



On the Verge of a New Commodity Supercycle?

3rd June 2021



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Part 1

WHAT IS A COMMODITY SUPERCYCLE?





What is a commodity supercycle?

- A commodity supercycle is the term used to describe moves in commodity prices which are longer-term in nature – often over several decades.
- There have been six such supercycles since 1795 with the most recent peak occurring in June 2008.
- Most, but not all, commodity supercycle peaks have coincided with a peak in inflation (see next page).
- Work conducted by Daniel Sullivan, Head of Global Natural Resources at Janus Henderson, suggests that a new supercycle upturn will commence in the 2020s but that inflation will not peak until 2045.



Four of the six commodity supercycle peaks since 1795 have coincided with a peak in inflation.

US Commodity Price Index since 1795

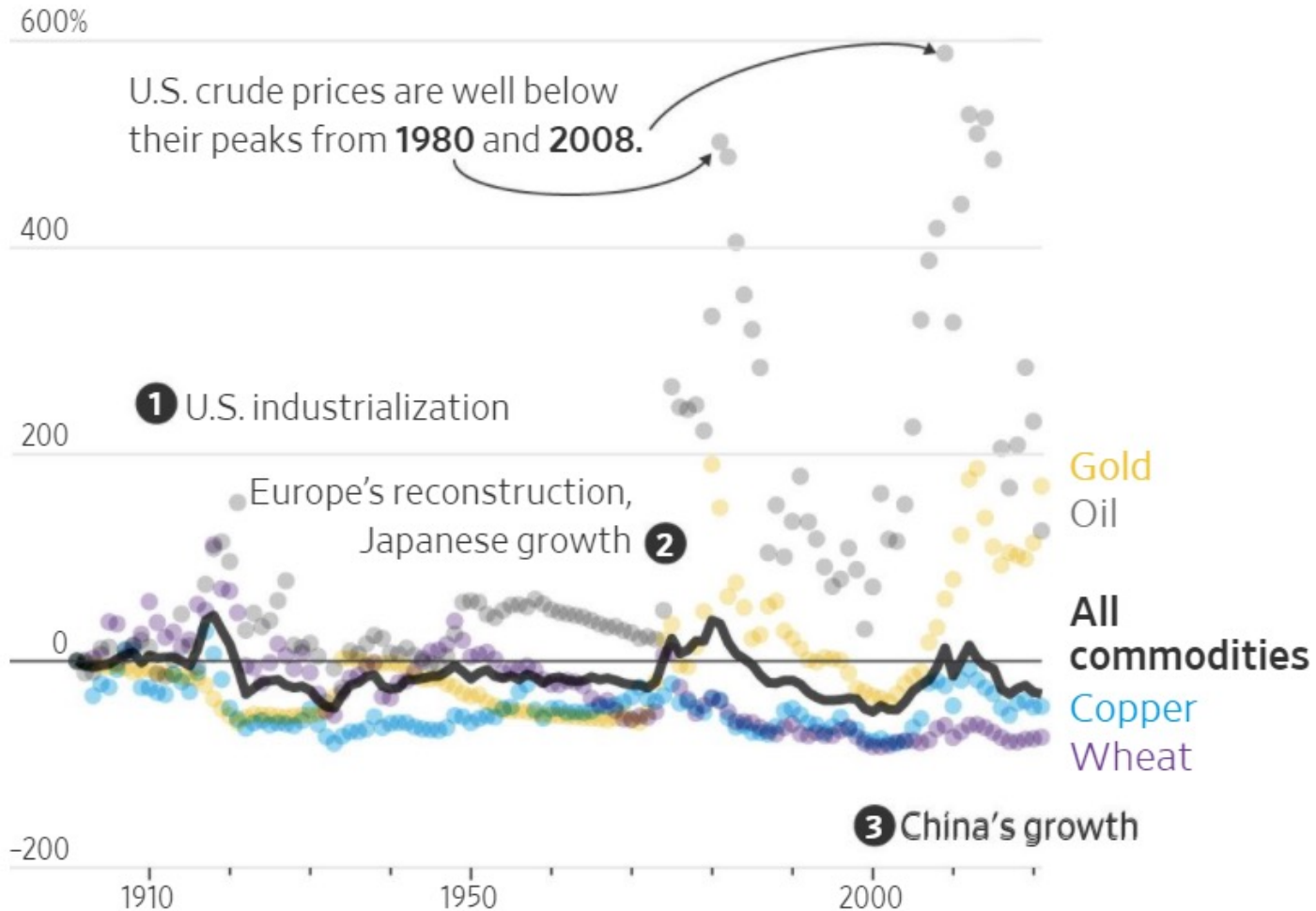


Red dots: major inflation peaks, Blue dots: major inflation troughs



In real terms, most commodities are cheaper now than they were 120 years ago, adding fuel to the argument that we are in the early stages of a new supercycle.

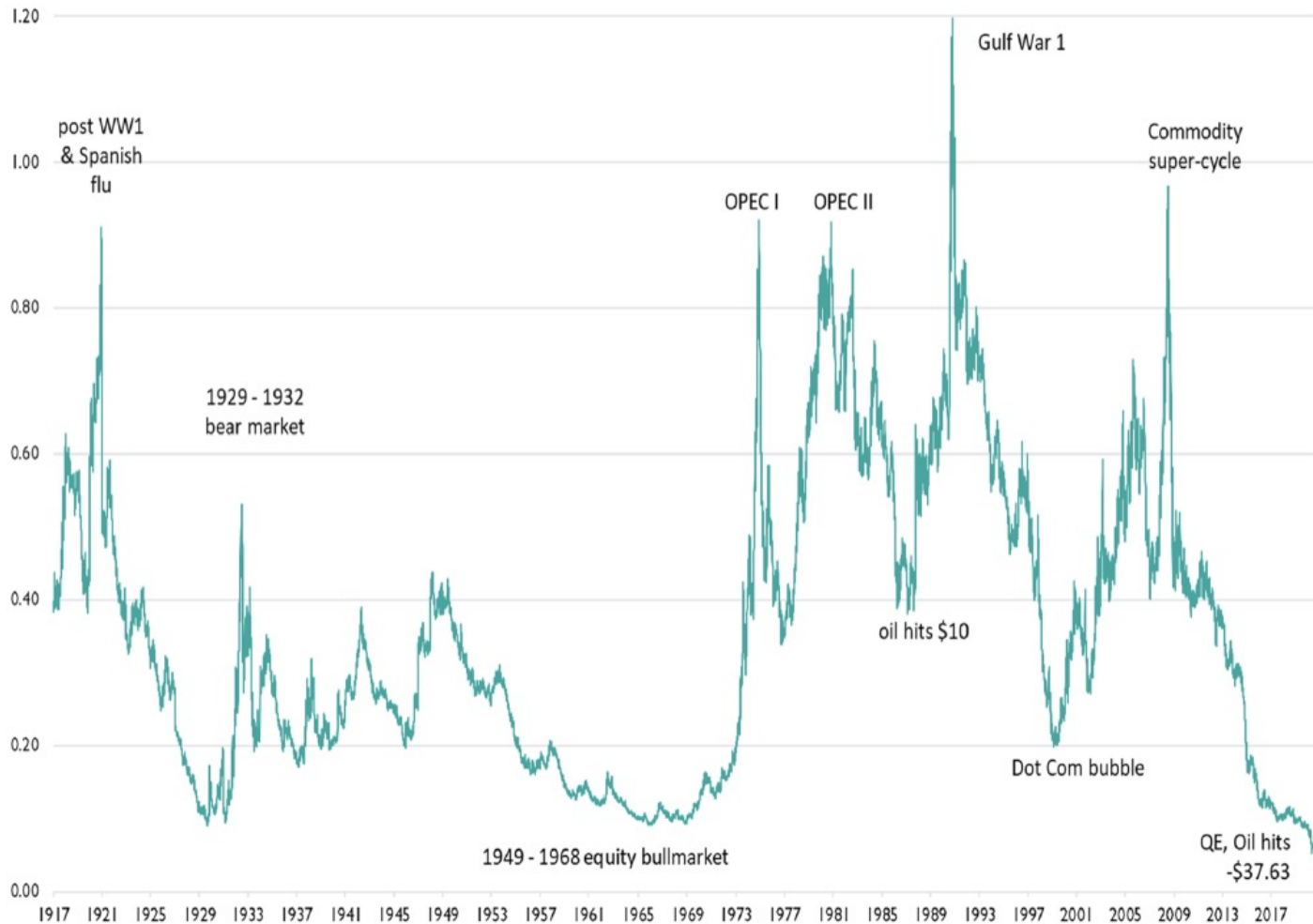
Change in Inflation-Adjusted Commodity Prices since 1900





