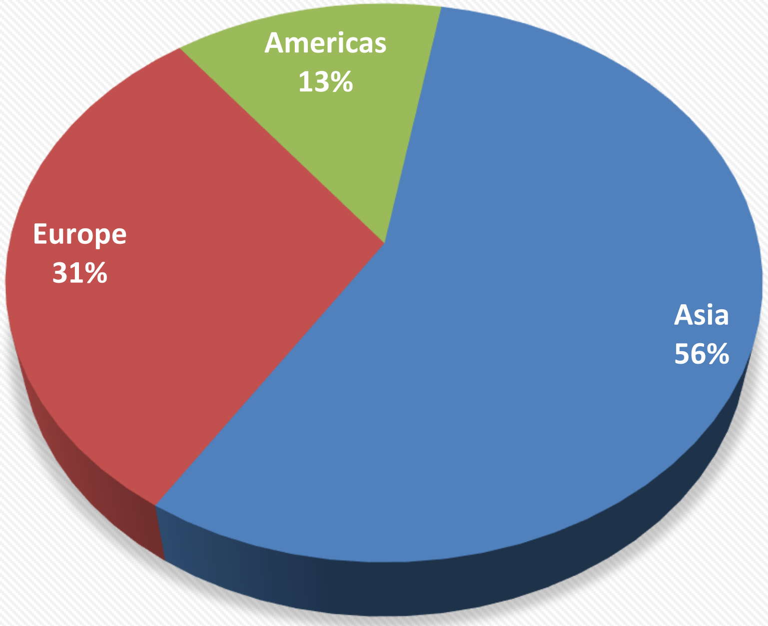
Kobie Koornhof Associates Inc.

