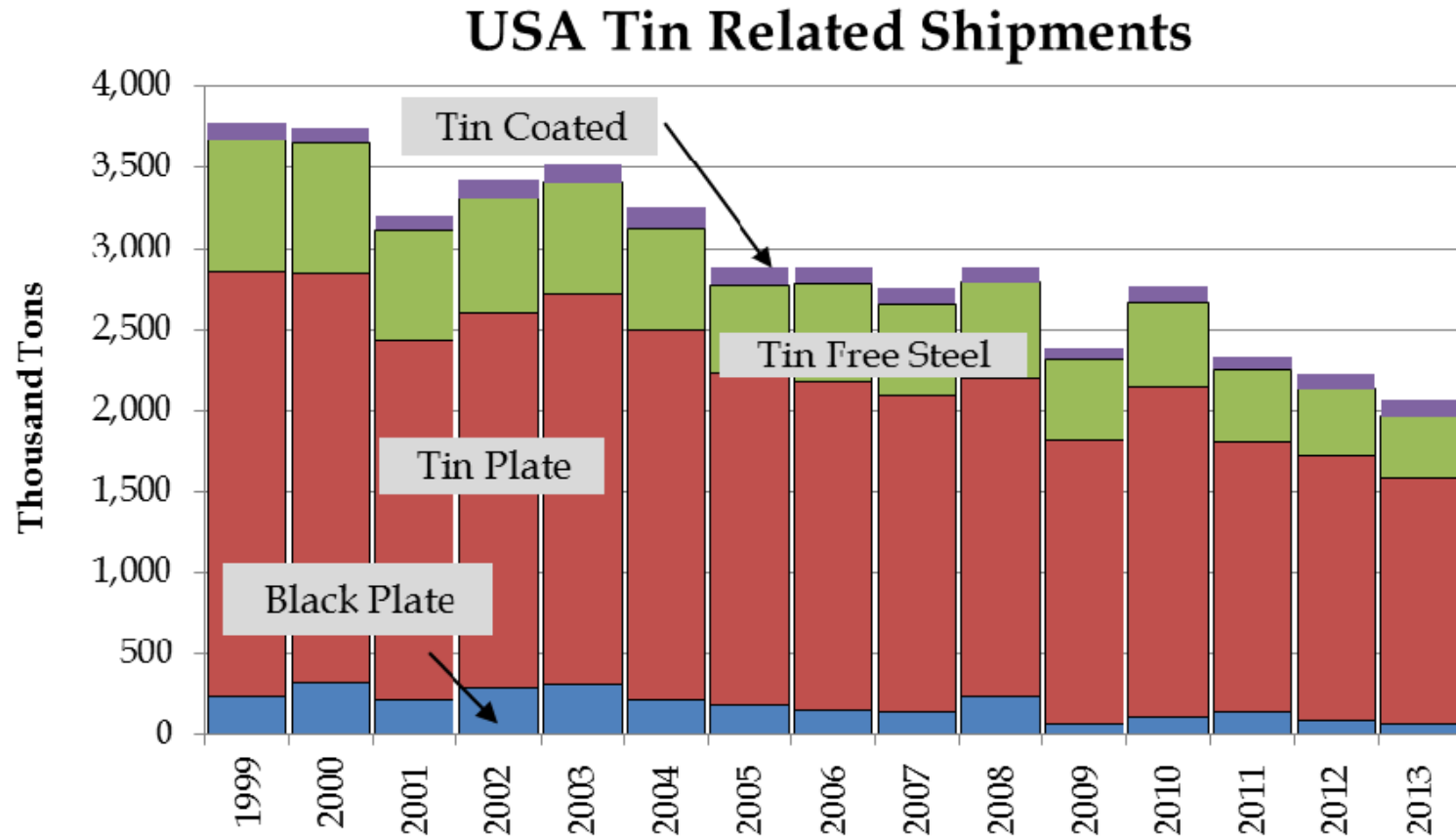
USA Plate Imports of CTL Estimated Up to 23% of ASC and Coils Up to 45% of ASC in 2014

USA Plate Product Shipments and Apparent Consumption (thousand net tons)

	2006	2007	2008	2009	2010	2011	2012	2013	2014e
Cut Lengths									
Shipments	7,150	7,415	7,573	4,523	6,237	7,026	6,803	6,975	7,335
Exports	1,160	1,266	1,483	897	1,177	1,352	1,338	1,321	1,501
Imports	1,670	1,422	1,237	530	749	1,169	1,392	1,017	1,767
Apparent Consumption	7,660	7,571	7,328	4,156	5,809	6,843	6,857	6,671	7,601
Import % of ASC	22%	19%	17%	13%	13%	17%	20%	15%	23%
In Coils									
Shipments	3,471	4,099	3,494	2,331	3,344	3,063	3,253	3,413	3,324
Exports	647	593	1,121	776	1,079	937	683	710	697
Imports	1,746	1,035	1,213	711	1,022	1,360	1,542	1,176	2,168
Apparent Consumption	4,570	4,542	3,587	2,266	3,288	3,486	4,112	3,879	4,796
Import % of ASC	38%	23%	34%	31%	31%	39%	38%	30%	45%
Total ASC	12,230	12,113	10,914	6,422	9,097	10,329	10,969	10,550	12,397
Net Imports	1,609	599	(153)	(432)	(484)	240	913	161	1,738

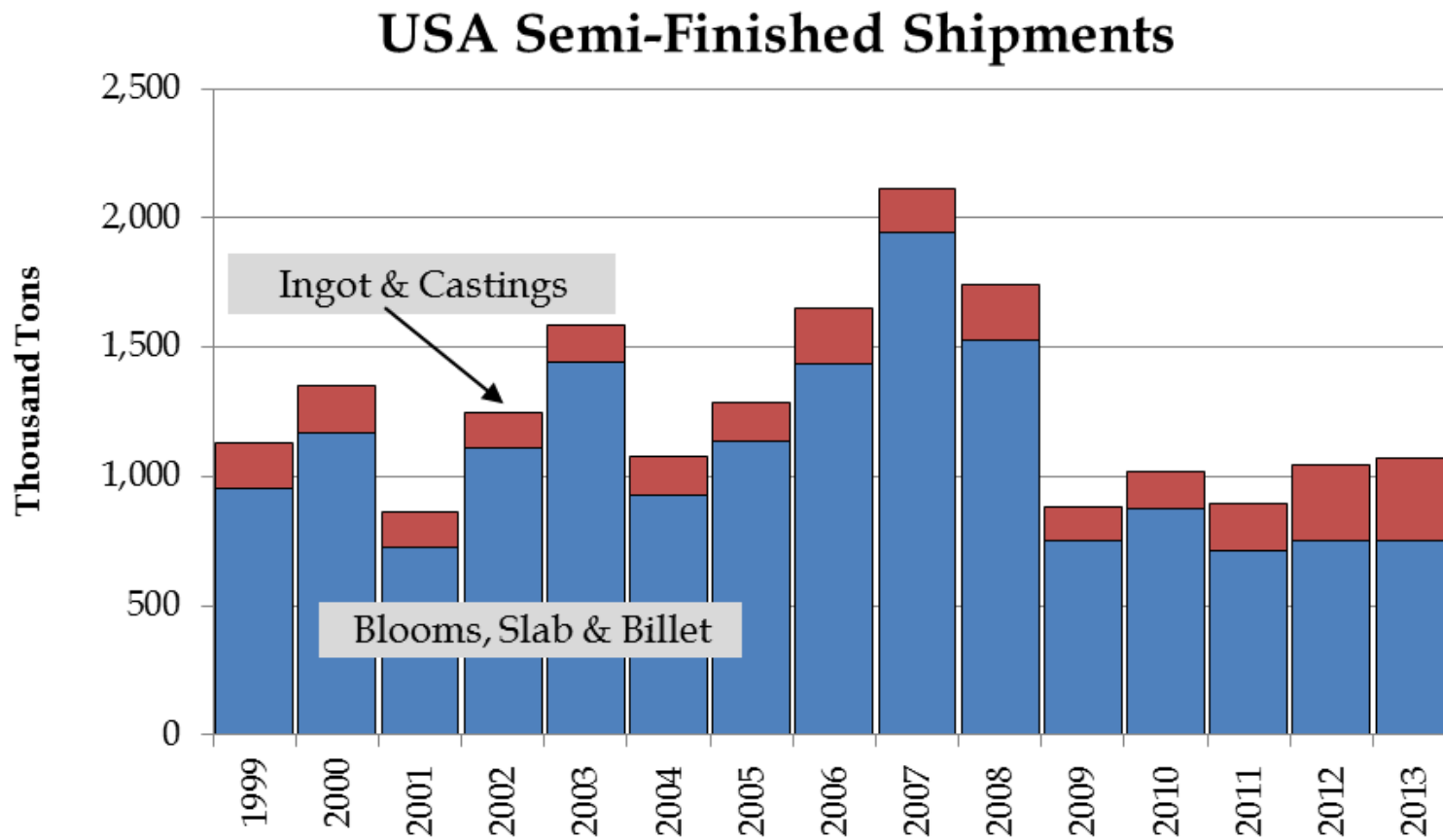
Source: AISI

USA Tin Market In Decline



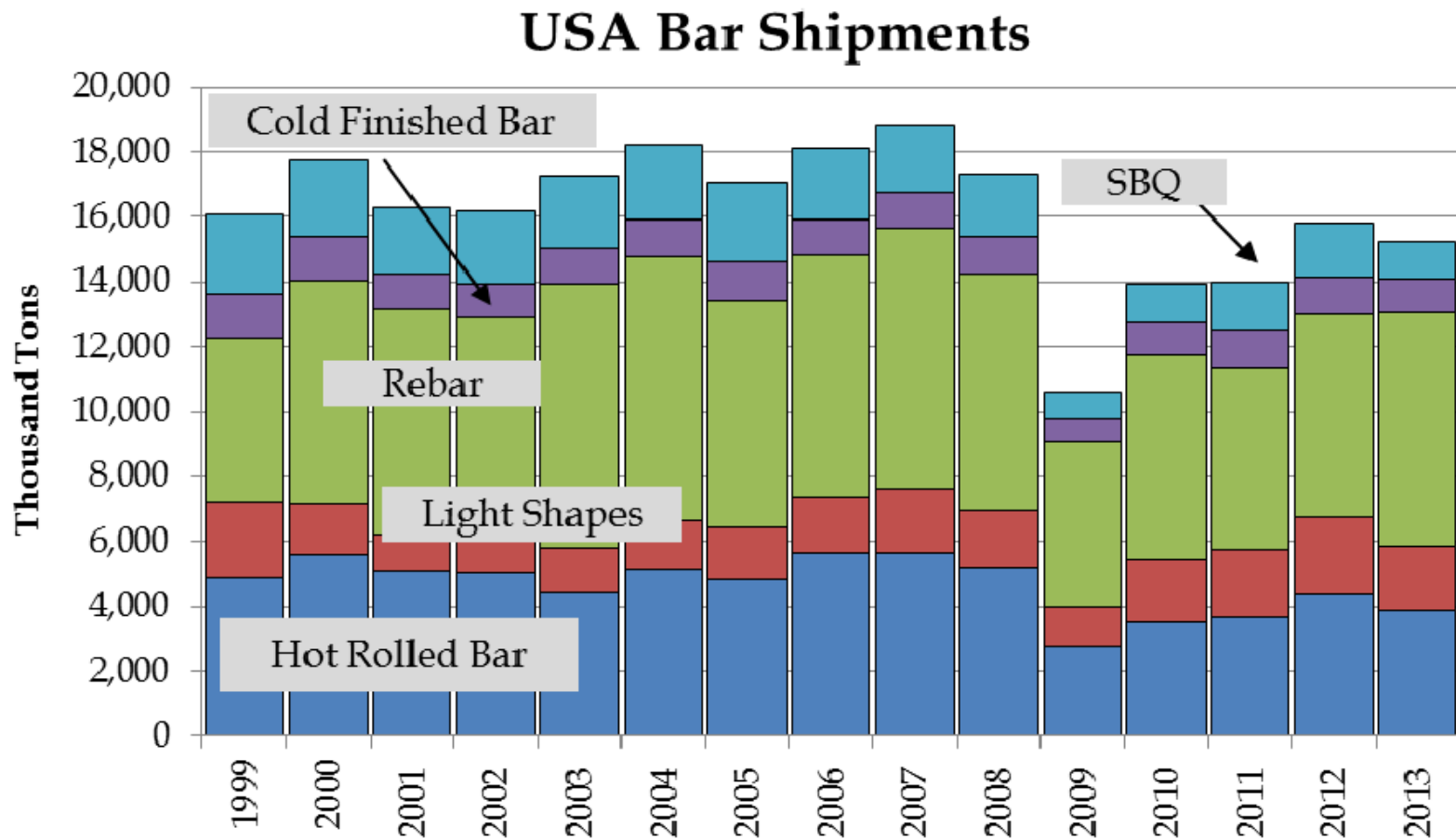
Source: AISI

USA Semi-Finished Shipment Still Well Below 2007 Levels



Source: AISI

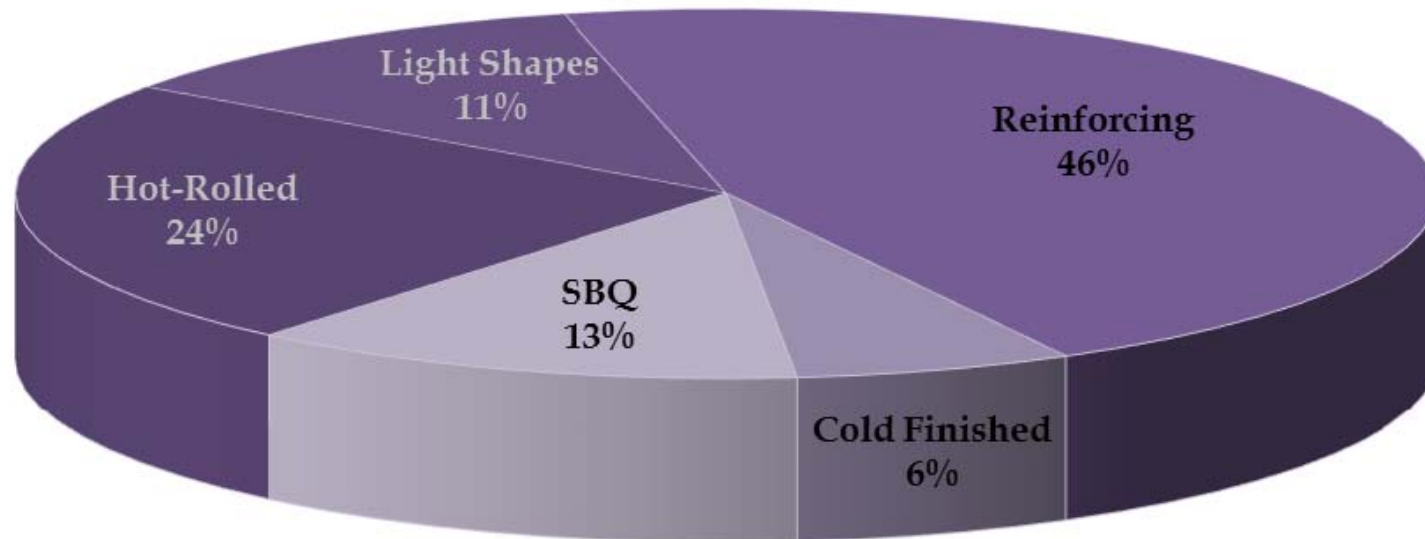
Bar is the USA's Second Largest Market at 17% of the Total; 2013 was Down from 2012



Source: AISI

Rebar More Than Double the Next Category

USA Domestic Consumption of Bar 2013



Source: AISI

Imports of Bar Products Were 19.4% of ASC in 2013

USA Bar Shipment Configuration 2013

	Shipments	Imports	Exports	ASC	%
Hot-Rolled	3.9	0.5	0.3	4.1	24%
Light Shapes	1.9	0.1	0.1	2.0	12%
Reinforcing	7.2	1.2	0.5	7.9	46%
Cold Finished	1.0	0.1	0.1	1.1	6%
SBQ	1.1	1.4	0.3	2.2	13%
Total	15.2	3.3	1.4	17.2	
Percent of ASC	88.7%	19.4%	8.1%		

Source: AISI

Bar Net Imports in 2013 Up Significantly in Rebar and SBQ

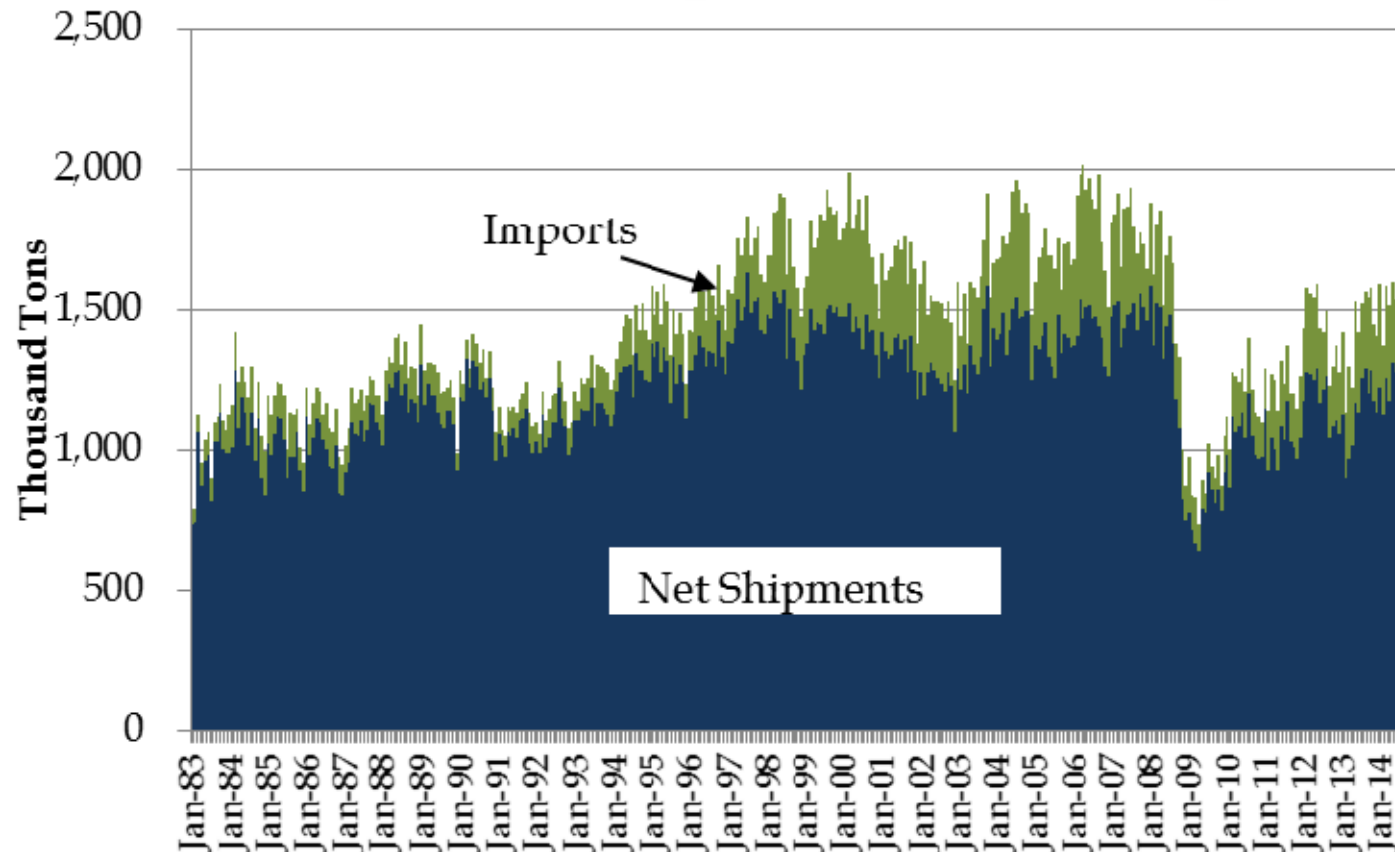
USA Bar Product Net Imports (thousand net tons)

	2005	2006	2007	2008	2009	2010	2011	2012	2013
Hot Rolled	490	397	219	10	44	147	84	157	177
Percent Change	-18%	-19%	-45%	-95%	326%	235%	-43%	88%	12%
Light Shapes	115	187	133	0	(37)	(186)	(143)	(28)	35
Percent Change	24%	62%	-29%	-100%	nmf	nmf	nmf	nmf	nmf
Reinforcing	1,145	2,286	1,526	277	(10)	(56)	79	311	635
Percent Change	-31%	100%	-33%	-82%	nmf	nmf	nmf	295%	104%
Cold Finished	103	87	46	5	16	47	60	64	50
Percent Change	22%	-15%	-47%	-88%	199%	196%	27%	7%	-21%
SBQ	877	794	534	702	217	288	534	720	1,046
Percent Change	16%	-9%	-33%	31%	-69%	33%	85%	35%	45%

Source: AISI

In 2014, Bar Imports Were Tracking Slightly Ahead of 2013 at 2.7 Million Tons Through September

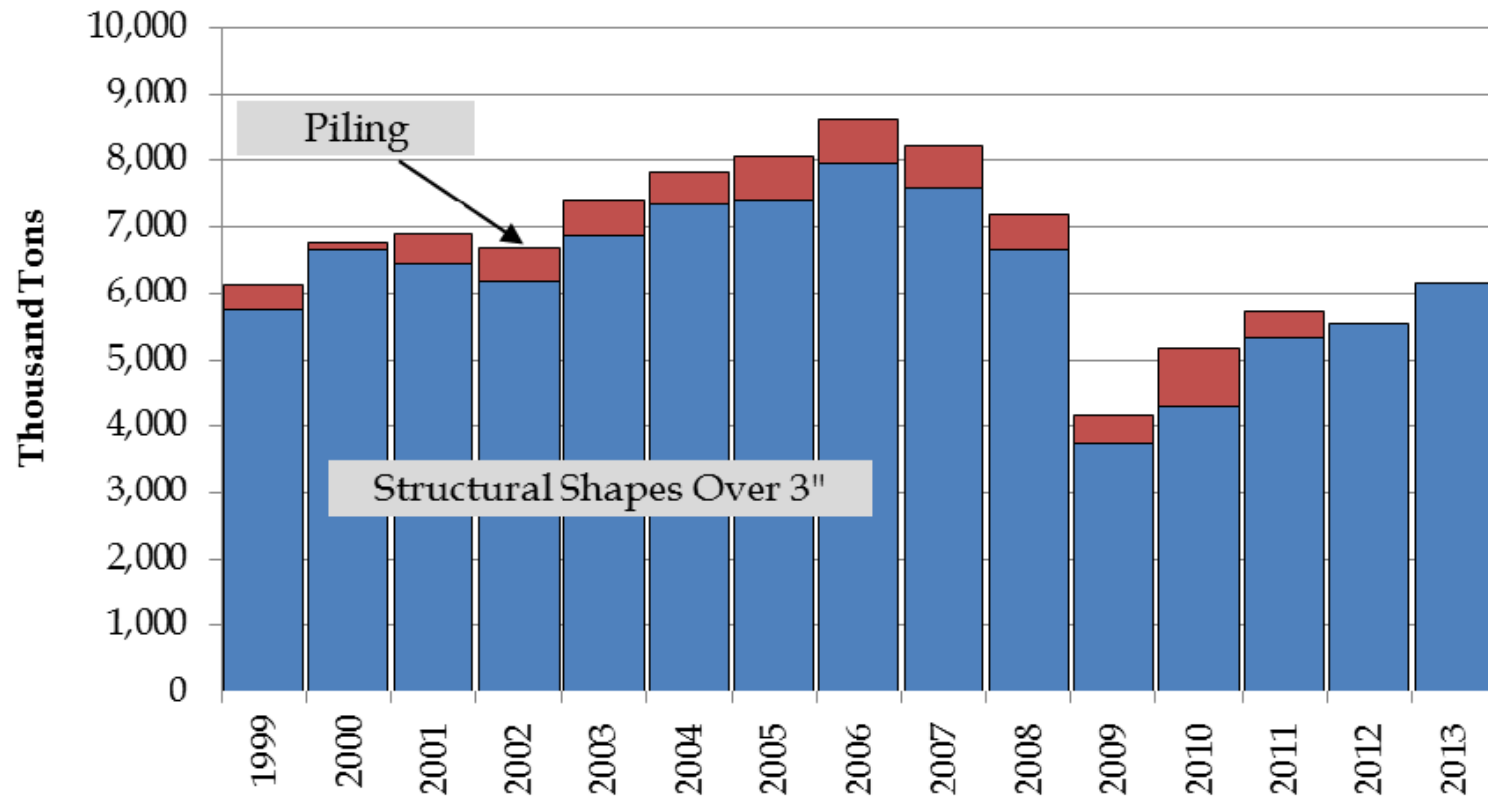
USA Total Bar Shipments and Consumption



Source: AISI

USA Shapes & Piling Market Improving

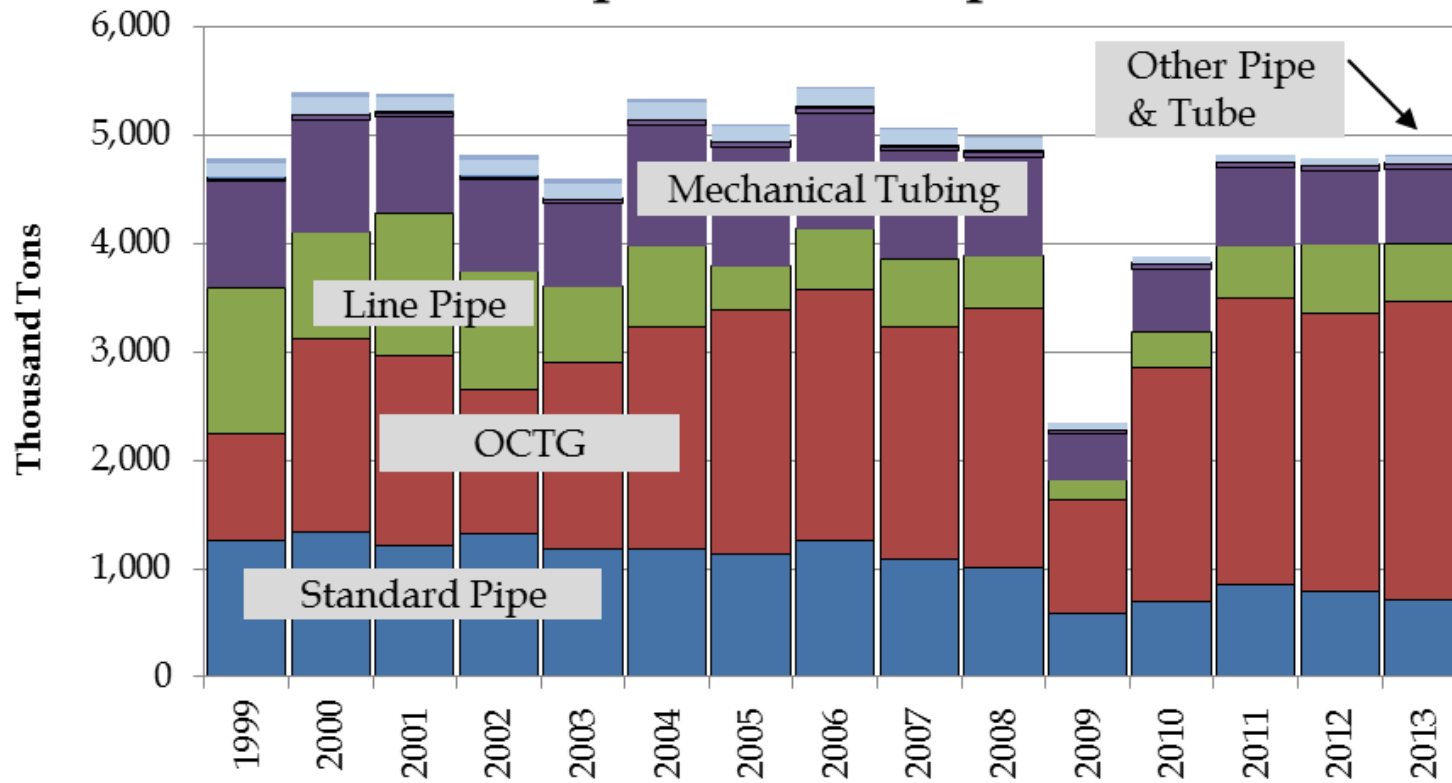
USA Structural Shapes (over 3") & Piling Shipments