Relative to equities, commodities are trading at 100-year lows, further supporting the view that we are on the verge of a new supercycle.

GSCI Commodities Index Relative to DJIA



Part 2

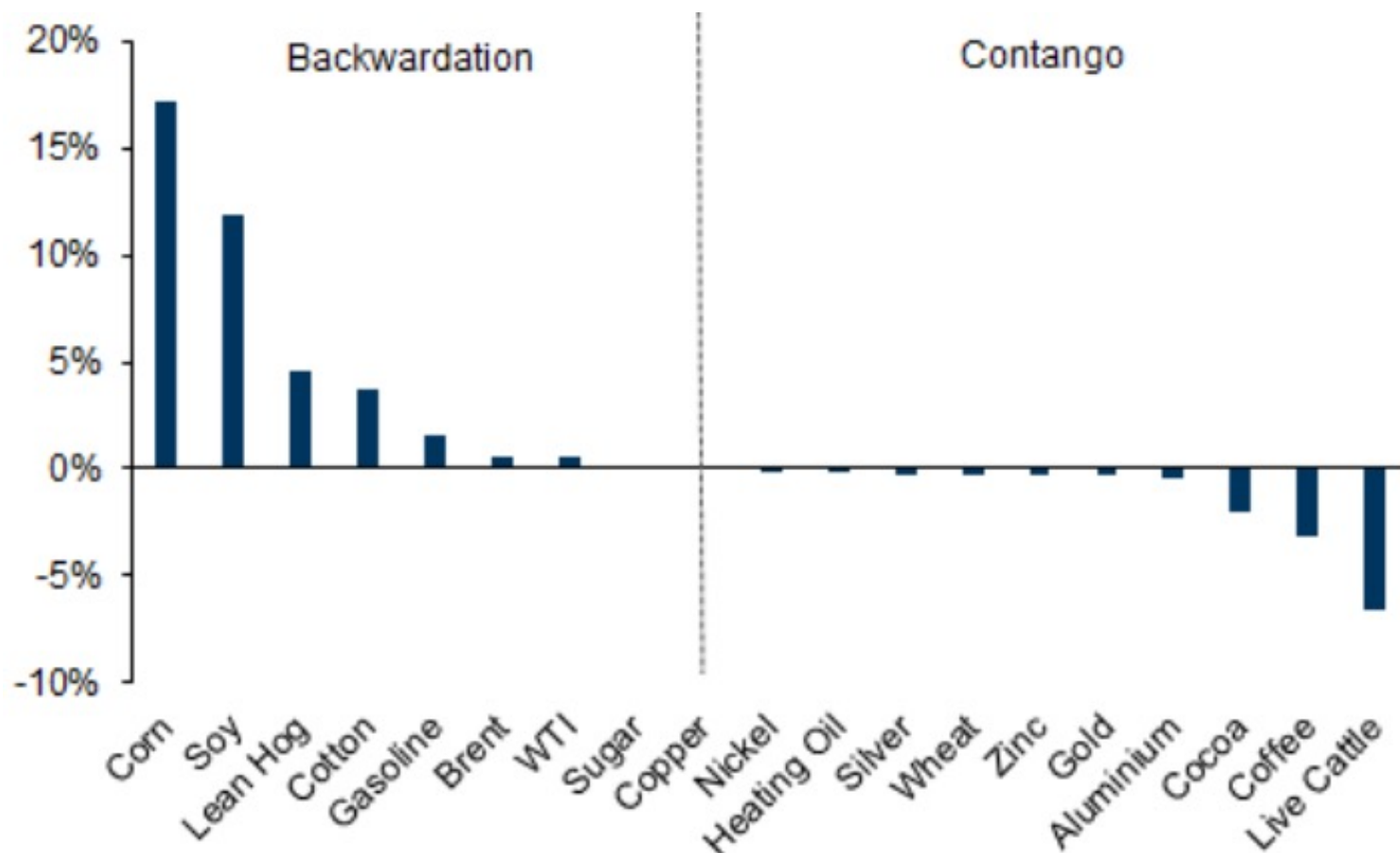
COULD THIS BE THE REAL THING?