Metcoal Market Update

September 16, 2019

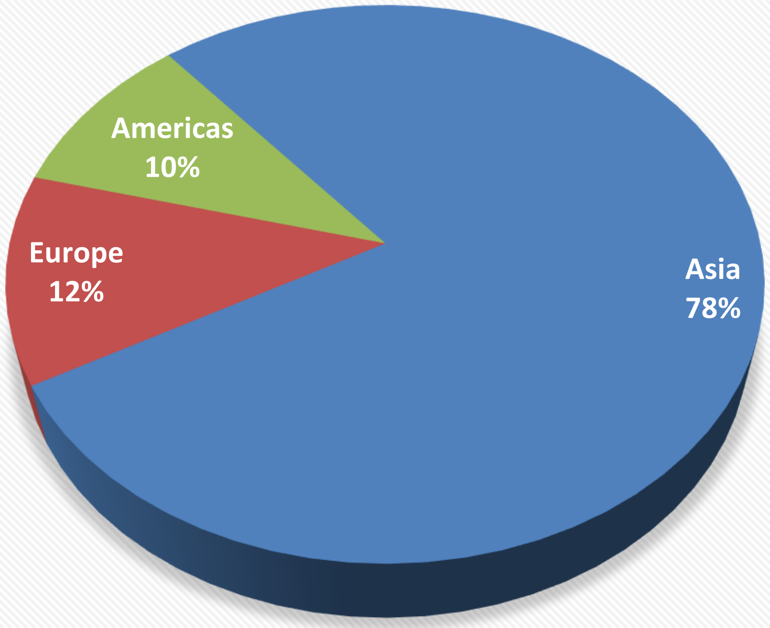
CANADA'S METCOAL EXPORTS

2007



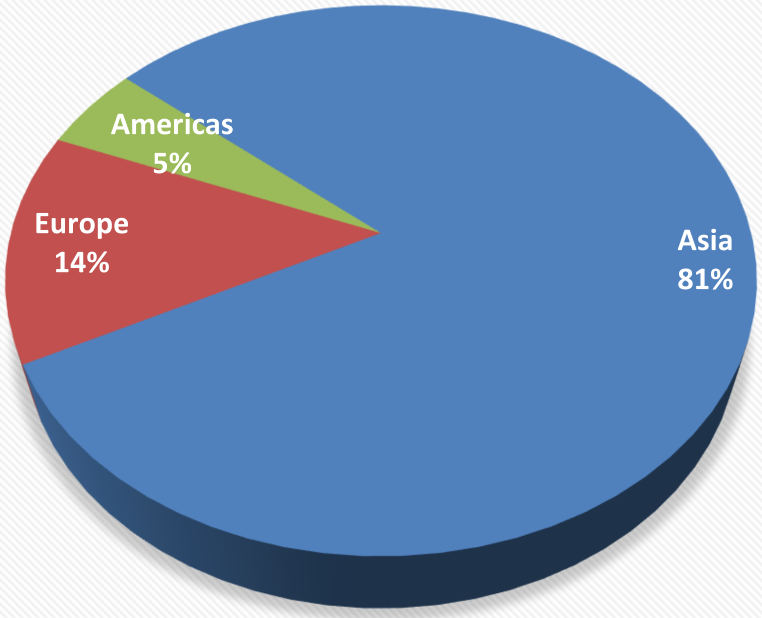
26,685,000 Tonnes

2012



30,725,400 Tonnes

2018

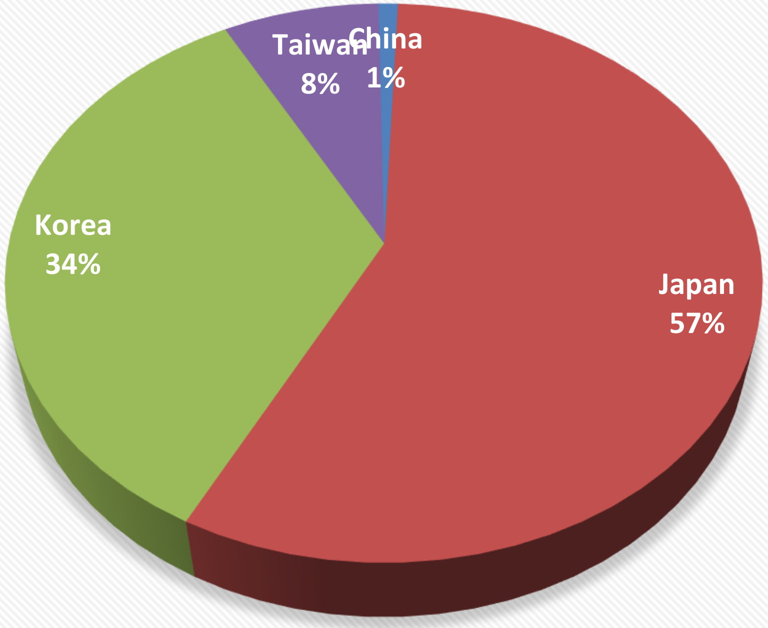


32,766,200 Tonnes

CANADA'S METCOAL EXPORTS TO ASIA

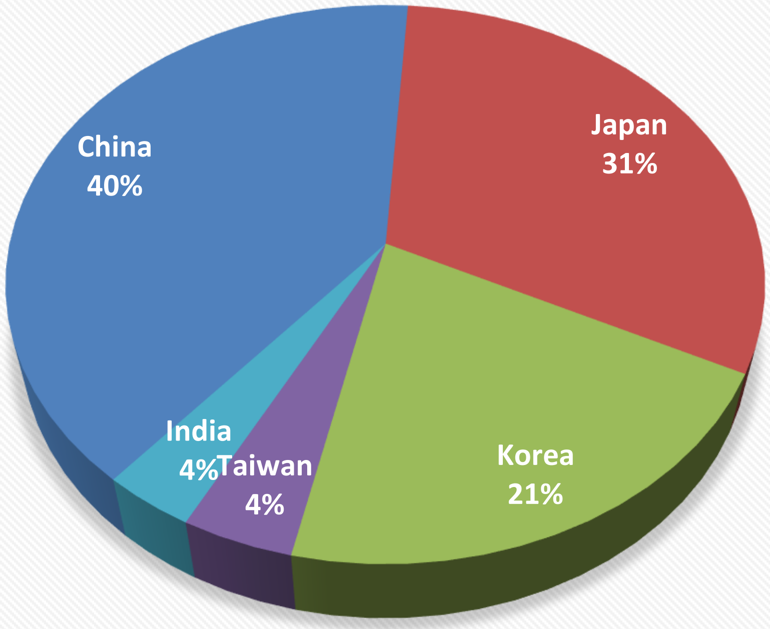
Kobie Koornhof Associates Inc.

2007



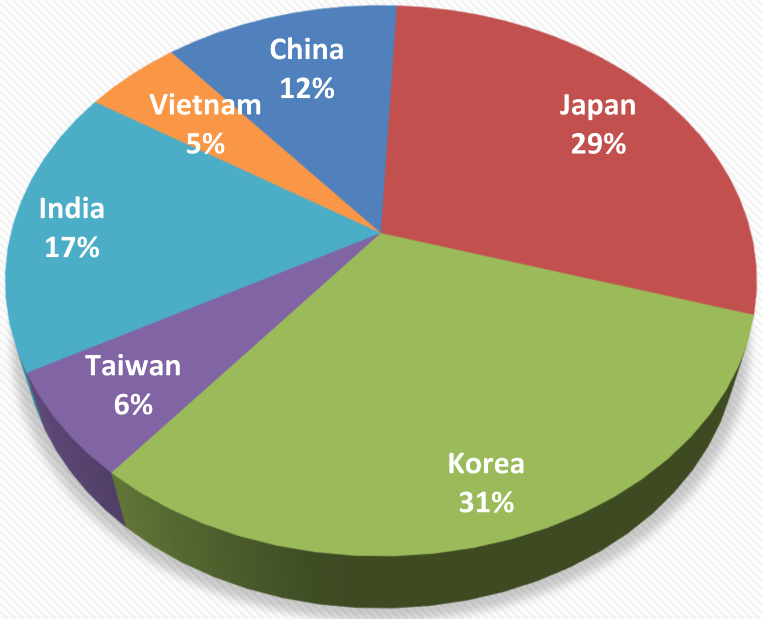
14,899,000 Tonnes

2012



23,984,600 Tonnes

2018

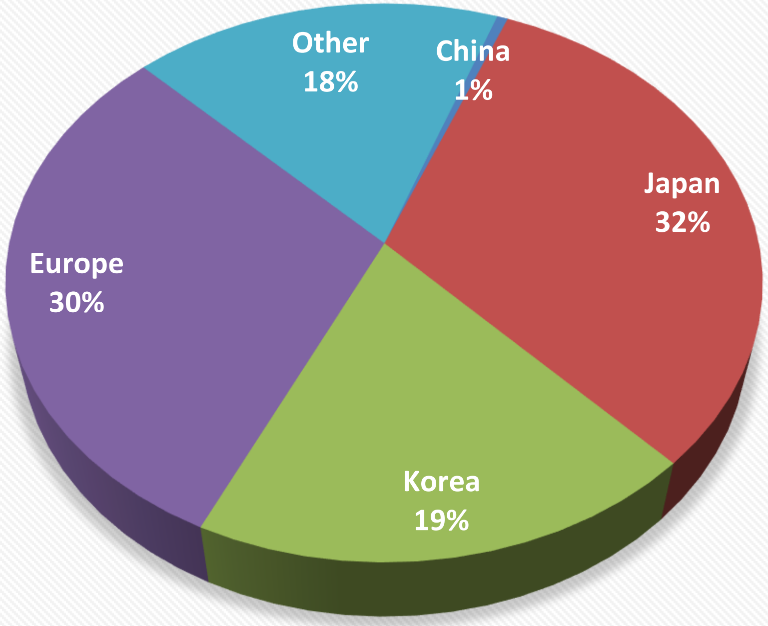


26,520,272 Tonnes

Kobie Koornhof Associates Inc.