Source: AISI

USA Pipe & Tube Market Growth Coming From Imports

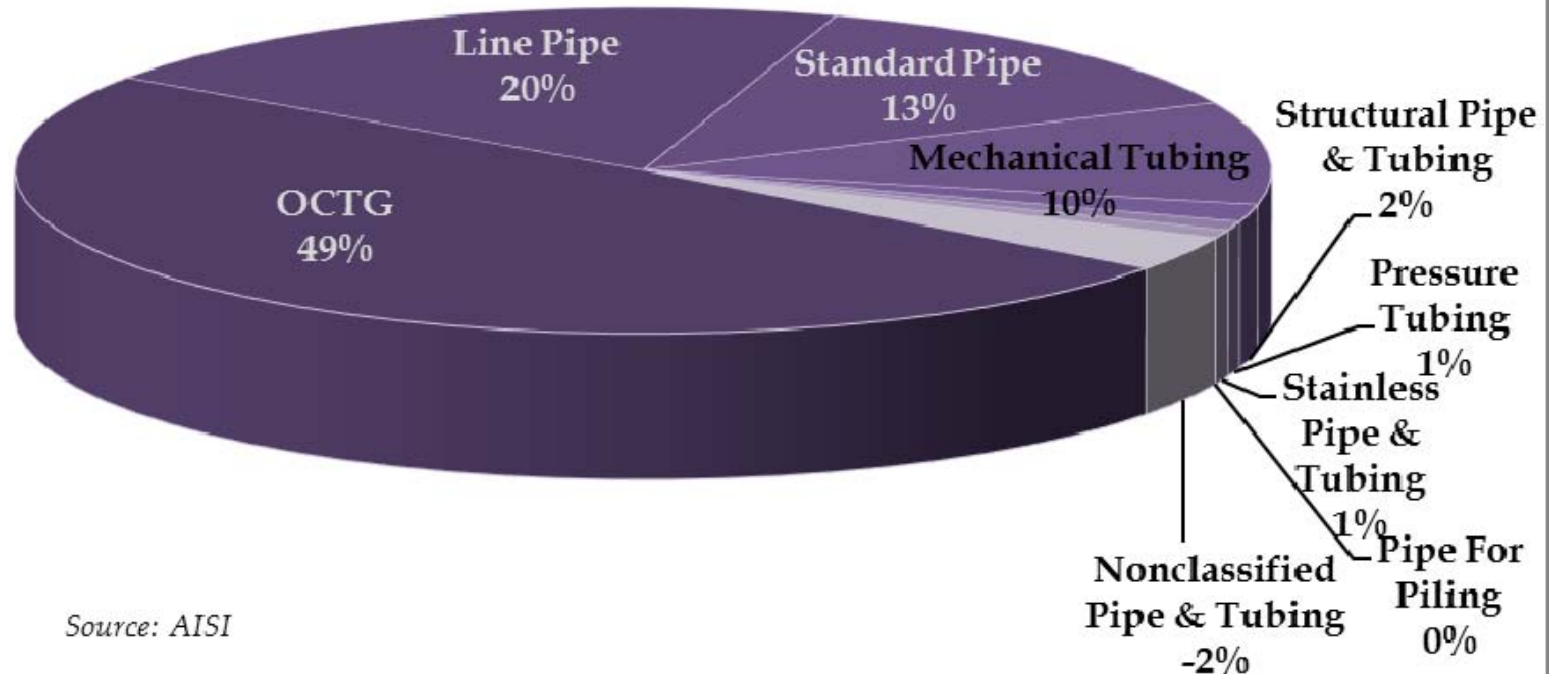
USA Pipe & Tube Shipments



Source: AISI

Energy Demand Has Been Strong, But Will Soften in 2015 Given Lower Oil Prices; Production Cutbacks Already Announced

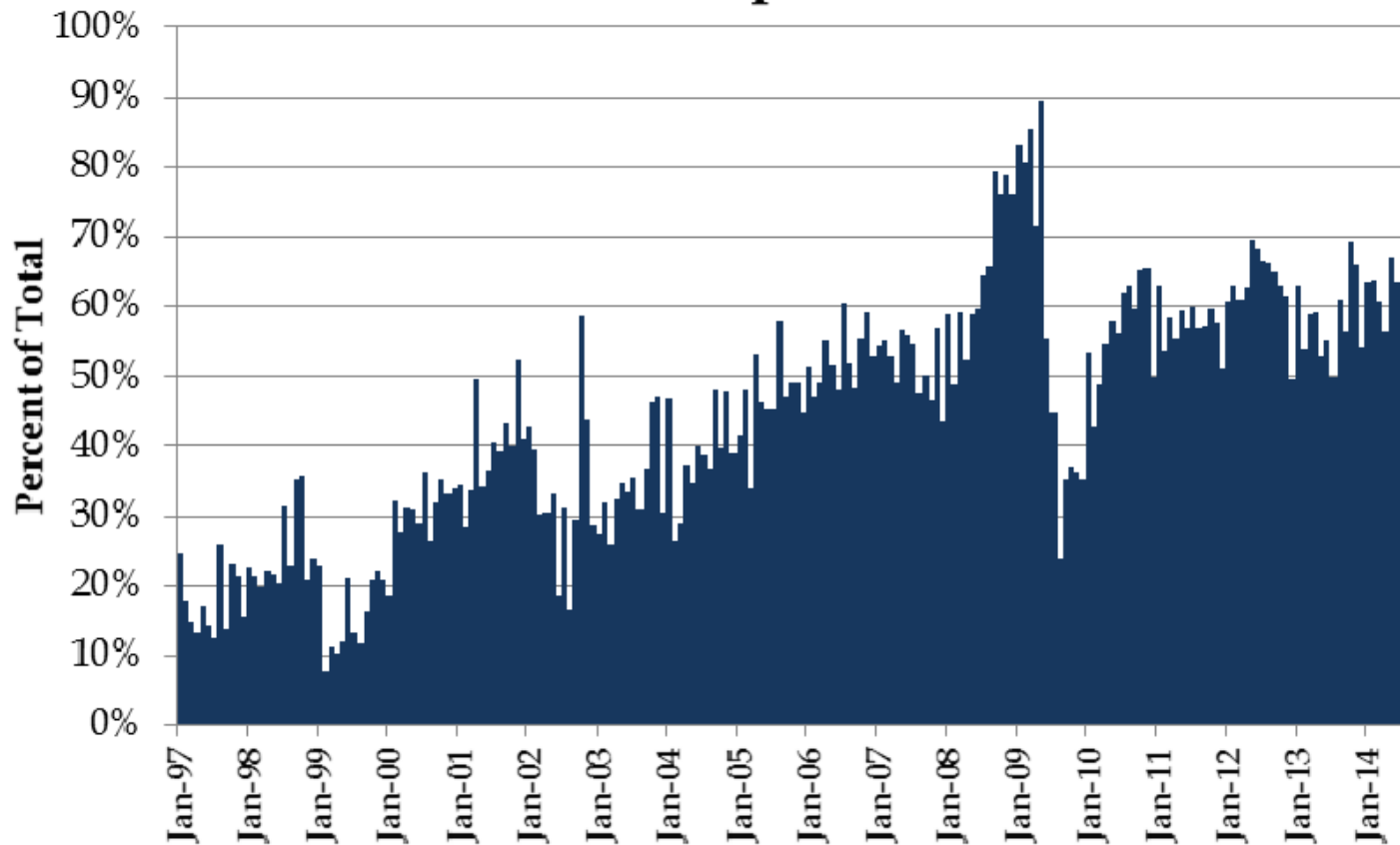
USA Domestic Consumption of Pipe & Tube 2013



Source: AISI

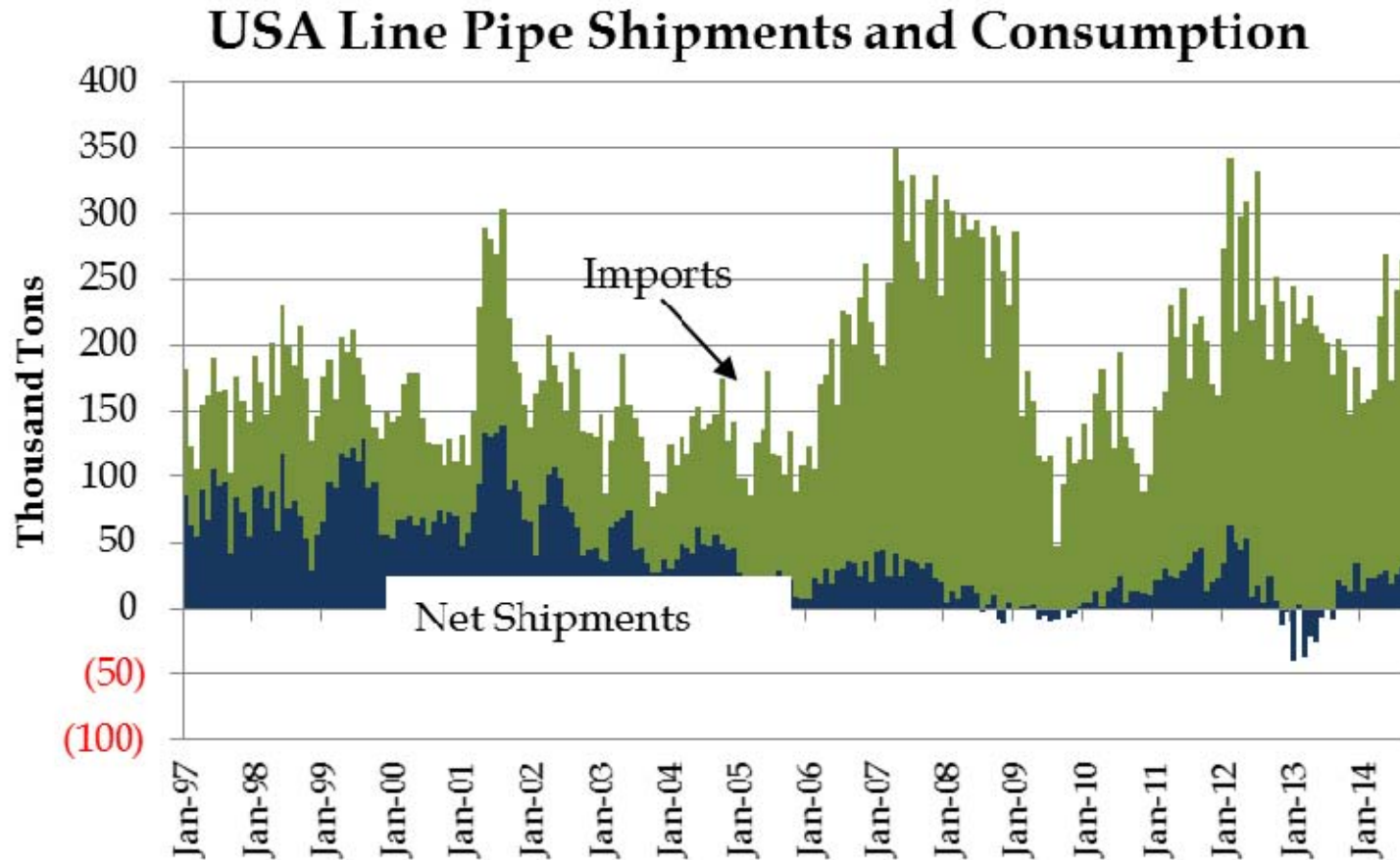
Imports Significant in OCTG But Have Been For A While

USA OCTG Import Penetration



Source: AISI

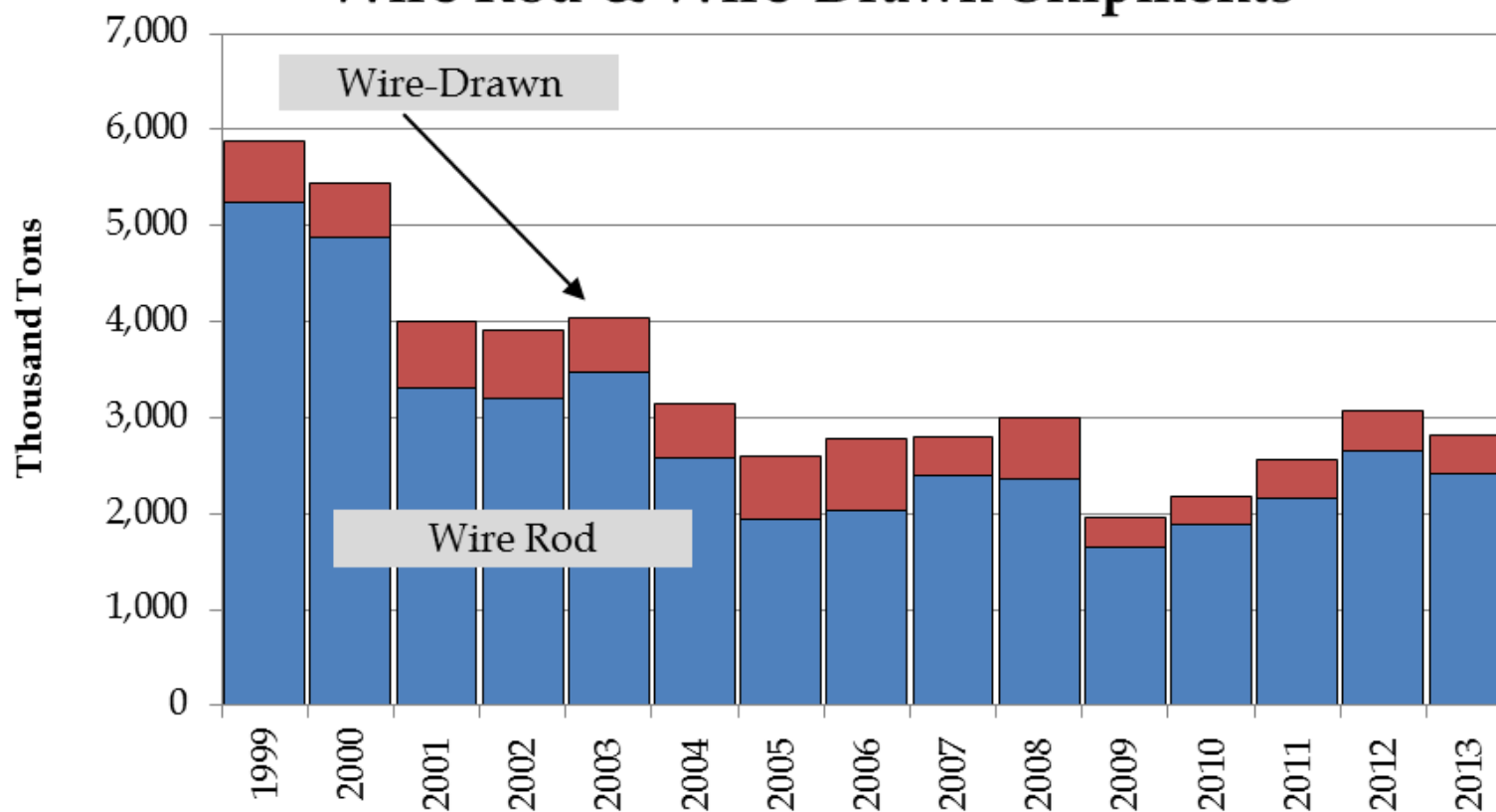
Line Pipe Market is Almost Completely Foreign Served



Source: AISI

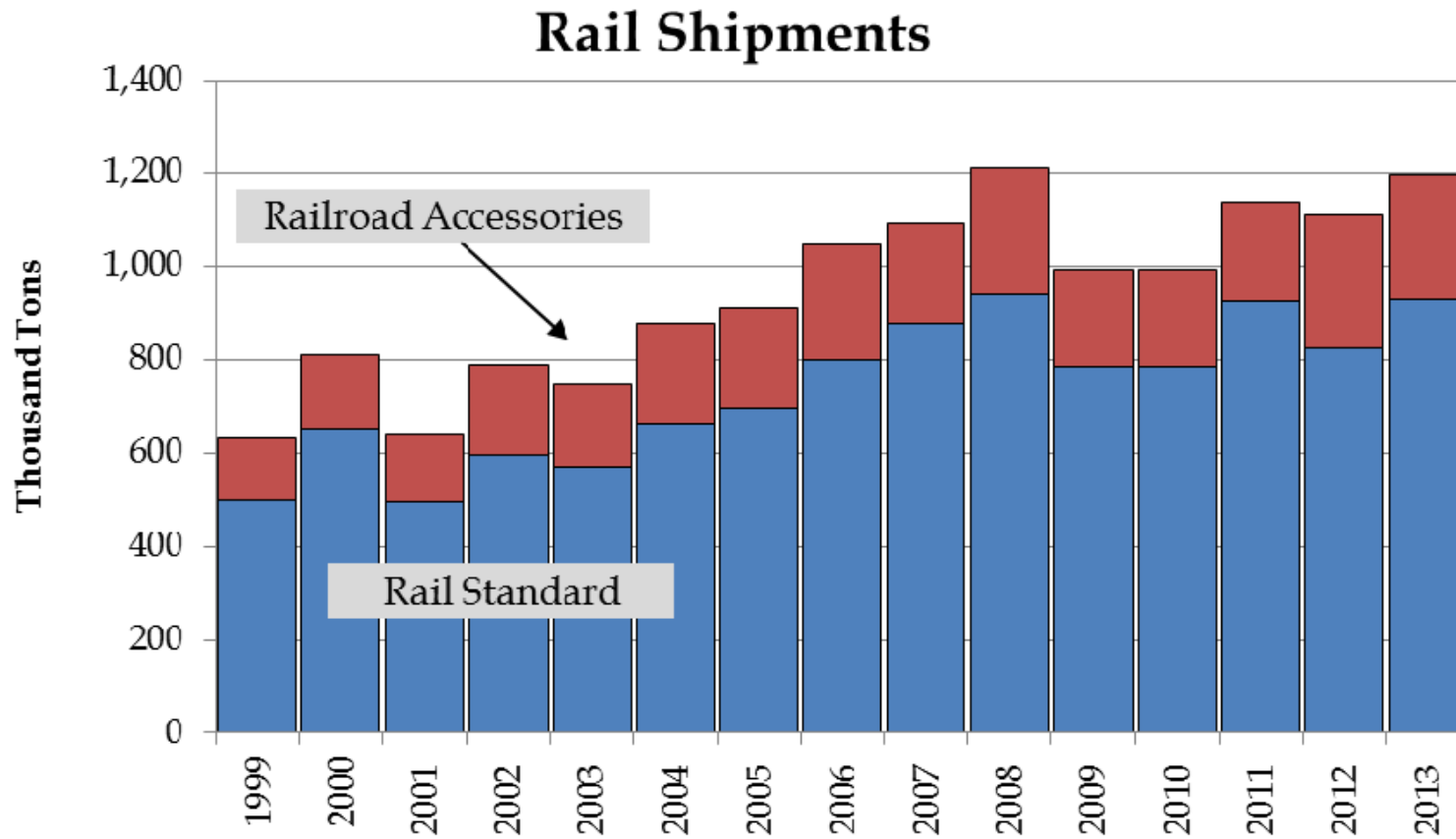
USA Wire Market Some Recovery; Wire Drawn Dropped

Wire Rod & Wire-Drawn Shipments



Source: AISI

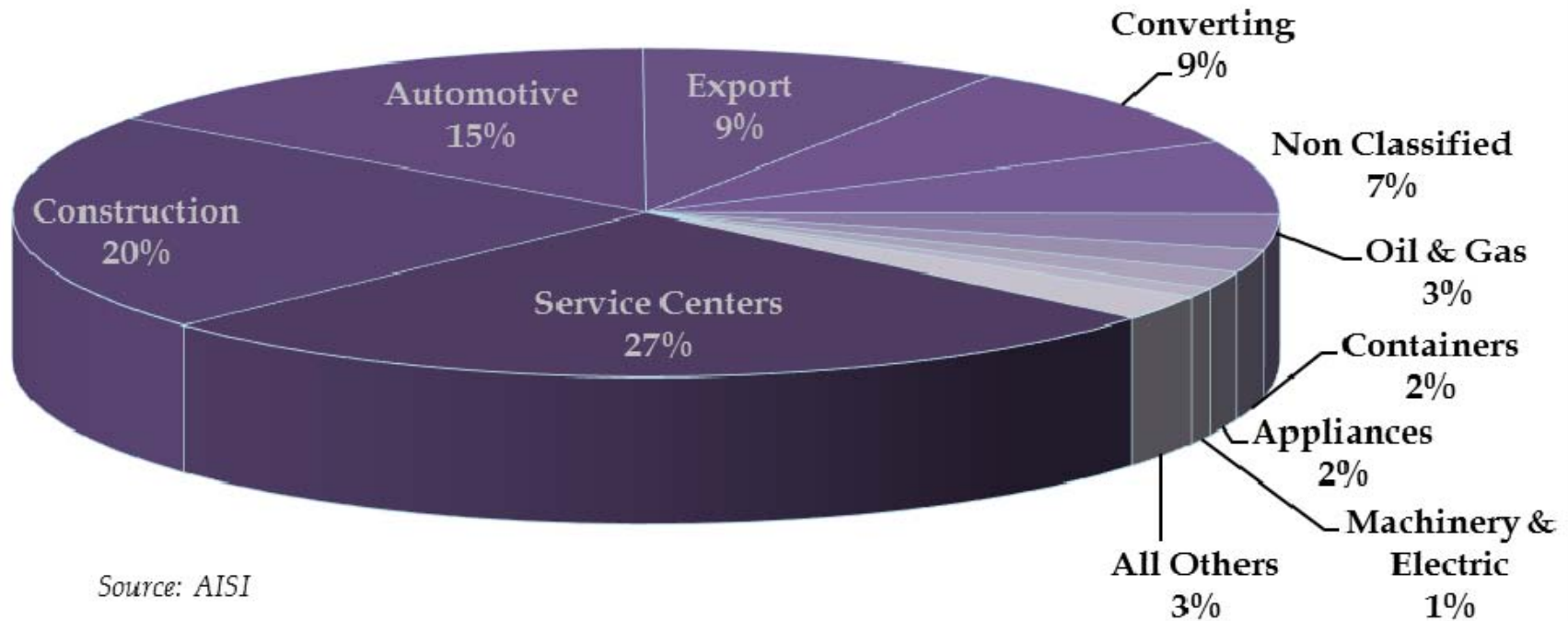
USA Rail Market Almost Back to 2008 Levels



