

# GLOBAL COAL MARKET OVERVIEW

*LONGWALL USA 2019 – PITTSBURGH, PA*

# AGENDA

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- Xcoal business update
- Drivers behind strength in global coal prices
- Market catalysts to watch
- Short term outlook
- Wrap up

An aerial photograph showing several railcars filled with coal on a railway track. The railcars are arranged in a line, and the coal is piled high inside each. The tracks are visible on the right side of the image. A dark horizontal bar is overlaid across the middle of the image, containing the text "XCOAL BUSINESS UPDATE".

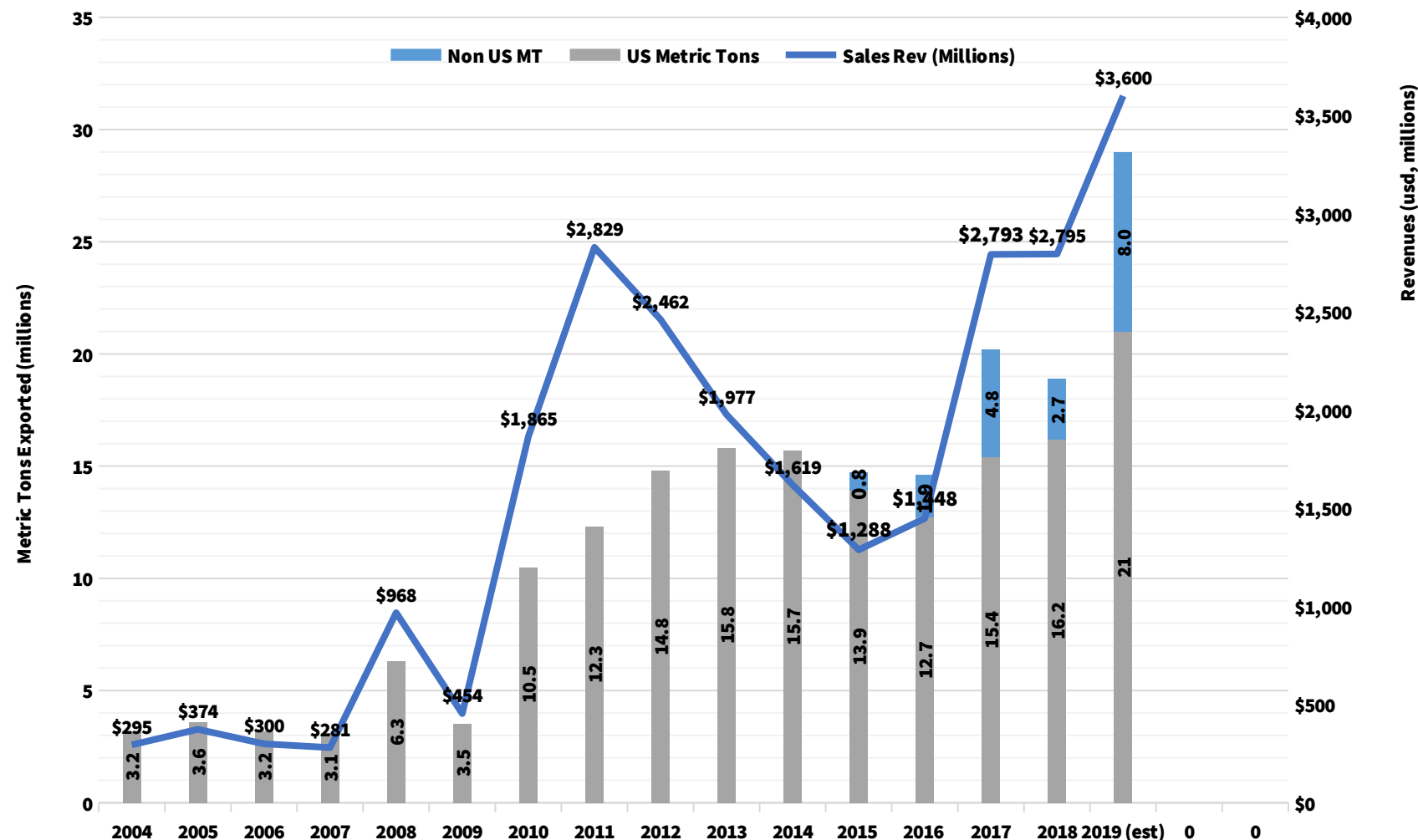
# XCOAL BUSINESS UPDATE

# XCOAL'S STRATEGY AND FOCUS ON GROWTH

- **Team of +100 professionals in 20 global offices support our focus on international coal marketing and logistics**
- **U.S. continues as core of activities with a goal of also building volumes outside of U.S. to match those from the U.S.**
- **Actively pursuing investment opportunities in coal mines, infrastructure, and related businesses around the world**
- **Investment activities supported by contract mining group Xcoal Mining Services Pty based in Emerald, Queensland, Australia**
- **Establishing niche businesses to grow in mature markets via trading businesses and stock and sale distribution (Xcoal Germany GmbH and Xcoal France SAS)**
- **Creative and competitive transport and logistics company with complete supply chain ownership**

# XCOAL HISTORICAL REVENUE AND VOLUMES

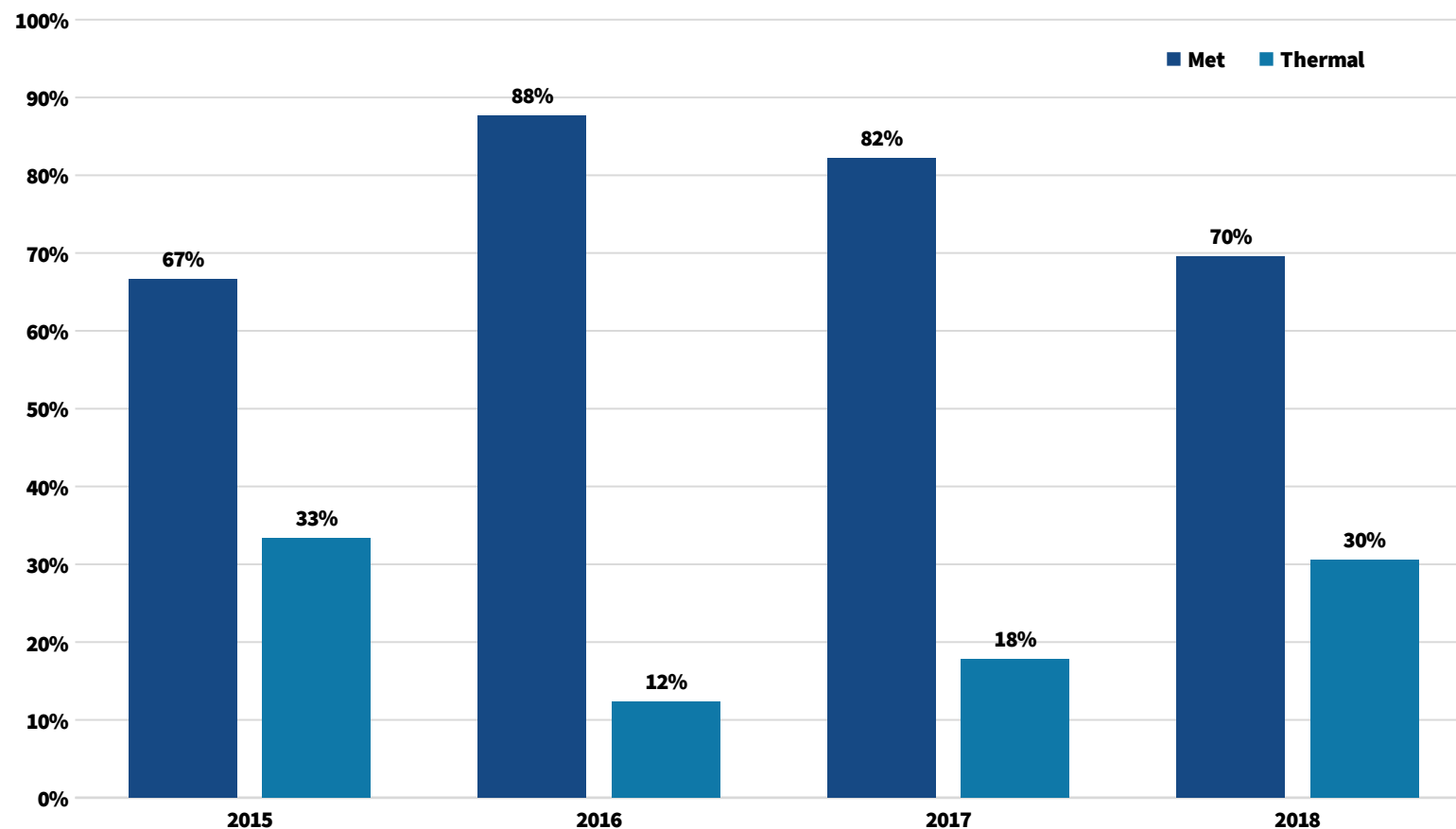
- **Business on pace for 26-29 MMT of physical sales in 2019 with an estimated revenue of US\$3.6 billion**
- **Continued investment in team with focus on growth**