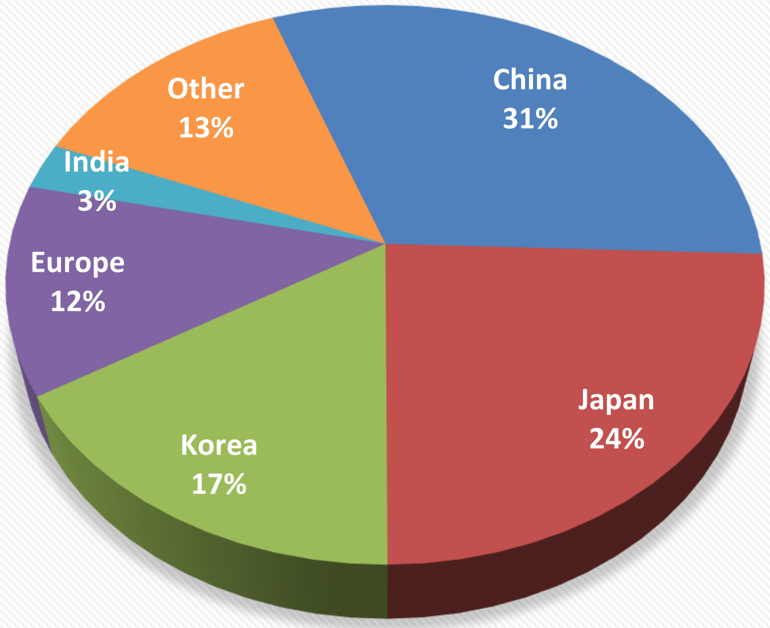
EUROPE vs. ASIAN BIG GUNS

2007



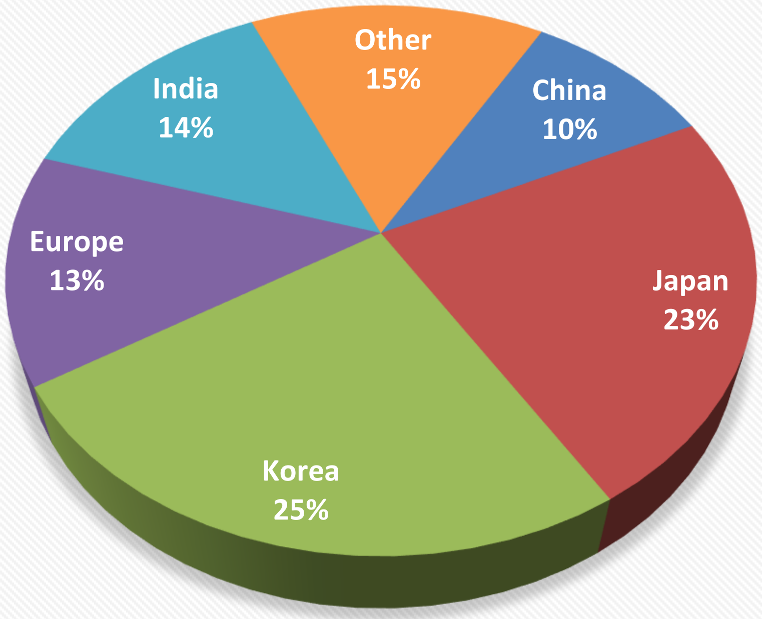
26,685,000 Tonnes

2012



30,725,400 Tonnes

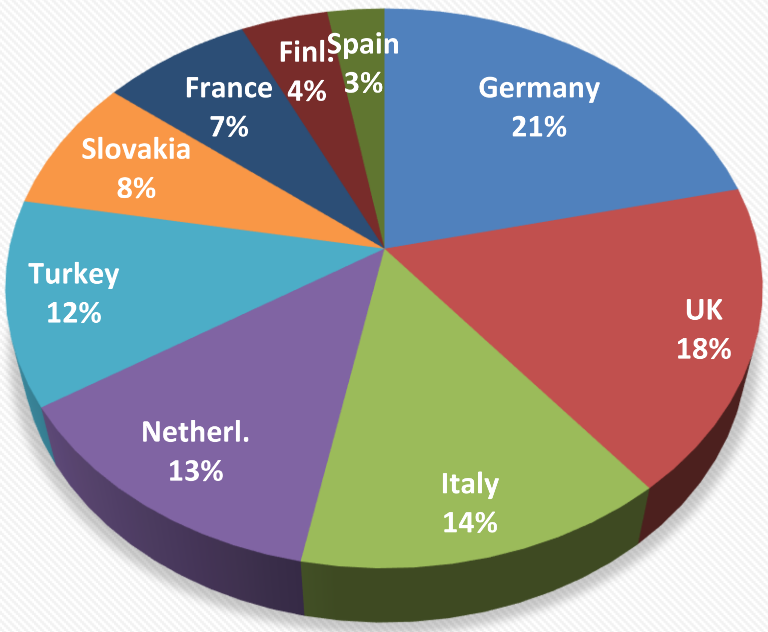
2018



32,766,200 Tonnes

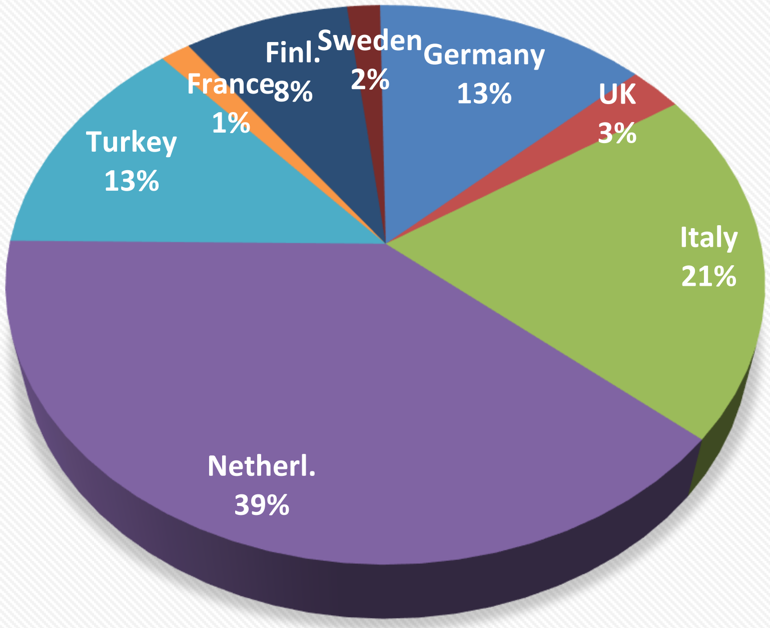
METCOAL EXPORTS TO EUROPE

2007



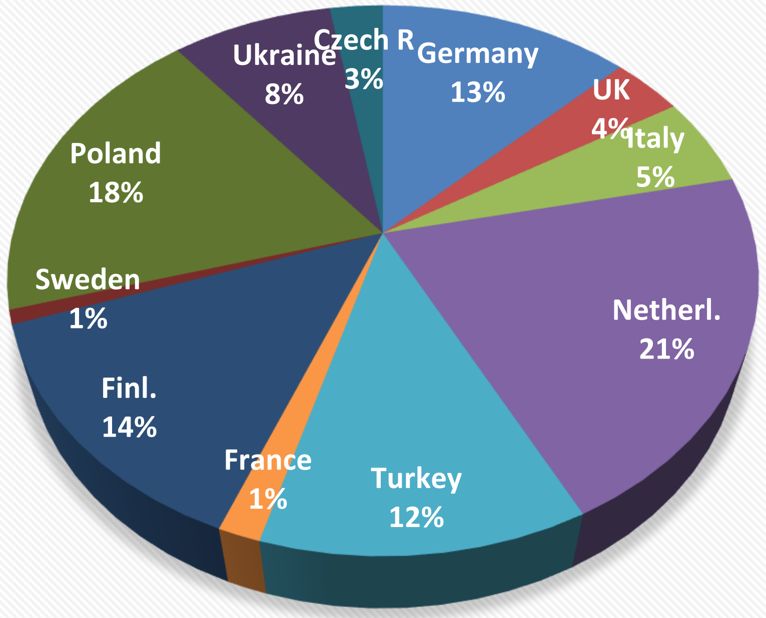
8,094,000 Tonnes

2012



3,741,400 Tonnes

2018



4,411,700 Tonnes

Kobie Koornhof Associates Inc.

