

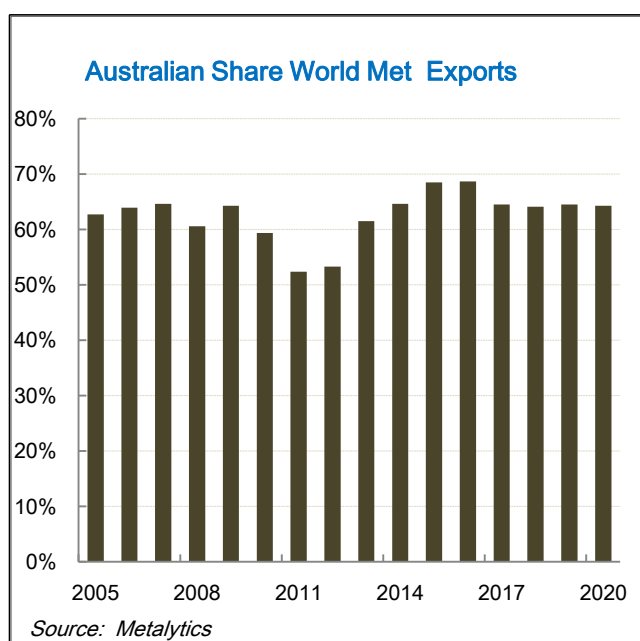
Australian Coal Exports Holding Up

As we pointed out in our previous note, Australian exports of **metallurgical coal** continue to hold up well as Australia increases its share of world metallurgical coal trade. It is now back to the pre-coal boom share of between 62% and 65%, which explains why Australian exports in 2015 almost the same as the previous year, despite a 2.3% fall in world metallurgical coal consumption and a 5.8% fall in metallurgical coal trade volume.

Metallurgical Coal Mt	2013	2014	2015	2016e
World Consumption	848.9	835.6	816.3	799
World Met Coal Exports	282.6	301.4	283.9	283
Australian Exports	169.4	186.4	185.7	185
Australian share	59.9%	61.8%	65.8%	66%
Metallurgical Coal Mt	2013	2014	2015	2016 YTD
Chinese Net Imports	74.3	61.6	46.7	26.3 YTD June
of which from Australia	30.2	31.3	25.6	13.2
Australian share	40.6%	50.7%	54.8%	50.2%
Indian Imports	36.0	41.0	46.1	9.4 YTD March
of which from Australia	28.6	34.8	40.0	8.3
Australian share	79.4%	84.8%	86.9%	88.0%
Japan-Korea-Taiwan Imports	110.2	111.5	109.8	52.4 YTD May
of which from Australia	58.1	58.5	59.2	28.2
Australian share	52.7%	52.7%	53.9%	54.0%

Source: Tex Reports , Metalytics

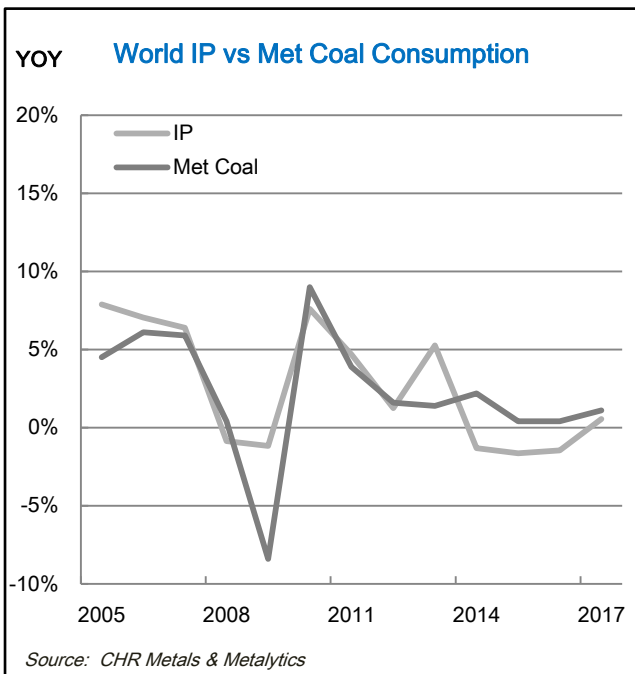
This is particularly noticeable with Chinese metallurgical coal imports which have fallen by almost 40% since 2013. But Australian exports to China fell by only 15% as Australia increased its share of the Chinese import market from 41% in 2013 to 55% in 2015. This trend was maintained in the first half of 2016 and it now seems clear that total Chinese met coal imports and Australia's market share are set to be higher than in 2015.



