JAGUAR MEDIA **MAY, 2020**

"Secular Decline" Trade Idea: Short BHP Group (BHP)

In a nutshell: *Wait for the current "end of lockdown" + "China recovery" optimism rally to fuel BHP to ~$45, then go short. Place stop at $60, above economic cycle high. Target a retest of long-term support trendline, around mid-teens.*

First, let's take a high-level view of what's going on at the moment. Globally speaking, the US and the US Dollar is still the place for money to be. Here in Asia where I live, people are attuned to fluctuations in local currencies. And right now, I'm getting frequently asked whether we should be buying USD and/or investing in the US indices. Further, latest net FX speculation data shows that hot money is continuing to flee from riskier countries into USD and JPY. Meanwhile, most of the money (and bank reserves) the Fed is printing and allocating will stay in the US. Sure, I can see some of it going to China, but on the whole, you'd be crazy to send your money out of the US at this time. Where would you even send it? Europe? Latam? EM? No thanks… If anything, we are more likely to see increased repatriations by American companies and investors rather than money going out.

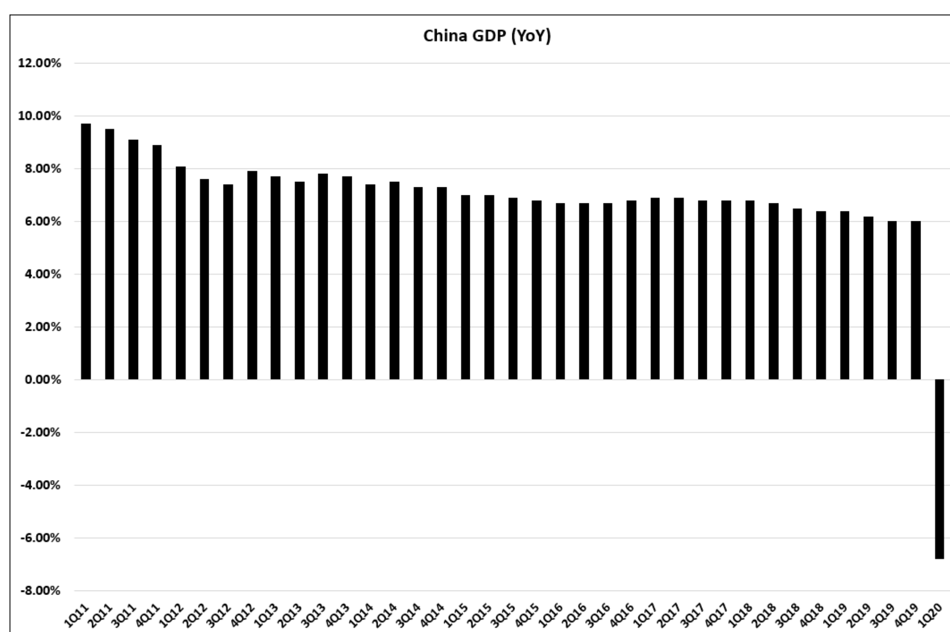
What this means is foreign equities are going to see less inflows relative to US equities. E.g. Why buy an Argentinian stock when there's no easy way to hedge Peso, and there is risk of a 30+% depreciation in the currency that will wipe out any capital gain? Another risk for ex-US companies is that the Fed and Congress will not be as willing to bail them out. Intelsat's (I) downfall is a good recent example, where US lawmakers questioned the logic of *"giving away $60B"* to foreign companies. More recently, the cruise companies have been left out of the US coronavirus stimulus program because they were incorporated offshore. Furthermore, ex-US monetary and fiscal policy is nowhere near as ramped up as the Fed's and Congress' policies right now, so we can't count on aid from countries where foreign companies are domiciled.

So, if we want to short some companies, it's best to short ex-US companies. With that criterion, let's start looking at a potential industry and company to be long, and likewise for the short position.

Outside of the US, I'm seeing several different themes of "secular decline" that are currently going under the radar. But for the purposes of this note, let's focus on the one that involves China and Australia.

For the most part, this theme has nothing to do with COVID-19. Everyone already knows the coronavirus will cause the global economy to slow greatly, so there's really not much favorable risk-reward for those types of trades (unless we know something additional about this brand-new virus that nobody else does). Rather, I'm making a call that China is never going to fully reclaim its former manufacturing growth nor do they intend to do so, and easy YoY comparisons for 2021 notwithstanding, I think Chinese manufacturing is in a long-term secular decline. And that's something I don't think consensus is positioned for at this moment. Before you say I forgot to take my crazy pills, hear me out…

First of all, in terms of GDP growth, China has already been in deceleration for the last decade:



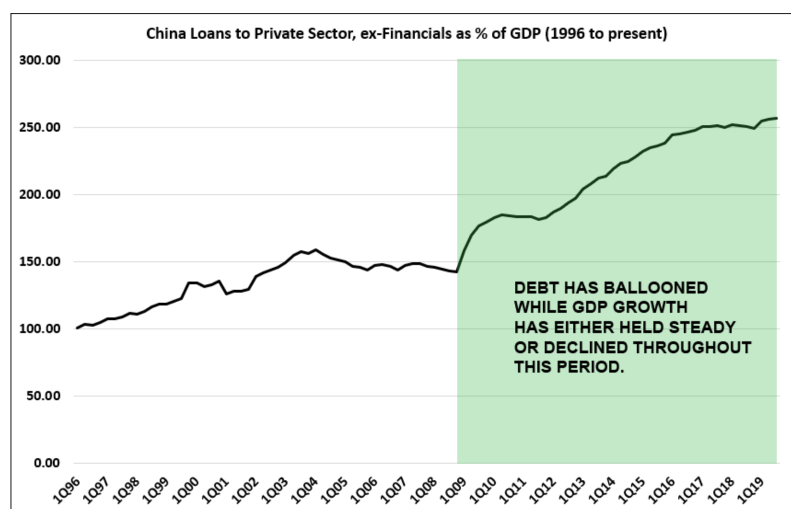
It's a not an entirely bad thing, because this is typically what happens as any country gradually transitions from being a manufacturing economy to being services-based. It happened with Japan, it happened with South Korea, it happened with every Western developed nation, and it's what we're now seeing with China. A consumer-led services economy that consistently grows above 5.0% every year simply does not exist.