# PRODUCT MIX: COKING VS. THERMAL

- **Coking coal volumes lead our activities but thermal volumes increasing year over year supported by higher volumes of high energy content Pittsburgh #8 Seam coal from CONSOL Energy**

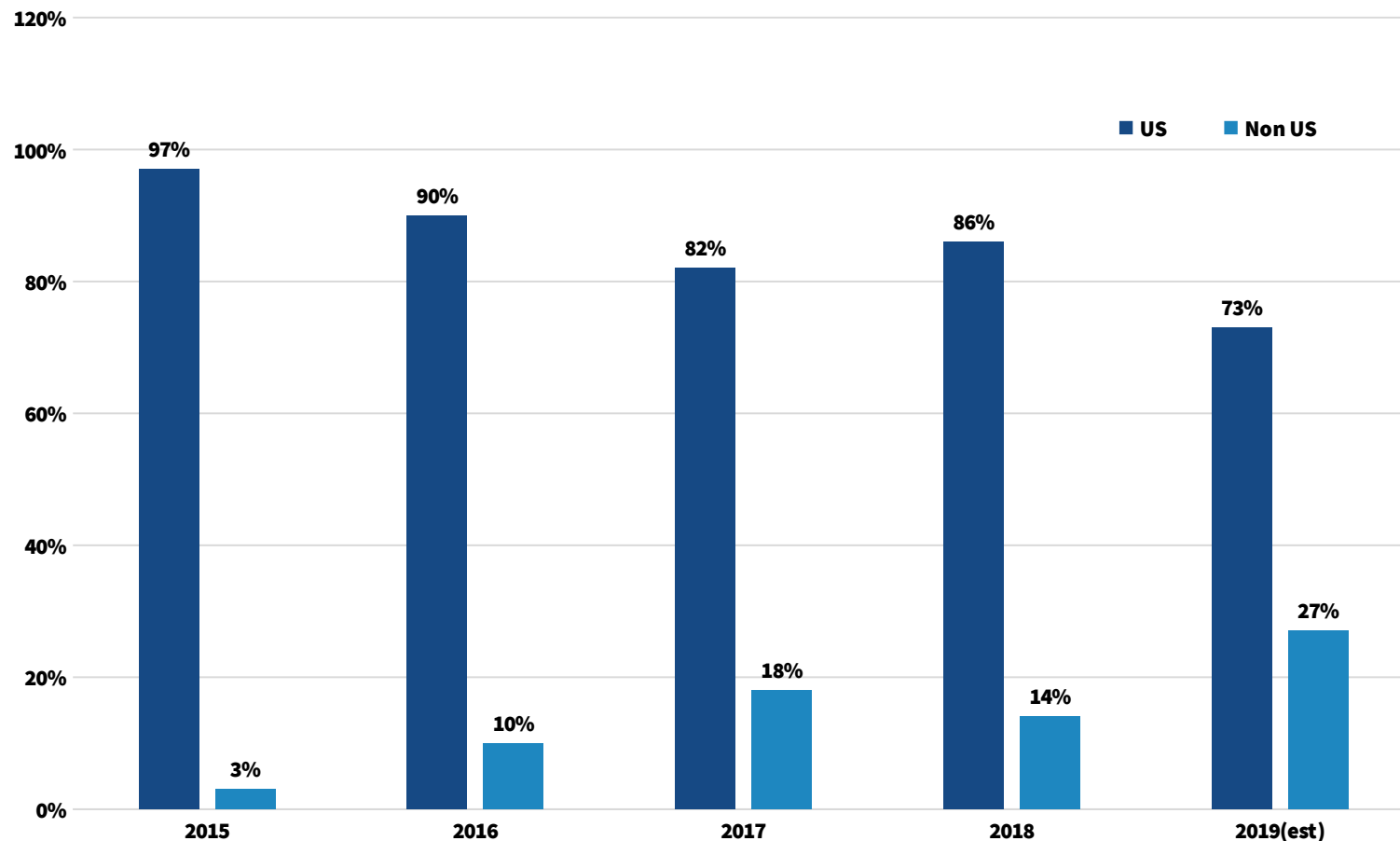
**Product Diversification - Met vs Thermal**



# GEOGRAPHIC SUPPLY DIVERSIFICATION

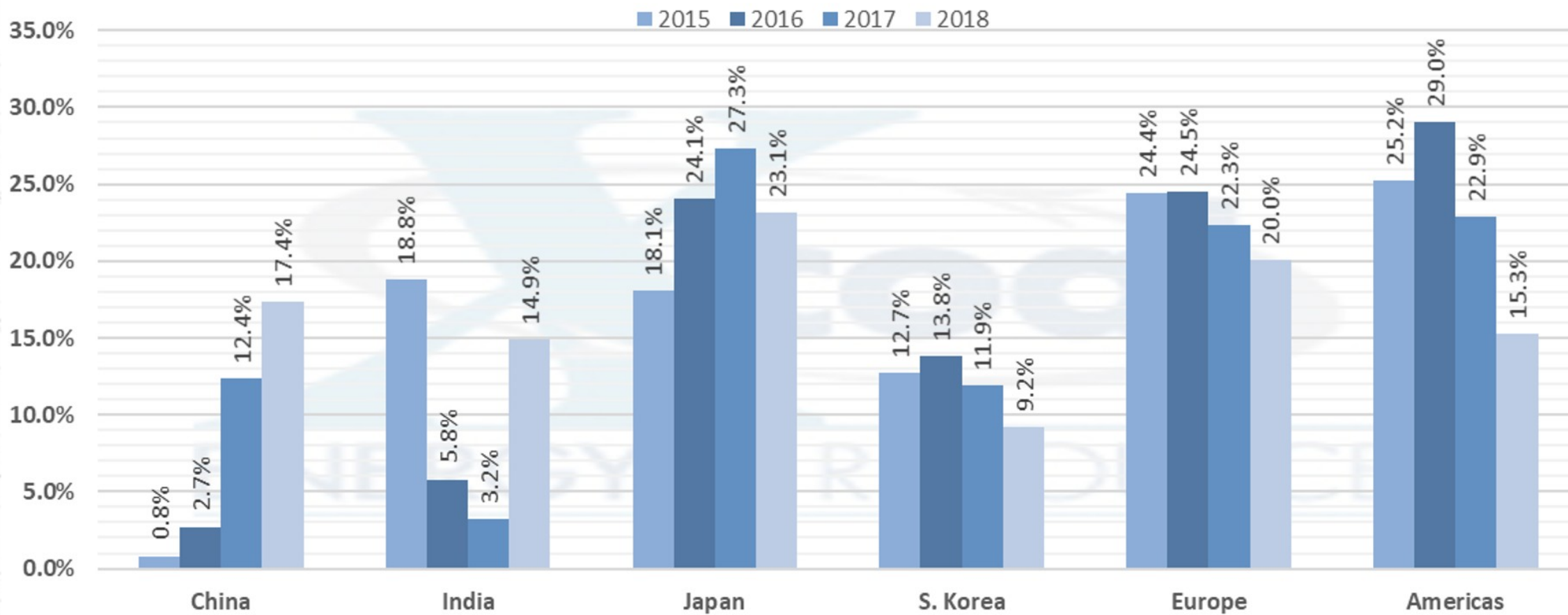
- **Growth in non-US supply provides a natural hedge for Xcoal's core U.S. base and makes Xcoal a stronger customer, counterparty, supplier, and partner**
- **Ultimate diversification goal of 50% / 50%**