Source: AISI

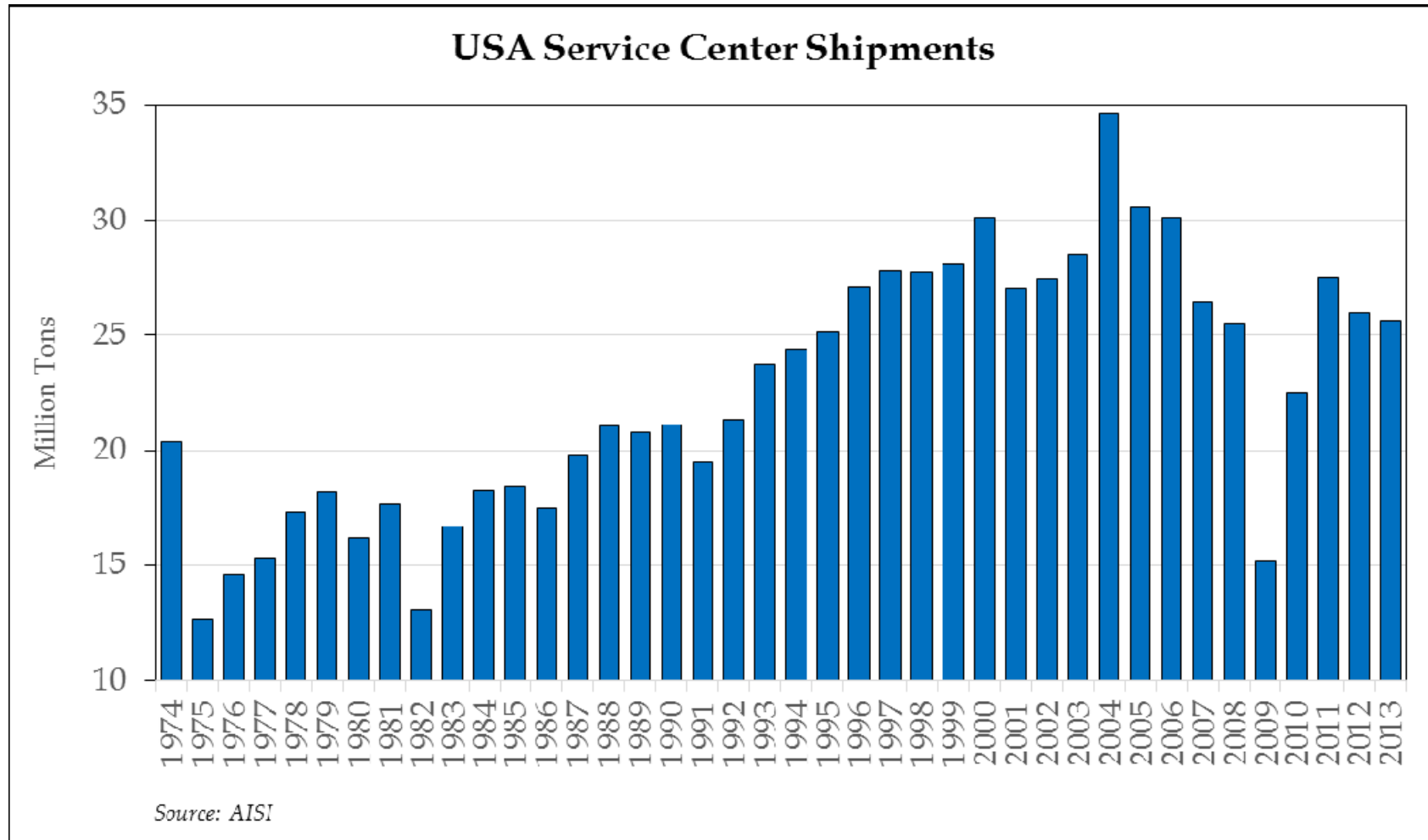
Construction is the Largest Market at 20%;
Automotive is the Next Largest at 15%

USA Steel Shipments by Market 2013

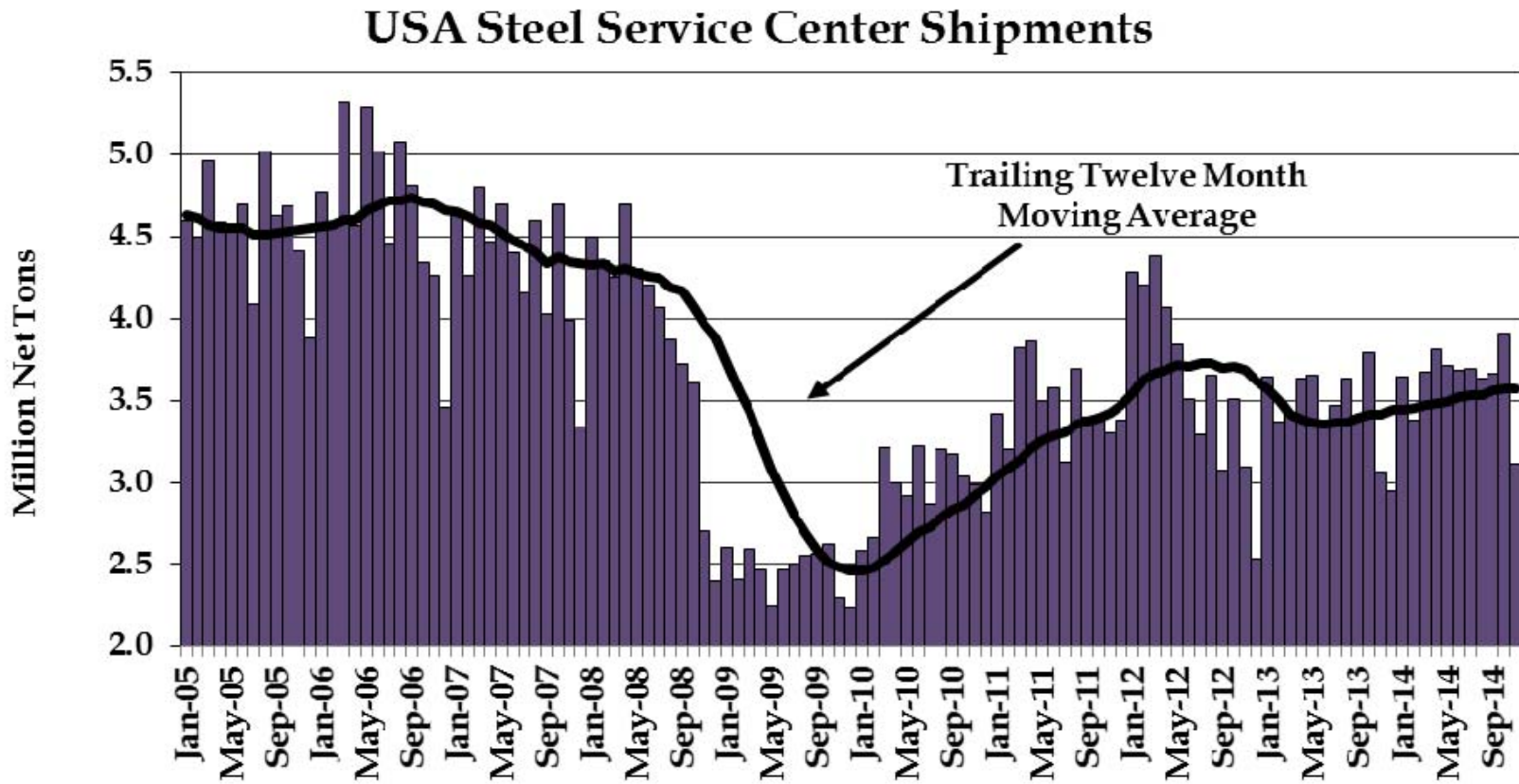


Source: AISI

Service Center Shipments Trending Down



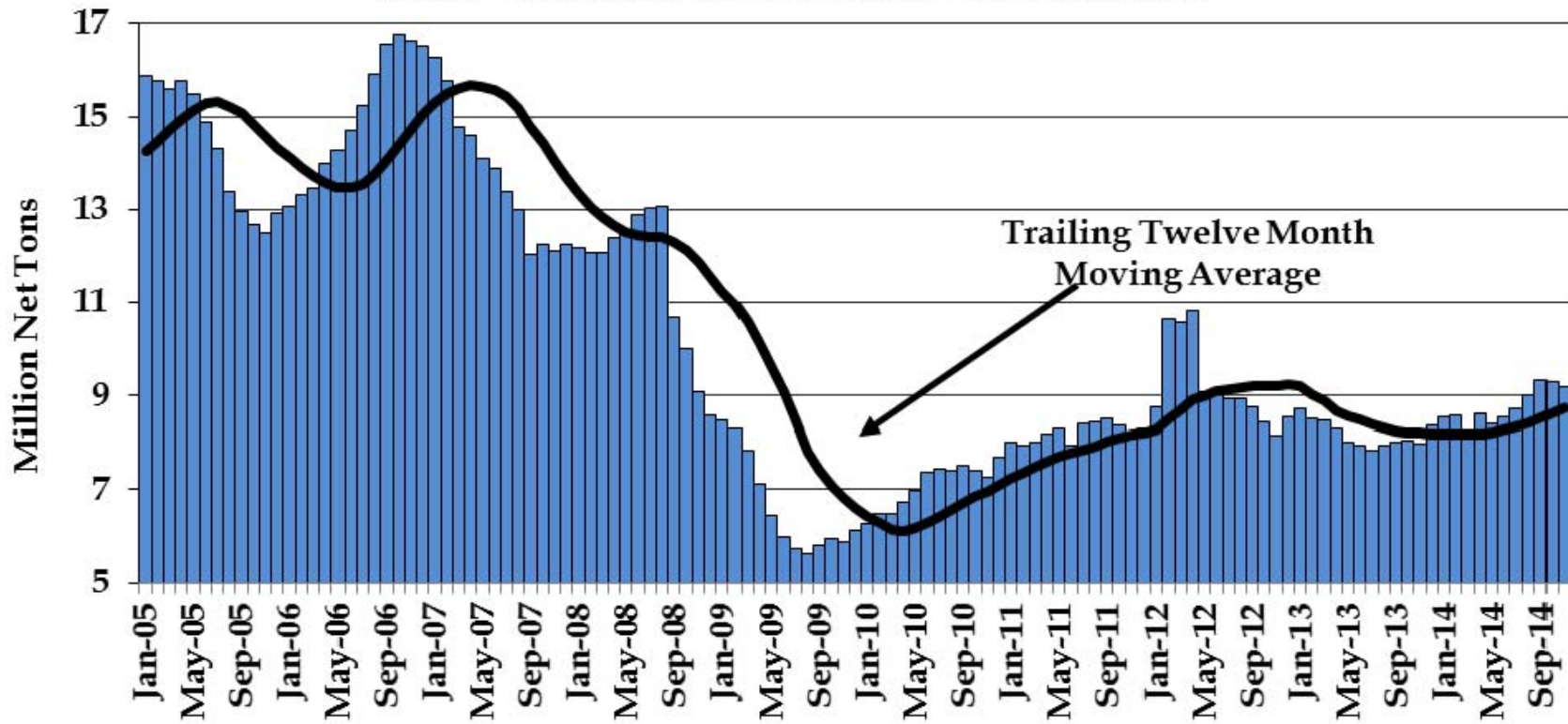
USA Service Center Shipments Sideways On a TTMMA Basis



Source: Metal Service Center Institute

USA Service Center Inventories Remain at Historically Low Levels

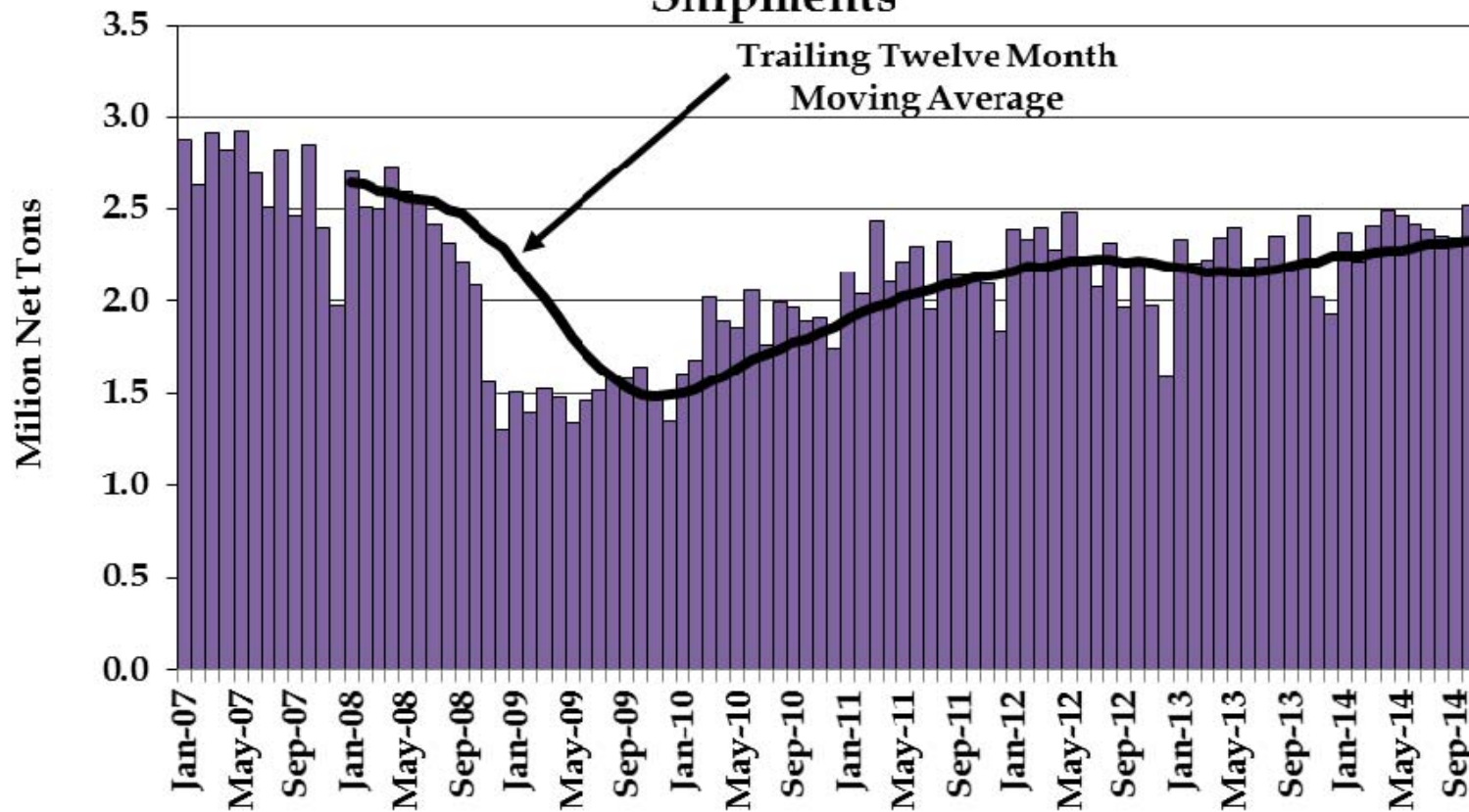
USA Steel Service Center Inventories



Source: Metal Service Center Institute

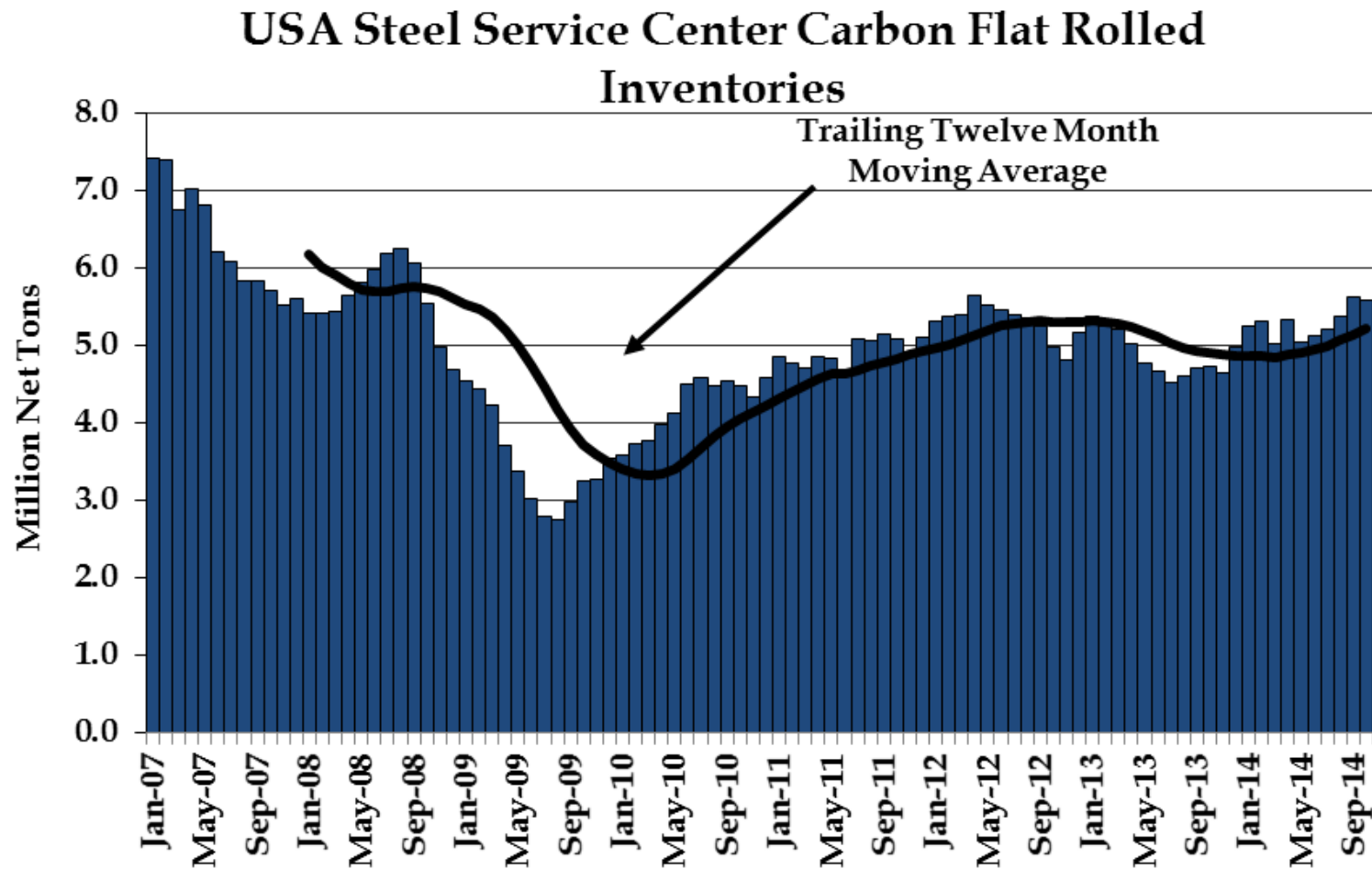
MSCI Carbon Flat Rolled Shipments "Flat" at 2.2 Million Tons, But Up On a TTMMA Basis for 17 Consecutive Months

USA Steel Service Center Carbon Flat Rolled Shipments



Source: Metal Service Center Institute

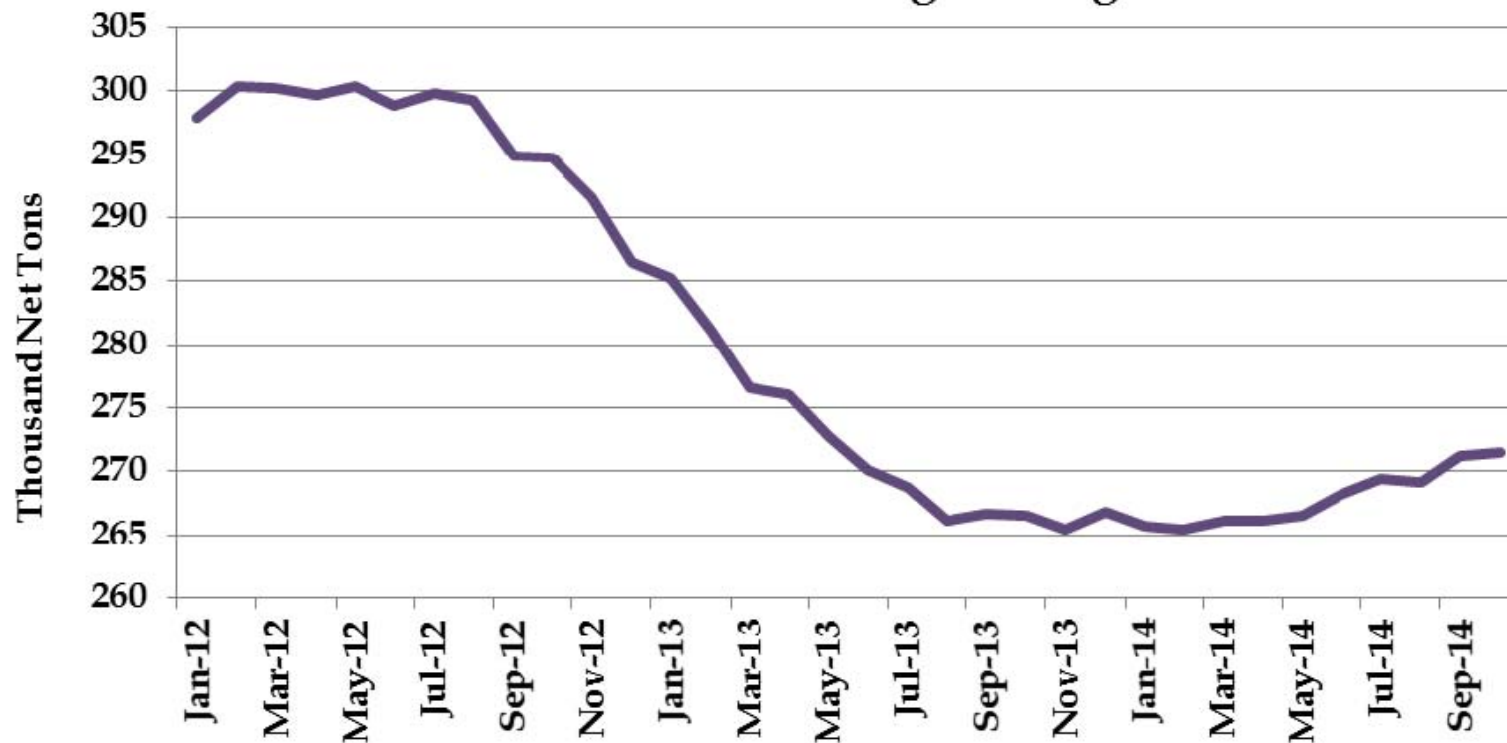
MSCI Carbon Flat Rolled Inventories Have Clearly Begun to Build – But Maybe Needed for Increased Economic Activity



Source: Metal Service Center Institute

MSCI Carbon Bar Shipments Haven't Recovered Yet

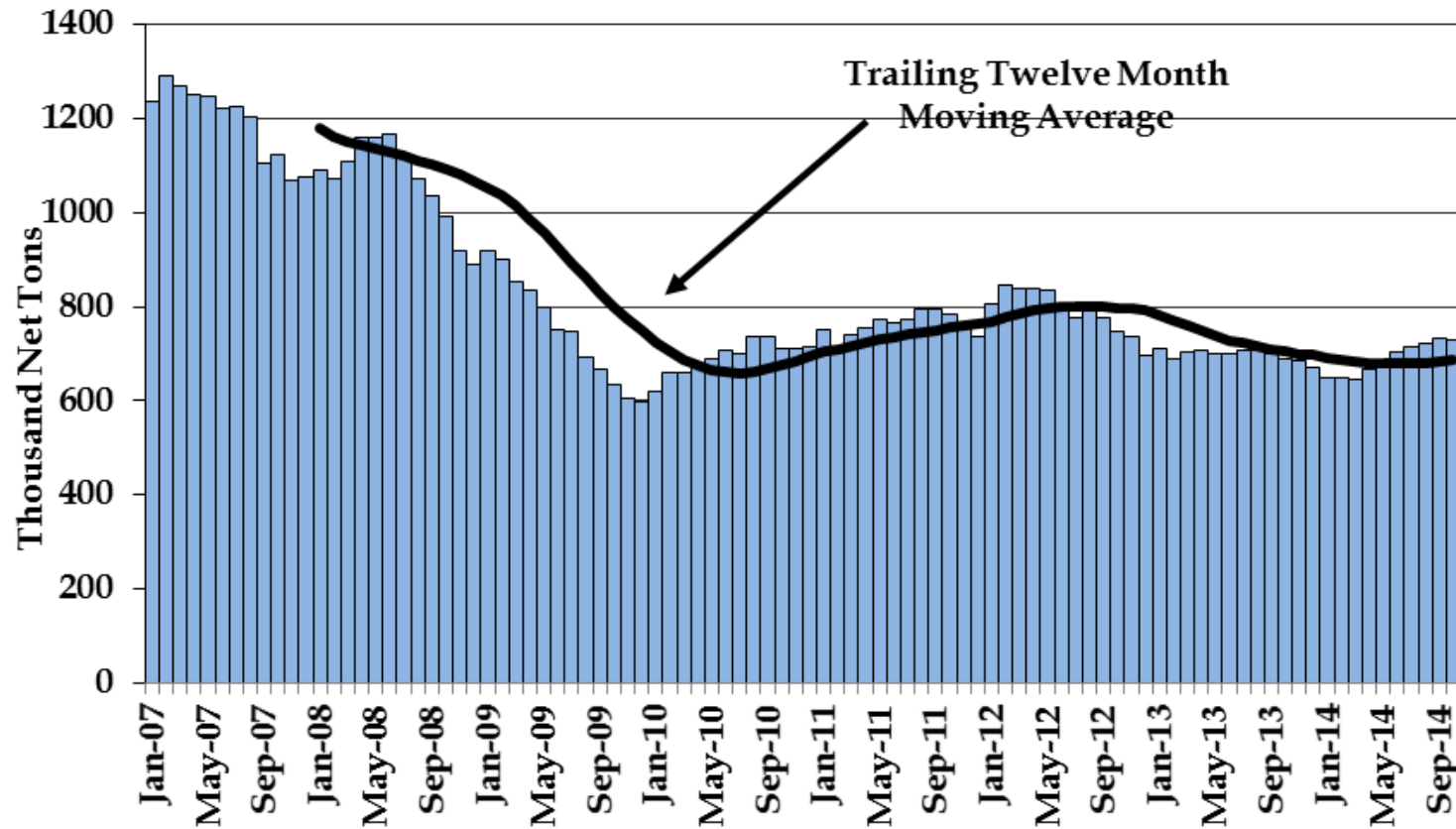
USA Steel Service Center Carbon Bar Shipments Twelve Month Moving Average