What this means is there is going to be a continued decrease in aggregate domestic demand for materials. For instance, here's a fantastic albeit outdated article on how China's economic progression has resulted in a contraction in the chemicals market due to a combination of consumers trading up and tightening regulations. And for three interconnected reasons detailed below, I think Chinese iron ore demand (i.e. steel production) is poised to take the brunt of the slowdown going forward:

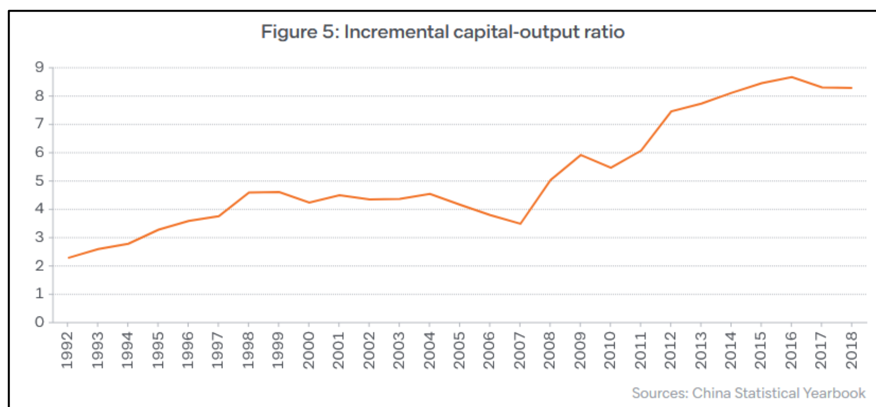
Reason 1: China does not have the gunpowder to repeat its massive infrastructure stimulus programs of 2008 and 2016.

When China did its $590B stimulus program and scrapped new loan quotas in 2008, debt was only 27% of GDP. As a result, they managed to keep GDP growth above 9.0%, successfully reaccelerating it to 10.6% in 2010. Then during the 2015-2016 growth scare, China unleashed a record 6.93T yuan ($1T) in total social financing within the space of a quarter, with most of it going to infrastructure projects to counter a slowdown in fixed asset investment from the private sector. Debt to GDP was at 44%, and this time, growth only accelerated from 6.74% to 6.76% in 2017 before continuing its deceleration. Clearly less bang for buck, and there's a reason for this…

The first thing to realize is that the vast majority of growth we've seen from China since 2008 was due to the accumulation of debt more than anything else:



The trouble with using debt to fund gross capital formation is that the Incremental Capital Output Ratio keeps increasing, which implies higher levels of inefficiency. For example, latest statistics show the amount of capital required to be invested per worker in China to maintain growth is already as high as 35% of US levels, which is excessive considering income per capita is barely over a quarter of that in the US. And if we're talking about overall investment, so not just workers, the chart below shows that back in 2007, China only needed 3.5 units of capital investment (including debt) to generate 1 unit of growth. Then all of a sudden in 2016, it needed 8.7 units of capital investment for 1 unit of growth:



Logically, this makes sense, as you can't keep perpetually borrowing money and not expect diminishing returns on those loans, regardless of how much you are being officially mandated to produce.

Fast forward to the present day, and China now has 51% debt to GDP with Incremental Capital Output Ratio of 8.3 as of 2018 (probably higher by now). One could point to 103% debt to GDP in the US and say China's is not as bad, but that's not a good comparison when US GDP growth is averaging 2% to 3%. But my point is if China could not accelerate growth by more than 0.1 percentage points with their 2016 bazooka, what makes consensus think they are going to accelerate growth back to being consistently above 6.0% this time round? Since 2015, the nation has grown 6.74% in 2016, 6.76% in 2017, 6.60% in 2018, and 6.1% in 2019. Let's say we get 3.5% in 2020, then the math shows that in order to get back to 6.0% growth in 2021, China will need to outdo its 2016-level by at least 33.4%, but this time with already an existing 250% private sector credit to GDP plus a saturated real estate market (more on this later). Therefore, even if they're not explicitly saying it, I suspect the politburo is preparing for 5-handle targets in the near future...

So, I think this explains why everything the PBOC and Chinese government have done so far to tackle COVID-19 crisis has been extremely tame compared to their past bazookas. The destruction to China's economic growth from the coronavirus is unprecedented in the modern era, and clearly much worse than the damage we saw in 2008 and 2016. One would expect a mother of all stimulus programs that would vastly overshadow the previous two. Yet, China's authorities are surprisingly reserved this time round. So far, all we've seen are some rate cuts and liquidity provisions, accompanied with promises by leaders to be *"proactive"*. In terms of actual fiscal stimulus in 2020, China is now way behind the US, Japan, and the EU (in fact, the US is about to do a 5th round!). And after the initial sharp rally the Shanghai Composite enjoyed in February due to stimulus hopes, that optimism seems to have fizzled and the index is now quietly underperforming its regional peers.