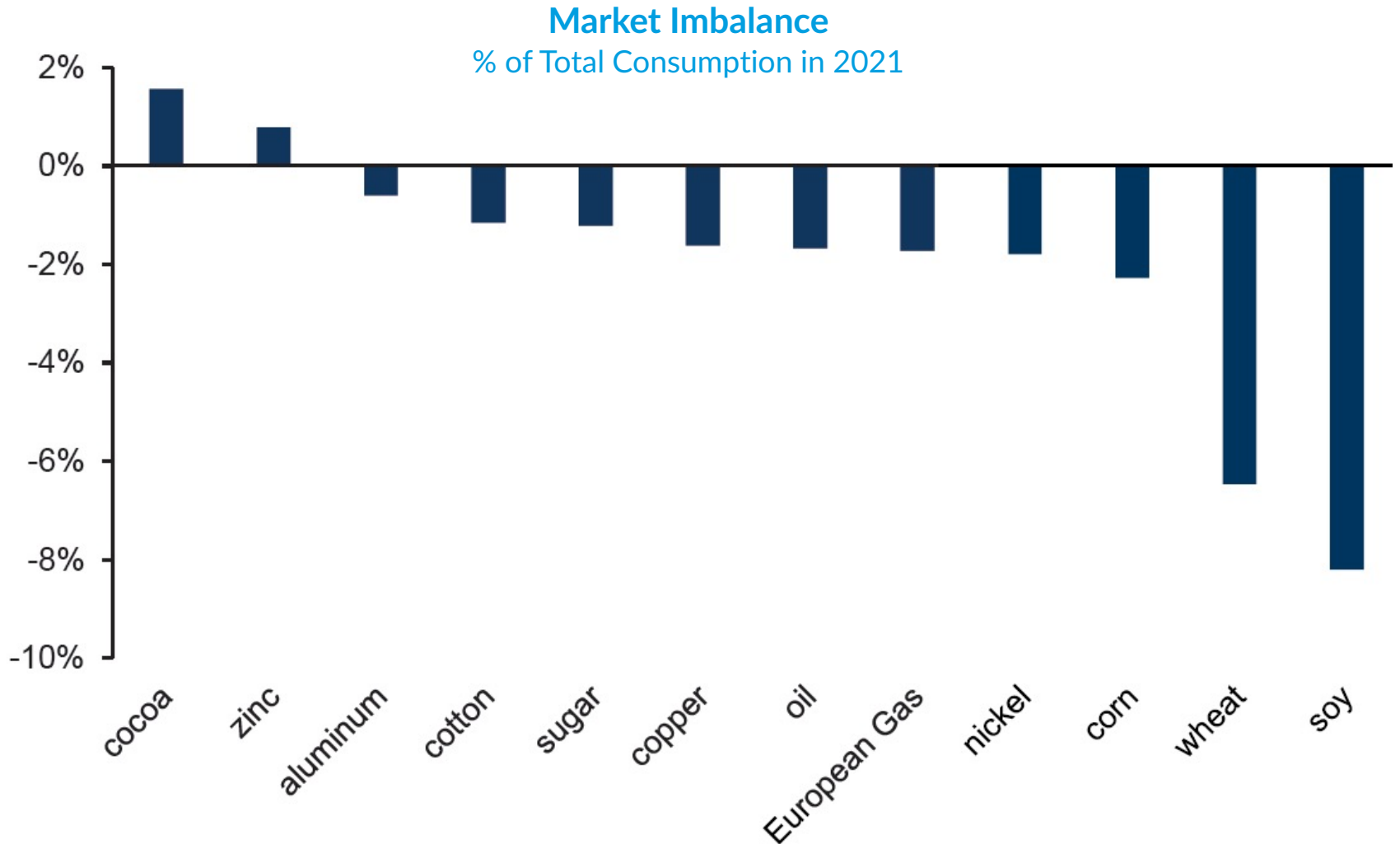
Inventories must be drawn down before a scarcity premium (backwardation) can be sustained. Future tightness *cannot* be priced in today.

Implied Roll Yields (annualised) From First to Third Contract



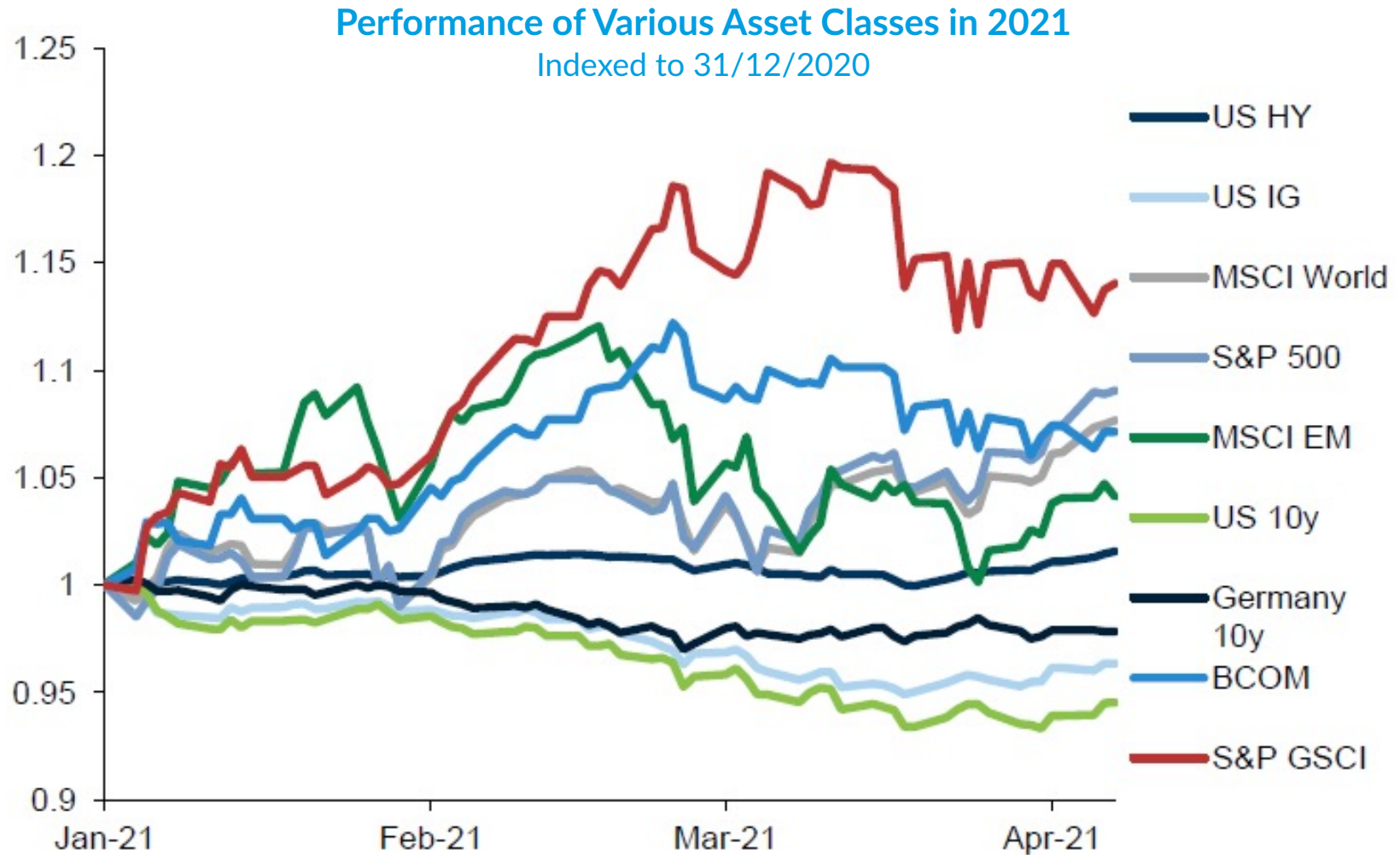


Most major commodities are currently in deficit – a key condition for commodity prices to rise further.





Commodities have outperformed all other main asset classes YTD.