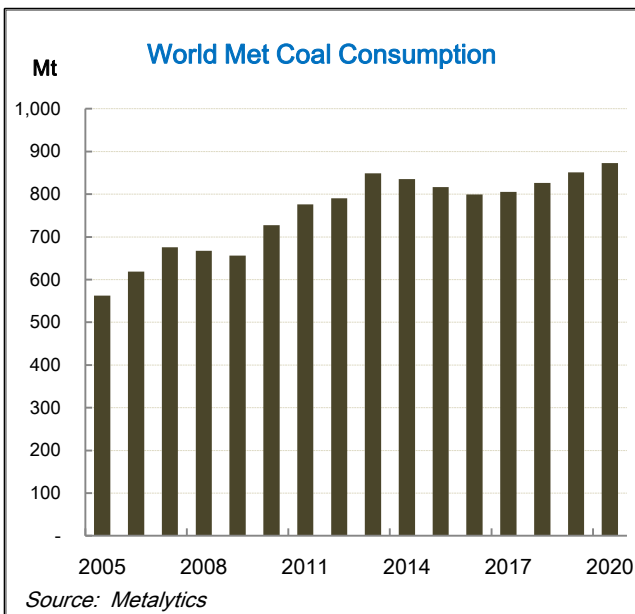
The story is similar for Asia ex-China, where the three main met coal importers have held volumes steady at around 110 million tonnes per year, and of which Australia's share is consistently well above 50%. And as with China, Australian exports to these countries looks like matching or exceeding 2015 levels. The picture is less clear for India with only first quarter data available; Indian met coal imports declined by around 25% compared with the first quarter of 2015, however Indian crude steel production was up by 8% over the same period, so we expect full year 2016 met coal imports to show an increase on last year.

US met coal exports have been clobbered by low prices and insolvency problems for US producers, while Chinese imports have been partly replaced by domestic production. As the dominant world exporter of metallurgical coal, Australia has the scale and exchange rate flexibility to maintain its position.

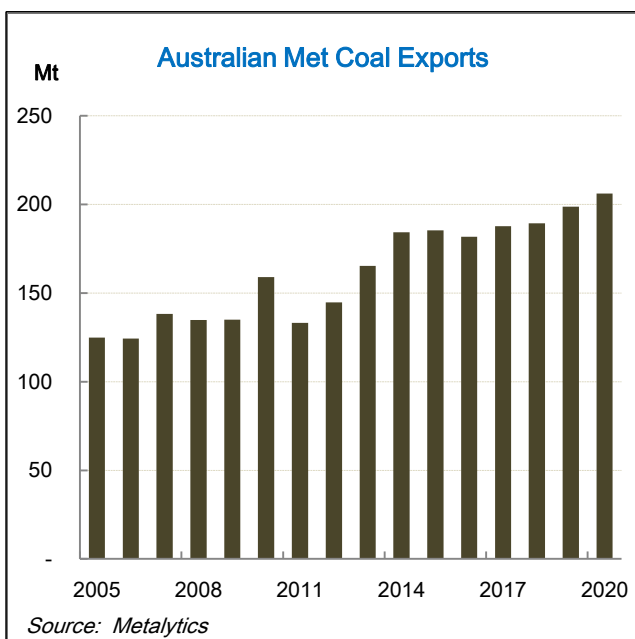
So despite the hopes and prognostications of the anti-coal lobby and its myrmidons at the Institute for Energy Economics and Financial Analysis, the future for metallurgical coal remains directly tied to world steel production. Since some 0.7 tonnes of metallurgical coal is needed to produce a tonne of pig iron, there is a direct and unvarying



link between met coal consumption and pig iron production. And while ever internationally traded metallurgical coal holds at around 35% of world met coal consumption, as it has for many years, Australian met coal export volumes should continue to track at around one third of 70% - say a net 25% - of world pig iron production. This results in a strong link between met coal consumption and industrial production, as seen in the chart. The IP numbers are supplied courtesy of CHR Metals, who provide informed adjustments to official Chinese statistics. The very high correlation between world metallurgical coal consumption and world industrial production is clear, leading us to the obvious conclusion that the immediate outlook for Australian metallurgical coal exports will depend almost entirely on world industrial production.



The proportion of crude steel production from pig iron depends of course on the rate of scrap reprocessing in electric arc furnaces. EAF steel production as a proportion of total steel production has increased slowly from around 15% in 1970 to around 33% in the early years of this century, but the vast shift in world steelmaking capacity to China in recent years has pushed the EAF share back to around 26%. But is not unreasonable to expect the EAF share to recover to the one third level over the next 10 years or so, to take us back to the position prior to the Chinese steel boom. So we can expect Australian metallurgical coal production and exports to track world steel production. The outlook for world industrial production and steelmaking is flat for the next few years, so we expect Australian metallurgical coal exports to behave likewise.