So where is the big bazooka?

In short, China can't afford one and its leaders fully understand the aforementioned relationship of diminishing returns. This relatively cautious program of easing speaks to the government's concerns over price stability and the country's large pile of debt. After all, the Renminbi isn't the world's reserve currency. When we see the PBOC putting out statements like it won't *"use its bullets all at once"* in late March, top government advisors saying things like *"Liquidity seems to be broadly ample and the financial plumbing continues to function. You don't want to go beyond that"*, and the central bank governor Yi Gang himself saying China is *"not in a rush"* to ease policy while rejecting the notion of QE, we have to read between the lines. It's as if they are in preservation mode rather than going on the offensive and taking on the slowdown head on. There is now even high-level talk of slashing GDP growth targets altogether. As much as the media and analysts keep hoping and saying the massive overarching stimulus is coming, as if they think they can somehow coerce China into doing one, I just don't think it will happen.

Moreover, the media keeps pointing to LPR and RRR cuts as if to say it's some kind of massive stimulus. But what exactly is the LPR? It's a custom weighted average rate at which 18 "designated banks" will lend to their best customers (nobody except the PBOC really knows what rates the 18 banks quote). Frankly, that's not exactly something that would inspire a dramatic recovery. Meanwhile, the MLF and RRR cuts are taking place at a slower rate than the LPR cuts, and while I get the theory, it remains to be seen how exactly that will help when the private sector is already saddled with a mountain of debt and so are the consumers.

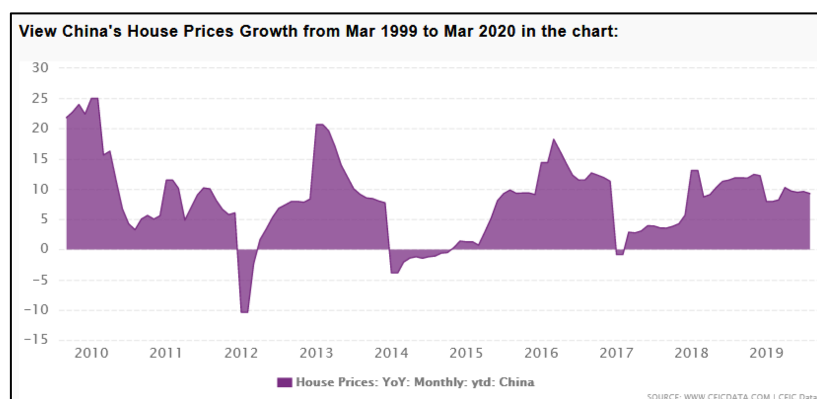
Rather than a massive stimulus program, I suspect China's measures are going to be more targeted this time round rather than a blanket policy of forcing nationwide projects to meet growth targets. In fact, I'm already beginning to see local Chinese news articles of minor scale stimulus at the provincial level. But that's for another time.

Reason 2: Due to an existing immense excess capacity, the Chinese government cannot continue flooding the real estate market with new residential infrastructure projects unless they want to risk civil unrest. This is due to an idiosyncrasy of how the Chinese population typically invests.

The way the Chinese invest is very different from the way Americans invest. In China, there's virtually no demand for passive equities investing, and the pension system doesn't really cover a significant portion of the population because many adults are either contractors, self-employed, or working informal jobs. Recently, there has been an investing craze in what's known as Wealth Management Products (aka WMPs), which are highly risky portfolios where the bank guarantees fixed returns while allocating the money into various volatile assets. But on the whole, the population typically doesn't invest in individual equities (intraday trading is another matter, but it's a long story). Thus, if you're ever wondering why so many Chinese companies choose to get listed in the US rather than back home, this is one of the major reasons.

So, besides WMPs, what other things do the Chinese invest in?

Mostly real estate and gold. Maybe it's down to trust issues, but they much prefer to see their money going into tangible things. If you were to ask any random Chinese investor to show you his/her investment portfolio, what you're probably going to see is something along the lines of more than 70% in real-estate, 15% in WMPs, maybe 10% in gold, and the remainder in cash. But the main takeaway here is that most ordinary citizens' money is in domestic real estate, due to restrictions on overseas investment and lack of alternative tangible avenues to park money (according to 2019 Nikkei estimates, about 80% of Chinese people's wealth is in the form of real estate totalling over $65T in value, twice the size of all G7 economies combined). As a result, the whole industry accounts for about 30% of China's GDP and plays a pivotal role in creating jobs and generating cash for local governments. This is why it's always in Beijing's best interests to avoid real estate crashes. Right now, the potential ROI for investors is already not that great:



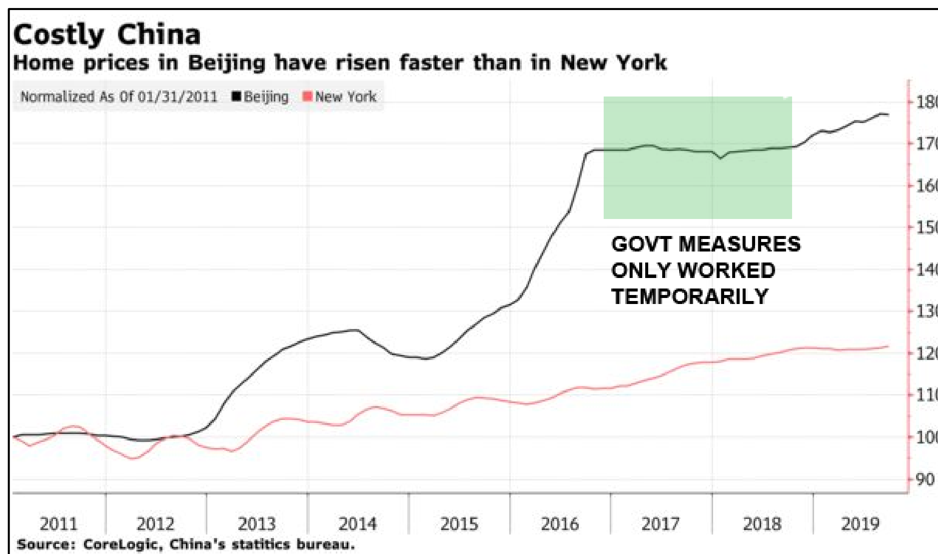
The key to understanding the "damned if you do, damned if you don't" situation currently plaguing the government lies in separately examining the Tier 1 property market, which has gotten too expensive, and the Tier 2/3 markets, where prices are extremely fragile.