Source: Metal Service Center Institute

MSCI Carbon Bar Inventories Remain At Low Levels

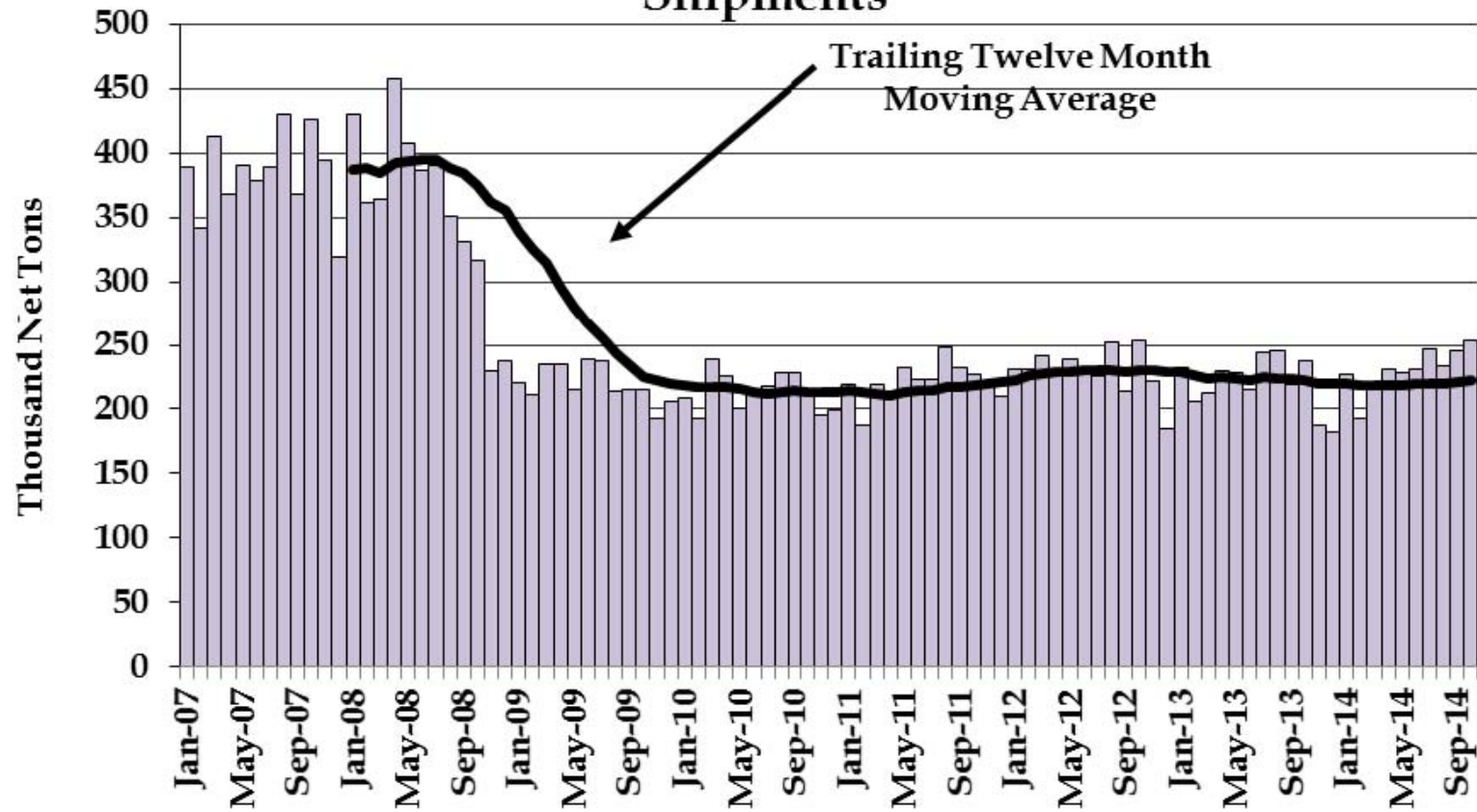
USA Steel Service Center Carbon Bar Inventories



Source: Metal Service Center Institute

MSCI Carbon Structural Shipments Pretty Flat Since 2009

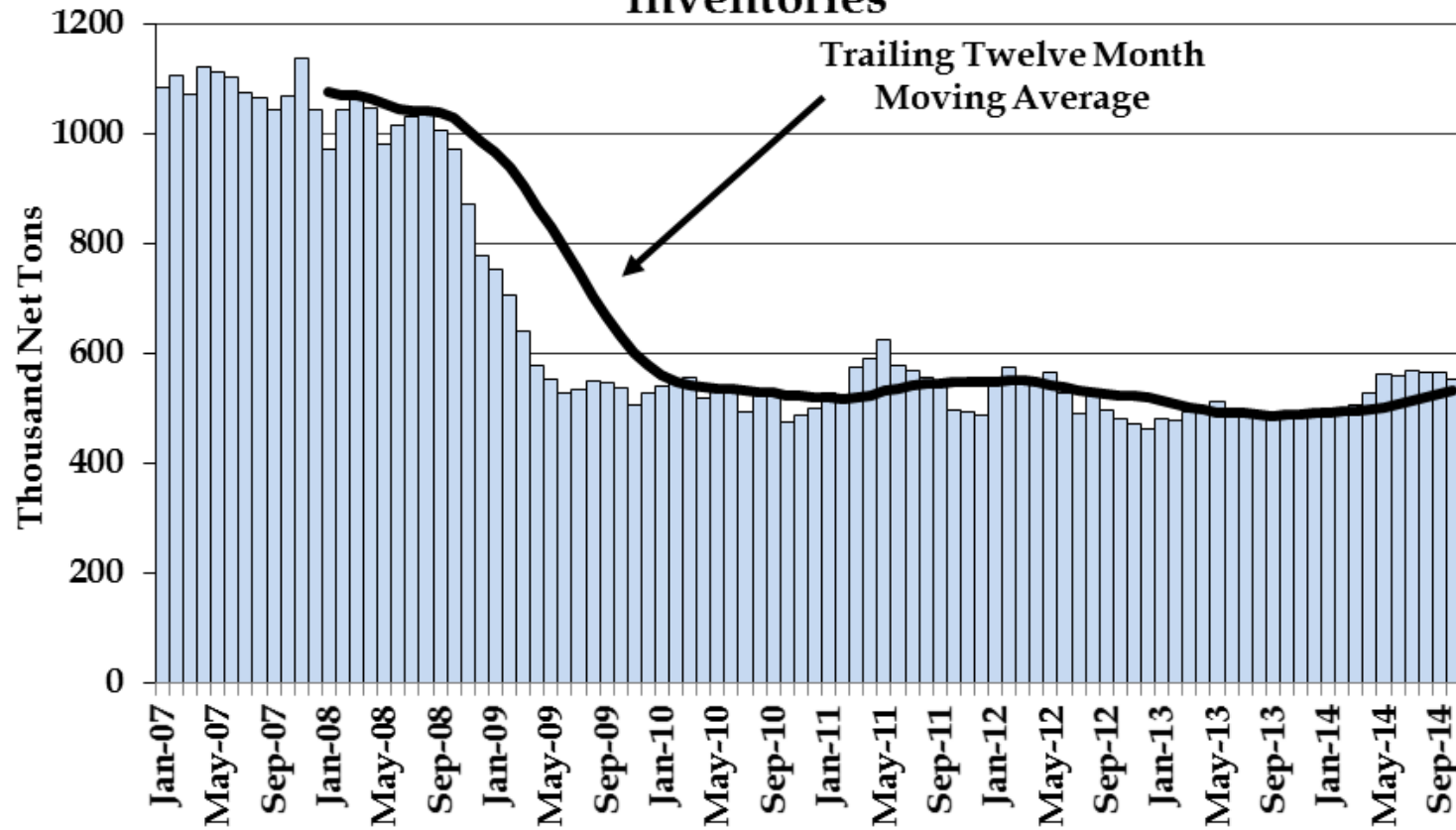
USA Steel Service Center Carbon Structural Shipments



Source: Metal Service Center Institute

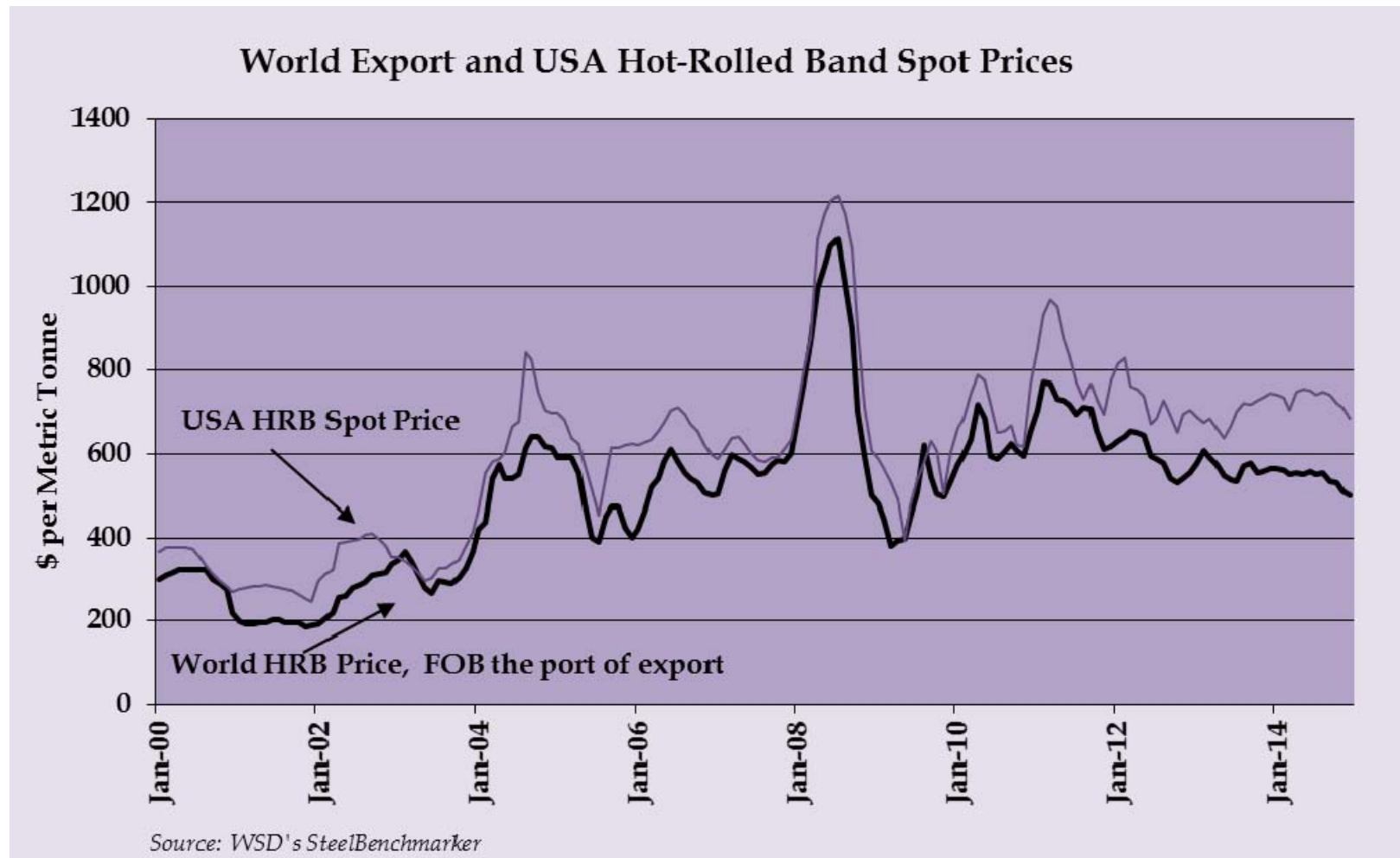
MSCI Structural Inventories Under Control

USA Steel Service Center Carbon Structural Inventories

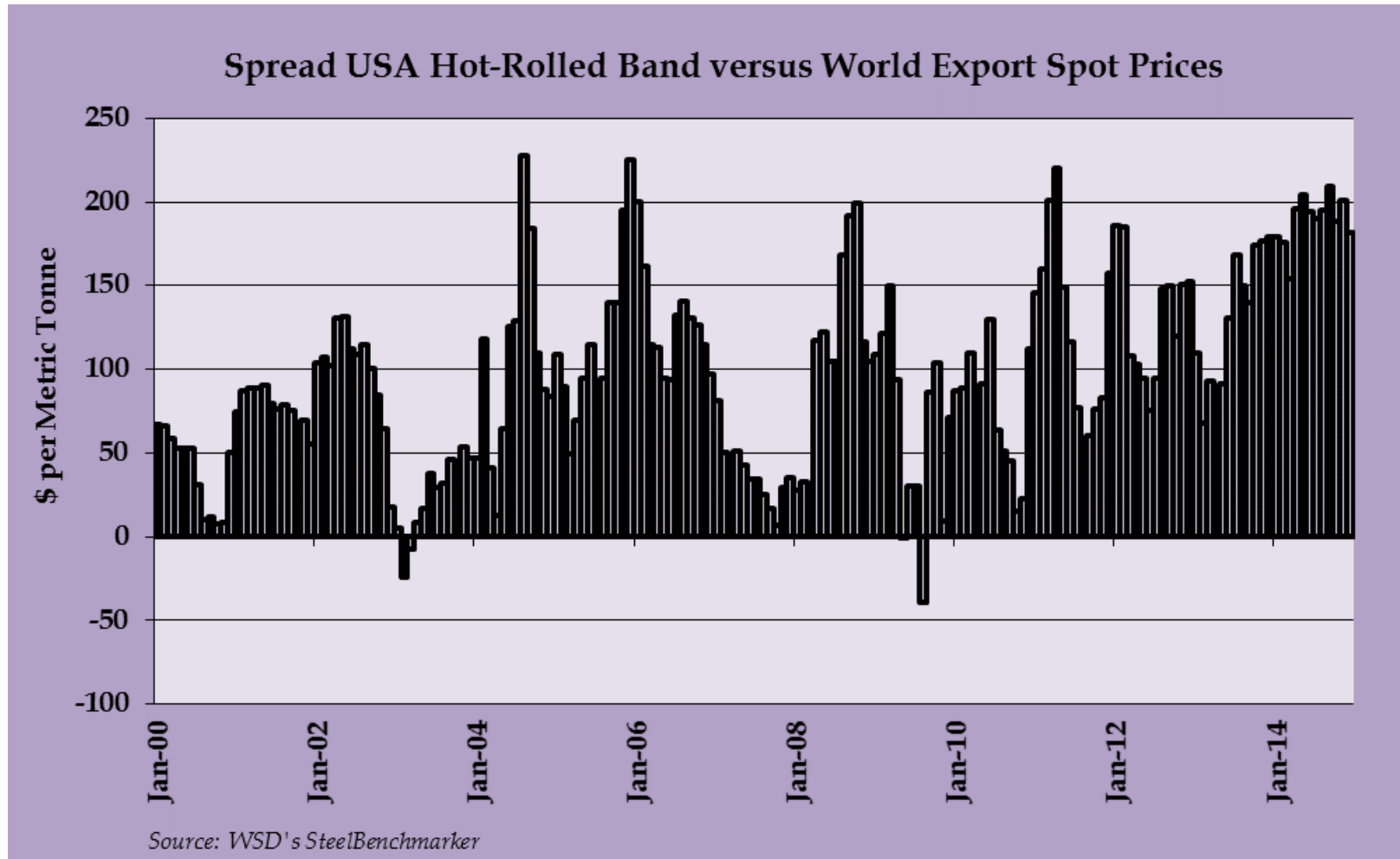


Source: Metal Service Center Institute

World Export Price and USA Price for Hot-Rolled Band Likely to Continue Sideways to Down Through 2015 Given Oversupply and Continued Commodity Price Pressure



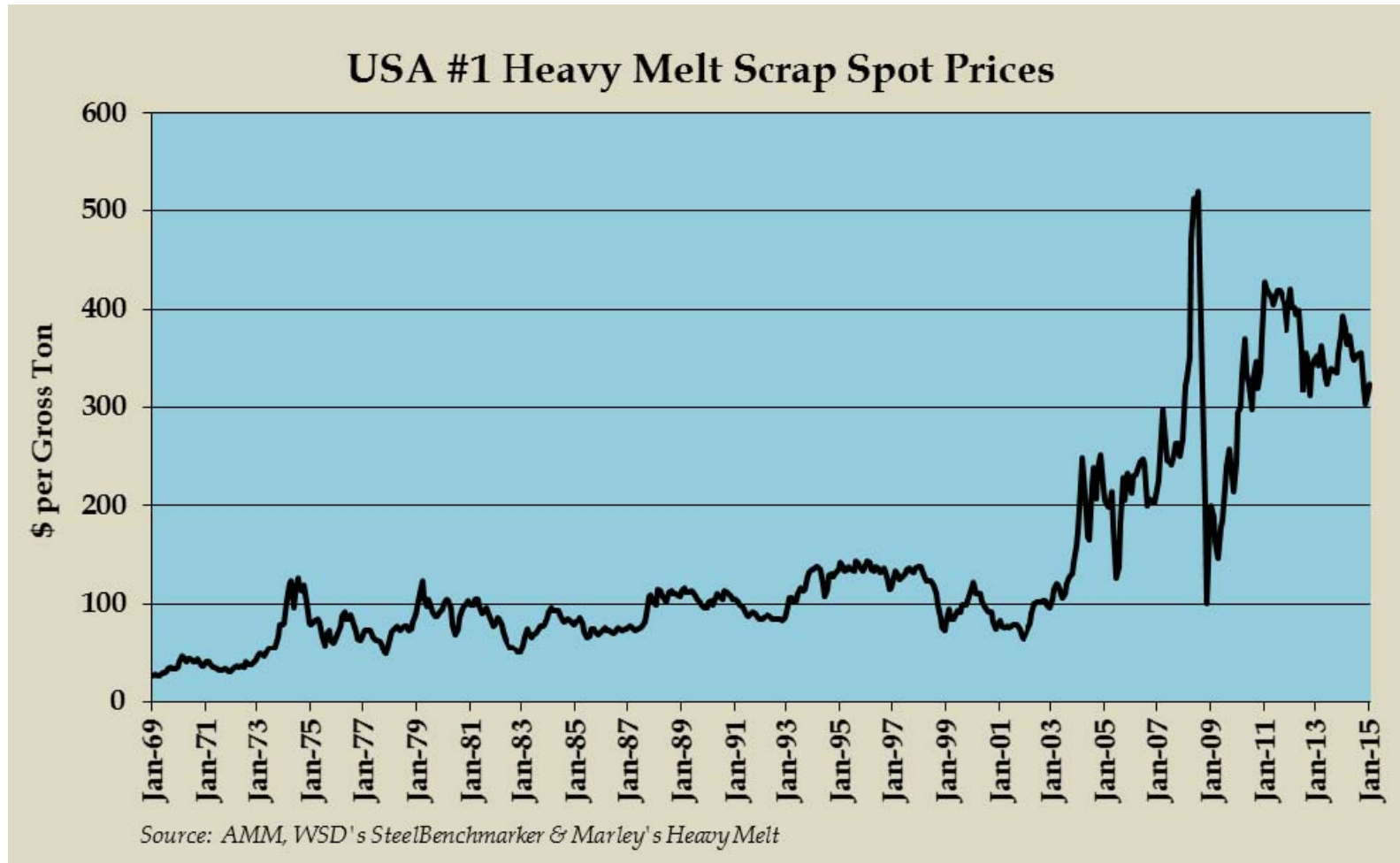
USA Hot-Rolled Band Price Spread to the World Above \$200 Per Tonne Will Continue to Attract Imports



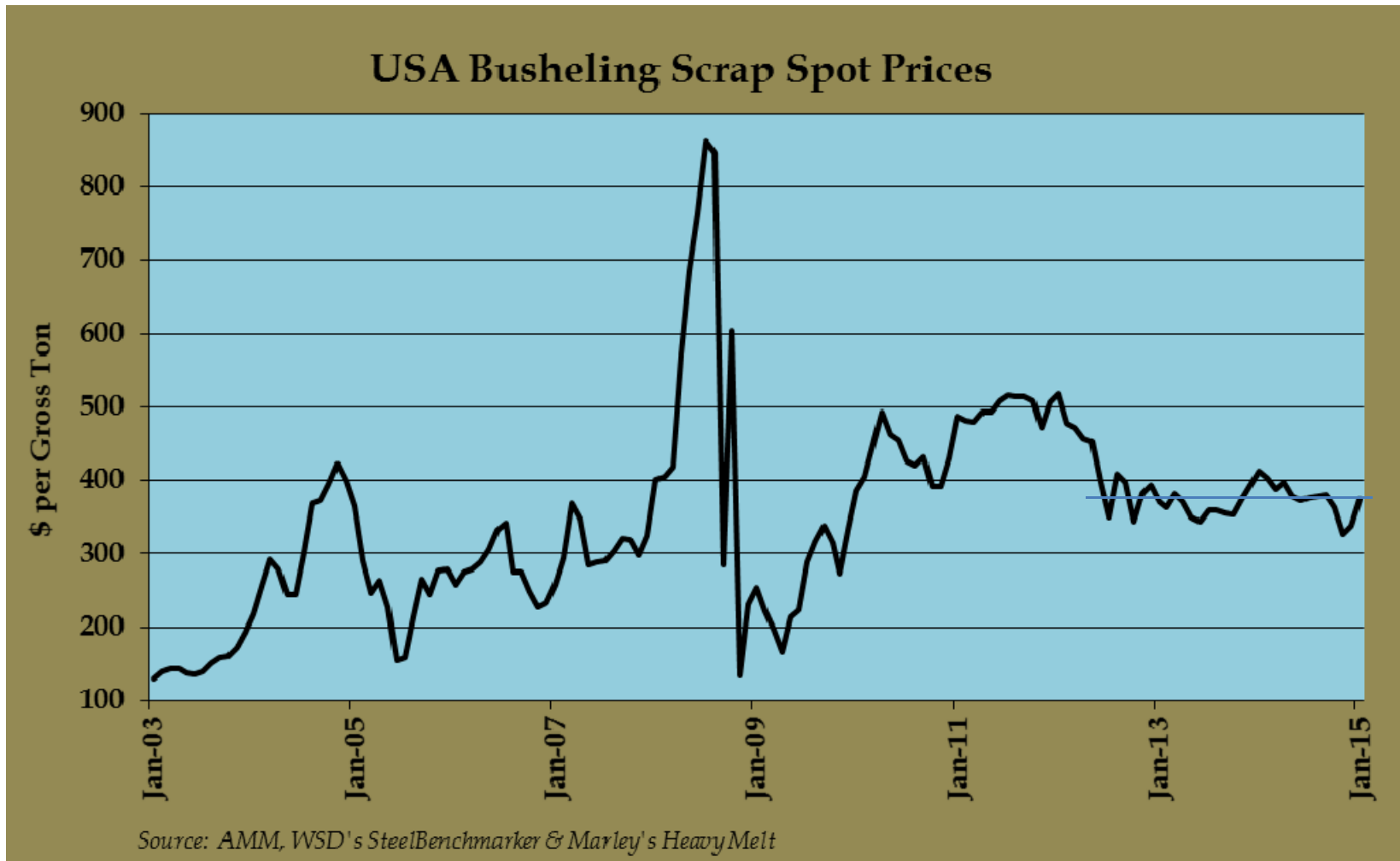
Current Scrap Price Drivers Market Intel

- Turkish steel companies buying only a shipload a week, down from a 2-3 shiploads per week as their product market price margins are compressed.
- Strength of the dollar has allowed one large mini-mill company to bring in scrap from Europe at competitive prices to the US market.
- Scrap flows from Canada have increased as scrap dealers there “buy cheap” in Canadian dollars and “sell high” in US dollars.
- At current lower prices, one rebar mini-mill company recently indicated that they are receiving adequate incoming supply.