**Sourcing Diversification - US vs Non US**



# GEOGRAPHIC SALES DIVERSIFICATION

- **Diversification of customer base creates a natural hedge to business and limits exposure to any one region**





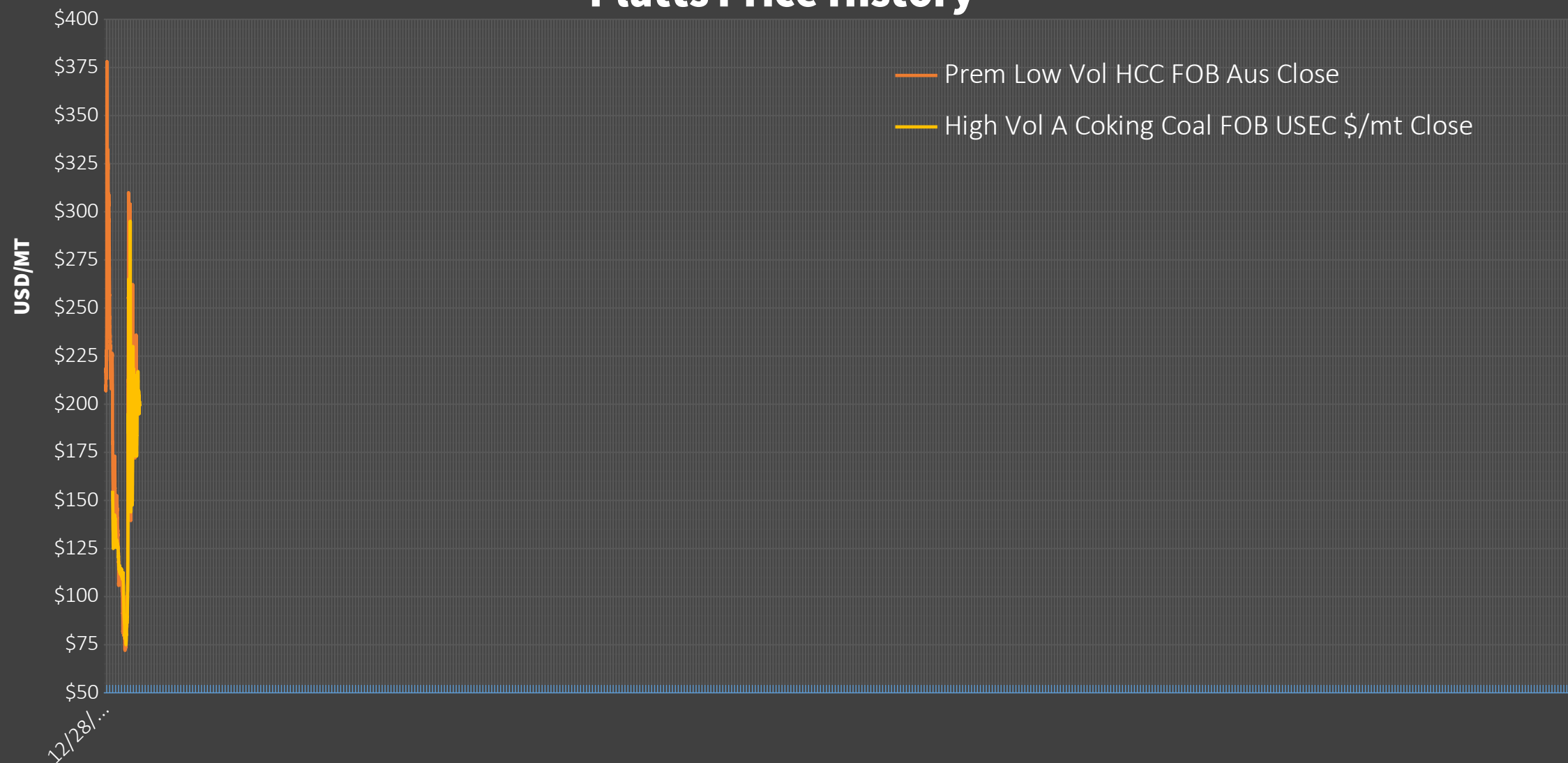


# DRIVERS BEHIND STRENGTH IN GLOBAL COAL PRICES

# THREE YEARS INTO BULL MARKET – WHAT HAVE WE LEARNED?

- Seaborne thermal and coking coal prices remained strong amid growing demand and a limited supply response since market bottoming in 1H 2016.
- Coking coal: favorable demand growth amid global economic expansion; supply growth (excluding the U.S.) limited and impacted by intermittent supply disruptions and mine outages along with infrastructure constraints.
- Thermal coal: Asian demand growth absorbed Pac Basin supply and pulled more U.S. / S Africa / Colombia thermal into Asia.
- Trade disputes lead to tariffs against U.S. coal, impacting ability to win business in China and Turkey. Tariffs did not influence total demand but rather trade flows.