Let's first look at the main Tier 1 cities: Beijing, Shanghai, Guangzhou, and Shenzhen. As one can imagine, these cities boast the highest prices in the nation, driving an affordability problem.

City	Price to Income Ratio
Caracas	150.6
Hong Kong	47.5
Shenzhen	44.9
Beijing	44.2
Mumbai	43.1
Guangzhou	33.2
Taipei	33.1
Bangkok	27.2
Shanghai	24.6
Seoul	24.0
Singapore	22.3
Paris	22.0
London	21.2
Milan	18.8
Munich	16.9
Vancouver	14.3
Tokyo	14.0
Toronto	13.9
Amsterdam	12.1
Sydney	11.4
New York	10.8
San Francisco	7.8

Last year, the Chinese Academy of Social Sciences (CASS) published a report mentioning 2018 as a turning point when the housing price to income ratio for these Tier 1 cities went above *"the point when the negative impacts created by costly real estate begin to outweigh the benefits."* For perspective, the table on the right shows they are among the most expensive places to live in the world as of 2020 (source).

The Chinese government is well aware of issues with the fast-growing house prices in these cities and investor fixation on real estate, but it's not something they can easily solve with more supply. There is simply no more urban land left for residential development regardless of how quickly inventory is being absorbed. In 2016, they attempted to cool down the market by introducing measures like increasing down payments to 60% from 50% for non-first-time purchases, limiting mortgage length to 25 years, and an outright ban on acquisitions of a third property in Beijing (it's not uncommon for Chinese people to have equity in three to four residential properties). While those measures did work for a while as prices dropped up to 10% within a year, the effect was only temporary while the price to income ratio continued to rise from 2017-levels regardless. So, that's one side of the problem.



Now let's take a look at the Tier 2 and Tier 3 markets. When China introduced the aforementioned price control regulations, a massive supply of low-cost and lesser quality apartments began springing up in the outskirts and smaller cities. The 2016 infrastructure stimulus package (plus Shanghai Accord if you believe in that sort of thing) likely added fuel to those projects. By mid-2019, that massive building boom resulted in as many as 65M empty apartments and across the country, with sales volumes in 24 cities tracked by China Real Estate Index System plunging by 44% (while the four major Tier 1 cities still saw a 12% increase).

At present, there remains more than 50 "ghost cities" with unfinished buildings due to lack of funding and demand according to the Beijing Morning Post, which is estimating the latest total number of empty apartments could be over 100M. Meanwhile, a report from China Index Holdings shows that out of all the properties that have been built on the outskirts of the nation's capital during these several years, only 46% had been sold as of Dec 2019.

This entire problem really stemmed from overeager developers who initially thought demand would be so strong that the apartments would practically sell themselves. Reportedly, there were project owners who didn't even bother with showrooms because they believed these cheaper properties would look attractive to those who were looking to buy low and sell high. Many of these apartments were poorly built, with unpainted walls, subflooring, tiny windows, and limited parking; almost as if they were meant for pure speculation rather than habitation. Kind of like the pink sheet of real estate.

Naturally, many potential buyers were put off by the quality, leading to a price war between developers and frantic discounting which is still going on today. But still no demand. Property agency Centaline now estimates around 80% of firms will face a loss on the projects mainly because the land was not cheap to begin with. This puts the highly leveraged developers in a tough situation:

Chinese property developers make up 30% of Asia's lowest junk-rated companies

Name *(headquarters)*	Industry	Rating
Sunshine 100 Holdings *(China)*	Property	CCC+
Yida China Holdings *(China)*	Property	CCC+
Oceanwide Holdings *(China)*	Property	CCC+
Guorui Properties *(Hong Kong)*	Property	CCC
YanAn Bicon Pharmaceutical Listed Co. *(China)*	Pharmaceuticals	CCC+
Pactera Technology International *(China)*	Financial	CCC+
Panda Green Energy Group *(Hong Kong)*	Energy	CCC+
MIE Holdings *(Hong Kong)*	Oil and gas	CCC–
Lippo Karawaci *(Indonesia)*	Property	CCC+
Bumi Resources *(Indonesia)*	Energy and resources	CCC+
Seadrill Capricorn Holdings *(Marshall Islands)*	Oil and gas	CCC+
SAI Global Holdings *(Australia)*	Financial	CCC+
Atlas Iron *(Australia)*	Resources	CCC

Source: S&P Global Ratings

We may be tempted to think of these "middle of nowhere" empty buildings as a separate issue from "actual" Tier 2 and Tier 3 housing. Unfortunately, the prices are intertwined due to two reasons. Firstly, the financial strain from being unable to offload all that garbage inventory has also resulted in price slashing within legitimate communities where people actually live and own homes. Secondly, many projects on the outskirts of Tier 1 cities, including some as far as 80 km from the city center, fall within those municipalities and were thus subject to the same 2016 price controls which applied to the urban areas.