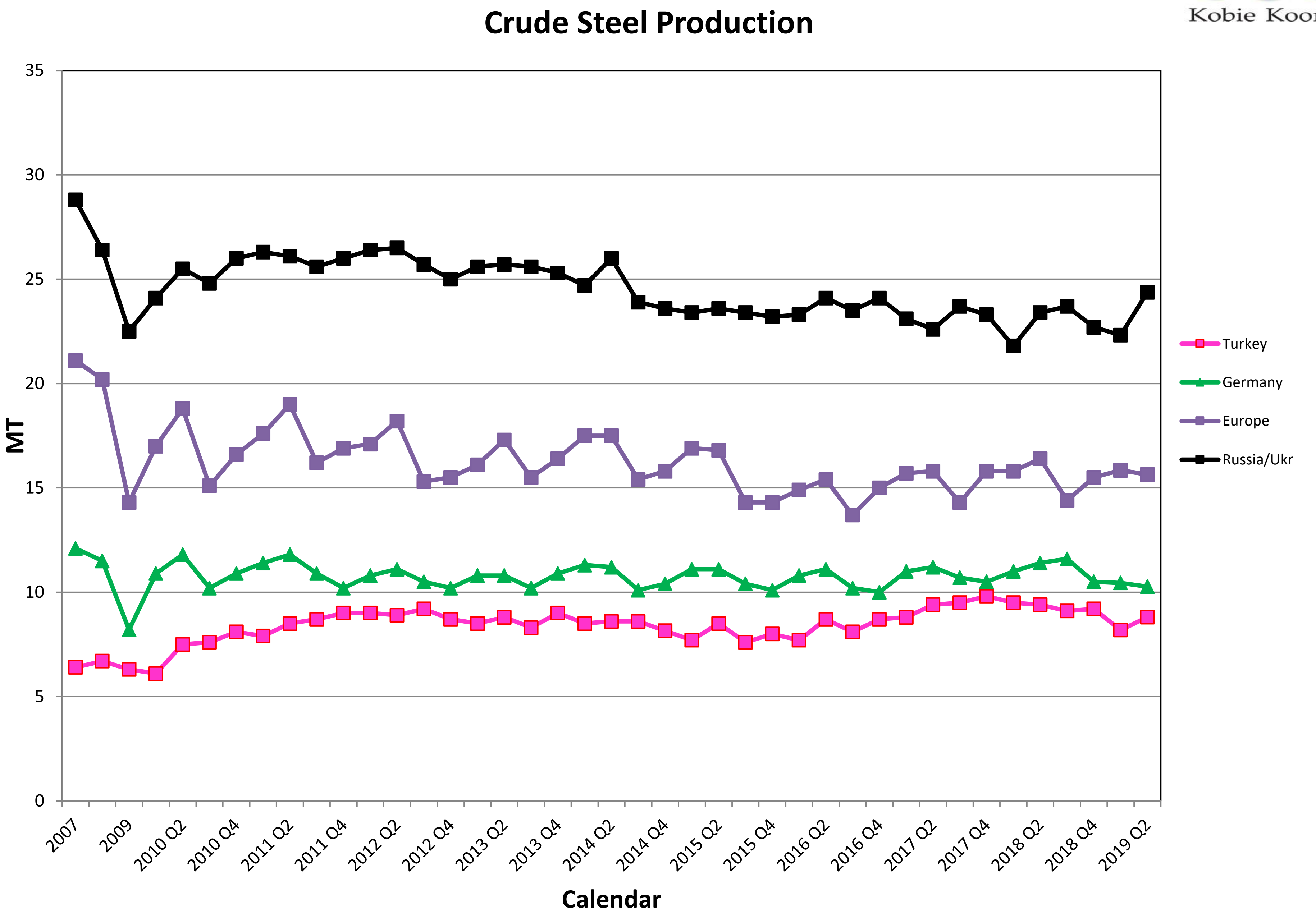
STEEL PRODUCTION

- World steel production **highest quarter EVER** – and 26% above 2007 levels
- China and India just recorded their **highest Quarters EVER**!
- Both running at 100% **ABOVE 2007** production.
- Japan – has still not recovered CSP since 2007 – running at 85% of 2007 levels
- Korea – running at highest levels in 4 years, and 41% over 2007 levels.

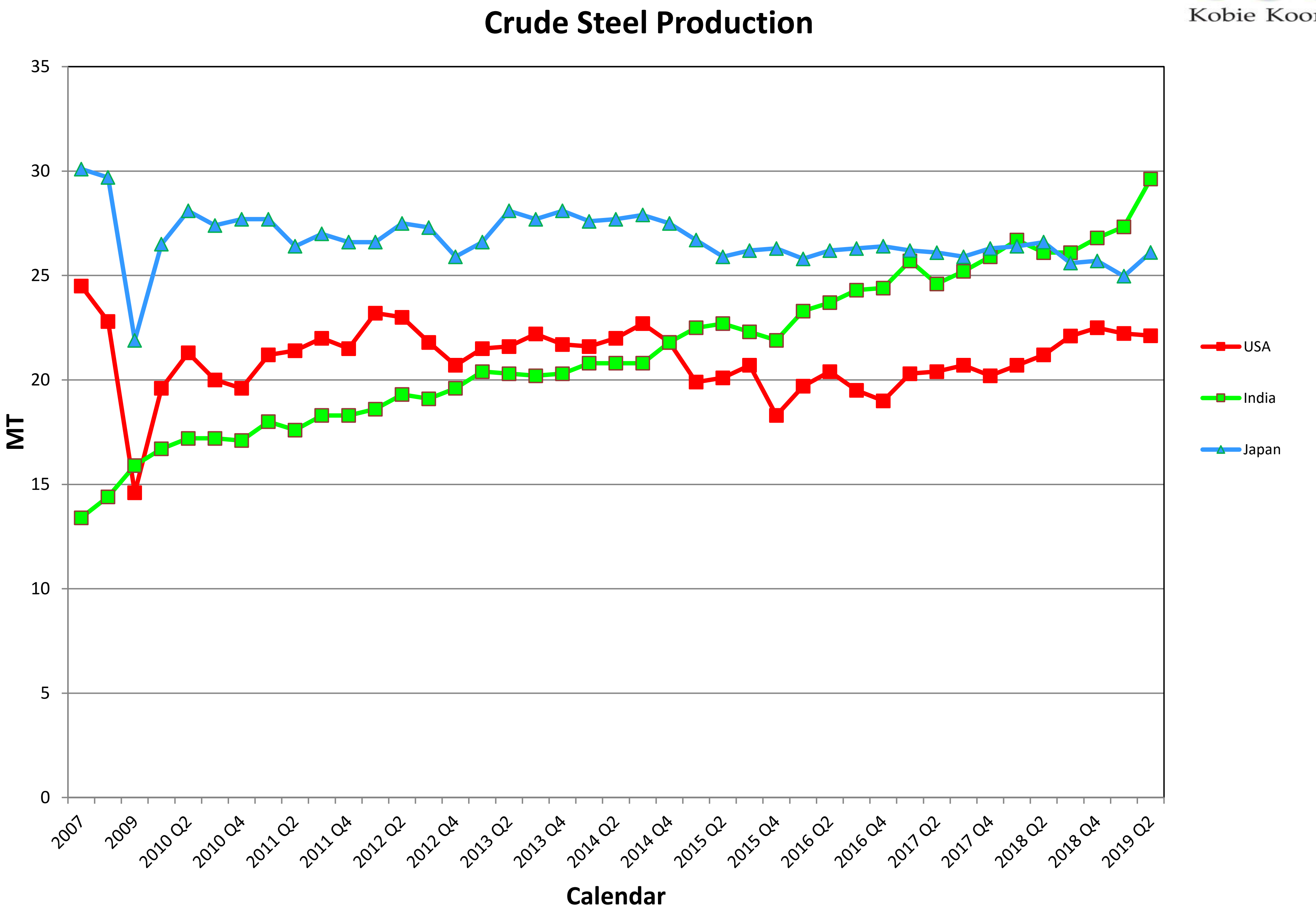
Kobie Koornhof Associates Inc.