Part 3

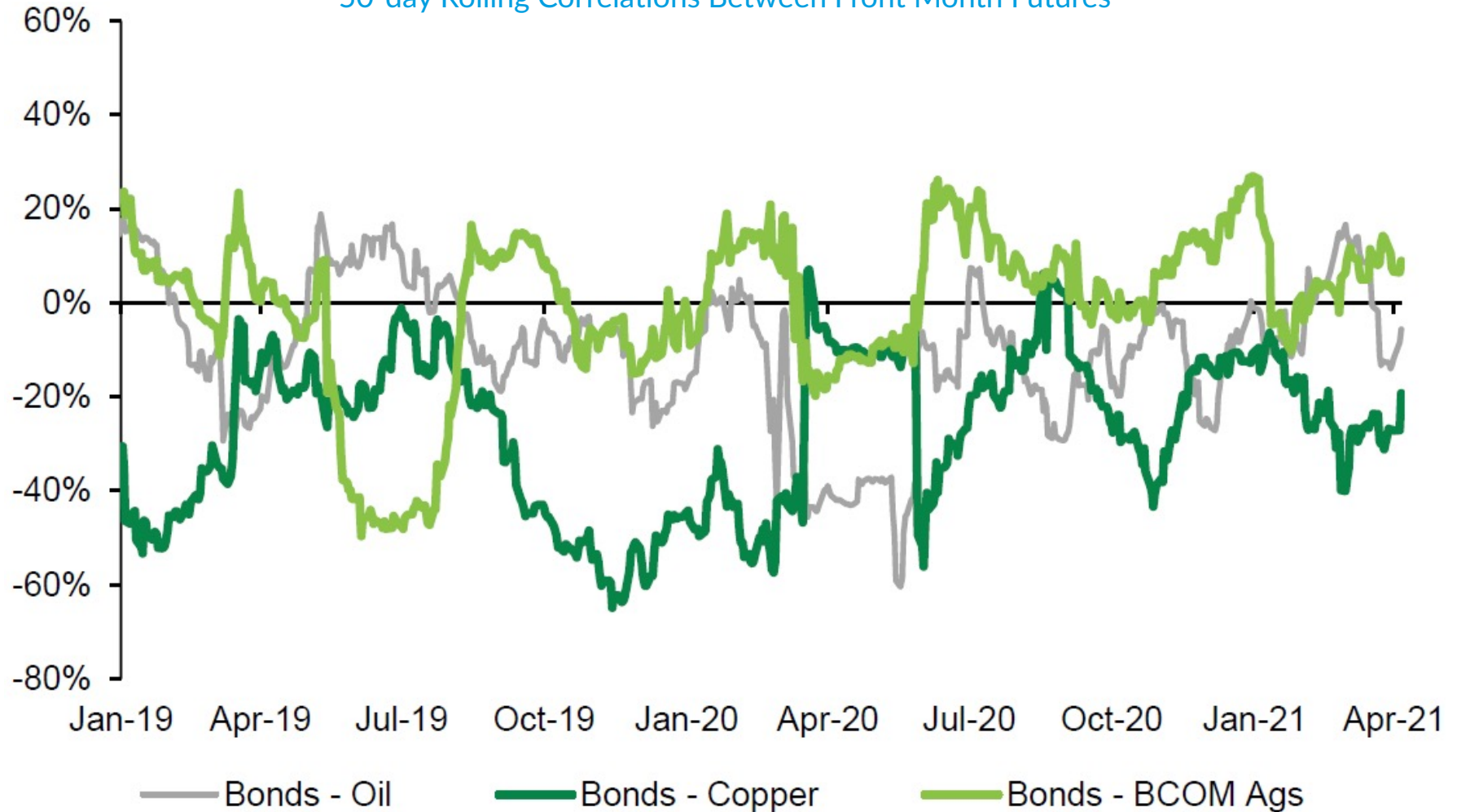
WHY YOU SHOULD BE LONG COPPER





Copper is negatively correlated with bonds, providing a unique hedging opportunity, should interest rates continue to rise.

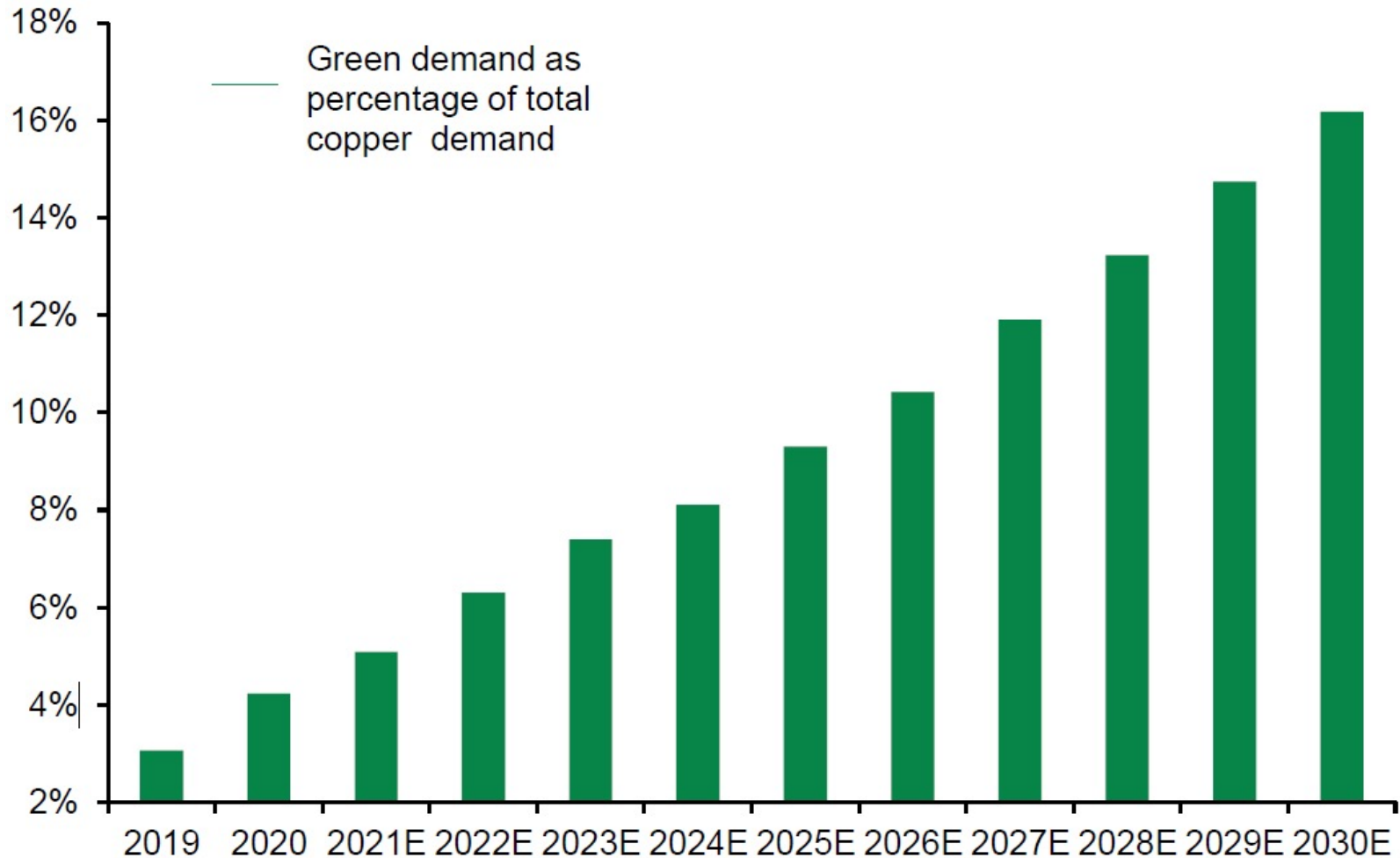
Correlation Between Daily Returns on Copper, Oil, BCOM Ag Subindex with 10-Yr USTs 50-day Rolling Correlations Between Front Month Futures





Demand for green copper will rise dramatically over the next 10 years.
Could copper be the new oil?