As a result, this sparked a series of protests in late 2018 against falling property prices. In some cases, homeowners would even descend upon the offices of developers demanding refunds while repeating slogans like *"Return my hard-earned money"* and calls for the government *"to serve the people"* by intervening to prop up prices. Some prominent examples of discounting include:

- Zhangzhou in Fujian Province, where developer One Capital slashed prices overnight from 18K yuan per square meter to between 12K to 14K.
- Pingdingshan in Henan Province, where developer Country Garden offered a 20% discount on its properties despite heated opposition from existing owners.
- Shaorao city in Jiangxi, where the same developer lowered prices from 10K yuan per square meter to 7K.
- Pudong District (Shanghai), where prices were lowered from 35K yuan per square meter to 26K yuan. Similarly, two projects in the districts of Songjiang and Jiading offered discounts of 11%. Another project in Baoshan district gifted BMW cars to buyers, with the option of receiving 300K yuan, on top of referral discounts.
- Hefei and many other cities, where in addition to 10% discounts or higher, property companies also promised to help buyers secure local residential permit registrations (aka "hukou"), which provides social privileges in education, employment, health insurance, and other benefits.

What exacerbated this problem was that many people bought at the peak prices at the height of the bull market, and by 2018, a staggering 44% of residential property purchases were second homes while 25% were third homes. Home ownership had also reached unprecedented highs at 73.3%, a sign of saturation.

So, putting everything together, it's *"damned if you do, damned if you don't"* because no matter what the government chooses to do, it either risks eventual civil unrest towards impossible living costs in Tier 1 cities or intensifying civil unrest towards falling property prices in other places. This is bearish for iron ore demand because a) China lacks the space to build more homes in Tier 1 cities even though prices in those areas keep getting hotter, and b) they also cannot keep building in other places at the same pace as before (i.e. deceleration!) or it will exacerbate the oversupply.

To further prove the point, Xinhua was out with an article on April 22nd proclaiming domestic steel demand will *"forge a strong recovery"* in Q2 because *"China will intensify the renovation of old urban residential areas in 2020, with 39K communities to be renovated and benefiting around 7M households."* Because Xinhua is a government mouthpiece, we have to read between the lines. Why the emphasis on renovation rather than fresh infrastructure projects? Clearly, it's because they know they can't keep building. Moreover, renovation consumes less steel than new projects. So, this is actually a case of demand deceleration being spun as good news. The article goes on to declare that of the 6.70T yuan in planned provincial-level investments this year, 23% will involve new infrastructure. Recall in 2016, almost all of the fiscal stimulus went to new infrastructure. Again, deceleration.

Reason 3: We are seeing increased hostility from both sides of the Western political spectrum towards China. Additionally, everybody is now realizing the perils of placing too much supply chain reliance on a single country. Reshoring and/or diversification are probable. Plus, China's aging population and demographics are also not favourable for manufacturing going forward.

Let's be honest. For the longest time, globalism has been a convenient way for companies to increase operating margins not just via productivity gains, but also via jurisdictional arbitrage plus taking advantage of exchange rates and lower costs. This pursuit of "corporate efficiency" is essentially why almost everybody flocked to China rather than spreading out production evenly across the globe.

But as we all know, one massive weakness that COVID-19 has exposed is a global supply chain overreliance on China. When the Chinese shutdowns began due to the outbreak in Wuhan, it paralyzed the production of all the companies that relied solely on Chinese manufacturing and just-in-time practices. And when the coronavirus reached European and US shores, the Western world suddenly realized they don't manufacture enough of their own drugs, test kits, masks, and ventilators.

If the recent rise in populism and tariff wars were not strong enough reminders, then this domestic lack of test kits will surely drive the following point home: When countries allow their companies to partake in globalism, what they give up in return is their own productive capacity. And it looks like efforts are now being made to address this:

- Earlier this month, Japan unveiled a $2.2B fund to encourage Japanese manufacturers to either repatriate or move operations from China to Southeast Asia. And in a follow-up, Yoshihide Suga, PM Abe's right-hand man, said on April 24th: *"In the case of surgical masks, for instance, 70% to 80% of what we have here are made in China. Even with factories in Japan running at full throttle, we still had a mask shortage. When China's economy shut down, a Japanese automaker was unable to procure parts and had to let a plant sit idle. We need to end heavy reliance on a single country for a particular product or material. For things that are essential to our everyday life, we need to bring production back to Japan or diversify the location of such manufacturing over several countries. This is an important lesson for crisis management."*

- On April 16th, EU trade commissioner Phil Hogan said the bloc would seek to *"reduce our trade dependencies"* and that, *"We need to look at how to build resilient supply chains, based on diversification."* Those declarations were echoed by European Commission President Ursula von der Leyen, who said a *"circular economy will make us less dependent and boost our resilience. This is not only good for our environment but it reduces dependency by shortening and diversifying supply chains."*

- In the US, White House advisor Navarro has stressed reshoring: *"There will be a big impetus for the US to pursue a decoupling from China, be less reliant on China, and bring back jobs here especially in the medical industry."* His colleague Kudlow went one step further: *"I would say, 100% immediate expensing across the board for plant, equipment, intellectual property, structures, renovations."* These are views shared by President Trump himself, who said, *"We've learned a lot about supply chains. We've learned that it's nice to make things in the US. One of the reasons I ran for office was because we started making things everywhere but here. If one thing comes out of this, more than anything else, is that we should make product in the US."* Meanwhile, the US Congress, led by Sen. Marco Rubio and Sen. Elizabeth Warren, introduced bipartisan legislation aimed at ending China's domination of the global pharma supply chain and other critical goods.