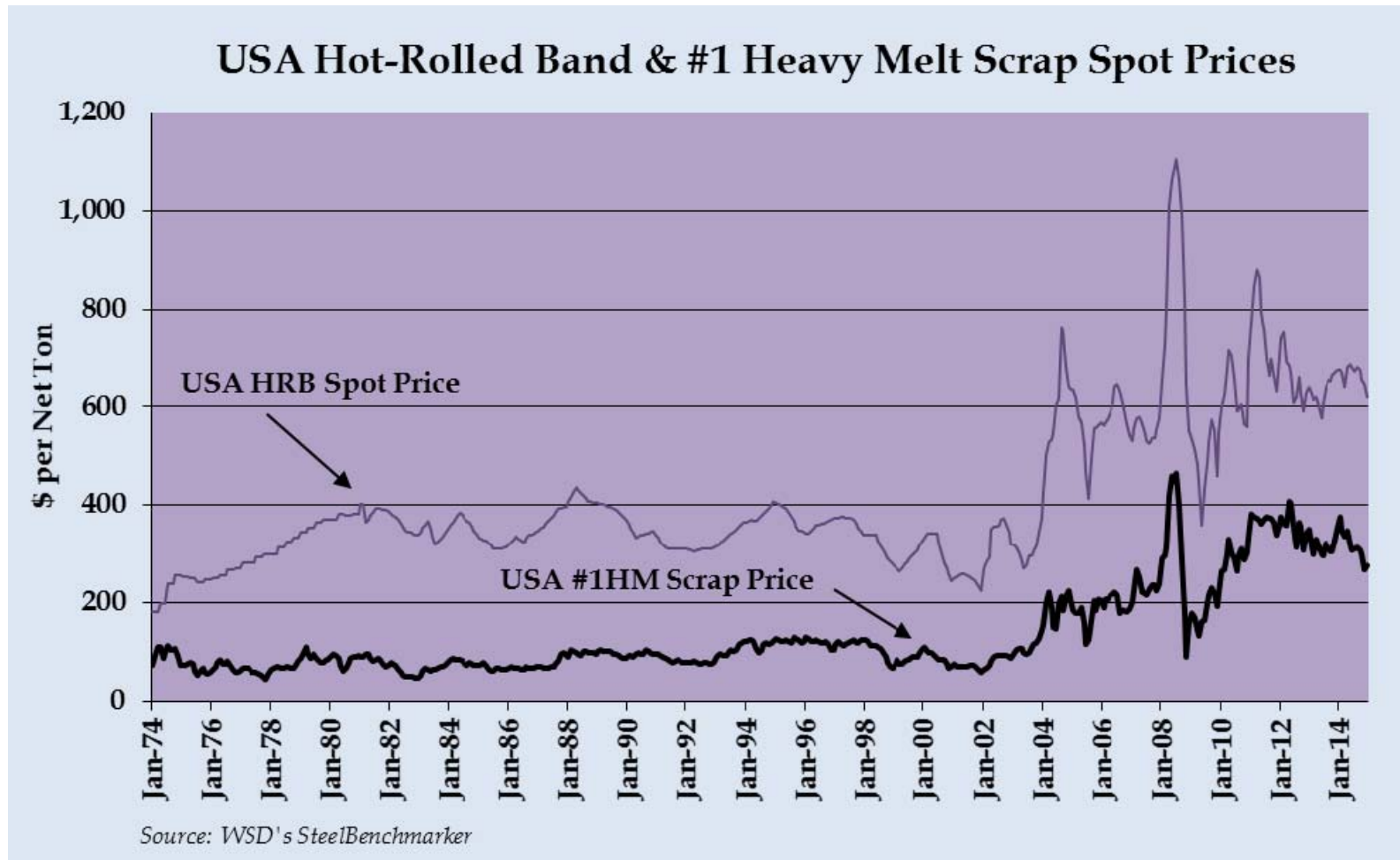
Scrap Prices Have Trended Up The Past Two Months



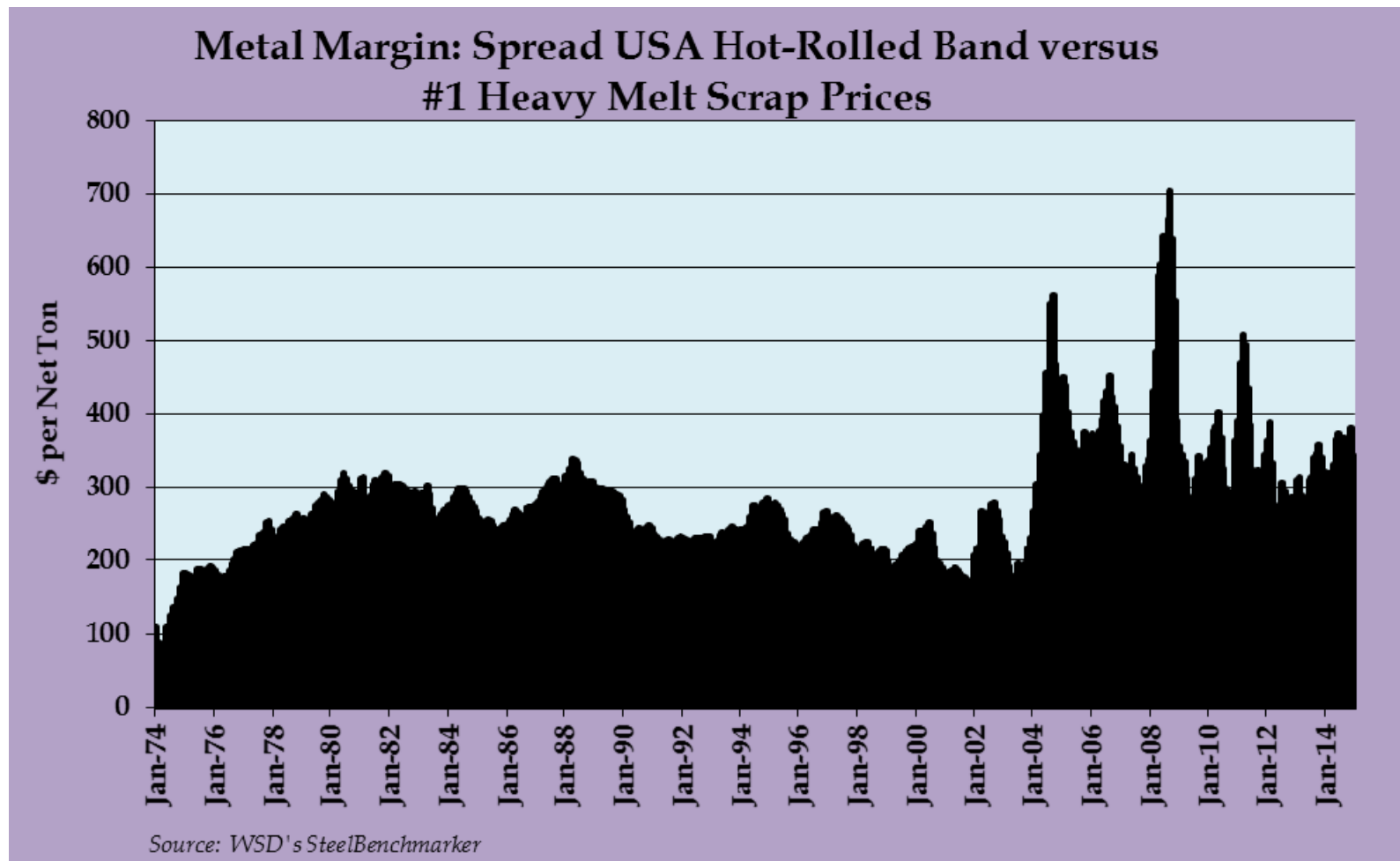
USA Busheling Scrap Prices Flat With A Year Ago



Scrap Prices Compared to Hot-Rolled Band Prices

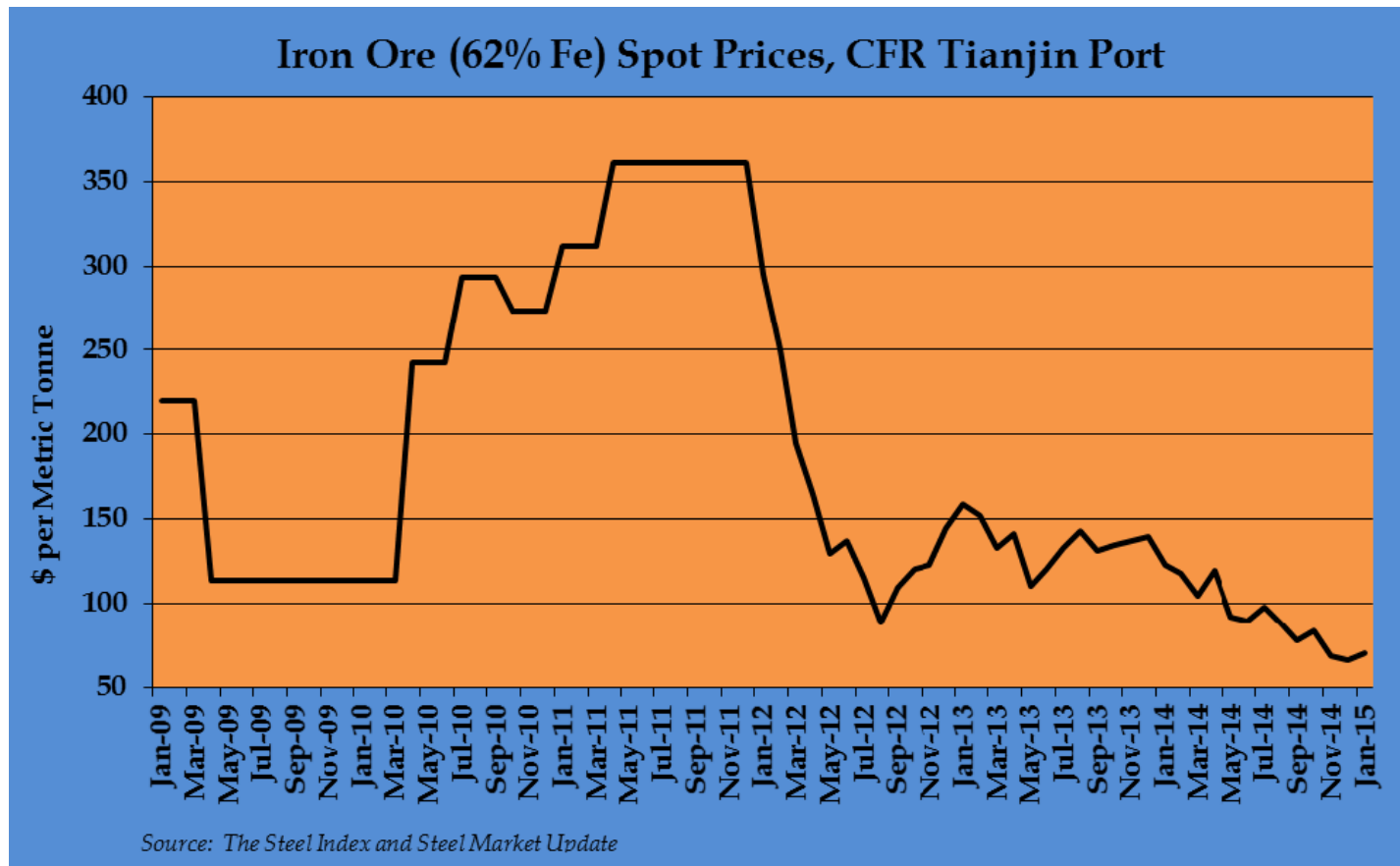


Metal Margin of Hot-Rolled Band to Scrap Well Above Historical Level of \$300 Per Ton

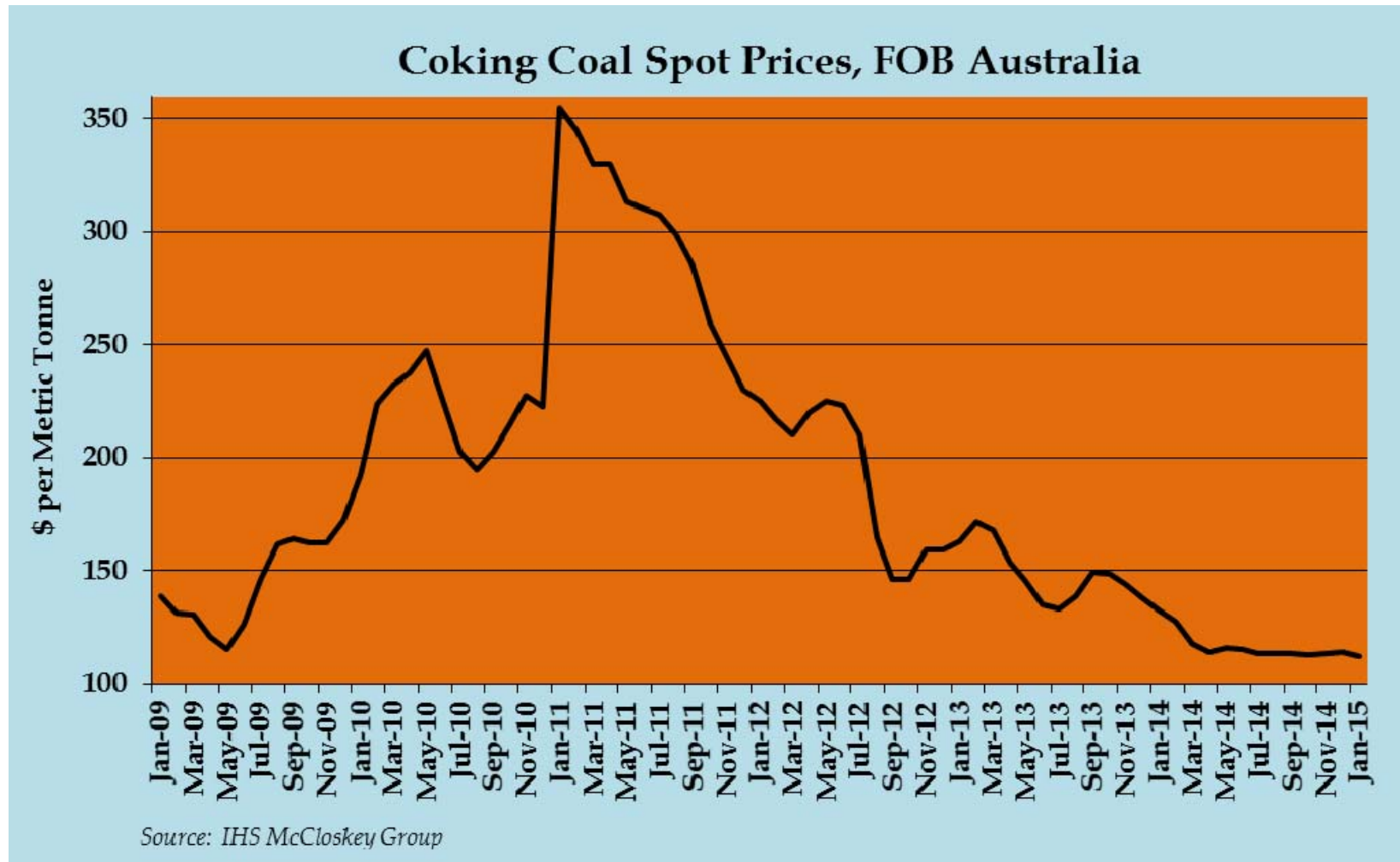


Iron Ore Prices Down 50% from \$140 Per Tonne Dec 2013 to \$66 Per Tonne Dec 2014

Goldman Sachs estimates 300 million tons of excess iron ore capacity by 2017 with 24 new projects being started since 2011 representing over \$120 billion in invested capital.



Coking Coal Prices Down 18% from \$138 Per Tonne Dec 2013 to \$114 Per Tonne Dec 2014



Ratio of Scrap Price to Iron Ore/Coal Cost Indicates Likely Downward Pressure to Scrap – Imports of Scrap From Europe & Canada

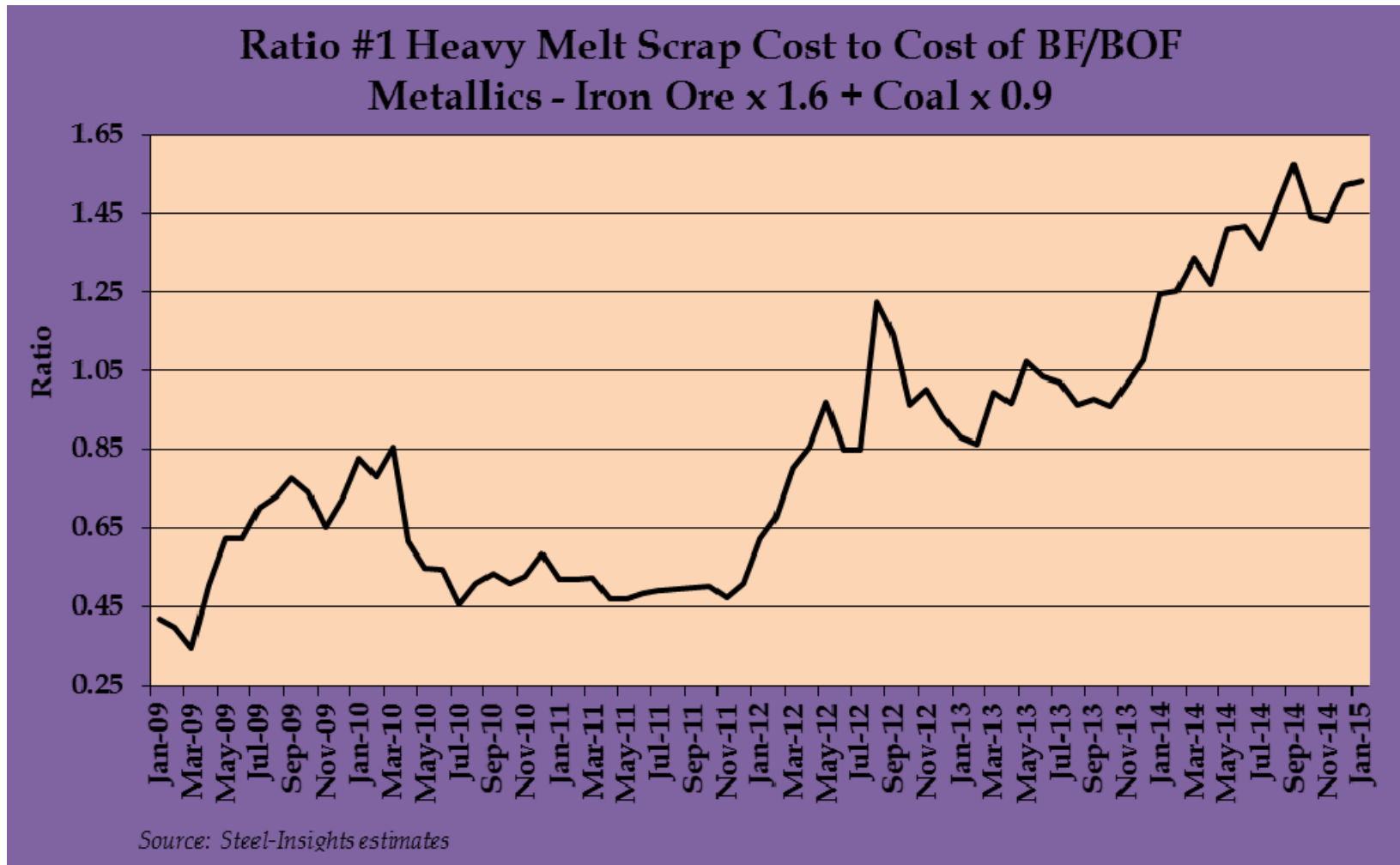
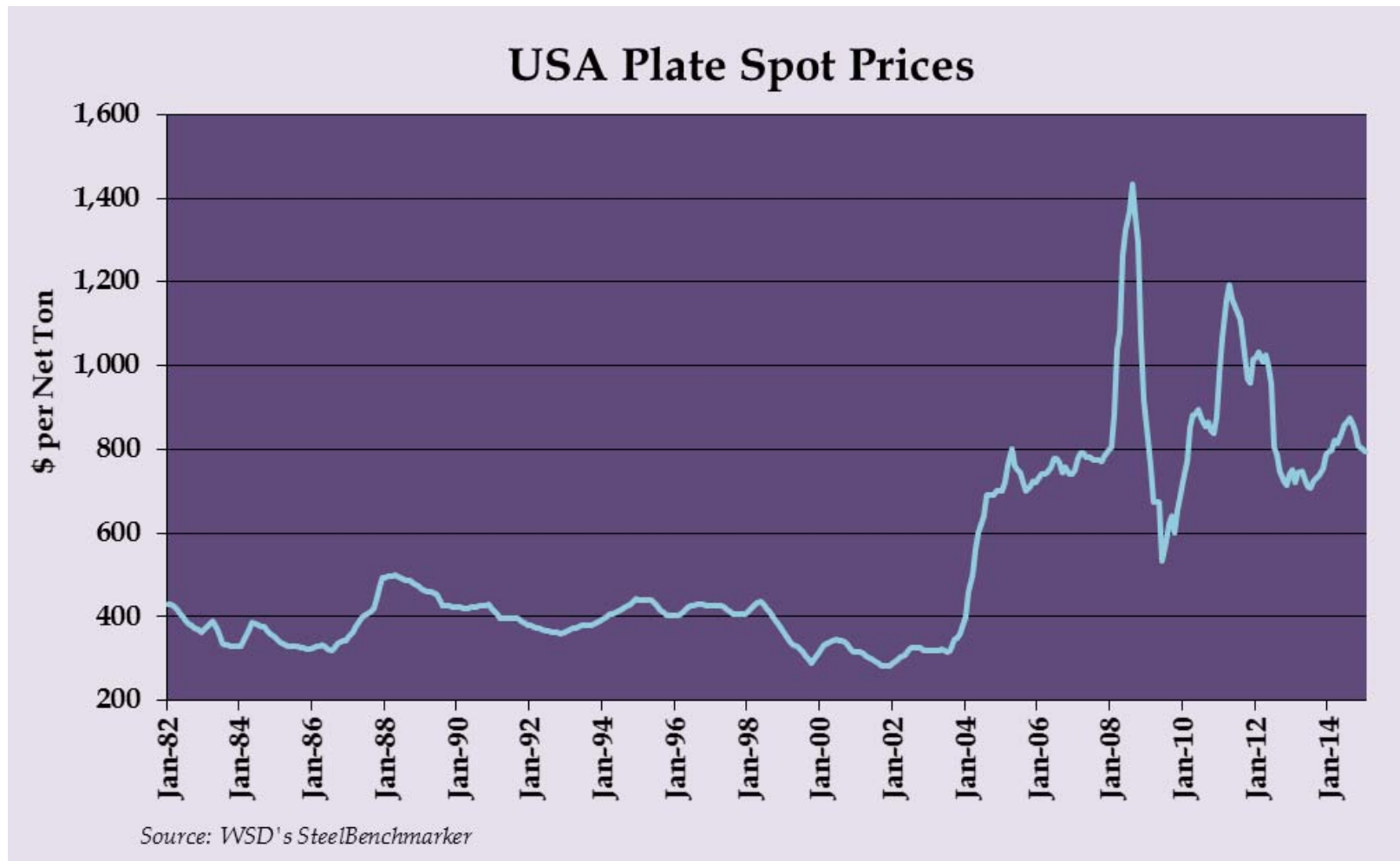
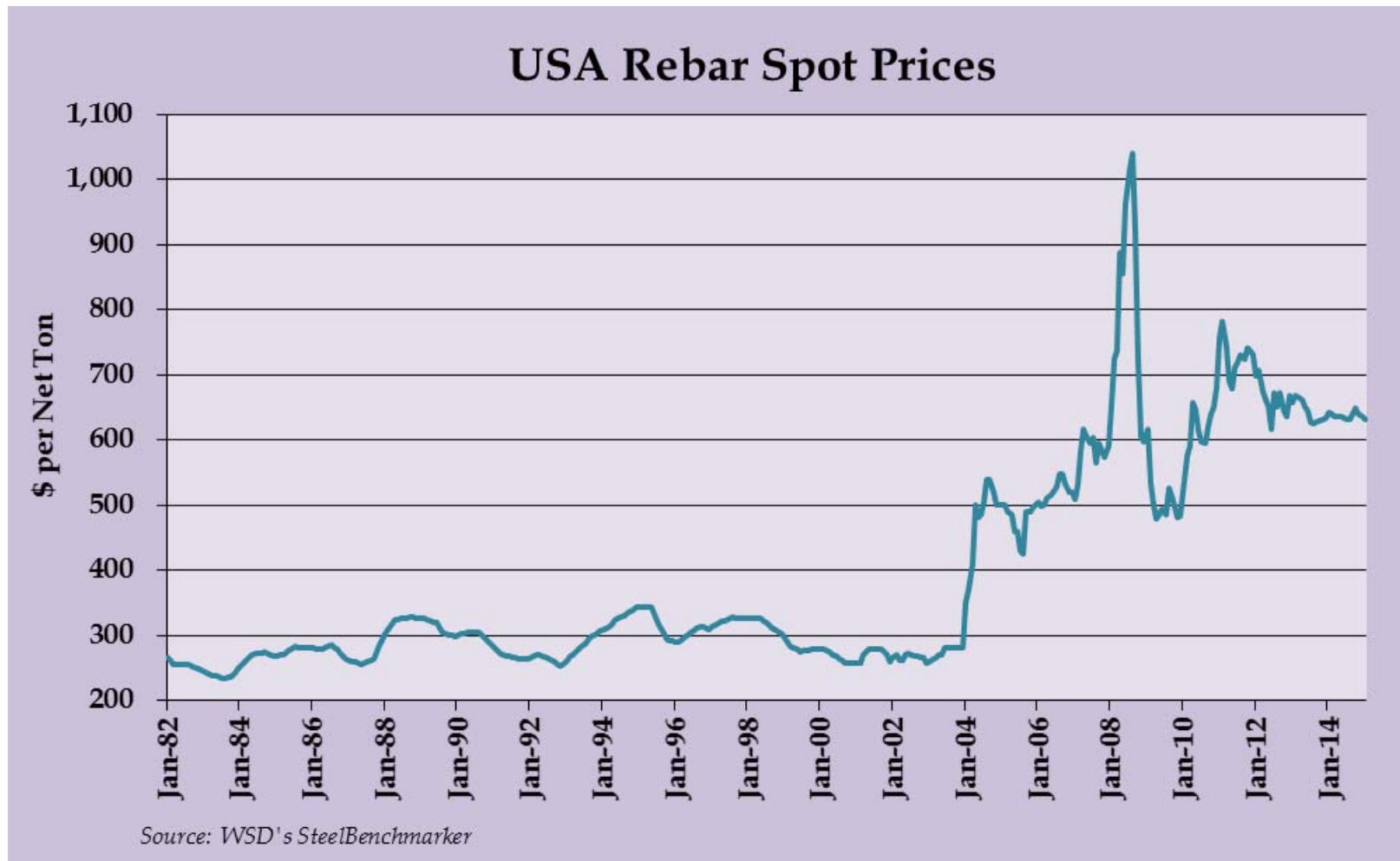


Plate Prices Down 9% In the Past Five Months, At \$795 Per Ton in January 2015



Rebar Prices Have Traded Sideways For 2014; High Imports Being Allocated and Not Impacting Pricing



Stainless Production Topped 38 Million Tonnes in 2013; 30.9 Million Tonnes Q1-Q3 2014

Stainless Melt Shop Production by Country (million tonnes)