## Platts Price History



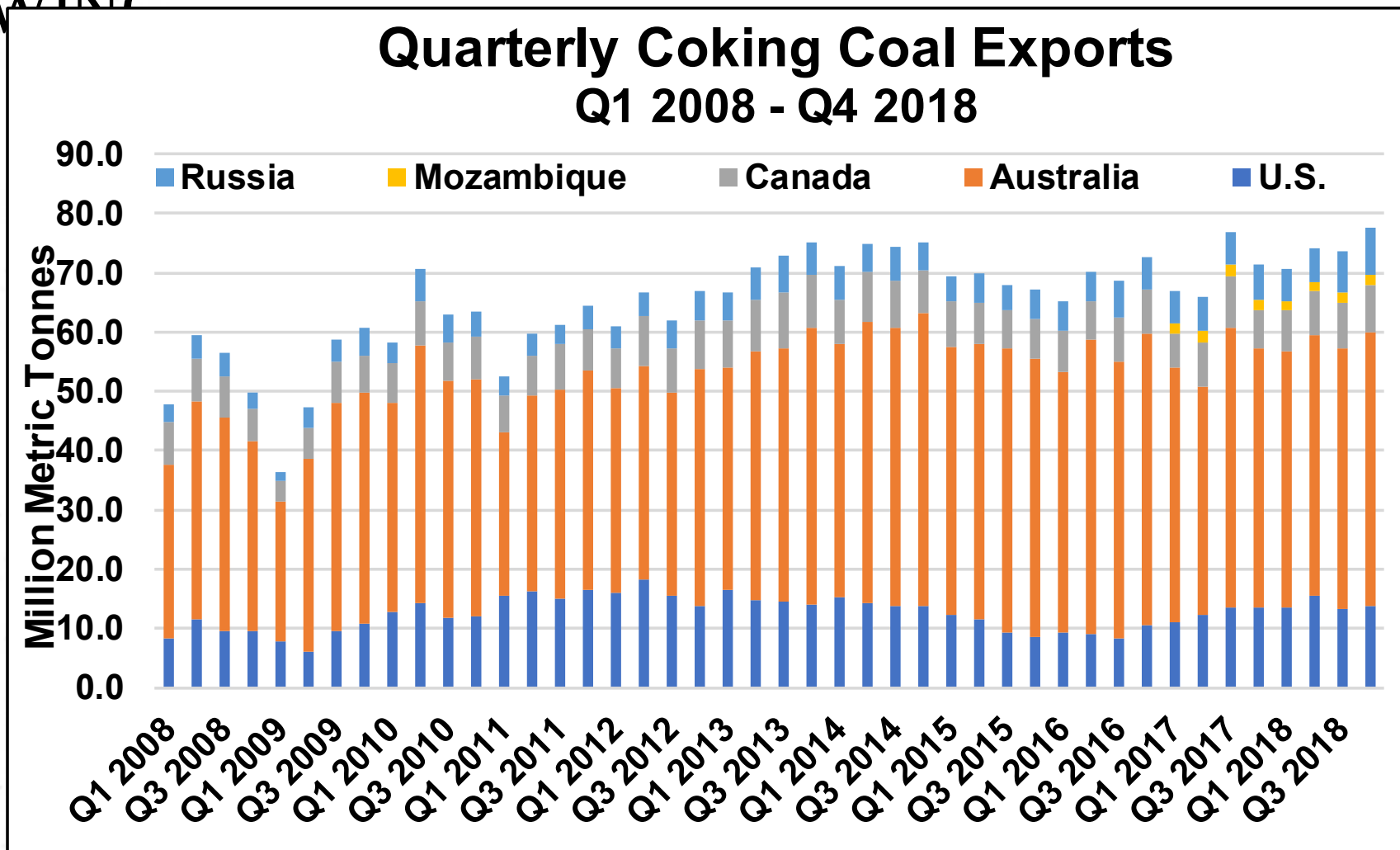
# U.S. ACCOUNTS FOR 38% OF 2018 SEABORNE COKING COAL SUPPLY GROWTH

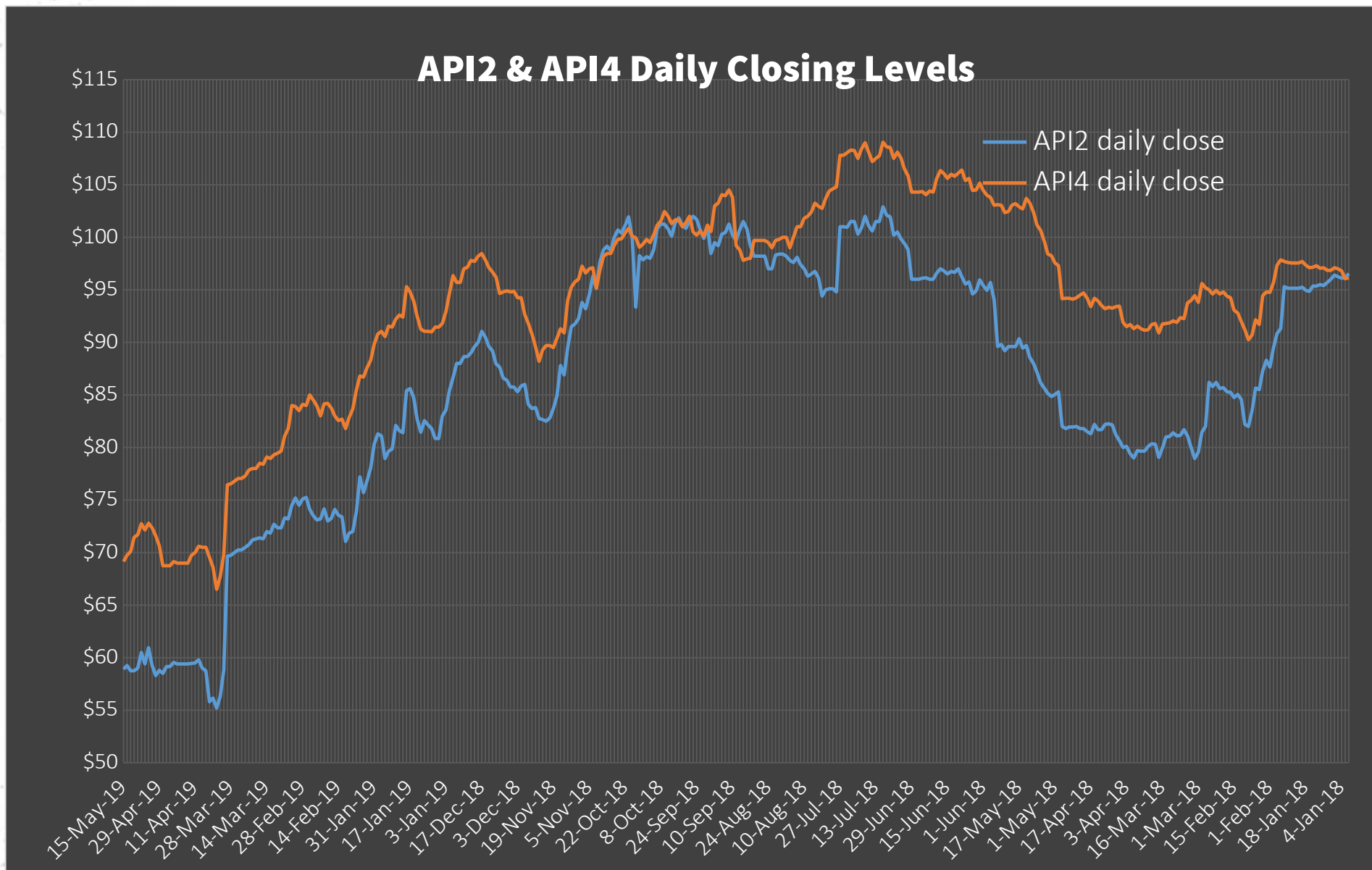
- PLV prices averaged \$200/MT FOB AUS over course of 2018
- Annualized global exports show seaborne growth of 14.95 MMT in 2018, despite prices that render nearly all assets and development projects profitable
- The U.S. provided most of the seaborne coking coal supply growth, but exports ‘topping out’
- Limited investment in new supply, and replacement supply, to keep supply side in check

Global Coking Coal Exports (MMT)			
	2018	2017	YoY Change
<b>US</b>	<b>55.80</b>	<b>50.13</b>	<b>5.68</b>
<b>Australia</b>	<b>177.55</b>	<b>172.75</b>	<b>4.80</b>
<b>Russia</b>	<b>26.41</b>	<b>22.76</b>	<b>3.66</b>
<b>Canada</b>	<b>30.16</b>	<b>28.41</b>	<b>1.75</b>
<b>Mozambique</b>	<b>6.24</b>	<b>7.18</b>	<b>-0.94</b>
<b>Total</b>	<b>296.16</b>	<b>281.22</b>	<b>14.95</b>