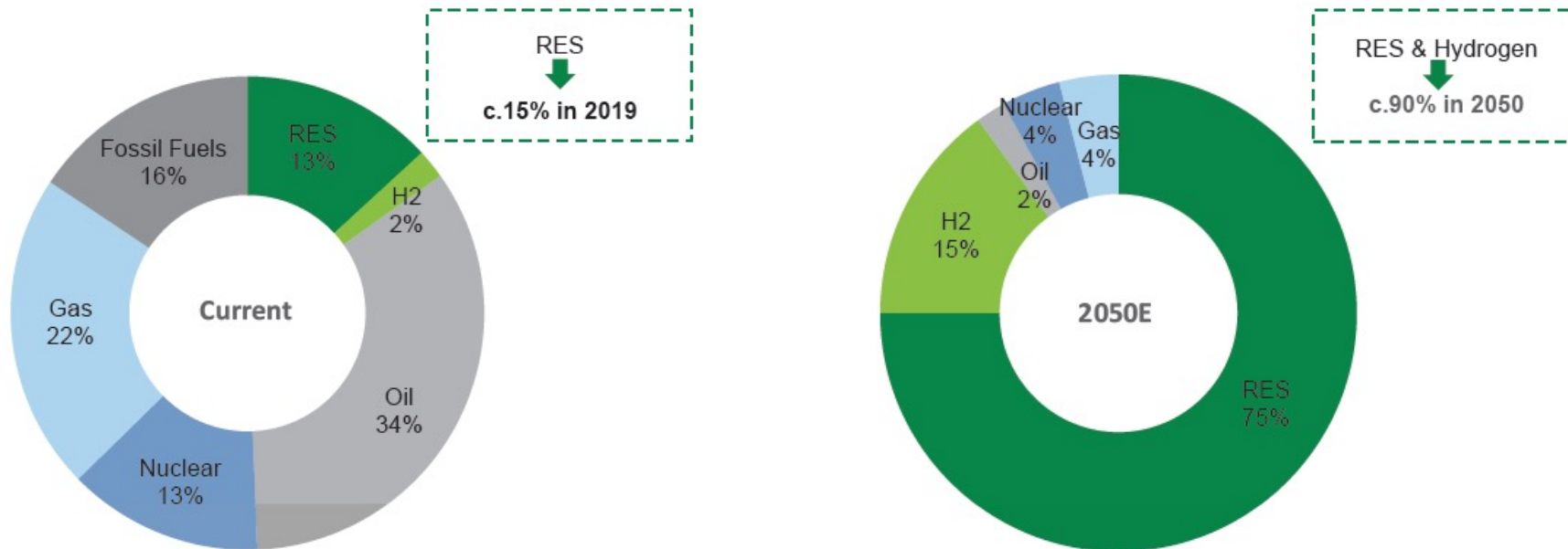
Green Copper Demand as % of Total Copper Demand





With renewables growing from 15% of the energy mix in 2019 to an estimated 90% by 2050, demand for copper will grow briskly for many years to come.

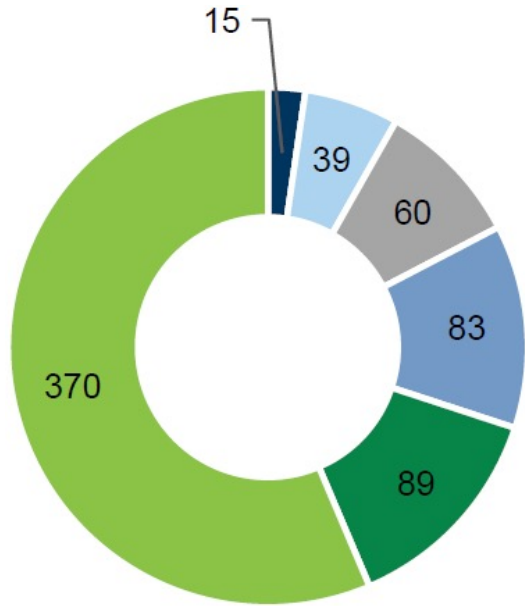
Energy Mix





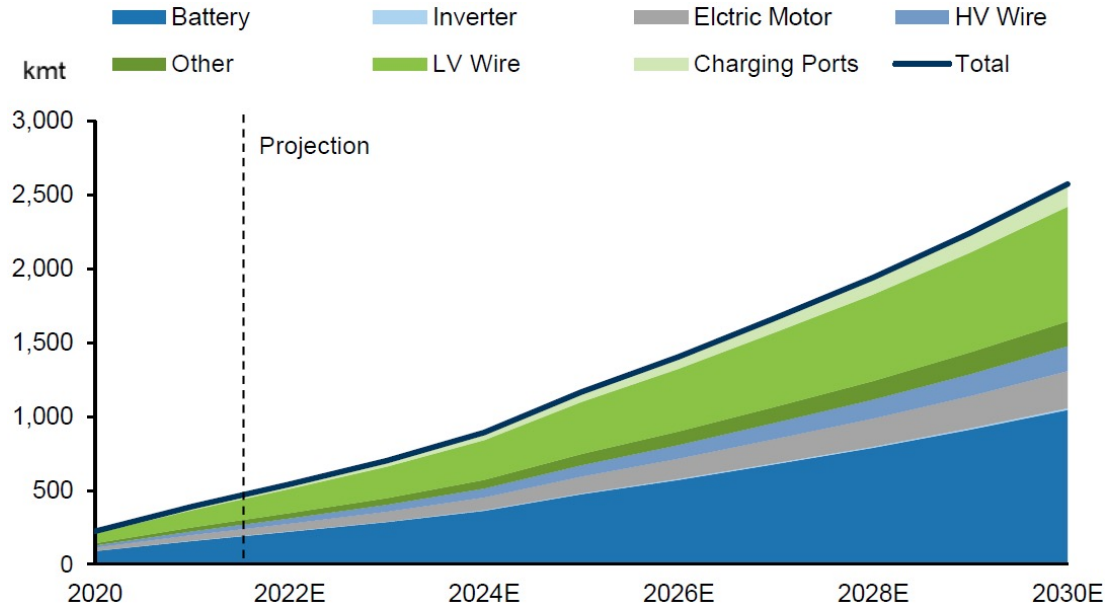
Electrification of the transportation fleet will drive demand for copper even higher.