	2007	2008	2009	2010	2011	2012	2013	9 Months	
								2013	2014
Belgium	1,521	1,471	1,045	1,306	1,241	1,241	1,298		
Finland	975	957	726	998	1,003	1,078	1,080		
France	308	297	202	276	300	285	300		
Germany	1,505	1,574	1,320	1,509	1,502	1,313	1,091		
Italy	1,558	1,471	1,216	1,583	1,602	1,696	1,556		
Spain	1,105	998	693	844	807	844	855		
Sweden	645	574	445	546	586	510	501		
United Kingdom	351	340	224	279	330	294	257		
Other EU	148	158	114	152	188	195	211		
EU	8,115	7,838	5,986	7,494	7,559	7,455	7,147	5,898	6,171
USA	2,171	1,925	1,617	2,201	2,074	1,977	2,030		
Brazil	433	390	324	408	413	391	425		
Americas	2,604	2,315	1,942	2,609	2,486	2,368	2,454	1,824	2,097
Japan	3,882	3,567	2,607	3,427	3,247	3,166	3,175		
South Korea	1,942	1,660	1,677	2,048	2,157	2,167	2,143		
Taiwan, China	1,515	1,297	1,468	1,514	1,203	1,109	1,067		
China	7,206	6,943	8,805	11,256	14,091	16,087	18,984	14,176	16,022
India	1,966	1,832	1,721	2,022	2,163	2,279	2,403		
Asia	16,510	15,299	16,277	20,267	22,861	24,807	27,772	20,663	22,633
South Africa	651	528	546	480	443	503	492		
Russia	143	135	86	122	125	112	152		
Ukraine	124	104	67	118	147	118	112		
World	28,146	26,218	24,904	31,090	33,621	35,363	38,130	28,385	30,900

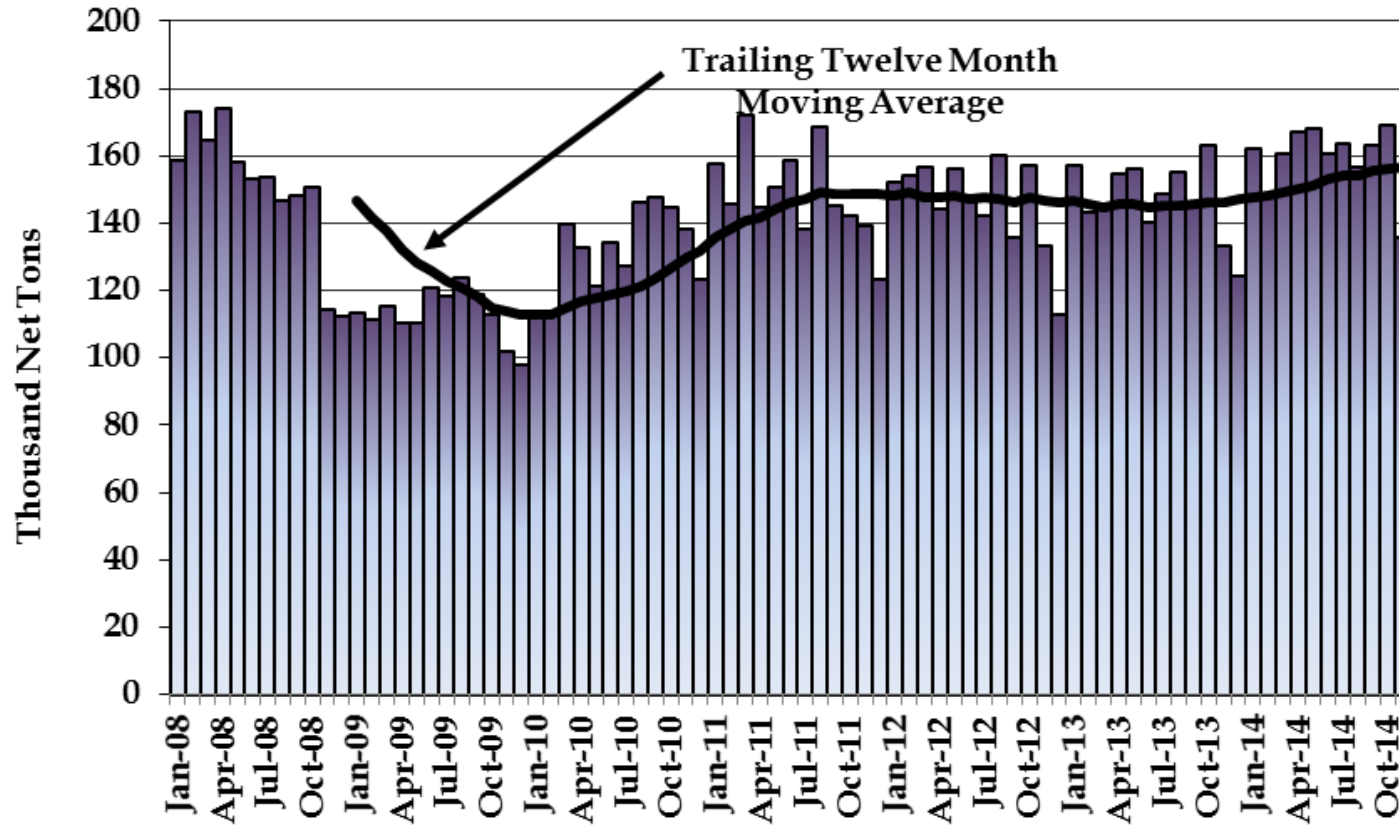
Note: Stainless melt shop production (ingot/slab equivalent).

Note: Chinese data revised from 2011 to 2013.

Source: ISSF

MSCI Total Stainless Shipments Improving Moderately, But Consistently

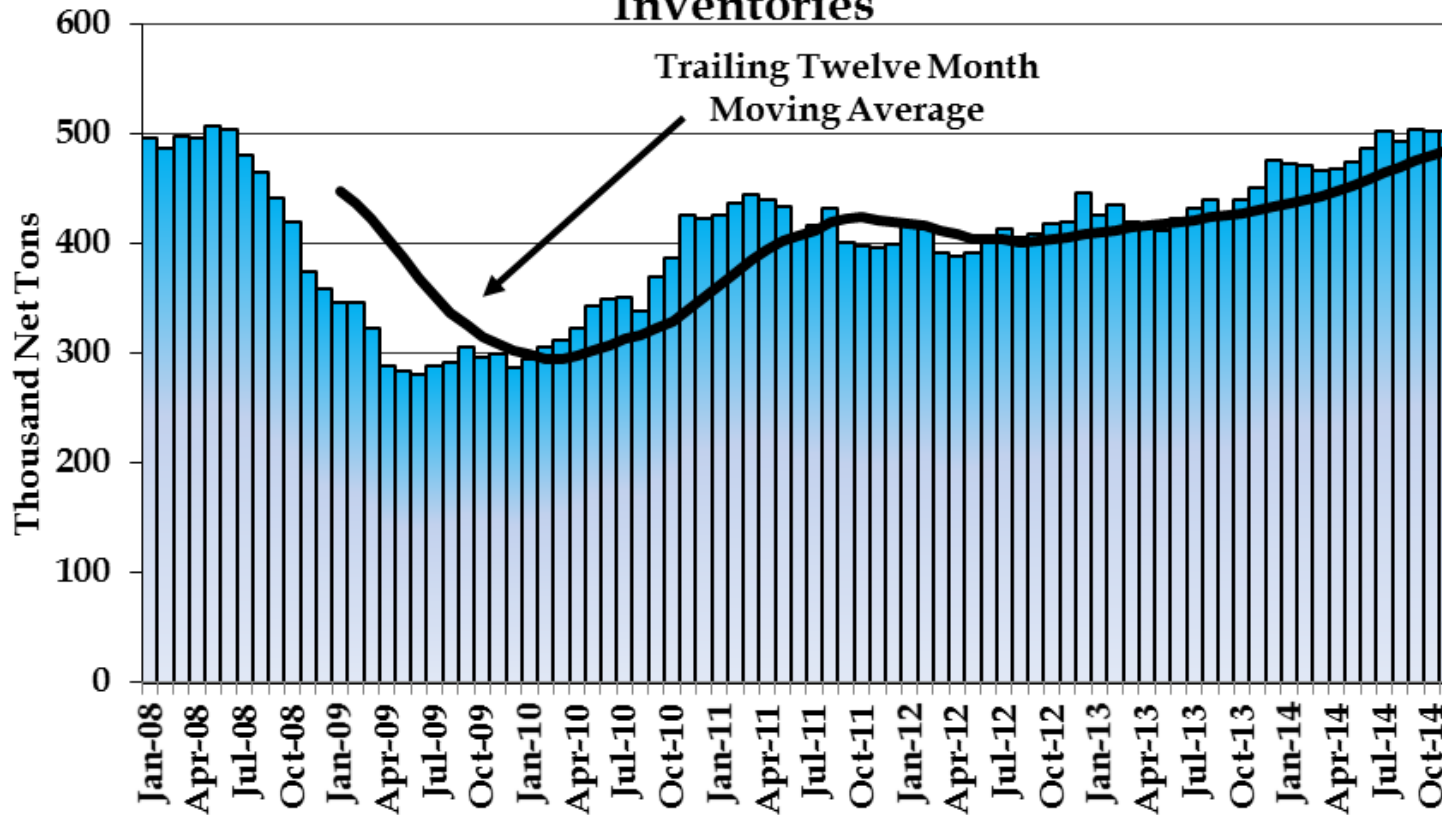
USA Steel Service Center Total Stainless Shipments



Source: Metal Service Center Institute

MSCI Total Stainless Inventories Up 11% In 2014

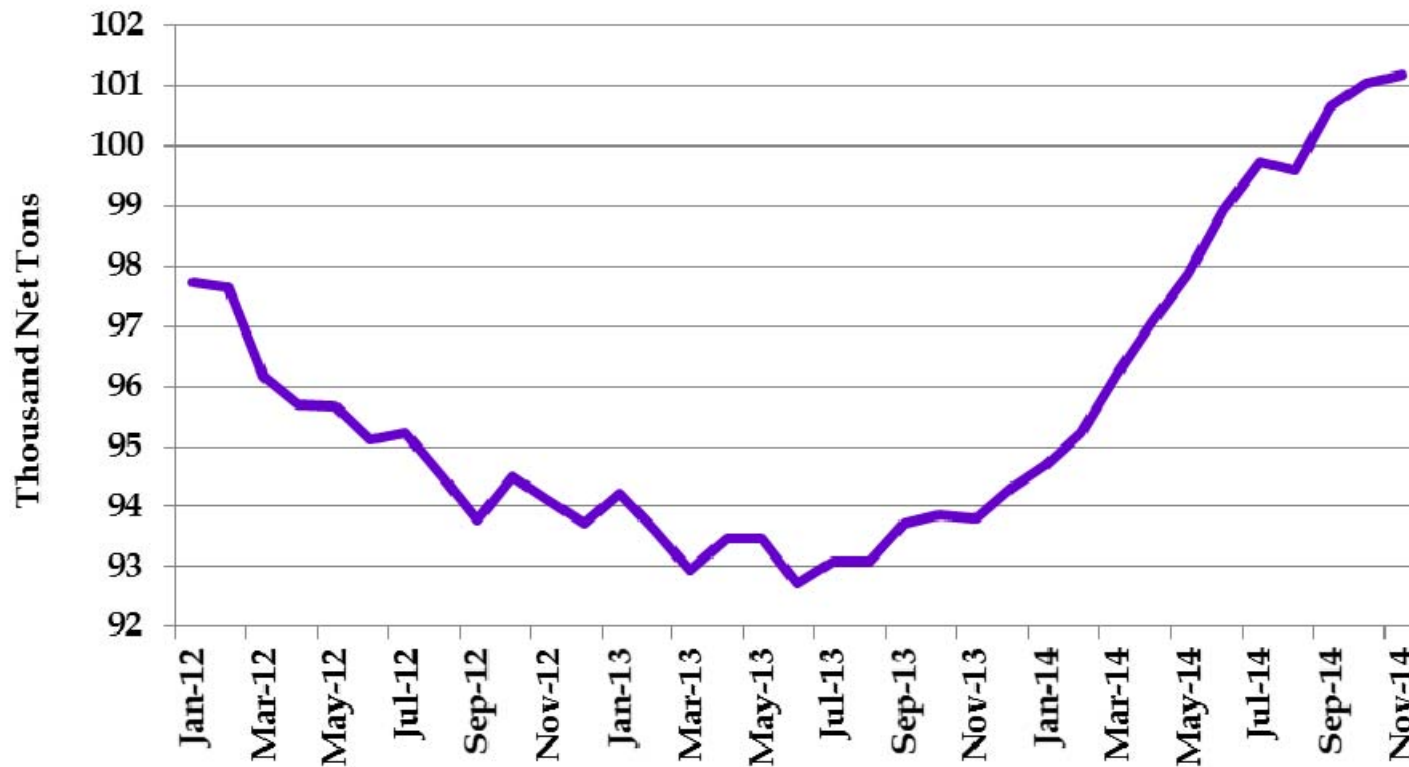
USA Steel Service Center Total Stainless Inventories



Source: Metal Service Center Institute

MSCI Stainless Sheet & Coil Shipments Up 7.8% Year-Over-Year On A Trailing Twelve Month Moving Average

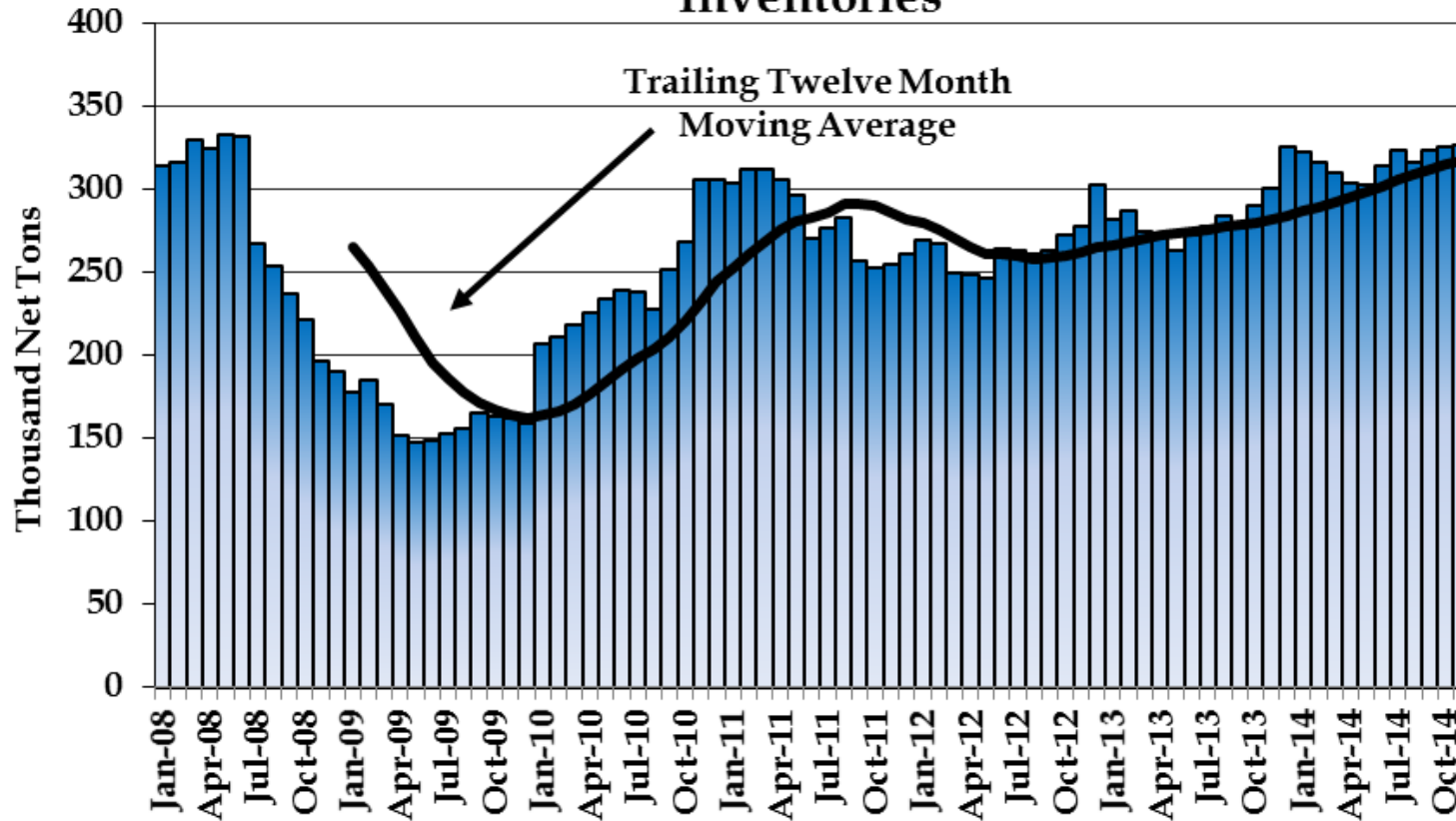
USA Steel Service Center Stainless Sheet & Coil Shipments Twelve Month Moving Average



Source: Metal Service Center Institute

MSCI Stainless Sheet & Coil Inventories Steadily Increasing

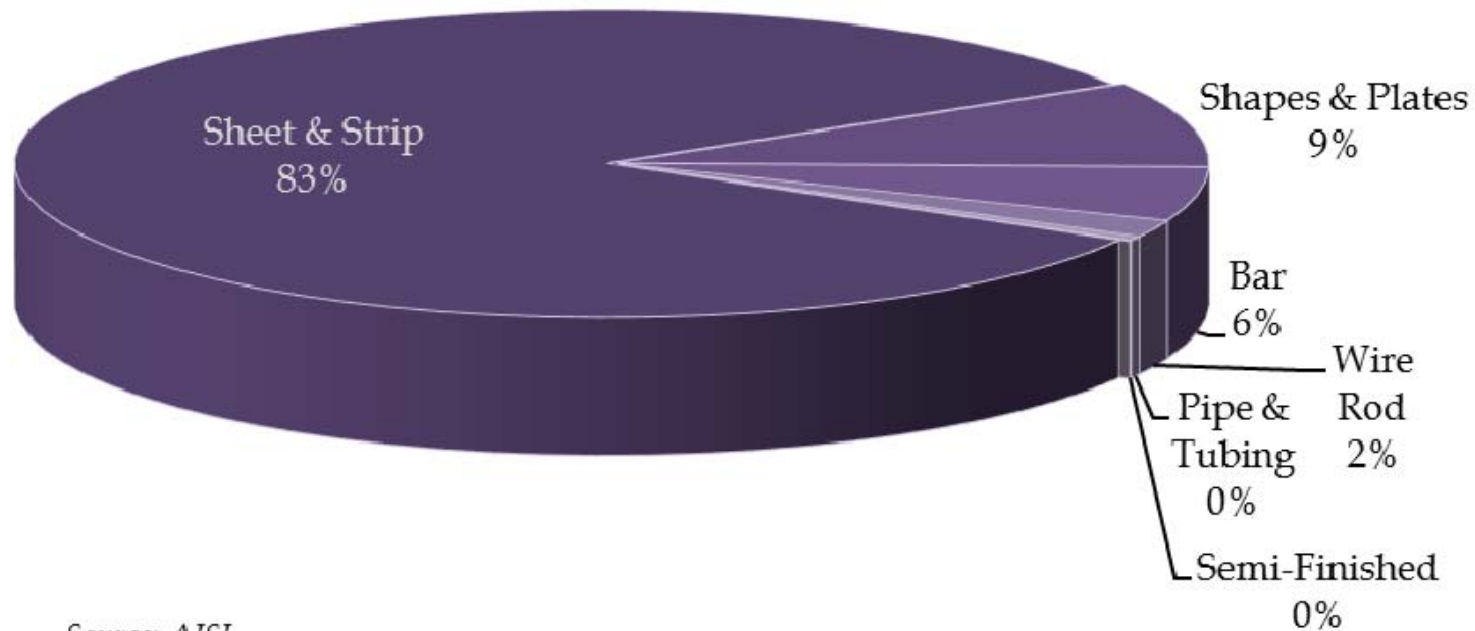
USA Steel Service Center Stainless Sheet & Coil Inventories



Source: Metal Service Center Institute

Stainless Sheet & Strip Dominate USA Production

USA Domestic Production of Stainless 2013



Source: AISI

USA Stainless Consumption up 6.5% in 2013; Sheet & Strip was up 20.7%

USA Stainless Shipments, Imports, Exports and Apparent Consumption

(thousand tons)

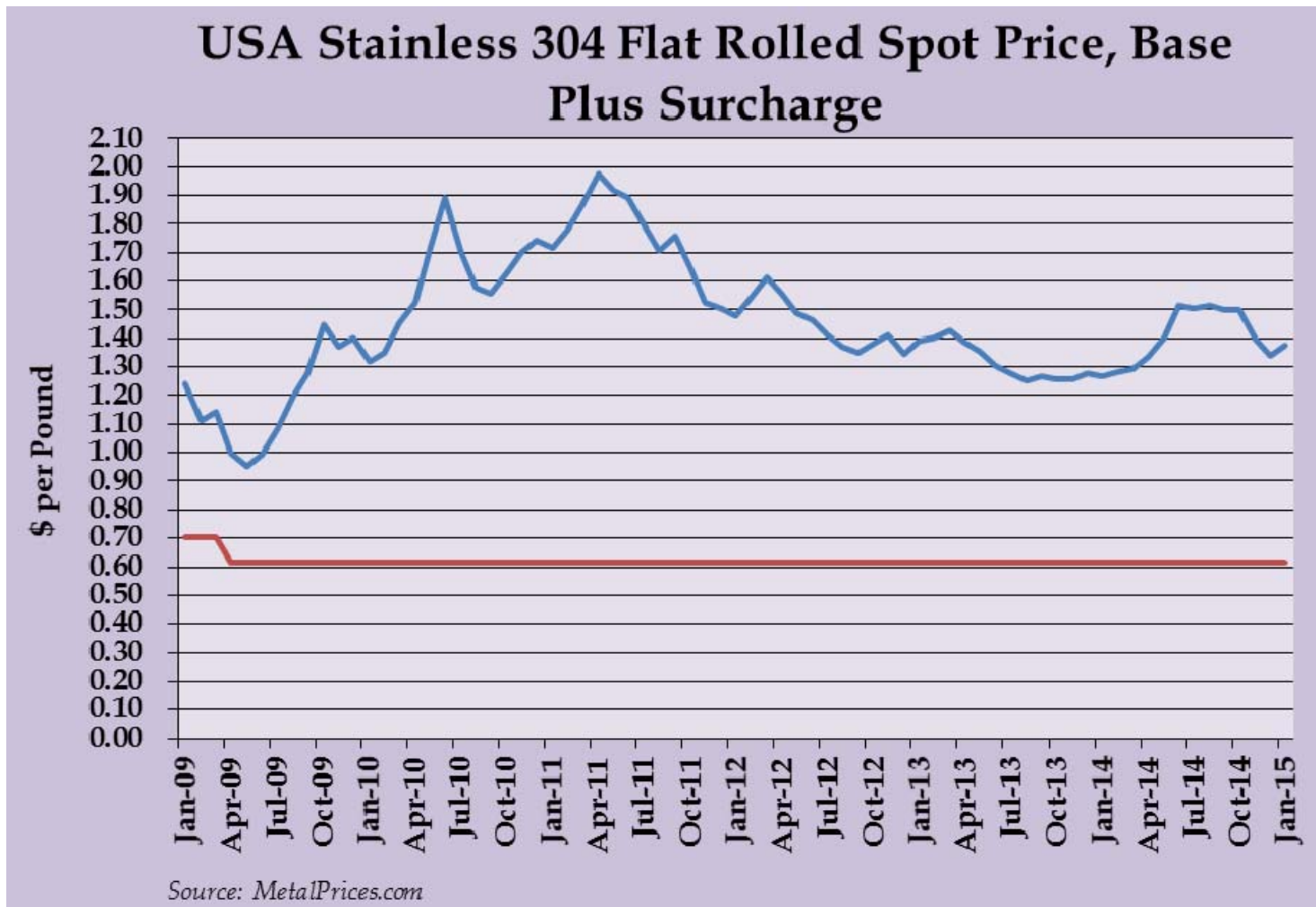
	2005	2006	2007	2008	2009	2010	2011	2012	2013
Sheet & Strip	1,455	1,568	1,414	1,108	1,326	1,219	1,526	1,610	1,944
Shapes & Plates	264	299	264	212	206	221	262	261	265
Bar	136	144	142	152	100	141	156	157	166
Wire Rod	31	53	41	36	30	53	62	51	53
Pipe & Tubing	15	16	14	14	10	11	8	12	13
Semi-Finished	1	2	1	3	1	17	69	2	2
Net Shipments	1,903	2,081	1,877	1,525	1,672	1,662	2,082	2,093	2,443
Shipments to Reporting Companies	422	443	399	352	294	338	3	0	0
Total Gross Shipments	2,325	2,524	2,276	1,877	1,966	2,000	2,085	2,093	2,443
Imports	976	1,143	1,214	1,093	617	939	1,114	1,266	1,073
Exports	409	452	596	629	526	615	675	715	698
Apparent Steel Consumption	2,892	3,215	2,894	2,340	2,058	2,324	2,521	2,644	2,818

Source: AISI

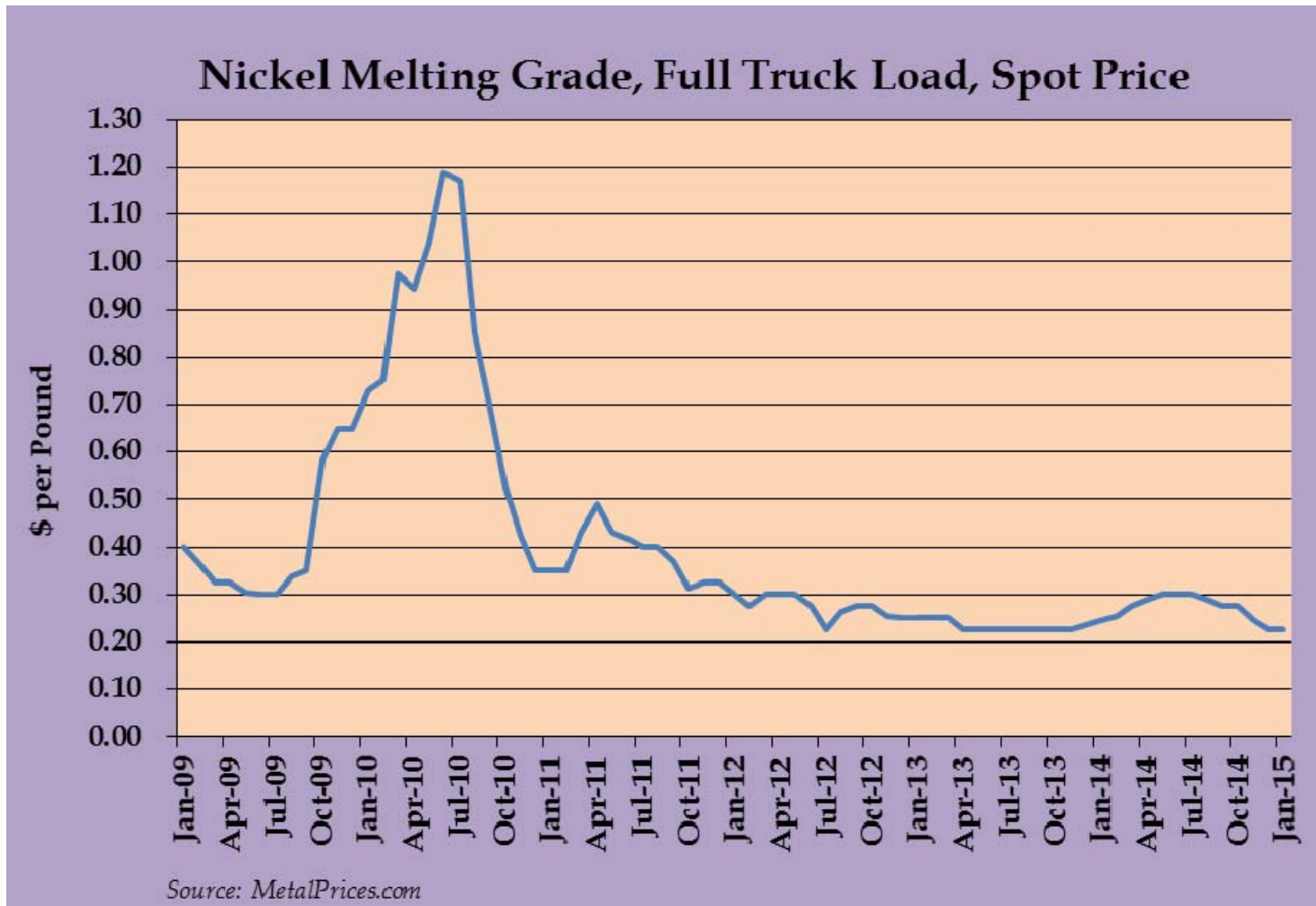
USA Stainless Sheet Trends

- AK Steel produces 48" wide, NAS 60" wide, ATI's new mill 84" wide, Outokumpu Calvert 72" wide.
- ATI new mill in trials for the last 6 months; going "live" in the next month or so.
- Outokumpu Alabama mill had production challenges late in 2014.
- Imports are running at a historically high level and will continue to threaten.