Thermal coal not so bad either

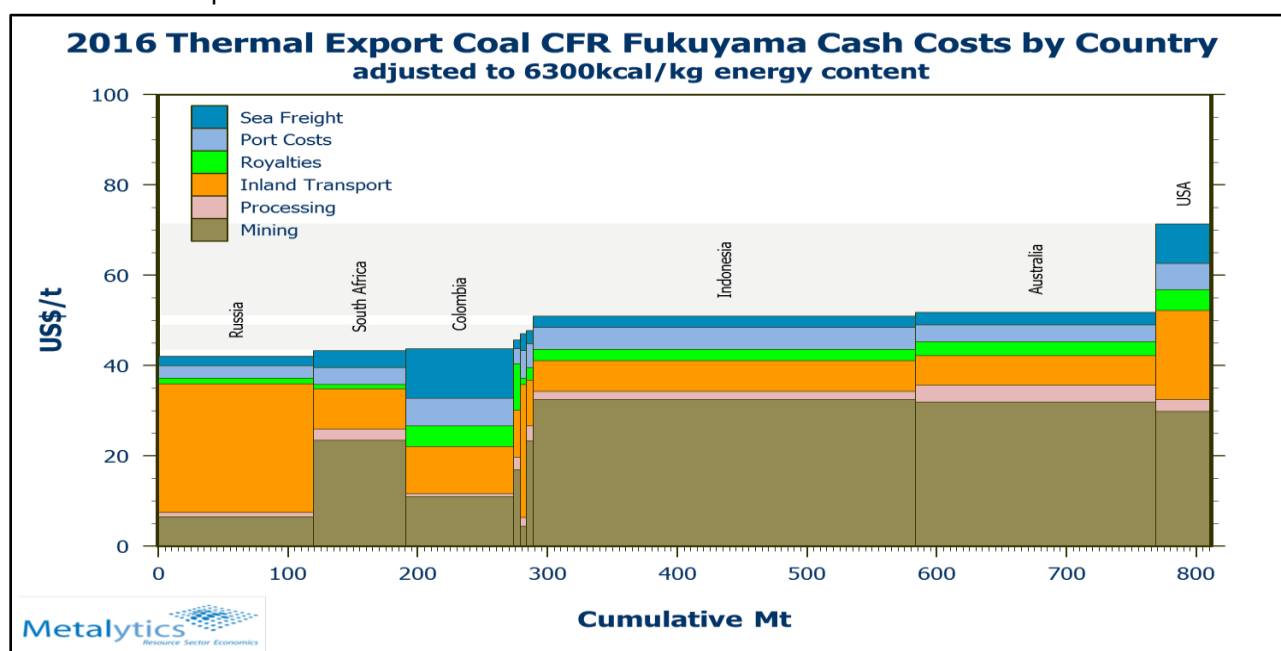
World thermal coal consumption in 2015 fell for the first time since the 1990-93 world recession. Thermal coal consumption last year was down 1.8% on 2014, as was world traded thermal coal. But again, Australian thermal export volumes in 2015 were (marginally) up on 2014 as Australia increased its share of world traded thermal coal. Australian coal producers' ability to expand volumes in both thermal and metallurgical export markets reflects the twin advantages of large scale production of a premium quality product and a flexible exchange rate. This explains why, as with met coal, Australian thermal coal is able to increase its share of declining Chinese and Indian imports. The ability to maintain market share should assist Australia to contain losses in coal export volumes if Chinese and Indian thermal coal imports decline further, as predicted by many. The good news is that

Australia is maintaining its share of the growing Asia ex-China thermal coal market which alone imports more Australian thermal coal than China and India combined.

Bituminous Thermal Coal Mt	2013	2014	2015	2016 YTD
World Consumption	6175.9	6087.1	5976.1	-
World Thermal Coal Trade	1374.7	1383.6	1328.6	-
Australian Exports	192.3	200.0	200.6	-
Australian share	14.0%	14.5%	15.1%	-
Chinese Imports	113.1	111.7	65.8	31.3 YTD June
of which from Australia	51.4	59.7	43.2	17.4
Australian share	45.4%	53.4%	65.8%	55.6%
Indian Imports	129.50	153.1	160.1	44.7 YTD March
of which from Australia	4.4	8.8	8.4	3.3
Australian share	3.4%	5.7%	5.2%	7.4%
Japan-Korea-Taiwan Imports	246.2	247.2	254.2	98.8 YTD May
of which from Australia	135.1	139.8	150.2	59.5
Australian share	54.9%	56.6%	59.1%	60.2%

Source: Tex Reports , Metalytics

Longer term, the outlook for thermal coal and Australian thermal exports is not good. The IEA has recently downgraded its long term forecasts for global coal consumption growth to just 0.8% on average to 2020, of which half will come from India and about one quarter from ASEAN countries. The IEA now sees flat or declining demand from China and absolute declines in the US and Europe. The risk for Australian exports is that Chinese thermal coal consumption may decline faster than domestic mine production, which could result in increased Chinese thermal coal exports. Prior to 2005, China exported up to around 70 mt of thermal coal per year, with most of this going to Australia's main customers Japan, Taiwan and South Korea. But a more likely outcome is that rising Chinese exports will displace Indonesian exports more than Australian exports, since Australian coal will maintain its significant quality advantage over Indonesian coals. After adjusting for energy content, Australian and Indonesian thermal coal cash costs CFR Japan are about the same.



Source: Metalytics at coalcostcurves.com.au

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