STEEL PRODUCTION

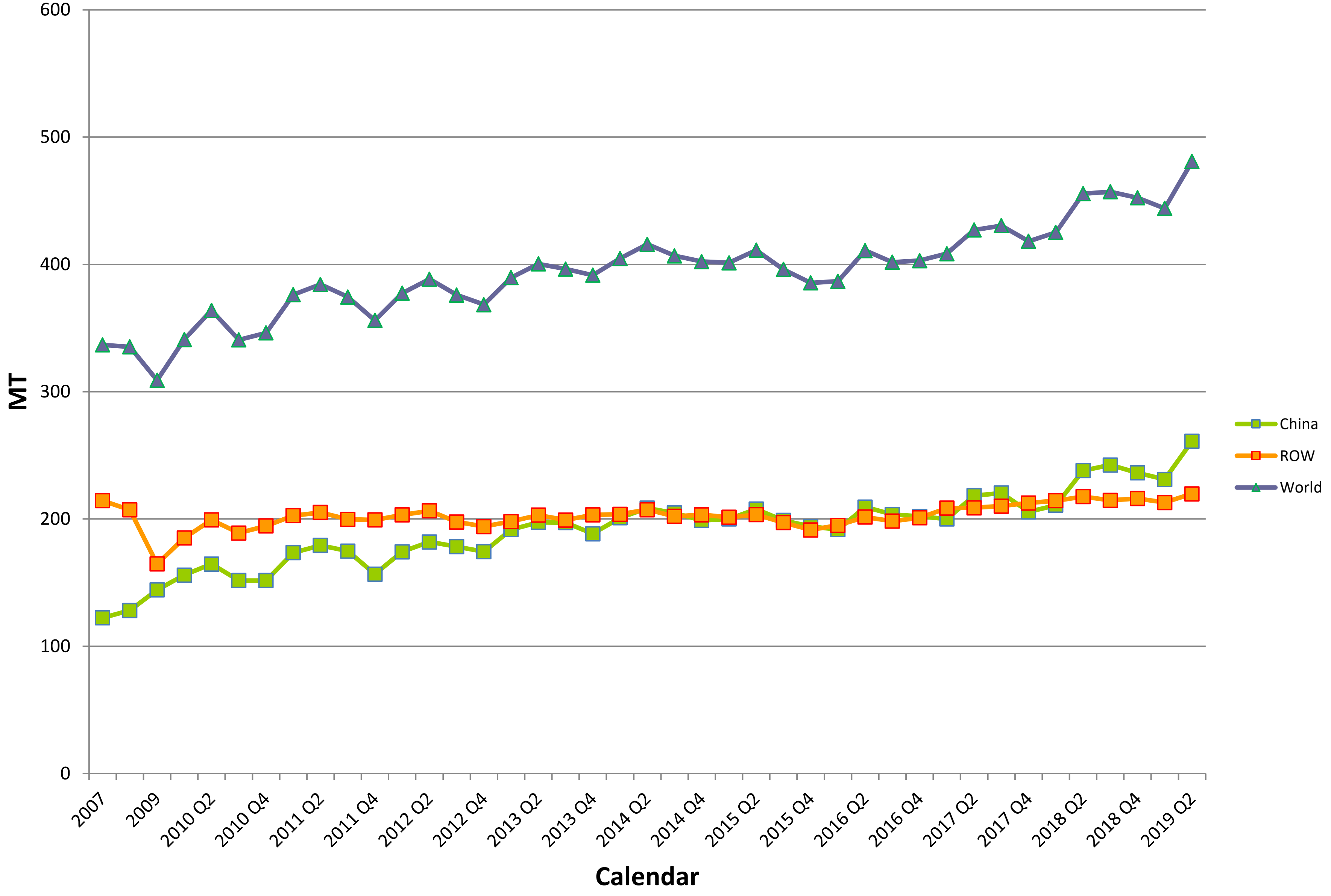
- Europe still not exceeded 2007 CSP, last 12 months at 73% of 2007 production rate
- Brazil – best Qtr of CSP was Q2 2011 – that's 8 years ago!
- Steel industry still being measured against 2007, until a new marker presnts itself – perhaps in 2019 or 2020 – and **Politically Driven!**



Crude Steel Production
35
30
25
20
15
10
5
0
MT
2007
2009
2010 Q2
2010 Q4
2011 Q2
2011 Q4
2012 Q2
2012 Q4
2013 Q2
2013 Q4
2014 Q2
2014 Q4
2015 Q2
2015 Q4
2016 Q2
2016 Q4
2017 Q2
2017 Q4
2018 Q2
2018 Q4
2019 Q2
Calendar
Turkey
Germany
Europe
Russia/Ukr


Crude Steel Production
MT
35
30
25
20
15
10
5
0
2007
2009
2010 Q2
2010 Q4
2011 Q2
2011 Q4
2012 Q2
2012 Q4
2013 Q2
2013 Q4
2014 Q2
2014 Q4
2015 Q2
2015 Q4
2016 Q2
2016 Q4
2017 Q2
2017 Q4
2018 Q2
2018 Q4
2019 Q2
Calendar
USA
India
Japan

Crude Steel Production



Kobie Koornhof Associates Inc.

STEEL AND BLAST FURNACE IRON PRODUCTION IN 2019						
	STEEL PRODUCTION			IRON PRODUCTION		
	January to July			January to July		
(Million Tonnes	2019	2018	Change	2019	2018	Change
By Region:						
EU 28	98.2	100.6	-2.4	53.5	54.5	-1.8
CIS	59.6	59.3	0.6	43.0	44.4	-3.1
North America	70.8	69.6	1.7	19.6	20.4	-4.0
South America	24.7	26.1	-5.3	17.4	18.2	-4.3
Asia	775.1	724.2	7.0	597.8	566.0	5.6
Other	55.6	56.9	-2.3	13.7	14.3	-3.7
Total World	1084.0	1036.6	4.6	745.1	717.8	3.8

Kobie Koornhof Associates Inc.