**Source: McCloskey**

# VELOCITY OF COKING COAL SUPPLY GROWTH IS SLOWING





# U.S. SUPPLIES MAJORITY OF HIGH ENERGY THERMAL COAL EXPORT

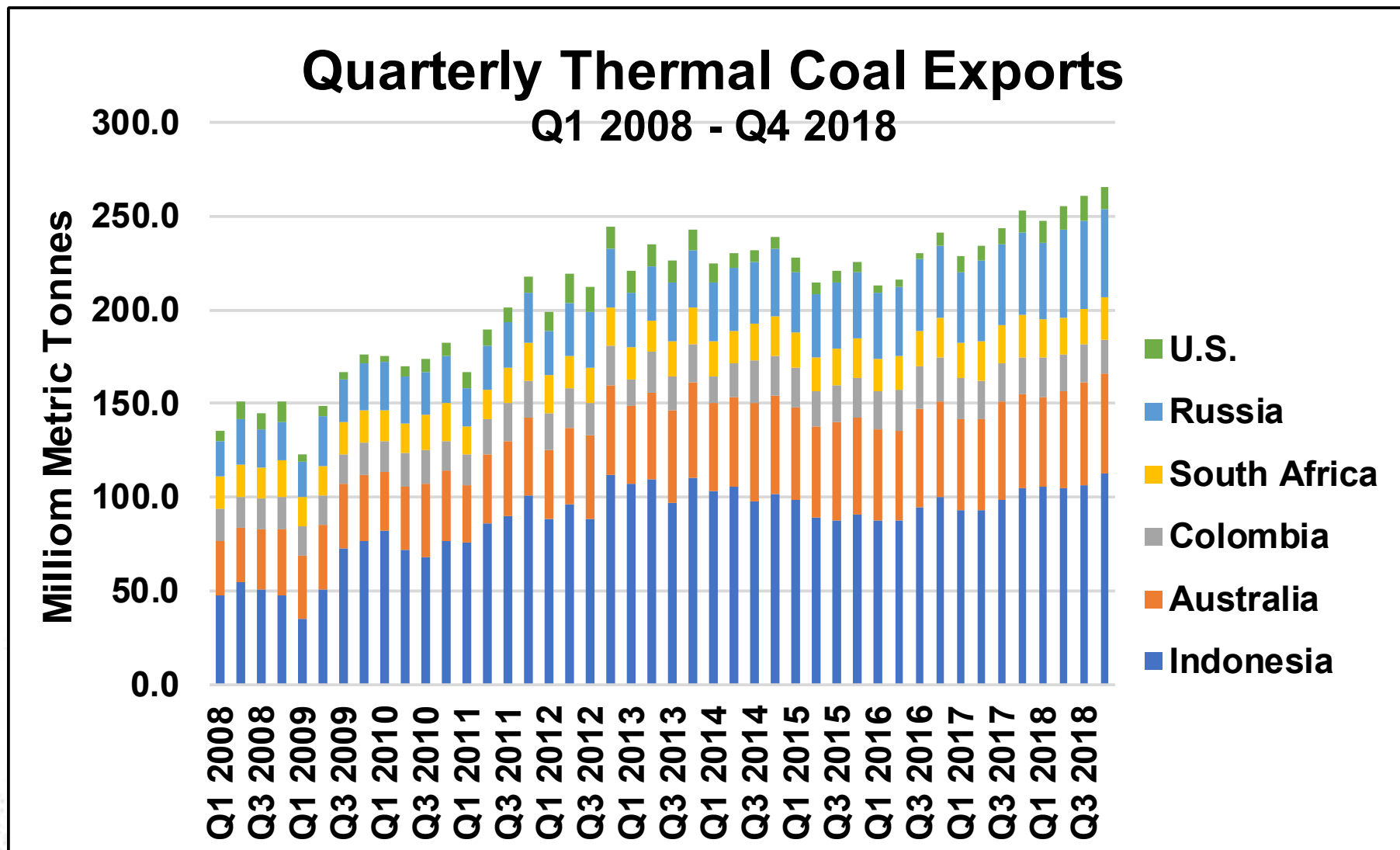
## GROWTH

- Seaborne thermal prices elevated throughout 2018, but quality differentials grew amid low grade supply growth
- U.S. posting strongest growth on relative basis (30%)
- Indonesia delivering majority of growth, but concentrated in lower grade coals and lignite
- Russia up amid forex benefit
- Australian output up marginally but concentrated in 5,500 kcal supplies
- Colombia down marginally on production issues
- S Africa down amid domestic coal shortages

Global Thermal Coal Exports (MMT)			
	2018	2017	YoY Change
Indonesia	428.85	388.75	+40.1
Russia	183.18	167.35	+15.83
United States	48.84	37.54	+11.3
Australia	207.67	200.04	+7.63
Colombia	80.00	83.17	-3.17
South Africa	80.99	83.14	-2.15
Total	1,029.53	959.99	69.54

Source: IHS McCloskey

# GLOBAL THERMAL COAL SUPPLY HITTING NEW HIGHS





# THE U.S. POSTS STRONGEST GROWTH AMID 'MAJORS'

- **Fact that U.S. can nearly double exports in a 2 year period is a great customer service to coal buyers around the world**
- **Ability of the U.S. to materially grow exports in response to market prices suggests 'swing', but exports never went away**
- **Other exporting countries more reliant on seaborne market due to lack of domestic demand**
- **Maintaining reliable rail and port infrastructure key to allowing exports to ramp up during strong demand**
- **Favorable long term outlook for U.S. as reliable counterparty for coal exports**

Total Coal Export Growth – 2018 vs 2016	
	Change
<b>U.S.</b>	<b>+94.82%</b>
<b>Indonesia</b>	<b>+15.8%</b>
<b>Australia</b>	<b>+1.99%</b>
<b>Source: IHS McCloskey</b>	



# MARKET CATALYSTS TO WATCH

- Coal demand (met and thermal) highly correlated with economic growth, and slowing global economic momentum must be watched
- YTD pig iron production **down 1.3%** in world excluding China
- China and India economic outperformers, helping offset weakness elsewhere (primarily Eurozone)
- Central bank ‘fire-power’ running dry after years of loose monetary policy
- What impact will next economic downturn have on coal demand?

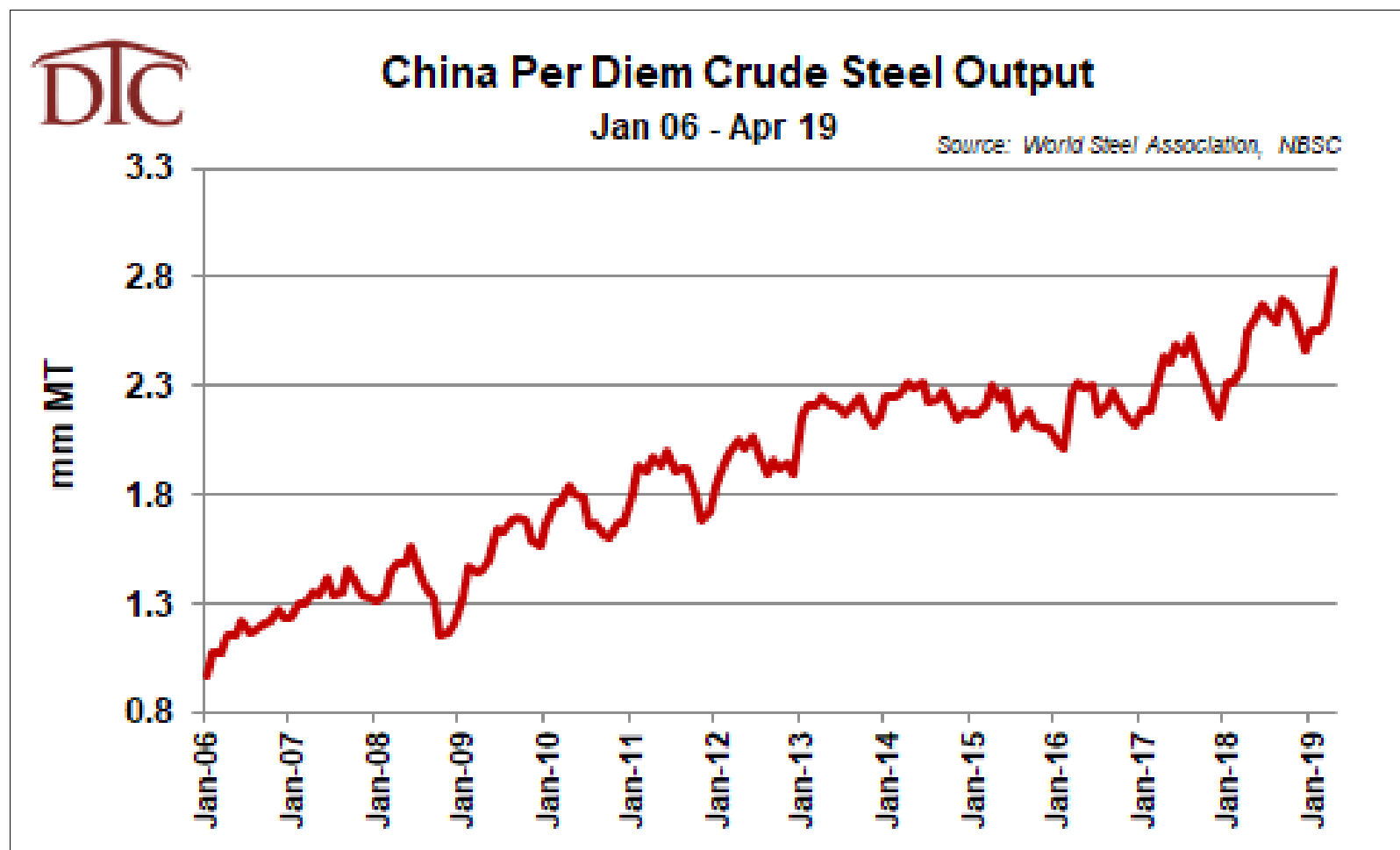
OECD Economic Outlook Projections: Real GDP Growth			Global Pig Iron Production (YTD Mar19)	
	2018	2019F	2019 YTD (000 MT)	YTD YoY Change
<b>China</b>	<b>6.6%</b>	<b>6.2%</b>	<b>194,901</b>	<b>+9.3%</b>
<b>India</b>	<b>7.0%</b>	<b>7.2%</b>	<b>18,845</b>	<b>+6.4%</b>
<b>Japan</b>	<b>0.7%</b>	<b>0.8%</b>	<b>18,335</b>	<b>-7.1%</b>
<b>Korea</b>	<b>2.7%</b>	<b>2.6%</b>	<b>11,739</b>	<b>+0.4%</b>
<b>Brazil</b>	<b>1.1%</b>	<b>1.9%</b>	<b>6,921</b>	<b>-0.1%</b>
<b>Eurozone</b>	<b>1.8%</b>	<b>1.0%</b>	<b>23,174</b>	<b>-1.9%</b>
<b>Germany</b>	<b>1.4%</b>	<b>0.7%</b>	<b>6,788</b>	<b>-2.5%</b>
<b>France</b>	<b>1.5%</b>	<b>1.3%</b>	<b>2,582</b>	<b>-7.2%</b>
<b>Italy</b>	<b>0.8%</b>	<b>-0.2%</b>	<b>1,208</b>	<b>-2.4%</b>
<b>Turkey</b>	<b>2.9%</b>	<b>-1.8%</b>	<b>2,650</b>	<b>-2.6%</b>
<b>World</b>	<b>3.6%</b>	<b>3.3%</b>	<b>310,928</b>	<b>5.1%</b>