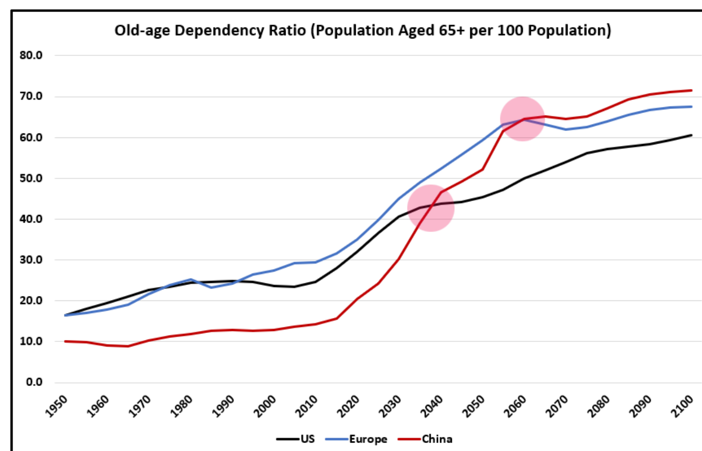
Reshoring and/or relocating to other geographies is not easy and would be a lengthy process on paper, so I don't envision a scenario where all manufacturing gets moved. I think the sort of production that will be the first to leave China would be that of crucial components, because it would immediately improve the agility of supply chains. Shortly after, I suspect we likely see some movement from tier 2 and tier 3 suppliers that serve original equipment manufacturers (OEMs). But after that, who knows? We'll probably get a bit of everything, like this guy who spent over $1B to move some of his glass business back to the US.

But will we see the vast majority of operations leave China? I doubt it. Thus, maybe in the near future we'll get something along the lines of new software solutions to improve supply chain transparency, given how leadership of companies like Emerson and Advance Auto have indicated they've needed weeks to identify where all their lower tier parts were sourced from when faced with COVID-19 disruptions. How will all this affect Chinese iron ore demand?

- For one, less exports likely mean a deteriorating current account for China (it's already been trending down the past decade). When coupled with the nation's debt problems detailed earlier, it further decreases the ability to fund massive infrastructure projects.

- Secondly, the companies/countries that commit to reshoring and relocations will be doing so with the full knowledge that they will have to take on higher costs. Vietnamese and Thai labor isn't as cheap as one may think. These countries are also not as productive due to smaller population size and stricter labor laws; they work less hours than Chinese labor in terms of both regular hours and overtime. Plus, they have stronger environmental protection laws. Thus, I think companies will be forced to prioritize financial strength over margins going forward. Outside of China, we'll probably see negotiations for lower prices from iron ore suppliers to make up for higher costs. And within China, we will either see less orders overall or erratic bulk orders received by remaining lower tier suppliers. In both cases, the basic materials industry will suddenly look a lot less attractive.

- Lastly, this may serve to speed up China's transition to being more services oriented. The politburo may be thinking if domestic manufacturing is going into slow burn contraction, then why not bring out the scalpel and help it along instead of sitting around waiting for the inevitable? I have no idea what the end result will look like, but I'm sure the leaders know the country can't stay a manufacturing economy forever as citizens gradually climb up the wealth ladder. Moreover, decades of population control (one-child policy) and emphasis on career building has left the nation with a rapidly aging population, with the UN estimating that China's old-age dependency will overtake the US' by the late 2030's. Lower manufacturing output is inevitable in the long-run.



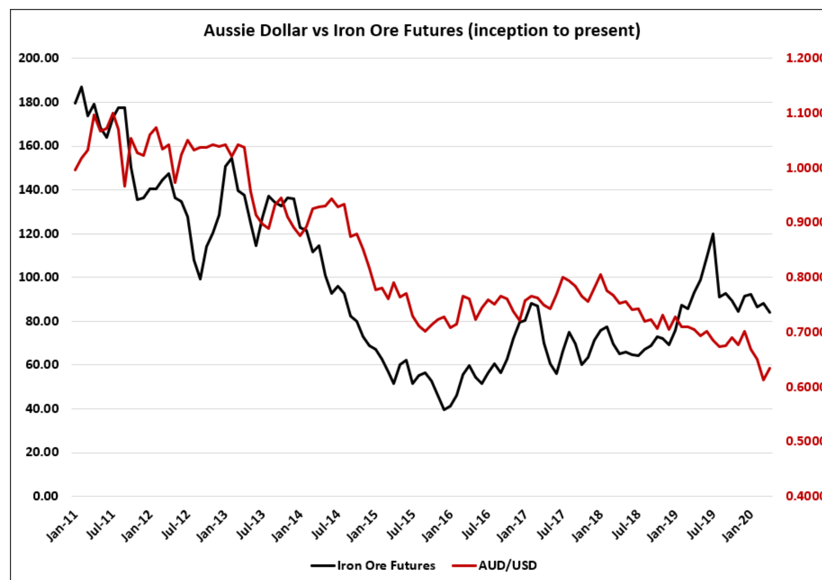
Switching gears to Australia and BHP Group.

There is no easy way to play the secular manufacturing decline in mainland China by shorting US-listed Chinese equities. The vast majority of them are in the services industry, which is where growth is actually taking place, while the few remaining ones involved in manufacturing tend to be illiquid small/micro caps.