STEEL AND BLAST FURNACE IRON PRODUCTION IN 2019

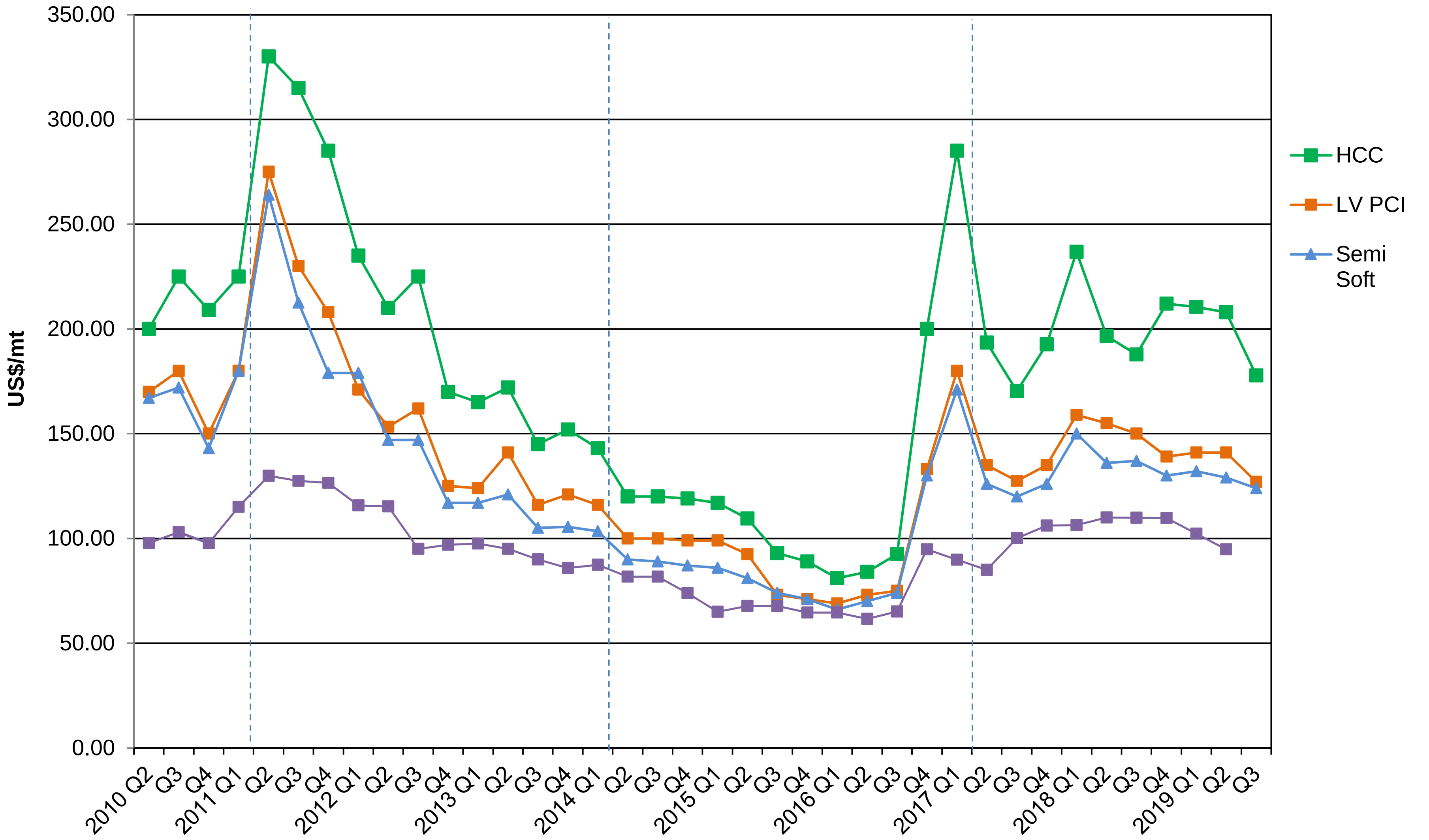
(Million Tonnes)	STEEL PRODUCTION January to July 2019	2018	Change %	IRON PRODUCTION January to July 2019	2018	Change %
By Major Country:						
China	577.1	529.3	9.0	473.4	443.6	6.7
India	66.2	63.3	4.6	43.5	41.4	4.9
Japan	59.5	61.4	-3.1	44.5	45.5	-2.3
USA	51.8	49.4	4.8	13.5	13.8	-2.7
Russia	42.5	42.3	0.4	29.4	30.3	-3.1
South Korea	42.5	42.2	0.6	27.6	27.1	1.8
Germany	24.1	25.2	-4.6	15.6	16.2	-3.6
Turkey	19.9	22.2	-10.2	5.8	6.3	-7.0
Brazil	19.7	20.6	-4.3	15.8	16.4	-3.8
Italy	14.7	15.0	-1.9	2.9	2.8	3.6
Taiwan	13.3	13.4	-0.7	8.8	8.4	5.7
World Excl. China	506.9	507.3	-0.1	271.6	274.2	-0.9
World Excl. C/Ind	440.7	444.0	-0.7	228.2	232.8	-2.0
China % of World	53.2	51.1	4.3	63.5	61.8	2.8

WHAT ARE THE BIG STORIES RIGHT NOW?

- PRICING
- CHINESE PORT RESTRICTIONS
- AUSTRALIAN WEATHER
- EUROPE CUTTING STEEL PRODUCTION
- POLITICS

Quarterly Coal Prices

Kobie Koornhof Associates Inc.

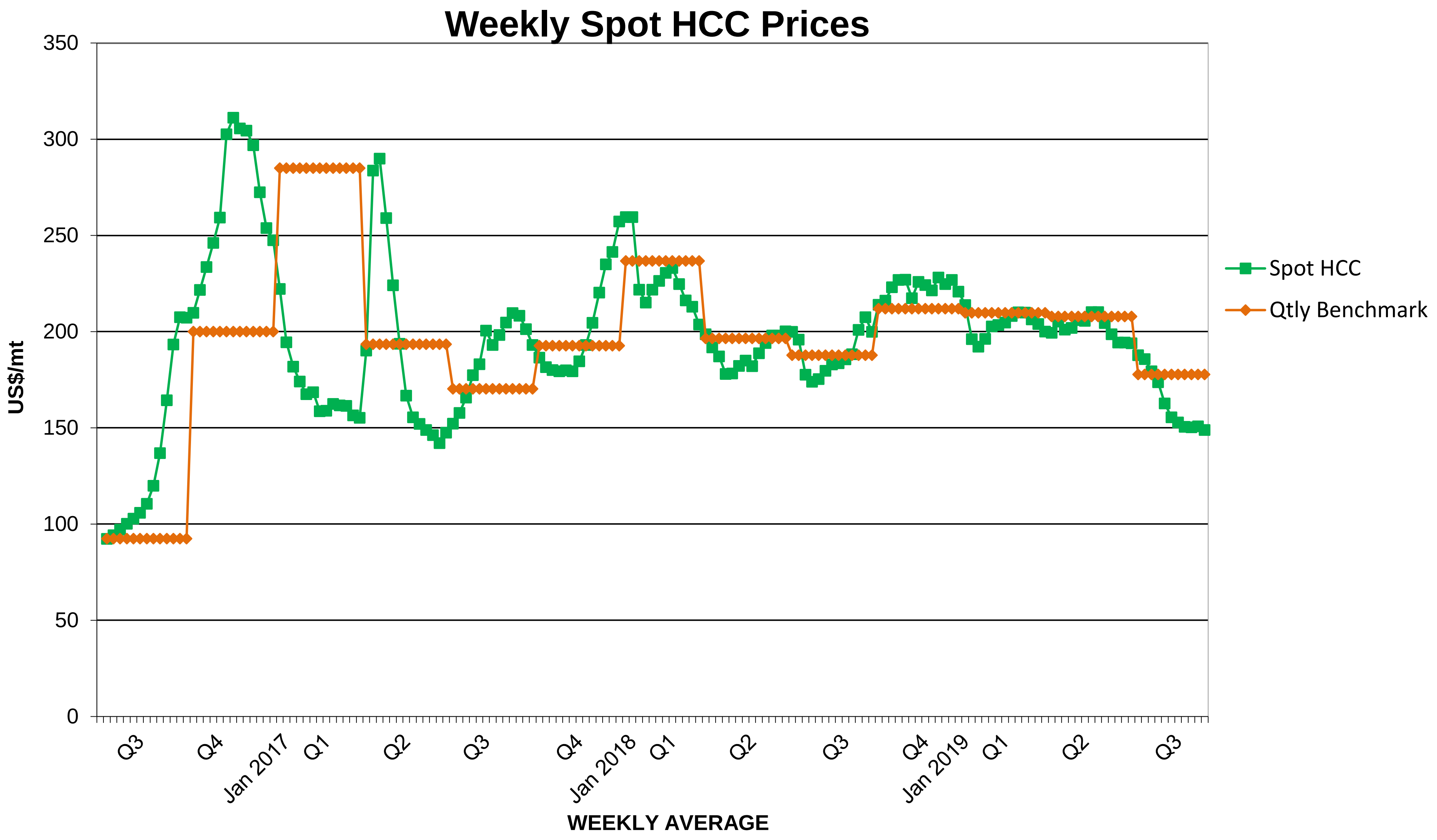


PRICING September 2019

- We’ve seen **4 months of continuous price decline** since May
- 6 weeks in the $150s
- A **slowdown is expected** leading into China’s Golden Week at the **start of October**
- This **could continue through the coming months** as Chinese traders await the resetting of port quotas in January 2020.