Copper Content by Type of Vehicle (kg)



- ICE vehicle
- HEV
- PHEV
- BEV
- Hybrid electric bus
- Battery electric bus

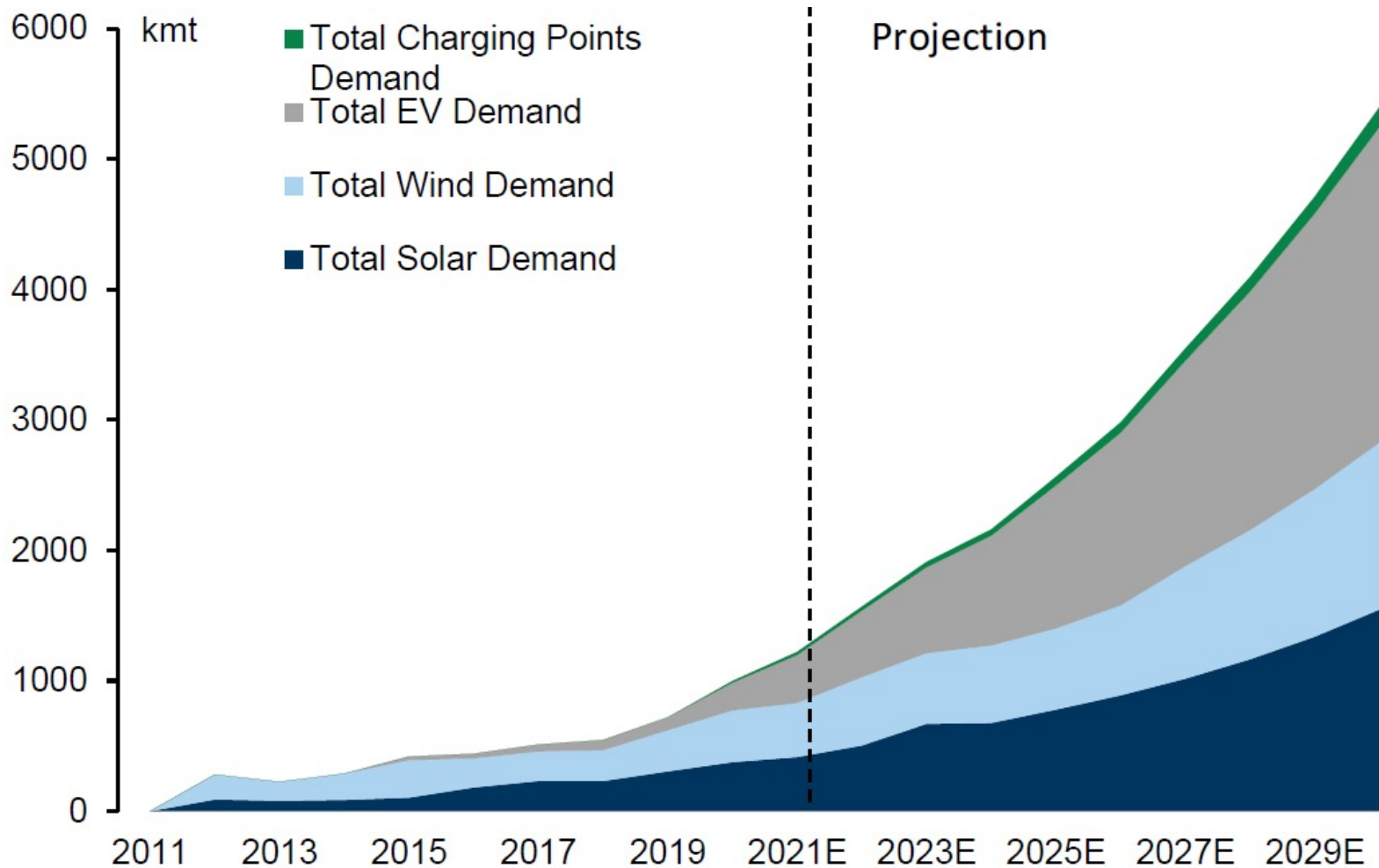
Copper Demand by EV Components





Between wind, solar and EVs, demand for copper will continue to rise rapidly.