The cleaner way is to short Australia, due to its heavy reliance on iron ore exports (with 82% going to China):

AUSTRALIA'S TOP EXPORTS, GOODS & SERVICES (a)
(A$ million)

Rank	Commodity	2016-17	2017-18	2018-19	% share 2018-19
	Total (b)	**373,769**	**403,360**	**470,170**	
1	Iron ores & concentrates	62,617	61,392	77,189	*16.4*
2	Coal (c)	54,236	60,379	69,592	*14.8*
3	Natural gas	22,308	30,907	49,731	*10.6*
4	Education-related travel services (d)	28,093	32,602	37,556	*8.0*
5	Personal travel (excl education) services	21,628	21,332	22,450	*4.8*
6	Gold	18,979	19,293	18,867	*4.0*
7	Aluminium ores & conc (incl alumina)	7,529	9,448	11,358	*2.4*
8	Beef, f.c.f.	7,115	7,963	9,476	*2.0*
9	Crude petroleum	5,150	6,506	8,491	*1.8*
10	Copper ores & concentrates	4,577	5,700	5,936	*1.3*



Keeping it simple, the only US-listed (non-OTC) iron ore miners with significant Australian exposure are BHP Group and Rio Tinto. Between the two, I've chosen to go with BHP as a short due to its assets being more at risk than Rio's, and also because it has an inferior balance sheet (nothing terminal, just inferior).

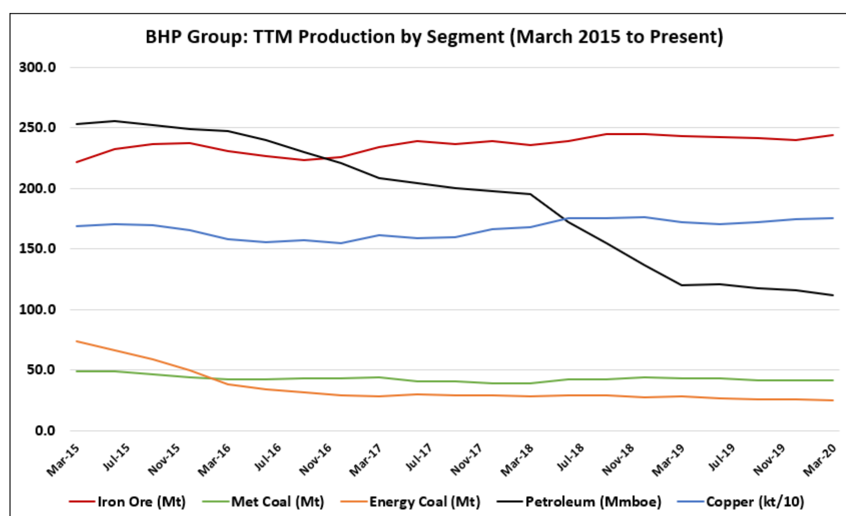
First off, here is what BHP's revenues look like as of FY19, segment-wise and geographically:

Year ended 2019 US$M	Petroleum	Copper	Iron Ore	Coal	Group and unallocated items/ eliminations	Group total
Revenue	5,853	10,838	17,251	9,121	1,225	44,288
Inter-segment revenue	77	–	4	–	(81)	–
Total revenue	**5,930**	**10,838**	**17,255**	**9,121**	**1,144**	**44,288**

Geographical information

	Revenue by location of customer		
	2019 US$M	2018 US$M	2017 US$M
Australia	**2,568**	2,304	2,037
Europe	**1,875**	1,886	1,641
China	**24,274**	22,660	18,644
Japan	**4,193**	4,628	3,036
India	**2,479**	2,439	1,891
South Korea	**2,550**	2,588	2,271
Rest of Asia	**2,940**	2,620	3,152
North America	**2,442**	2,715	2,233
South America	**662**	1,054	649
Rest of world	**305**	235	186
	44,288	43,129	35,740

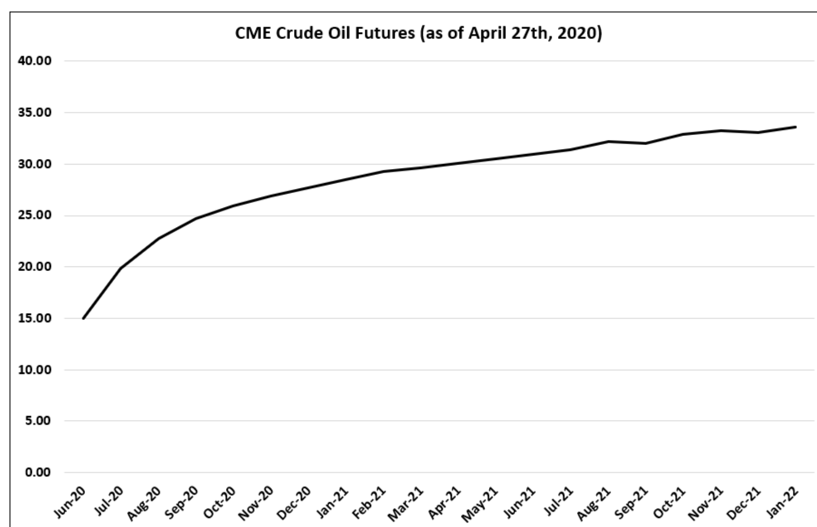
The key things to note are 55% revenue exposure to China (vs 51% for Rio Tinto) and 60% combined exposure to iron ore and coal (Rio has no coal exposure). Graphing the company's past five years of quarterly production, we can see the petroleum and coal segments have been in decline, while the copper and iron ore segments have chugged along without significant growth to speak of:



Given the ongoing Chinese restrictions on coal imports to balance supply and demand, plus the phasing out of coal power in the West, I think we can safely say BHP's slow burn downtrend in coal production isn't going to reverse anytime soon. The IEA expects global coal demand to expand at a meagre CAGR of 0.5% (reaching 5.62B tonnes of coal equivalent in 2024), but if we take India out of the equation, that growth rate becomes negative. As it stands, it's already difficult for coal companies to secure financing from large banks globally (see list here), so I don't assign a high probability for a sudden revival.