Stainless Sheet Prices Improved Through 2014, But Under Pressure At the End of the Year



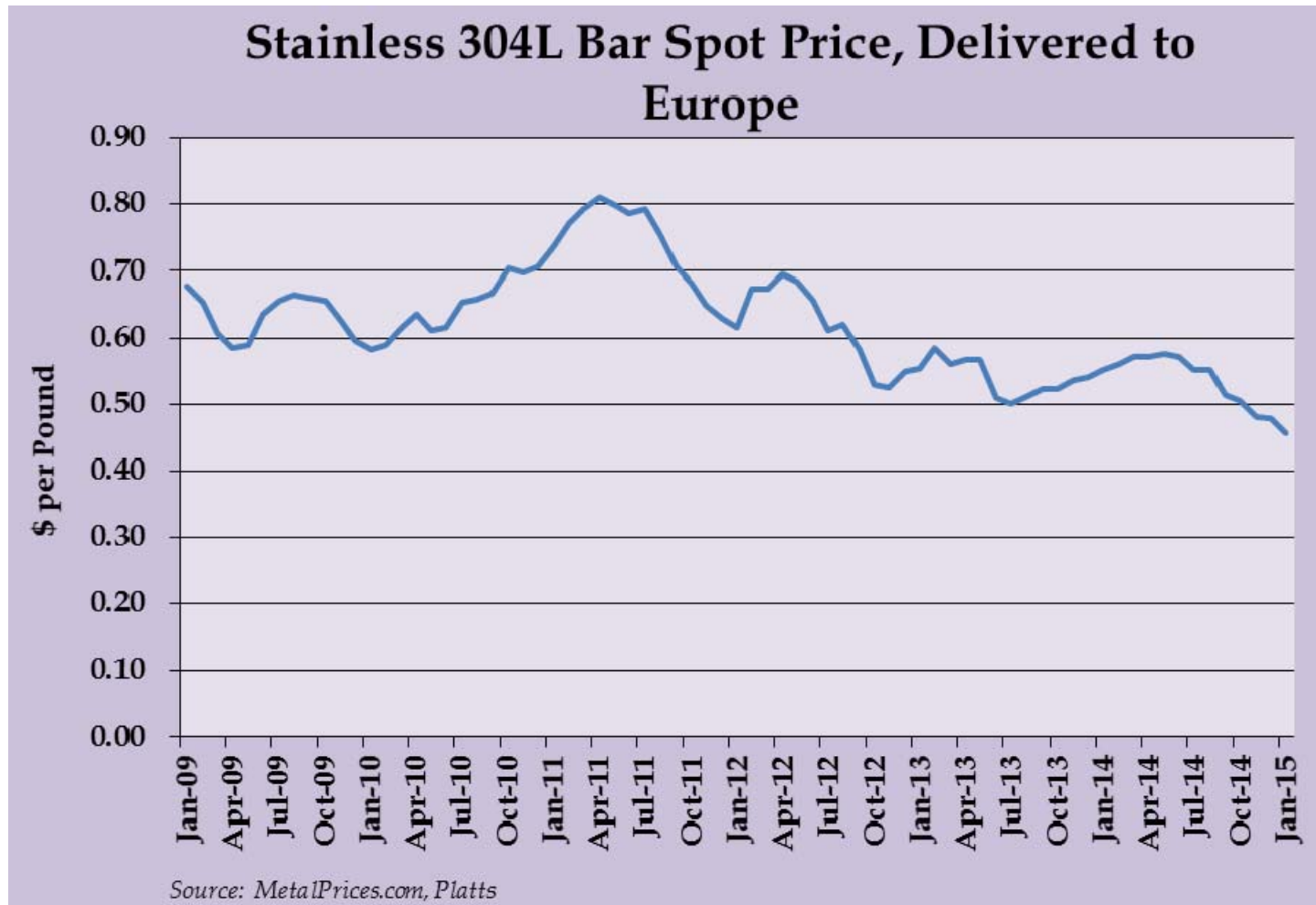
Nickel Prices At Historically Low Levels And Falling



USA Stainless Bar Trends

- North American Stainless running flat out, doing really well on bar products.
- No other domestic producers.
- After decades of trying, stainless bar is finally making inroads into rebar – MMFX, Nucor, NAS all producing. Better corrosion resistance eliminates the need for coating. Still more expensive, but use less volume. Starting to be competitive, and engineers are starting to include it in their projects.

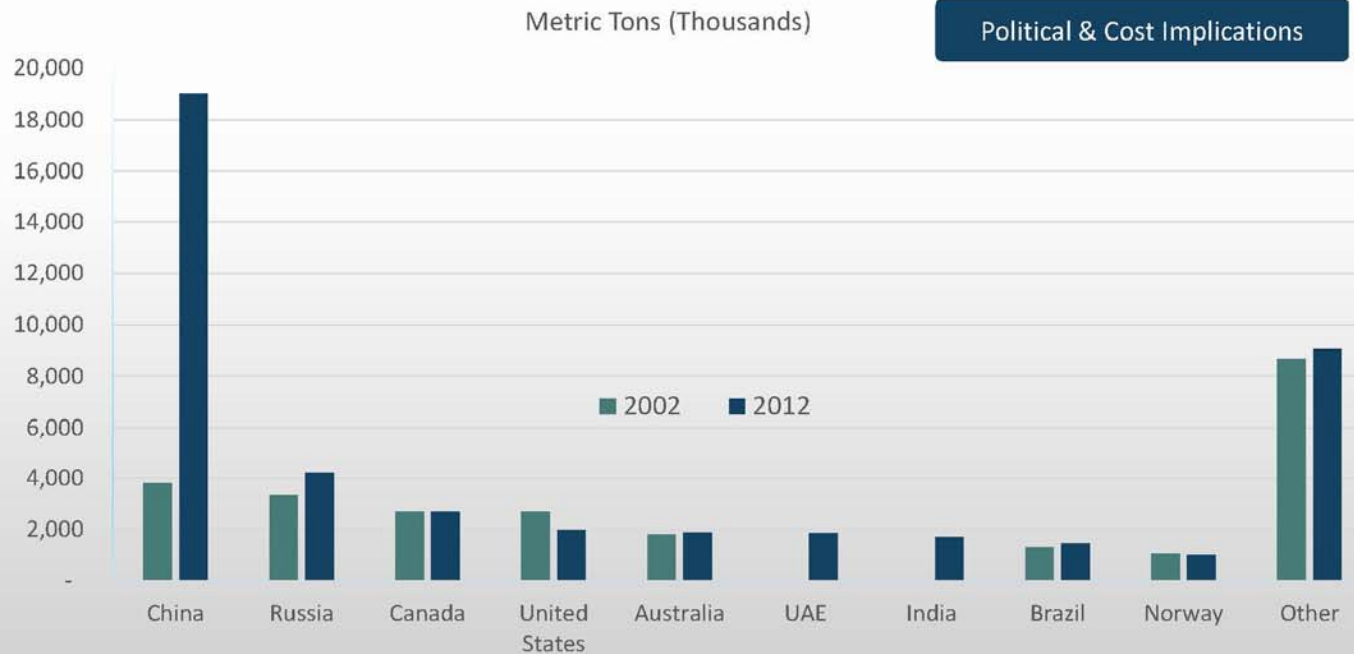
Stainless Bar Prices, Delivered to Europe, Under Some Pressure



Global Aluminum Production – The Last Decade Brought Capacity Additions in China, India and the UAW

World Production: 2012 vs. 2002

In 2012, 9 countries represented 80% of world aluminum production



Source: *SBB Platts How the Aluminum Market Works*, Scott Stewart, Black Hawk Resources

North America Primary Aluminum Production Has Been Shifting From the USA to Canada – Highly Dependent on Power Cost to be Competitive

Production of Primary Aluminum

	United States			Canada			North America	
	Thousands of Metric Tons	Millions of Pounds	% of Total	Thousands of Metric Tons	Millions of Pounds	% of Total	Thousands of Metric Tons	Millions of Pounds
2005	2,480.4	5,468.3	46%	2,894.3	6,380.7	54%	5,374.7	11,849.0
2006	2,280.9	5,028.5	43%	3,051.1	6,726.5	57%	5,332.0	11,755.0
2007	2,559.7	5,643.1	45%	3,082.6	6,795.9	55%	5,642.3	12,438.9
2008	2,659.1	5,862.1	46%	3,118.8	6,875.7	54%	5,777.9	12,737.8
2009	1,727.2	3,807.7	36%	3,030.3	6,680.7	64%	4,757.5	10,488.4
2010	1,727.3	3,807.9	37%	2,963.2	6,532.7	63%	4,690.5	10,340.6
2011	1,986.4	4,379.3	40%	2,983.8	6,578.0	60%	4,970.2	10,957.3
2012	2,070.3	4,564.2	43%	2,780.7	6,130.4	57%	4,851.1	10,694.6

Conversion Factor:

One metric ton = 2,204.6 pounds

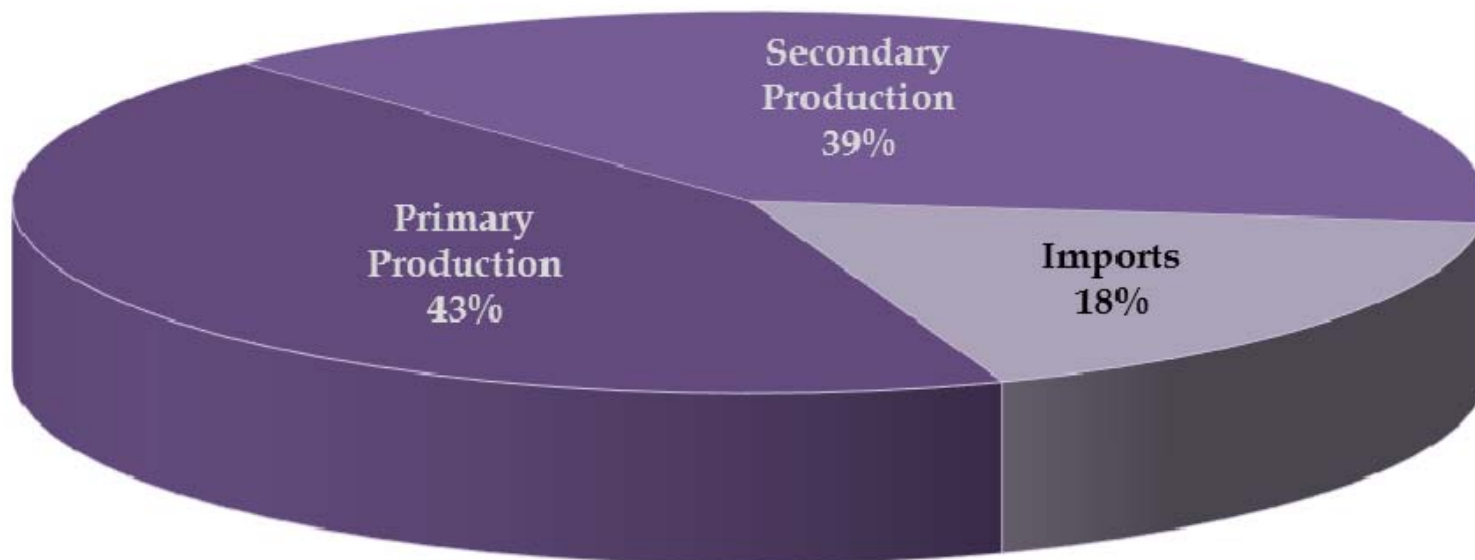
Source:

U.S. - Bureau of Mines, Department of Interior; Department of Commerce and The Aluminum Association Inc.

Canada - Natural Resources Canada, Aluminum Association of Canada and Alcan, Inc.

North American Aluminum Supply of 24.6 Billion Pounds About Half Sourced Through Primary Production

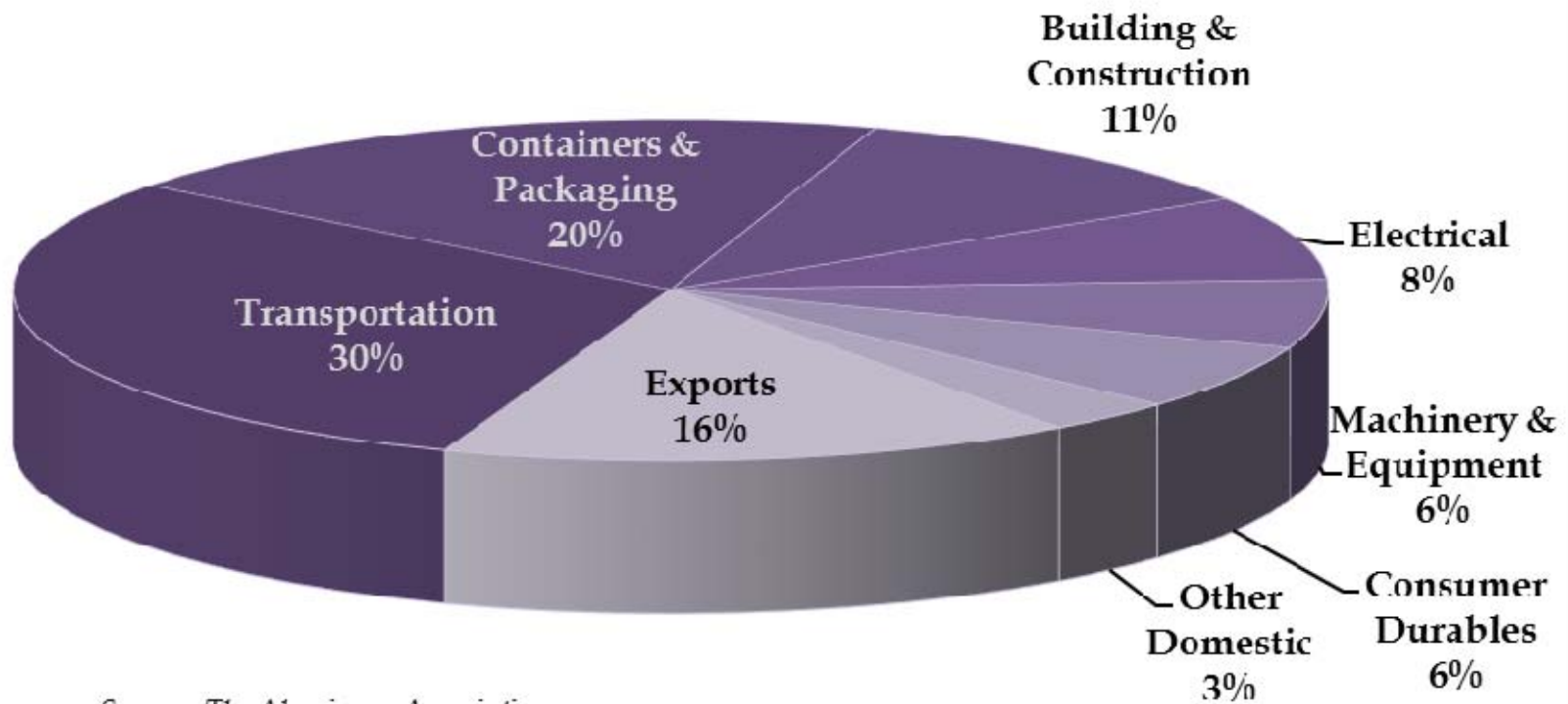
North American Aluminum Supply 2012



Source: The Aluminum Association

North American Aluminum Market Shipments of 23.7 Billion Pounds Almost Equally Split Between Industrial and Consumer Spending

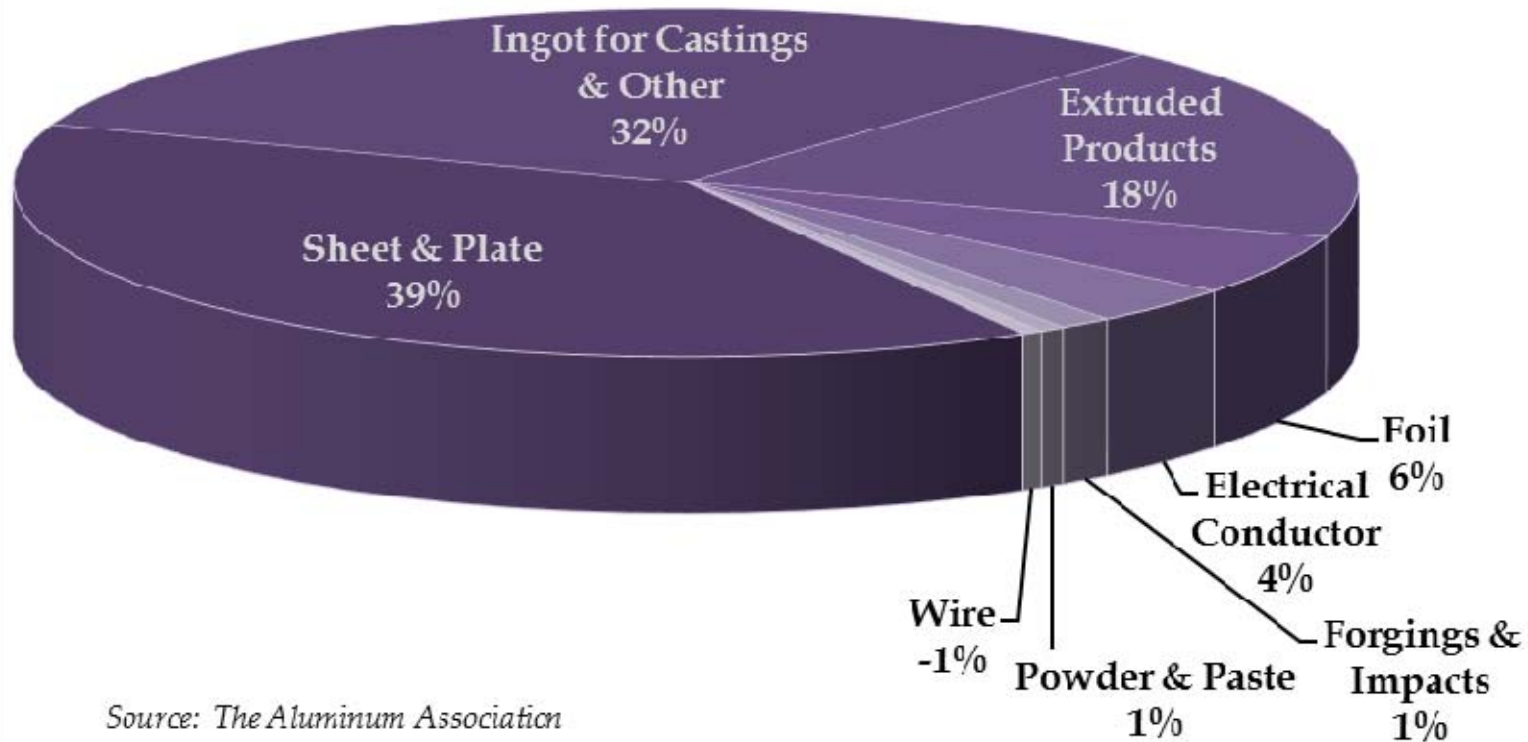
North American Aluminum Shipments by Market 2012



Source: The Aluminum Association

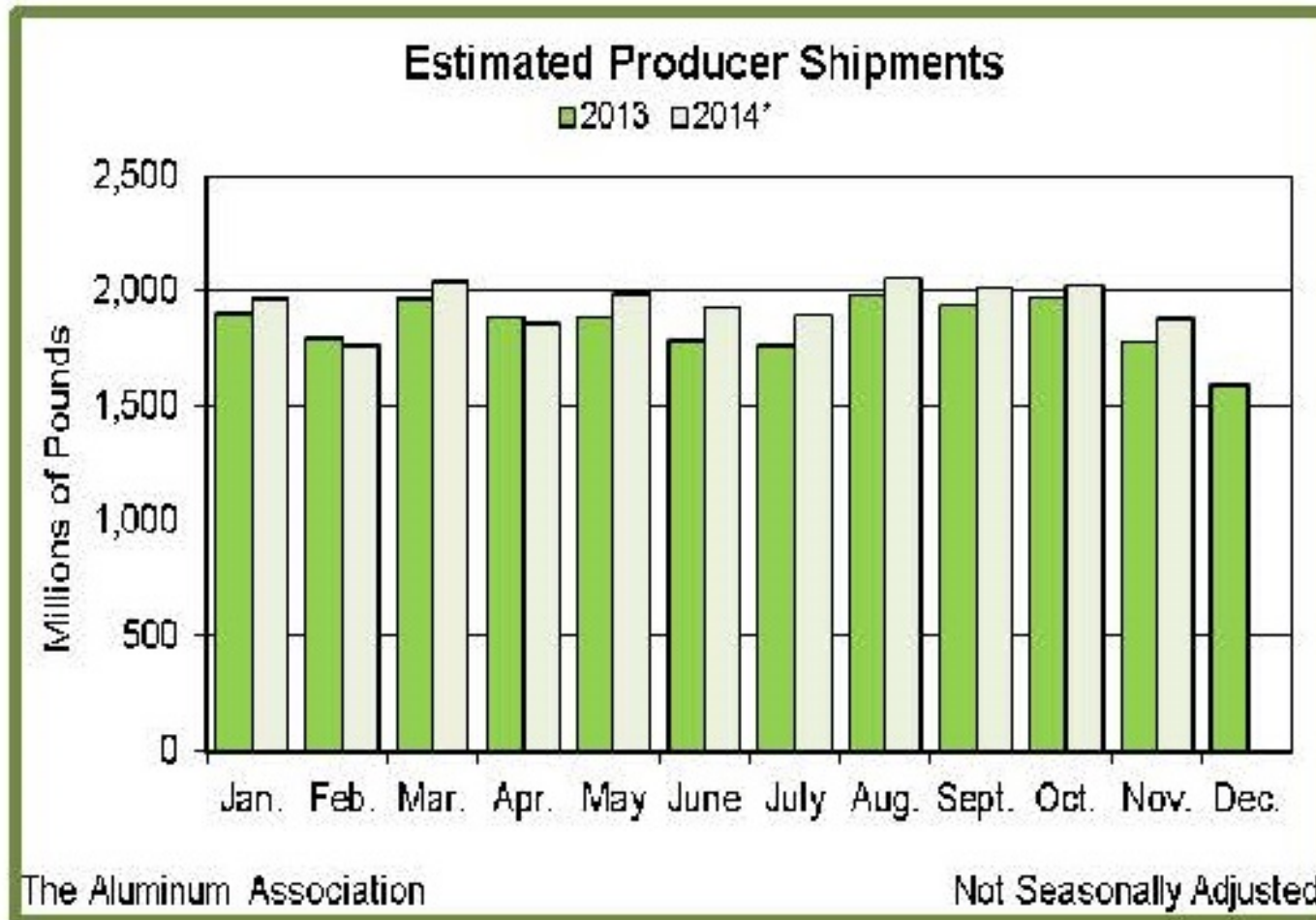
North American Aluminum Sheet & Plate Shipments Account for 39% of the Market While Ingots For Castings Account for 32%