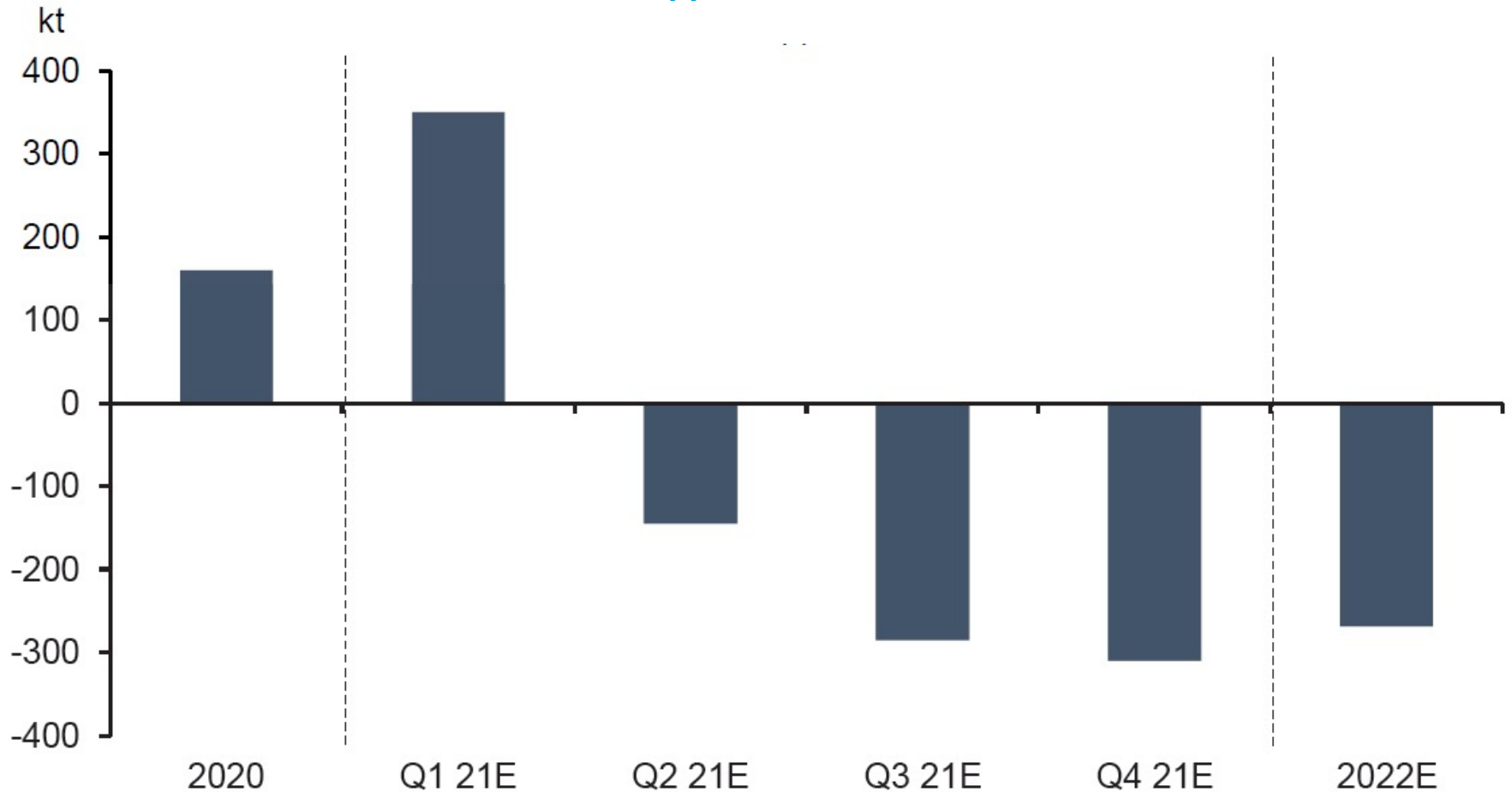
Demand for Copper by Green Sectors





The global copper market is on the cusp of entering a significant deficit phase with a major supply gap on the horizon.

Global Copper Market Balance

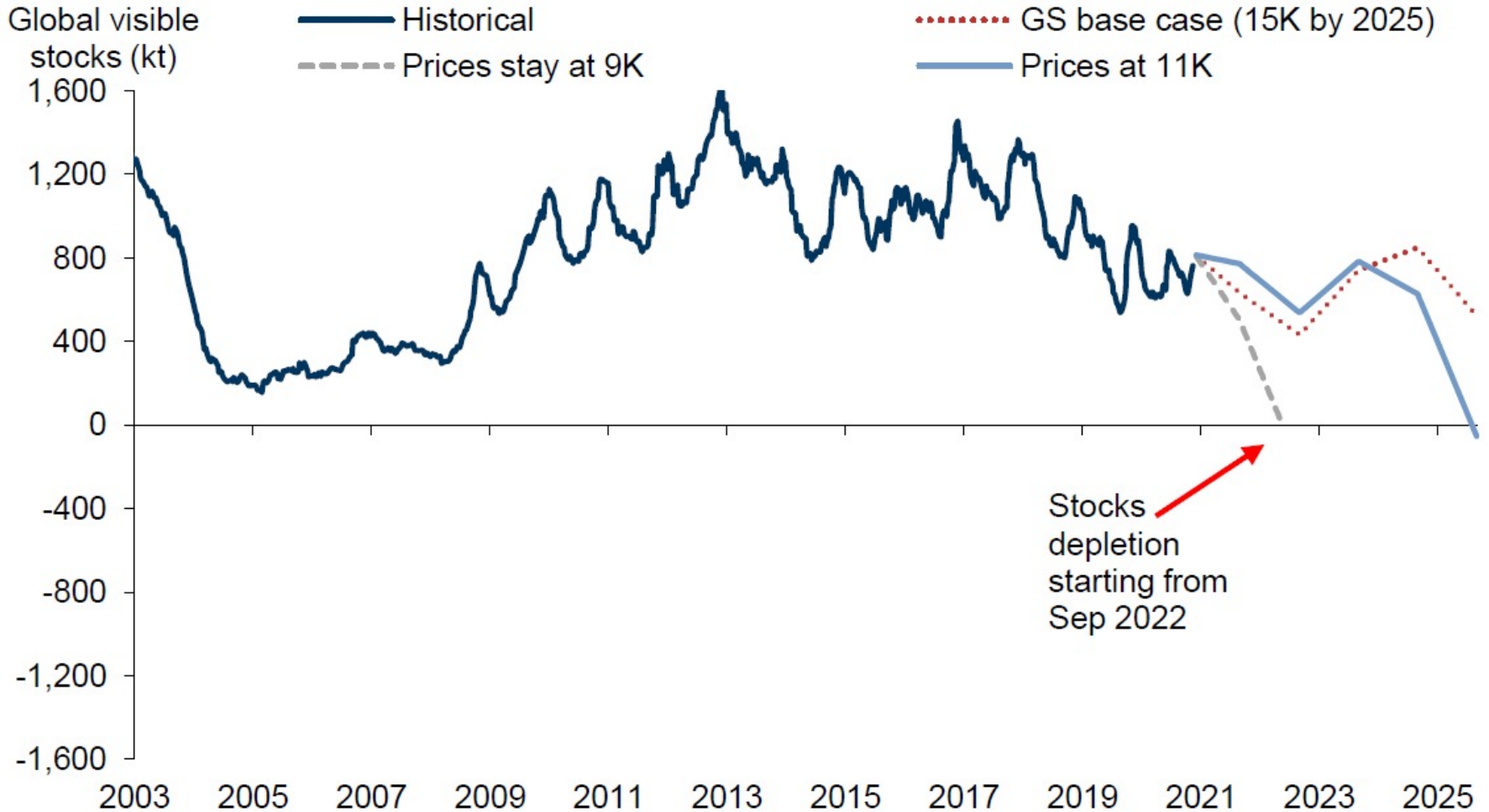




Copper prices will most likely be forced higher to prevent the depletion of global copper inventories, starting late next year.

Copper Stocks

Historical & Forecasted Global, Visible Stocks





There are different ways you can invest in copper.

Listed Copper Mining Companies

BHP: An Anglo-Australian company which mined a total of 1.72Mn tonnes of copper in F2020 (#2 worldwide). Listed on LSE.

Freeport-McMoran: A US company which mined a total of 1.45MMn tonnes of copper in 2020 (#3 worldwide). Listed on NYSE.

Glencore: Headquartered in Switzerland with a UK presence too. Total copper output in 2020 of 1.26Mn tonnes (#4 worldwide). Listed on LSE and JSE.

Copper ETFs / ETNs / ETCs

WisdomTree Copper ETC (COPA):

COPA is an ETC, backed by swaps, that tracks the Bloomberg Copper Subindex. Listed on LSE.

iPath Copper ETN (JJC):

JJC is an ETN that tracks the Bloomberg Copper Total Return Index. Listed on NYSE.

Other Ways to Be Exposed to Copper

Total Return Swap:

The swap is against a futures contract of your choice. The trade is settled at expiry with a single payment being the diff. between entry level and final level.

Physical Copper:

Buy physical copper and store it in a secure space (aka as a bonded warehouse). Goods stored this way will only be liable to import duty and VAT when sold.

Part 4

OTHER COMMODITIES TO CONSIDER





Copper is not the only metal that stands to benefit from the energy transition in the years to come.