Source: OECD Interim Economic Outlook, March 6, 2019

World Steel Association

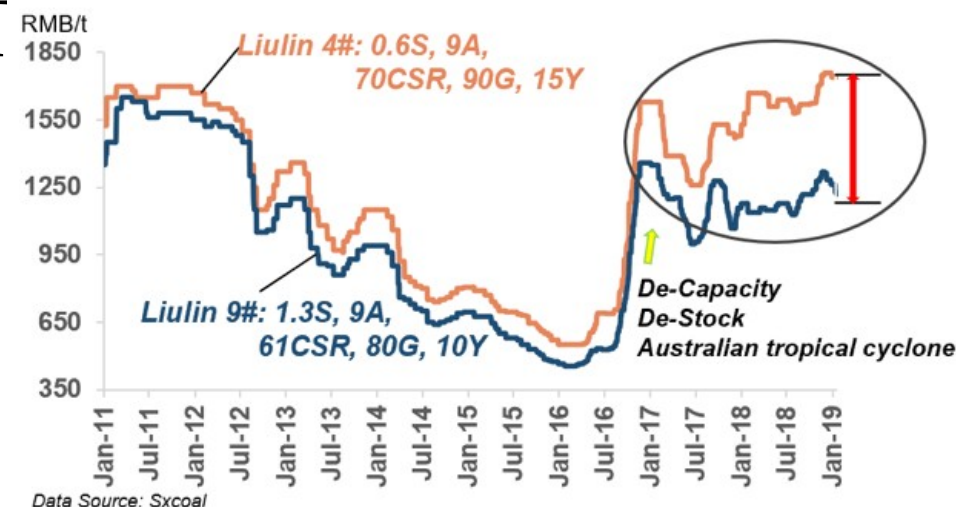
# CHINA: RECORD SETTING STEEL PRODUCTION

- **March and April 2019 were record setting steel production months**
- **YTD crude steel production at 315Mmt, up 10.1% YoY**
- **YTD pig iron production at 263Mmt, up 9.6% YoY**



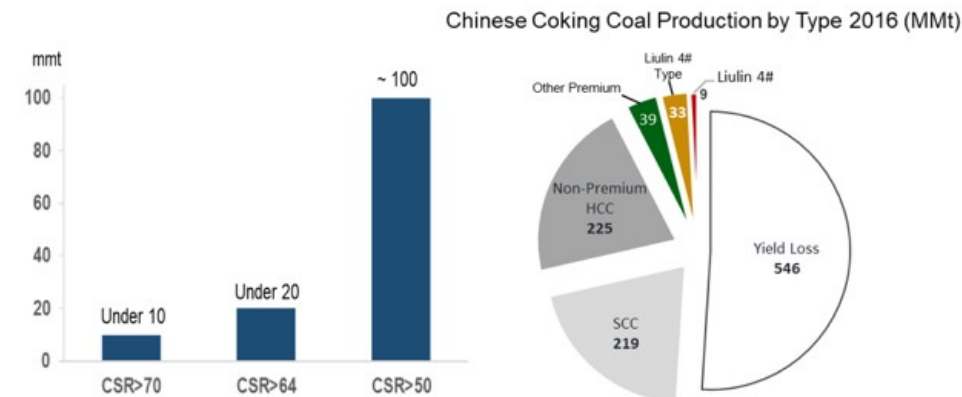
# CHINA COKING COAL IMPORTS NEEDS UNDERPINNED BY QUALITY

- **Steel capacity cuts in China boosting demand for premium coking coal as coke producers shift to sell higher quality coke and enhance profits**
- **Environmental control policy supporting low sulfur coking coal demand, contributing to high prices**
- **The price gap between low sulfur and high sulfur coking coal widened for past 24 months**
- **Sulfur content in China will continue to rise as coal mines get deeper**
- **China produces just ~80 MMT of premium coking coal each year, and just ~40 MMT has sulfur <1%.**