Recent Spot HCC Prices

Kobie Koornhof Associates Inc.

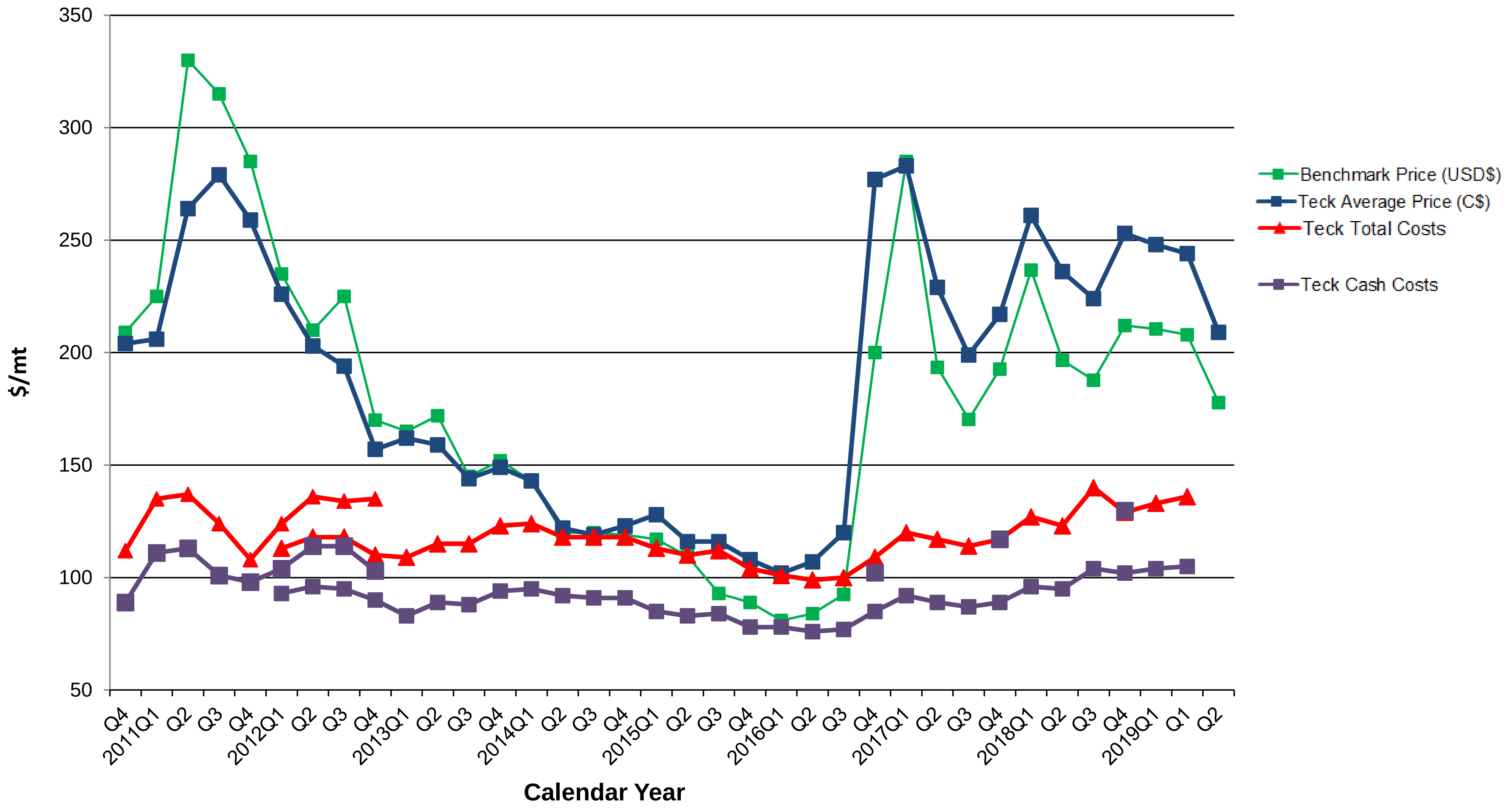


In June 2018...

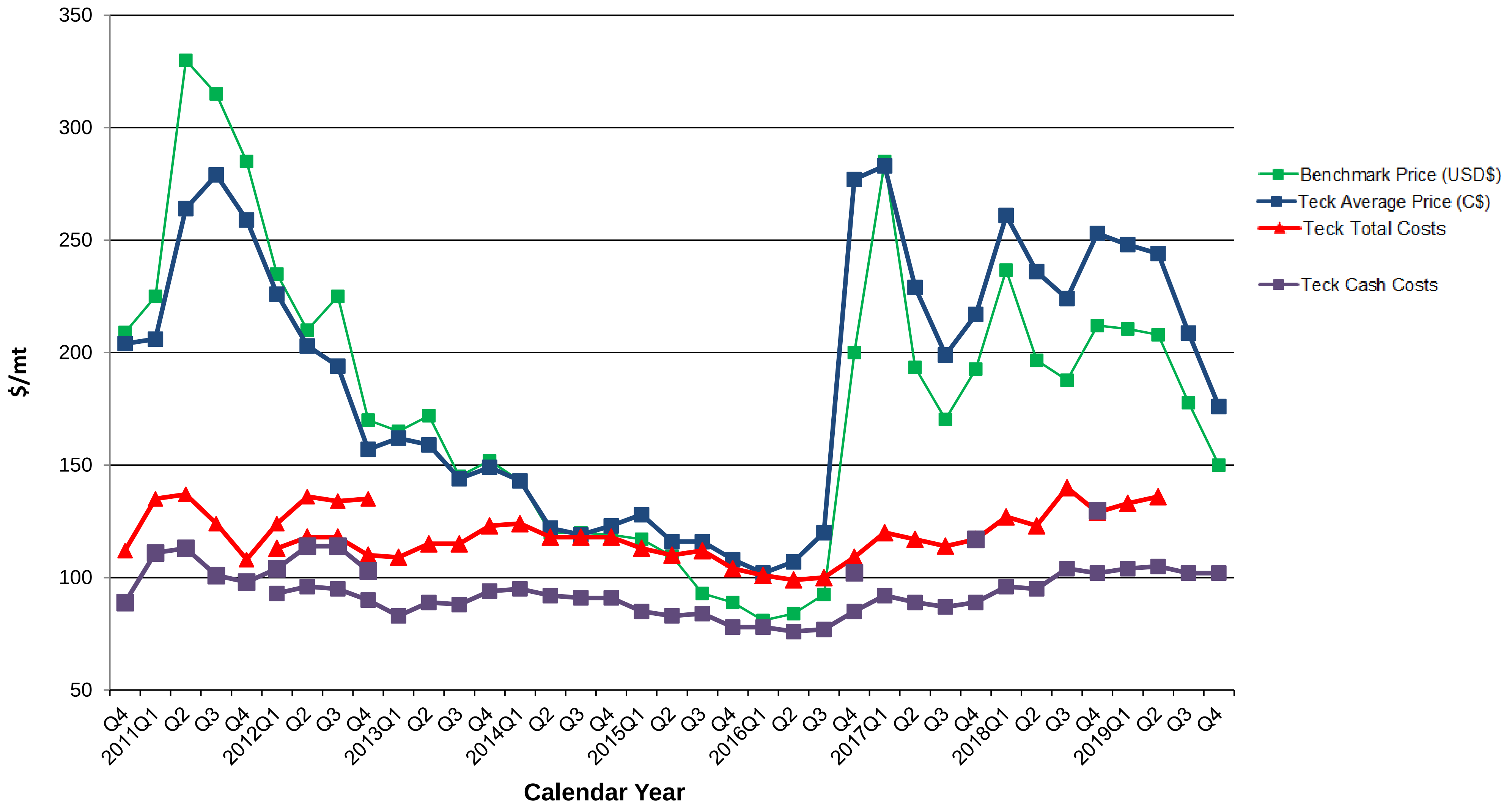
- A certain market observer said:
- Looking ahead, short of major structural change, it is difficult to see a floor below US$150/tonne for seaborne coking coal.
- **So on September 10, 2019, the price hits $146.60, with an average of $148.98 last week.**
- ***BUT, wait he says, what about C$ terms?***
- **FOILED AGAIN – floor was $194.24 … now $192.65, so…**