Meanwhile, despite the worrying slide in petroleum production, the latest bull case has been that the company's ongoing projects will lead to increased production over the next decade. During the most recent earnings report in February (so before COVID-19 pandemic), management enthusiastically said that Atlantis Phase 3 was on track to deliver first oil this year, with Ruby and Mad Dog Phase 2 to follow over the next couple of years. Atlantis (est. 38K boed) and Mad Dog (est. 130K boed) are Gulf of Mexico deepwater projects. In fact, the overwhelming majority of BHP's oil and gas assets are offshore (they sold their onshore US business not too long ago).

Currently, we're seeing massive oversupply and not enough storage with an abnormal amount of tankers sitting offshore. But that won't significantly stop production because, believe it or not, it's actually more costly to stop producing than it is to carry on. According to Rystad Energy, the process of shutting in a well and later turning it back on can be damaging to a well's productivity due to changes in pressure levels. The potential for long-term damage and the costs necessary to start up again means continued drilling would be the better option. So yes, oil will probably rebound from current prices in the teens, but if we look at the WTI futures curve, contracts are still trading in the low $30s going out to January 2022:



A quick search of the various geographies in BHP's petroleum portfolio shows low-to-mid $30s is the breakeven for most of its assets. At best, the company's petroleum bull case is on hold for 12 to 18 months. Moreover, even if the US energy industry is in distress, are the Fed and Treasury going to prioritize helping a foreign oil and gas company with mostly ex-US assets like BHP? I highly doubt it.

Next, let's look at copper, which I think will be a mixed bag in terms of growth outlook for 2020. BHP became the world's top producer in February after reporting a 7% YoY increase to an annualized 1.77M tons, while Chile's Codelco announced a -5.6% YoY output decrease to 1.71M tons. While there are obvious demand risks from less consumer big ticket spending due to COVID-19 layoffs (e.g. smartphones, electronics, automobiles), it will probably be offset by the resumption of global infrastructure projects. Plus, copper does have its uses in 5G, especially in routing equipment connections and radio access networks. On the supply side, we're seeing some temporary disruptions after the Escondida mine confirmed two coronavirus cases which has resulted in reduced staffing, and Peru's Antamina mine said in mid-April it would halt operations for at least two weeks. But so far, nothing too serious. Understandably, there has been a lack of recent sell-side research notes addressing copper demand for this year, which takes us back to the idea that NOBODY HAS A CLUE. So, rather than trying to predict what's going to happen, let's be conservative with our bearish thesis and assume copper consumption sees about 0.5% to 1.0% growth in 2020, which would already be higher than S&P Global's estimate from Nov 2019.

Lastly, regarding iron ore, Chinese steel demand and production are going to see a slowdown in 2020 no matter how positively China tries to spin it. The nation is by far the biggest producer of steel, accounting for 51.3% of global annual production (928M tons). So far this year, they shipped out 14.3M tons of steel products in Q1, down 16% YoY. As for domestic consumption, there are no reliable figures but if it's any indication, the China Iron and Steel Association (CISA) said first quarter profits among state-owned steel firms plunged 50.8% YoY. But Q1 is old news now, and it is what will happen for the rest of the year that's more important. According to Reuters, CISA claims that steel usage in construction (which represents 55% of total domestic consumption) will *"fully recover"* in Q2 and that iron ore imports will rise between 3.7% and 6.5%. However, those are very low numbers considering the easy Q1 comparisons and weirdly, do not

add up to a full recovery at all if going by official numbers. As it stands, inventories of China's key steel companies hit record highs of 17.95M tons in early April (+88.32% YTD). And for reason's already covered earlier, I don't think import numbers for Q3 and beyond will be as bullish as everyone is hoping for.

Putting all four segments together, it's hard to envision any earnings or revenue growth for BHP in 2020. Right now, consensus is looking for 11.9% EPS growth and -5.3% revenue decline. The last major EPS estimate revision was ages ago, so let's ignore it. But the forecasted revenue has been steadily slashed since March and looks spot on. And for 2021, analysts are forecasting another -5.9% drop. RBC was out with a deep dive on the mining industry on April 24th, titled *"Diversified miners, Pulling up the drawbridge."* The note mentions that:

> *"The demand shock in 2020 appears to be much greater than what is currently priced in.* ***Price pressure over the next 6 to 12 months will be far worse than consensus expectations****, or what is discounted into current valuations.* ***We could see significant EPS downgrades, with dividends for the majors falling by 90% to 100% for 2020.*** *If global GDP fell -5% in 2020E, we could see copper demand fall -15% and steel -18% which would trigger inventory growth to unprecedented levels.* ***Even with a rebound in 2021, we expect profitability to remain constrained, especially as the world likely battles a global output gap, with the potential inventory build facing most metals leaving an impact on pricing for the next decade."***

One of my favorite "secular decline" short idea setups are when the stock bounces higher in the near term while consensus estimates for the next couple years are continually being revised lower. To me, this looks like an easy short.

Suggested setup: Wait for the current "end of lockdown" + "China recovery" optimism rally to reach key resistance at ~$45, then go short. Place stop at $60, above economic cycle high. Targeting a retest of long-term support trendline.

Timeframe: 12 to 24 months.

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