## Low S-Primary Coking Coal Supply

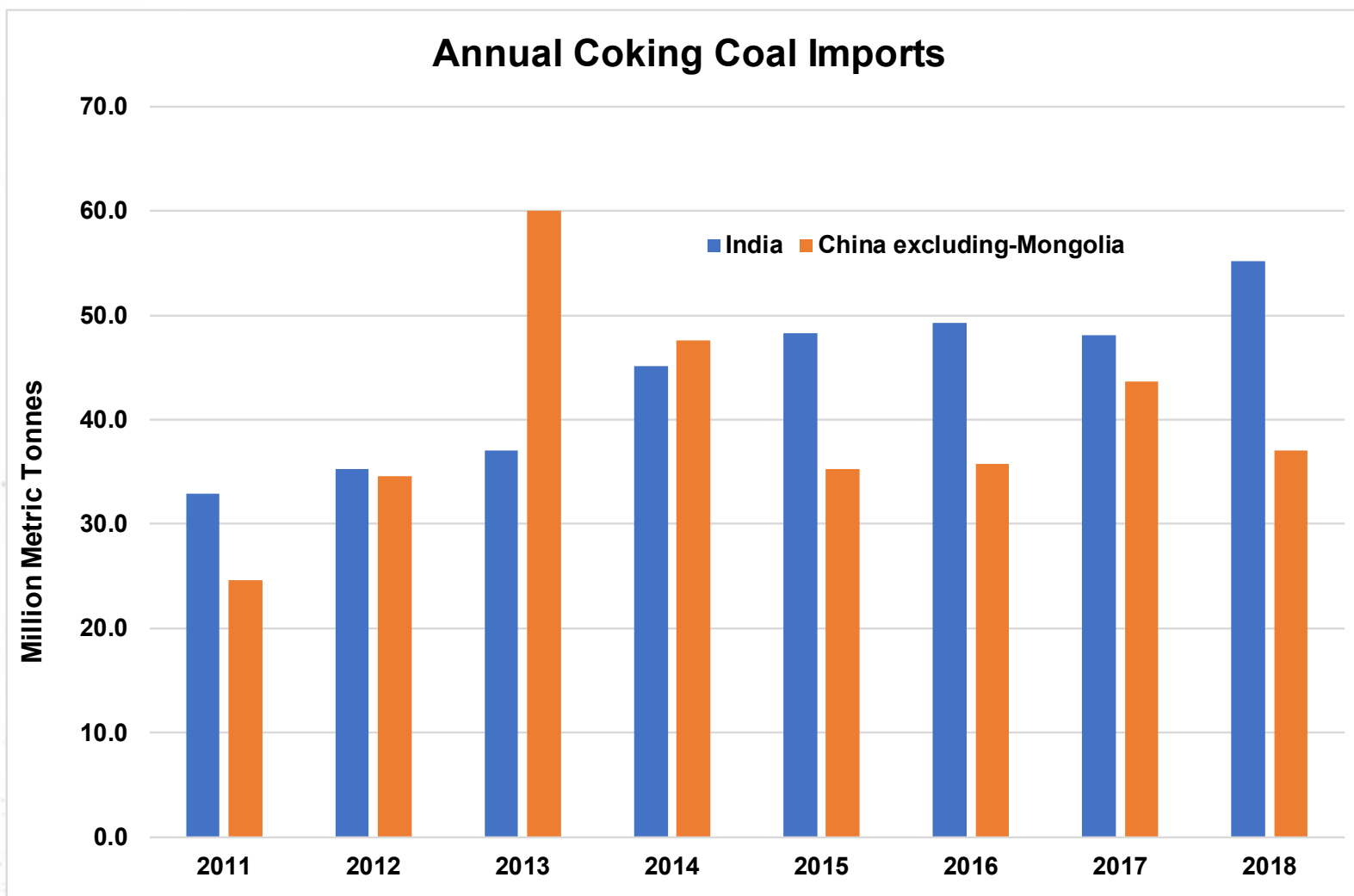
Data Source: WoodMackenzie Analysis on Chinese Premium Coking Coal Capacity



# CHINA: RESTRICTIONS ON AUSTRALIAN COAL AN OPPORTUNITY FOR U.S.?

- After Nov / Dec '18 slowdown, buyers resumed importing thermal and coking coal in January 2019 once customs restrictions at ports eased
- China's customs clearance on Australian coal imports has since slowed again, and while no official mandate to restrict Australian cargoes, ports behaving differently with customs clearance
- Despite trade war and import tariffs, China continues to show interest in low ash, low sulfur, low vol coking coal from the U.S.
- Customers expressing interest in U.S. coking coal, and buyers understand they need to absorb at least some of the additional 25% import tariff if they buy U.S. coking coal
- Outcome of government trade talks not yet final, but coal identified as key negotiating chip and way to reduce trade deficit
- Upon trade war resolution, China may shift to buy U.S. thermal and coking coal, and expense of Australia

# INDIA REIGNS AS LARGEST BUYER OF SEABORNE COKING COAL, DELIVERING STEADY AND METHODICAL GROWTH



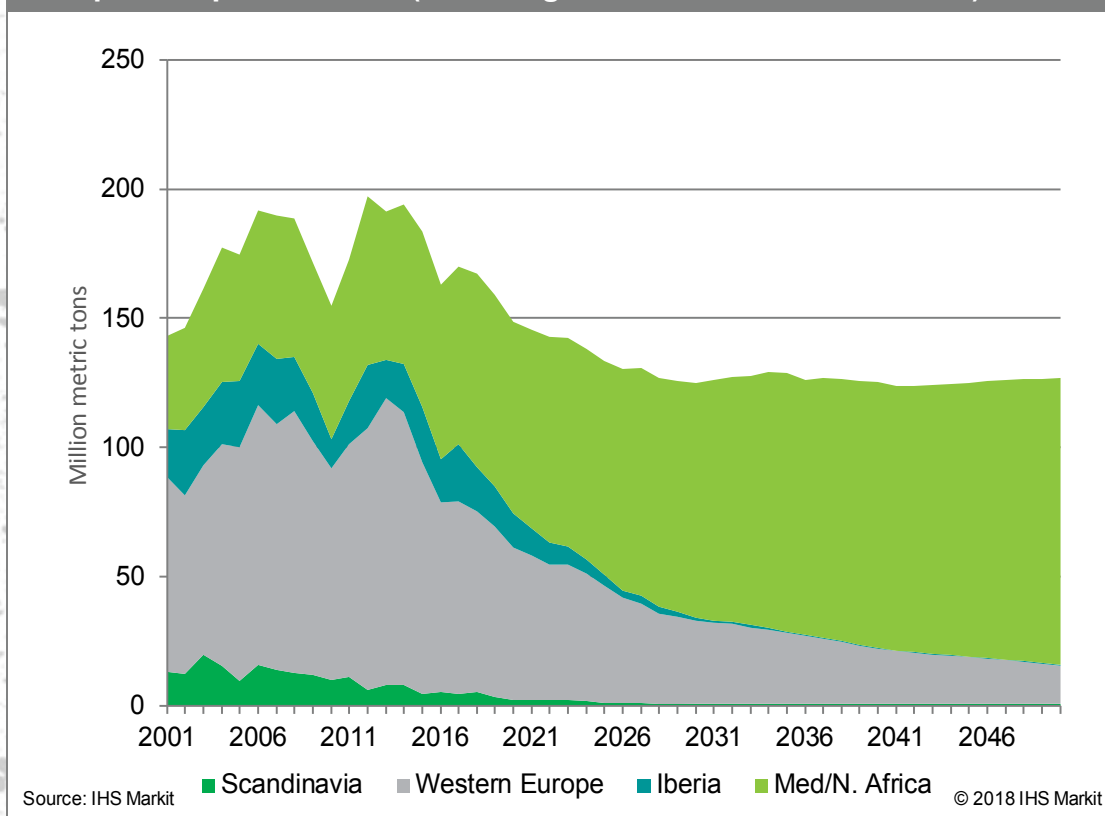
# INDIA POISED FOR CONTINUED STEEL GROWTH

COMPANY	FY16	FY17	FY18	FY19E	FY20E	FY21E	FY22E	FY23E
SAIL	14.30	14.30	19.10	21.00	21.00	21.00	21.00	21.00
TATA STEEL	9.70	12.70	12.70	12.70	17.70	17.70	17.70	17.70
JSW STEEL	14.30	18.00	18.00	18.00	18.00	23.00	33.00	33.00
ESSAR STEEL	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
TATA BHUSHAN	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
JSPL	4.50	4.80	4.80	8.00	8.00	8.00	8.00	8.00
RINL	4.00	4.00	6.30	6.30	6.30	6.30	6.30	6.30
OTHERS	49.30	49.30	49.30	50.30	51.30	56.30	60.30	60.30
<b>TOTAL</b>	<b>111.10</b>	<b>118.10</b>	<b>125.20</b>	<b>131.30</b>	<b>137.30</b>	<b>147.30</b>	<b>161.30</b>	<b>161.30</b>
<b>YoY (mt)</b>	<b>1.80</b>	<b>7.00</b>	<b>7.10</b>	<b>6.10</b>	<b>6.00</b>	<b>10.00</b>	<b>14.00</b>	<b>0.00</b>