Kobie Koornhof Associates Inc.

Teck Coal in the Current Market



Teck Coal in the Current Market



TECK....

- **Costs increase 9.5% in 2019**
  - mining in higher cost areas to capture additional margin in the current strong price environment
  - Higher strip ratio for Elkview expansion
  - inflationary pressures - particularly diesel
- **Looking ahead....**
  - Moving to lower cost areas
  - Cardinal River to shut down in 2020
  - Neptune expansion to 18.5 Mtpa complete by Q3 2020

TECK….

- **Teck is running the business to maximize earnings and cash flow rather than to run the business just to minimize the cost**.
- …….that will **increase costs a few dollars a tonne in order to capture $75 - 100 a tonne of margin.**

WHAT ARE THE BIG STORIES RIGHT NOW?

- PRICING
- **CHINESE PORT RESTRICTIONS**
- AUSTRALIAN WEATHER
- EUROPE CUTTING STEEL PRODUCTION
- POLITICS

CHINESE PORT RESTRICTIONS

- China wants to keep 2019 coal imports at 2018 levels of 281 Mt
- Jintang, China’s largest HCC import port, blocked all imports in Q4 - they have exceeded their import quota
- First week of September reached 10 Mt vs 9.5 Mt all of 2018.
- Some buyers will stop buying, wait until Nov/Dec for 2020 arrivals
- Others say the ban will not be enforced
- Some requests by major buyers for extra quotas at other ports have been denied

Kobie Koornhof Associates Inc.

CHINA - EXPORT vs IMPORT STATS

- Seaborne imports 2019:
  - Export stats show YTD HCC exports **up 10%** from 26 to 28 Mt
    - full year pro rata 49 Mt vs 49 Mt in 2018 **SAME**
  - Import stats show YTD HCC imports **up 12%** from 22 to 25 Mt
    - full year pro rata 42 Mt vs 37 Mt in 2018 **up 15%**

Kobie Koornhof Associates Inc.

CHINA - EXPORT vs IMPORT STATS

- Seaborne Imports 2019:
  - Export stats show YTD HCC exports **up 10%** from 26 to 29 Mt
    - full year pro rata 49 Mt vs 49 Mt in 2018 **SAME**
  - Import stats show YTD HCC imports **up 12%** from 22 to 25 Mt
    - full year pro rata 42 Mt vs 37 Mt in 2018 **up 15%**
- Total Imports 2019:
  - Import stats show YTD HCC imports **up 19%** from 37 to 44 Mt
    - full year pro rata 76 Mt vs 65 Mt, **up 17%**
  - Mongolia YTD HCC imports **up 30%,** from 15 to 19 Mt
    - full year pro rata 33 to 28 Mt, **up 19%**

Kobie Koornhof Associates Inc.

SO IS ANYONE CHEATING?

	IMPORT STATS ALL COAL					
	2019 7 Mo TOTAL	% Change	2018 7 Mo TOTAL	2019 YEAR PRORAT	2018 FULL YEAR	% Projec ted
Anthracite	5.59	**1.6**	5.50	9.58	8.90	**7.7**
Lignite	70.14	**15.2**	60.91	120.24	94.40	**27.4**
Coking	44.06	**19.0**	37.01	75.53	64.72	**16.7**
Steam	67.59	-4.9	71.08	115.87	112.76	**2.8**
TOTAL	**187.38**	**7.4**	**174.5**	**321.22**	**280.78**	**14.4**
Seaborne CC	24.79	**12.4**	22.06	42.5	36.9	**15.2**
Mongolia CC	19.27	**29.9**	14.83	33.0	27.7	**19.3**

WHAT ARE THE BIG STORIES RIGHT NOW?

- PRICING
- CHINESE PORT RESTRICTIONS
- **AUSTRALIAN WEATHER**
- EUROPE CUTTING STEEL PRODUCTION
- POLITICS

AUSTRALIAN WEATHER

- Very dry winter
- No cyclones this year
- Production going flat out
- No rail or port interruptions

Kobie Koornhof Associates Inc.

WHAT ARE THE BIG STORIES RIGHT NOW?

- PRICING
- CHINESE PORT RESTRICTIONS
- AUSTRALIAN WEATHER
- **EUROPE CUTTING STEEL PRODUCTION**
- POLITICS

EUROPE CUTTING STEEL PRODUCTION but:

- Produces only 10% of Blast Furnace Iron
- BFI in Asia up 6%
- China, India, Taiwan, South Korea **all up**

Kobie Koornhof Associates Inc.

WHAT ARE THE BIG STORIES RIGHT NOW?

- PRICING
- CHINESE PORT RESTRICTIONS
- AUSTRALIAN WEATHER
- EUROPE CUTTING STEEL PRODUCTION
- **POLITICS**

POLITICS….

- US/China trade wars
  - Will this be resolved before 2020 US Election?
- Brexit
  - Will sanity prevail?

SO, WHAT DOES THIS MEAN?

- At US$150, most coking coal supply will be safe
- At USS135, Australian and Canadian supply should survive
- At $130 – 135, US mines will likely start shutting down
- This time the we won’t have the same take or pay commitments that keep them going … so supply shortfall risk?
- China remains key – and a risk

Kobie Koornhof Associates Inc.

Contact Information

Kobie Koornhof Associates Inc.

Kobie Koornhof

Coal Consultant

Phone: +1 604 842 4202

Email: koornhof@telus.net

Vancouver, British Columbia, Canada

Thank you!