North America Aluminum Shipments by Product 2012

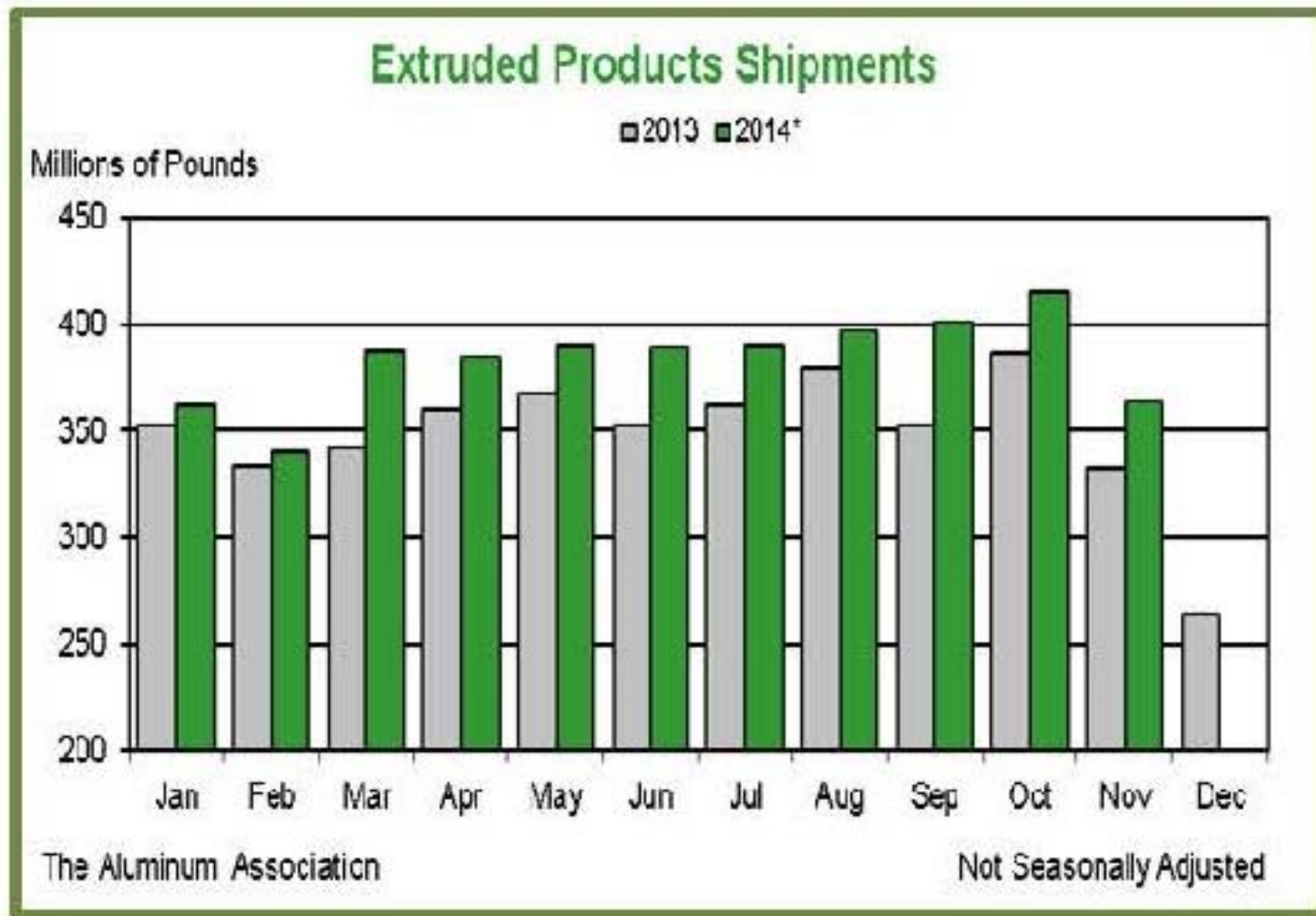


Source: The Aluminum Association

US & Canadian Aluminum Producer Shipments Up 3.7% to 21.4 Million Pounds Through Nov 2014



US & Canadian Aluminum Extruded Products Shipments Up 7.7% to 4.2 Million Pounds Through Nov 2014



MSCI Aluminum Shipments Through November 2014 Were Higher Than The Full Year 2013

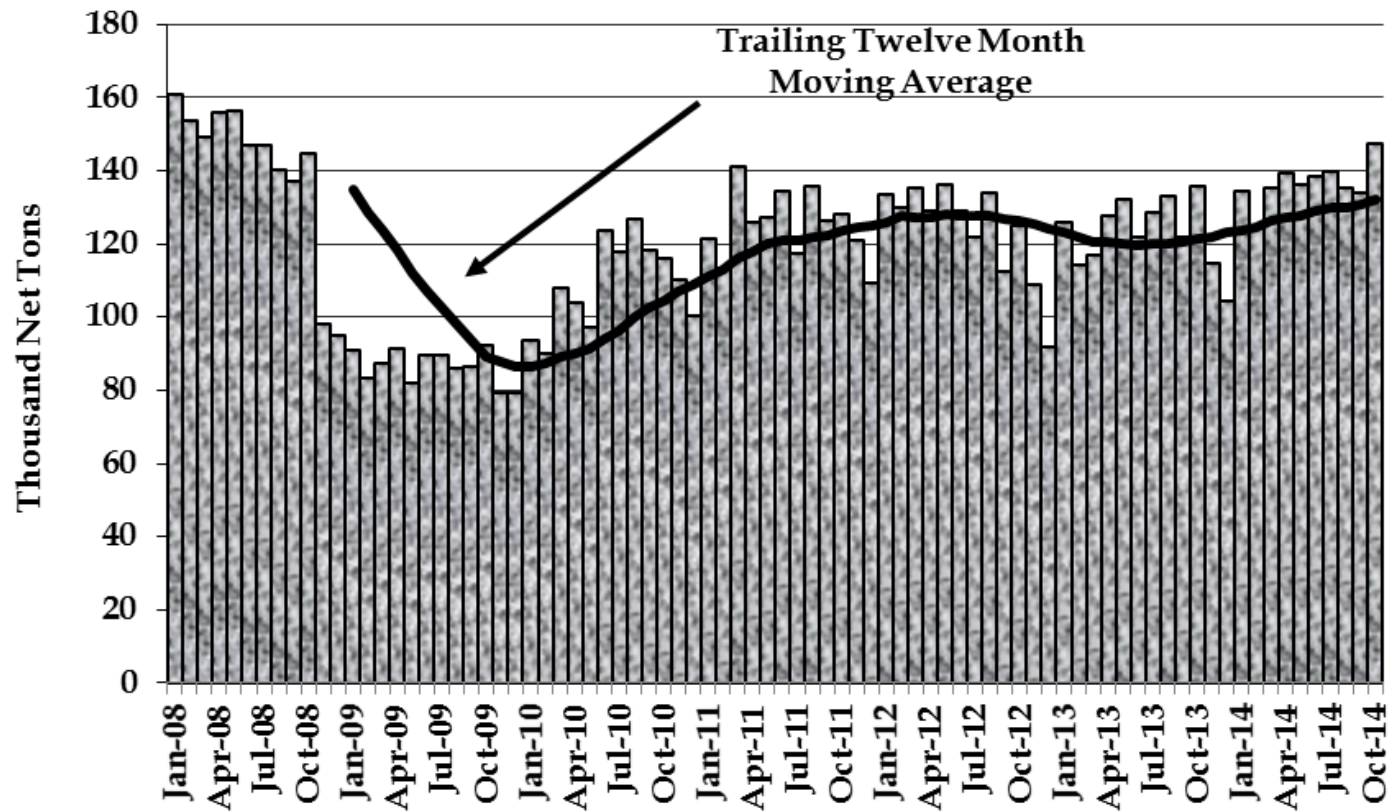
MSCI Aluminum (thousand tons)

	2008	2009	2010	2011	2012	2013	YTD Nov 2014
Total Aluminum							
Shipments	1,686	1,038	1,306	1,501	1,487	1,477	1,481
Ending Inventory	357	279	348	357	366	378	385
Months Supply	2.54	3.23	3.20	2.85	2.95	3.07	
Aluminum Sheet & Coil							
Shipments	644	455	577	668	657	653	667
Ending Inventory	150	111	162	168	173	180	176
Months Supply	2.79	2.92	3.36	3.02	3.16	3.30	

Source: MSCI

MSCI Total Aluminum Shipments Up 16 Consecutive Months On A Trailing Twelve Month Moving Average

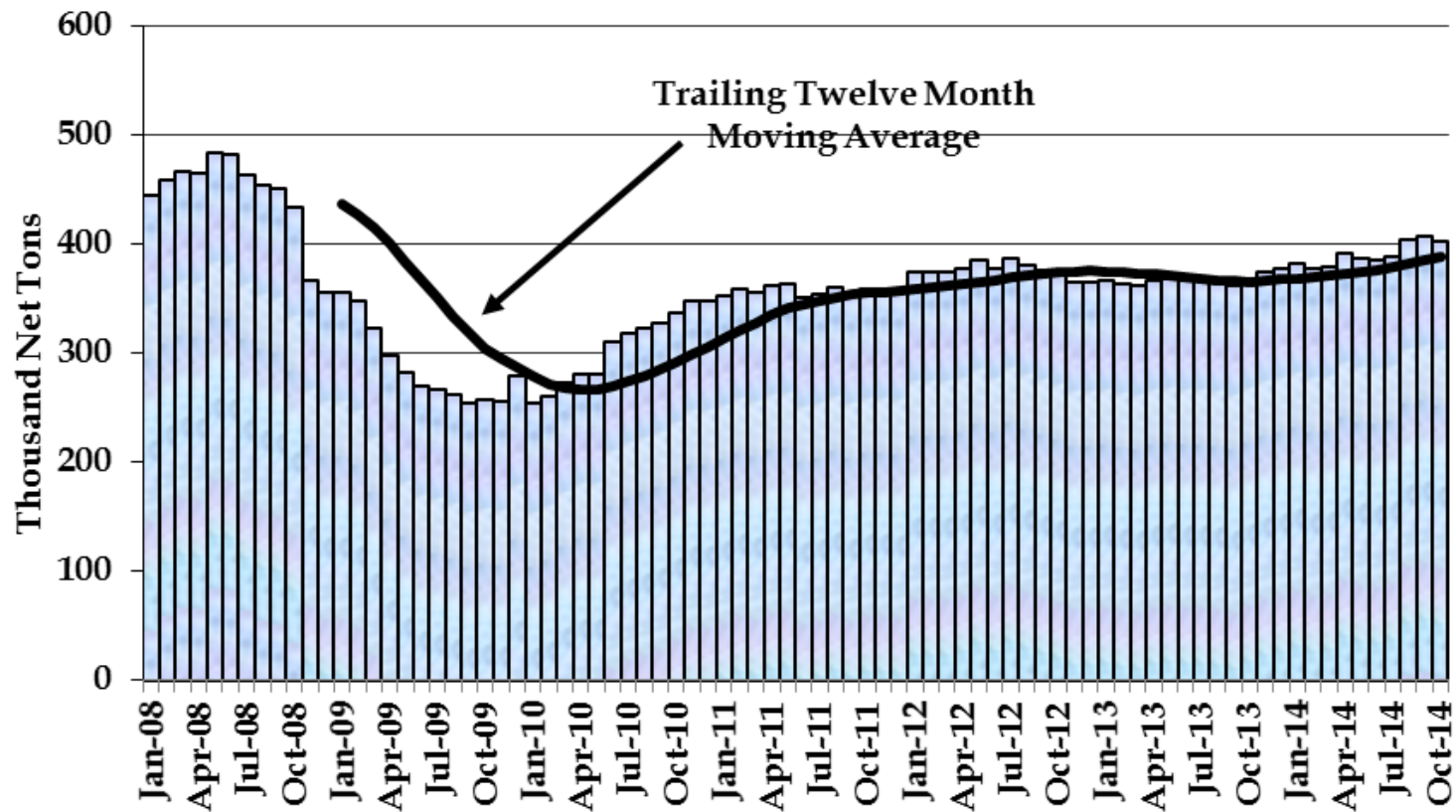
USA Service Center Total Aluminum Shipments



Source: Metal Service Center Institute

MSCI Total Aluminum Inventories Also Building Marginally Over The Same 16 Months

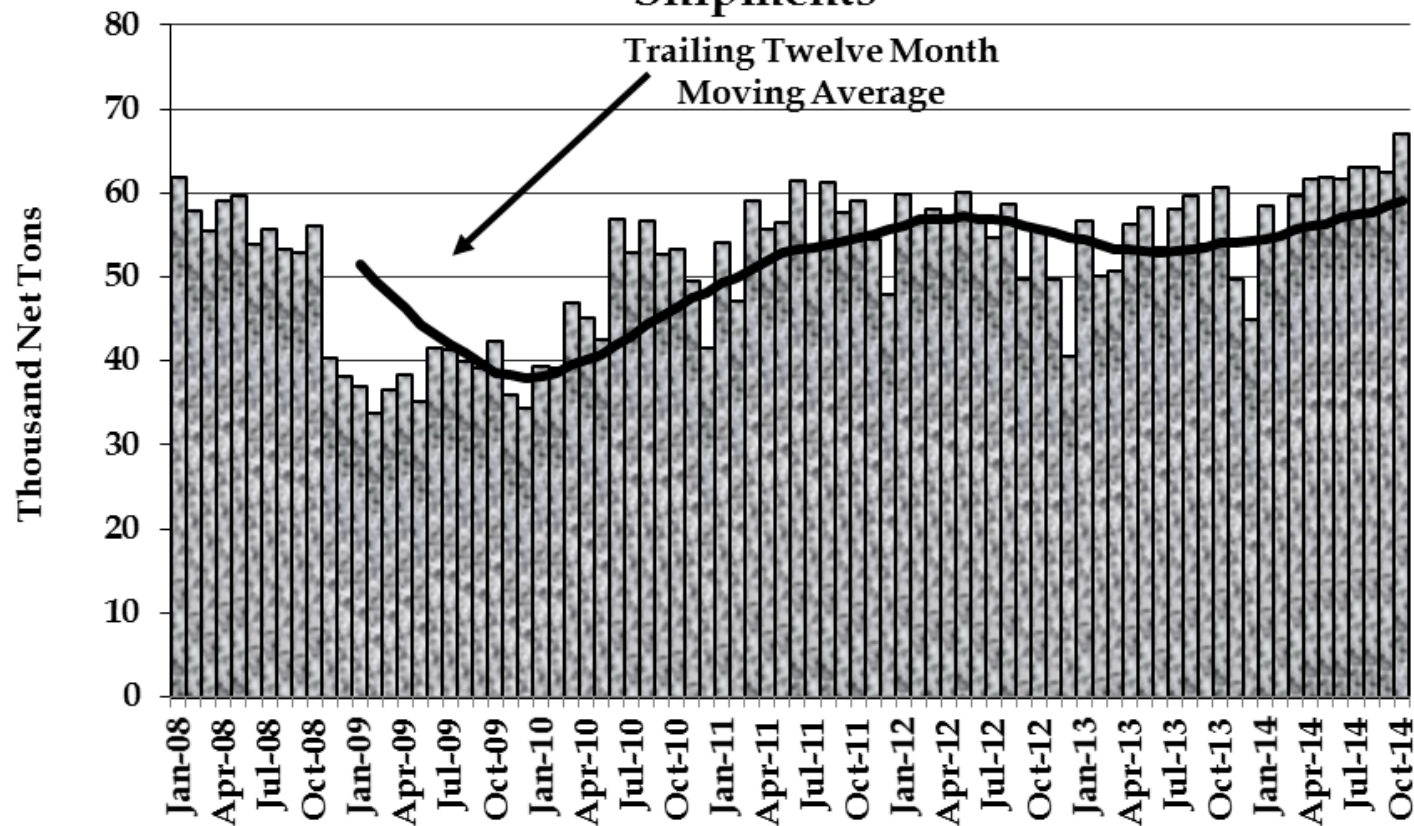
USA Service Center Total Aluminum Inventories



Source: Metal Service Center Institute

MSCI Aluminum Sheet & Coil Shipments Up For 13 Consecutive Months

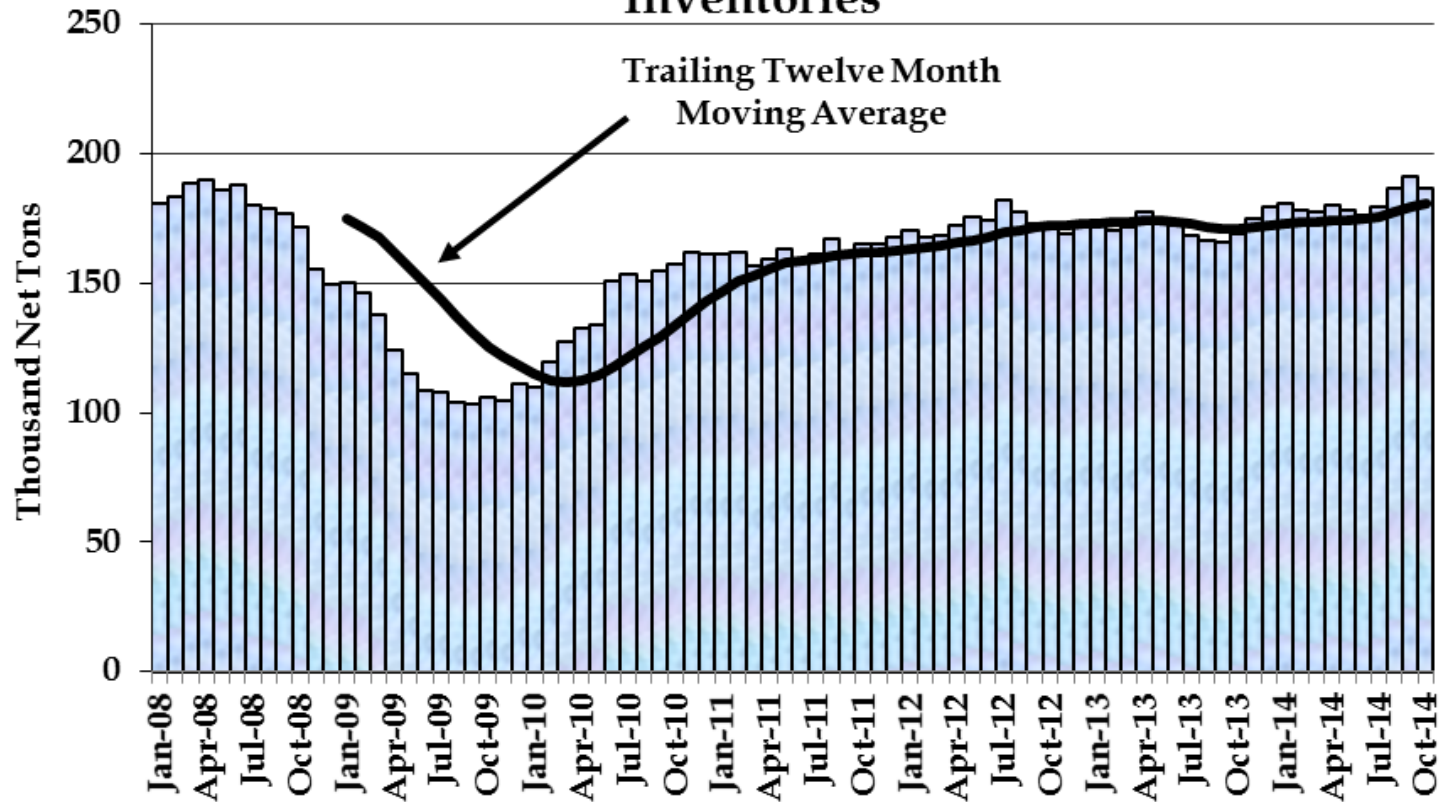
USA Service Center Aluminum Sheet & Coil Shipments



Source: Metal Service Center Institute

MSCI Aluminum Sheet & Coil Inventories Up 20 Thousand Tons in Nov 2014 Compared to Nov 2013







USA Service Center Aluminum Sheet & Coil Inventories



Source: Metal Service Center Institute

Alcoa's End Market Outlook for 2013

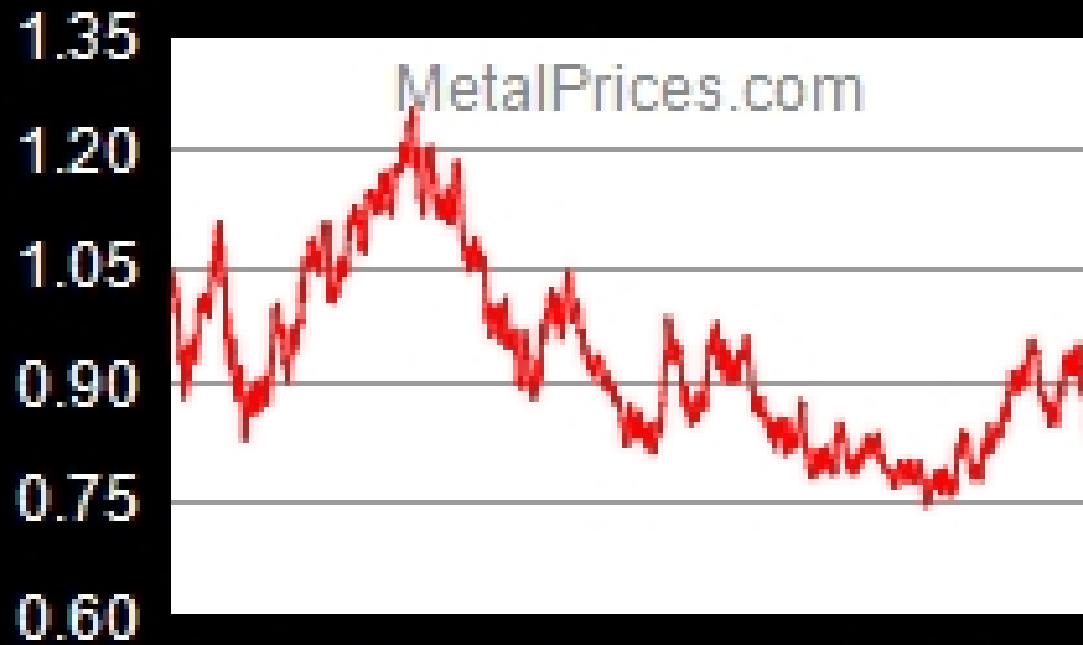
Alcoa End Markets: Current Assessment of 2013 vs. 2012

		North America	Europe	China	Global
	Aerospace				9%-10% sales growth ↑
	Automotive	0%-4% prod growth ↑	1%-4% prod decline ↓	7%-10% prod growth ↑	1%-4% prod growth ↑
	Heavy Truck & Trailer	15%-19% prod decline ↓	6%-10% prod decline ↓	12% - 19% prod growth ↑	2%-7% prod growth ↑
	Beverage Can Packaging	-1%-0% sales flat ↔	2%-3% sales growth ↑	8%-12% sales growth ↑	2%-3% sales growth ↑
	Commercial Building and Construction	1%-2% sales growth ↑	4%-6% sales decline ↓	8%-10% sales growth ↑	4%-5% sales growth ↑
	Industrial Gas Turbine				3%-5% airfoil market growth rate ↑

Source: SBB Platts *How the Aluminum Market Works*, Scott Stewart, Black Hawk Resources

Aluminum Prices Not Always Tied To Industry Fundamentals - "Collapsed" in December in "Sentiment Trading" With Oil

**LME Aluminum Settlement 5 Years -
\$/LB**



11 Jan, 2010 - 09 Jan, 2015

Current Stock Market Valuation – Processors Trading at 0.65x Revenues and 9.8x EBITDA



Comparable Processors/Distributors Valuation Multiples

(\$ per millions, multiple)

Company	Market Capitalization (December 31)	Total Enterprise Value (TEV)	TEV/Revenue	TEV/EBITDA
A. M. Castle & Co. (NYSE:CAS)	187.4	458.9	0.47x	NMF
Carpenter Technologies (CRS)	2,634.9	3,541.0	1.59x	12.2x
Gibraltar Industries, Inc. (NASDAQ:ROCK)	509.2	621.8	0.73x	9.5x
Klöckner & Co SE (XETRA:KCO.DE)	1,081.8	2,092.8	0.27x	8.6x
Metals USA-Buyout Valuation	766.8	1,203.1	0.61x	8.6x
Olympic Steel Inc. (NASDAQ:ZEUS)	197.7	461.6	0.33x	11.8x
Reliance Steel & Aluminum Co. (NYSE:RS)	4,783.6	7,087.4	0.70x	8.8x
Russel Metals (RUS.TO)	1,370.5	1,909.8	0.45x	6.8x
Ryerson, Inc.	273.1	1,414.5	0.40x	10.4x
Worthington Industries, Inc. (NYSE:WOR)	2,013.4	2,602.5	0.98x	11.8x

⁽¹⁾ Valuation when purchased by RESC April 15, 2013

Average Multiple

Mean	0.65x	9.8x
Median	0.54x	9.5x
Max	1.59x	12.2x
Min	0.27x	6.8x

NOTE: Figures are subject to substantial error. No investment decision should be taken based on information in this table.

Source: Company Reports, Jefferies Research & Yahoo Finance

Steel-Insights, LLC – “Seeing” What Others Don’t

In WWII, American submarine commanders endured despite being outclassed by superior equipment and outgunned (fully functioning torpedoes weren’t available to them for the first 21 months of the Pacific War). In the fog of war, as often is the case in business, decisions with long impacting outcomes have to be made without the luxury of complete or definitive information.

Steel-Insights was formed to assist executive management teams navigate the “noise of battle” by more effectively managing the abundant resources available today and



harnessing those resources to explore thought provoking and penetrating issues in order to magnify the pivotal decisions required for the long-term success of their companies in arguably tough industries that must survive challenging cycles, i.e. training and empowering submarine commanders.

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Conclusion & Questions



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