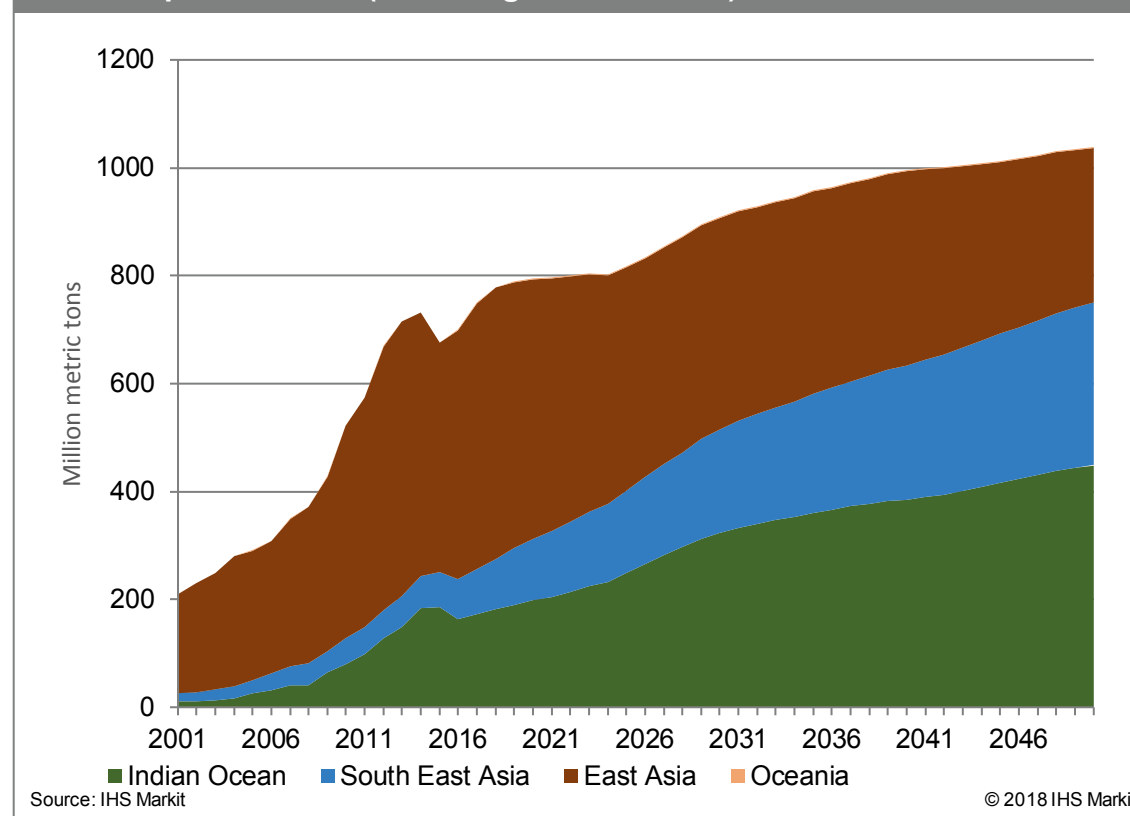


# THERMAL COAL DEMAND GROWTH IN ASIA LIKELY TO CONTINUE

European import demand (including Mediterranean/North Africa)



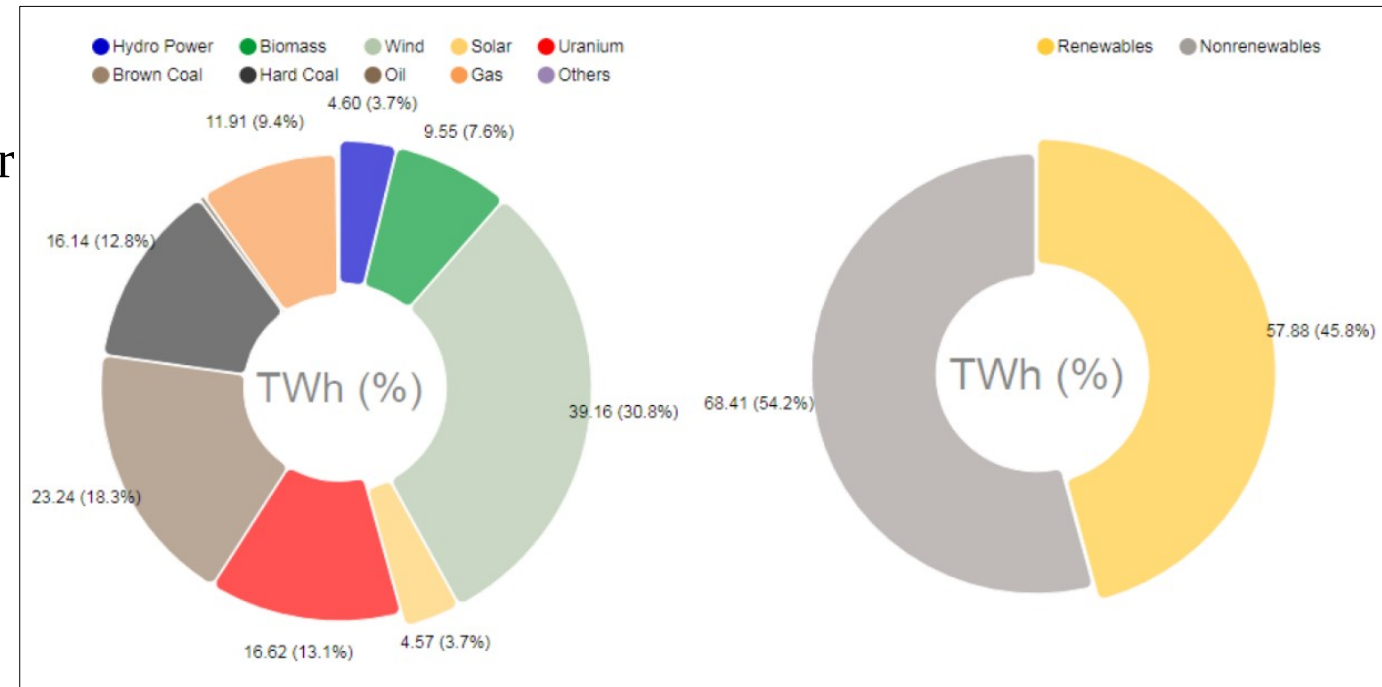
Asian import demand (including Indian Ocean)



# RENEWABLES TAKING MORE MARKET SHARE IN EUROPE AS PLANT CLOSURES ACCELERATE

- Renewable generation eclipsed coal generation in Germany during 2019 for first time in history
  - YTD 2019 – renewables account for 46% of generation in Germany vs coal at 32%
- Vattenfall closing 680 MW Hemweg power station in 2020 instead of 2024
  - Operations began in 2006!
- Potential growth in Poland, Turkey, and broader Med, but big coal renaissance in Atlantic Basin unlikely

## NET PUBLIC ELECTRICITY GENERATION IN GERMANY YTD 2019





# SHORT TERM OUTLOOK

## COKING COAL

- Brace for price correction over next 1 – 2 quarters as we see more opportunities to purchase coal and fewer opportunities to sell coal amid weakening economic backdrop
- Pent up supply ex-AUS to hit market, and coal availability already starting to improve
- Inventories healthy at customers around the world, no restock needed
- China a big wildcard – imports should remain stable with wide-open import arbitrage, economic stimulus, and strong steel production

## THERMAL

- Demand growth in Asia is real, but growing thermal coal supply of coal to keep lid on prices in near-term
- Western Europe declines partially offset by growth in Med, but stiff competition between coal from different origins and petcoke
- U.S. exports should remain resilient despite weaker pricing due to hedges, but future of U.S. exports in 2020 and beyond is highly debated
- High kcal premium to persist

## WRAP UP

- Outlook for seaborne coal markets remains strong in long-term, but short term price correction likely as global economy slows
- Global coal industry in ‘harvest mode’, and lack of investment in new mines (let alone sustaining output) should keep supply in check
- Quality degradation to continue globally, and resulting premium for Tier 1 coals (met and thermal) likely to remain wide
- Material demand growth happening further and further from core of U.S. export infrastructure, giving benefit to those with logistics advantage
- Impact of IMO on ocean freight debatable, but U.S. suppliers to bear brunt of impact as freight is bigger component of delivered cost of coal into Asia versus other supply countries

A man in a white hard hat and safety glasses is looking out at a large ship docked at a pier. The ship is dark blue and has the number '5' on its side. The pier is made of concrete and has a metal railing. The sky is blue with some clouds.

# THANK YOU

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