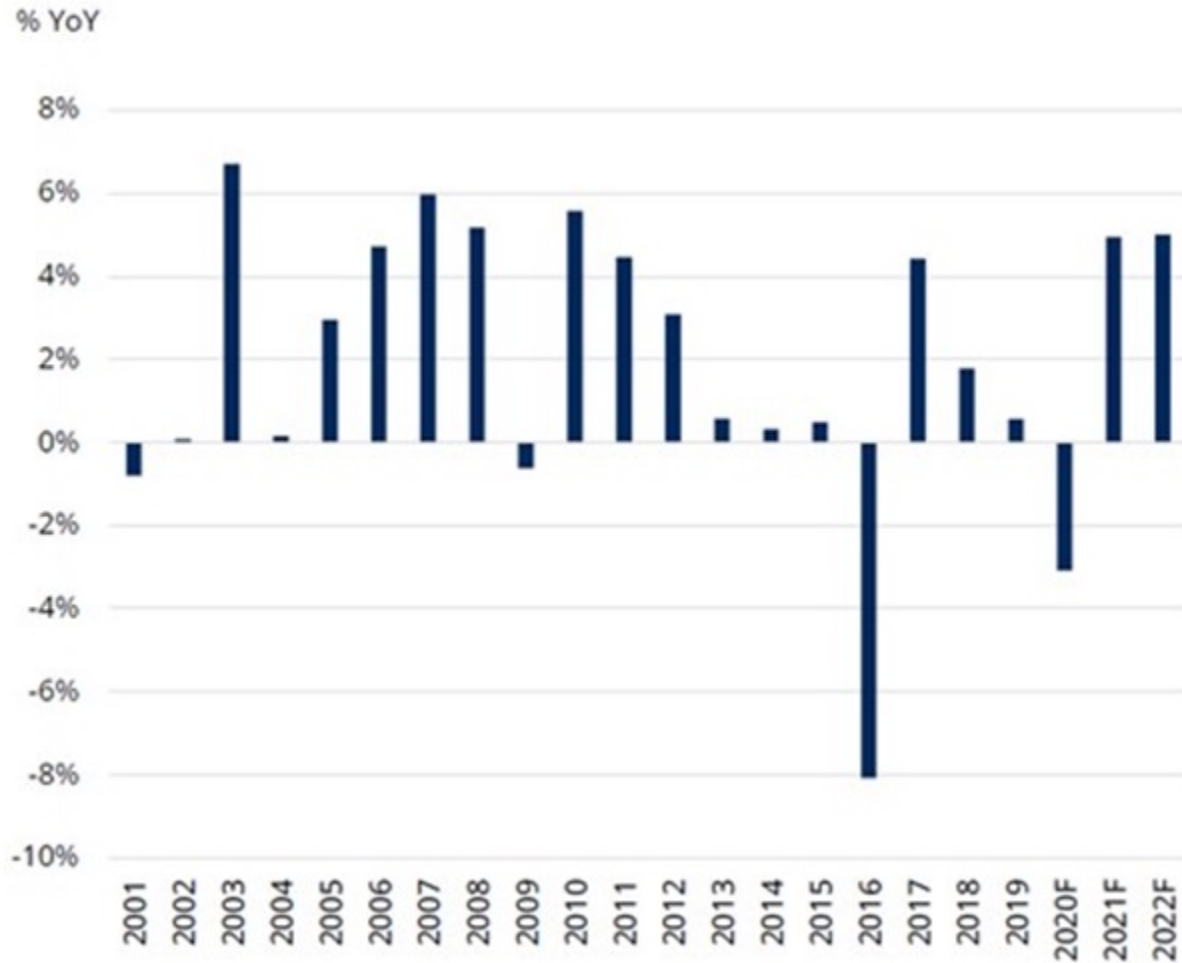
Winners and Losers in the Energy Transition Process

	Power applications			Automotive	Others		
	Wind	Solar photovoltaic	Energy storage	Electric vehicles	Electric motors	Carbon capture and storage	Light emitting diodes
Aluminium	X	X	X		X	X	X
Chromium	X					X	X
Cobalt			X	X		X	
Copper	X	X		X	X	X	X
Indium		X				X	X
Lead	X	X					X
Lithium				X			
Molybdenum	X	X				X	X
Neodymium (proxy for rare earths)	X			X			
Nickel	X	X	X	X		X	X
Silver		X		X			X
Steel	X						
Zinc		X					X



Why negative on steel and zinc? In short, too much new supply coming onstream.

Global Zinc Supply Growth





Many commodities offer great upside over the next 5-10 years. My favourites, other than copper, are ...

Lithium

- Lithium is the lightest of all metals and the one with the greatest petrochemical potential (high energy density), making it perfect as fuel in fusion reactors.

Aluminium

- Overall, demand is rising, and green demand is rising particularly fast with supply constraints coming up.
- Aluminium-ion batteries charge up to 60x faster and last 3x longer than lithium-ion batteries.

Silver

- Silver is far more than a precious metal, protecting you against devaluing fiat currencies.
- It is a key raw material when constructing solar panels, widely used in EVs and critical when rolling out 5G.

Graphene

- Graphene is a lightweight material made from graphite.
- It is 1000x faster than silicon, conducts electricity 13x better than copper, and conducts heat 2x better than diamonds.

Uranium

- Uranium leaves virtually no carbon footprint and is a must if the ambition is to turn carbon neutral by 2050.
- China will triple its nuclear capacity over the next 10 yrs, and demand will begin to outstrip supply within 2-3 yrs.

Water

- Water is a notoriously difficult commodity to invest in.
- One option is not to invest in water directly but in technologies designed to enhance water security.

Part 5

THE GRAYSWAN COMMODITY INDEX

... A SIMPLE WAY TO BE EXPOSED TO
COMMODITIES ACROSS THE SPECTRUM:

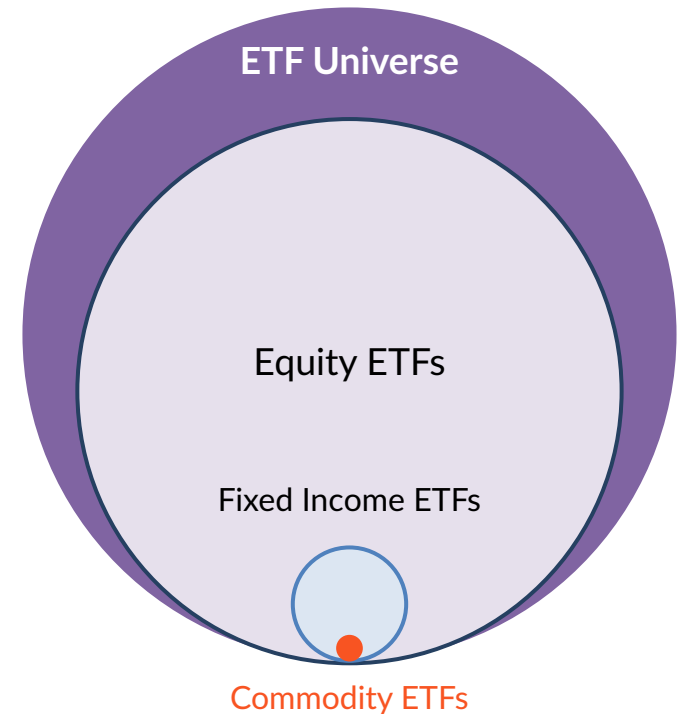




In the US, commodities account for only 2% of the ETF universe, and precious metal ETFs make up over 70% of all commodity ETFs.

The ETF Universe by Asset Class

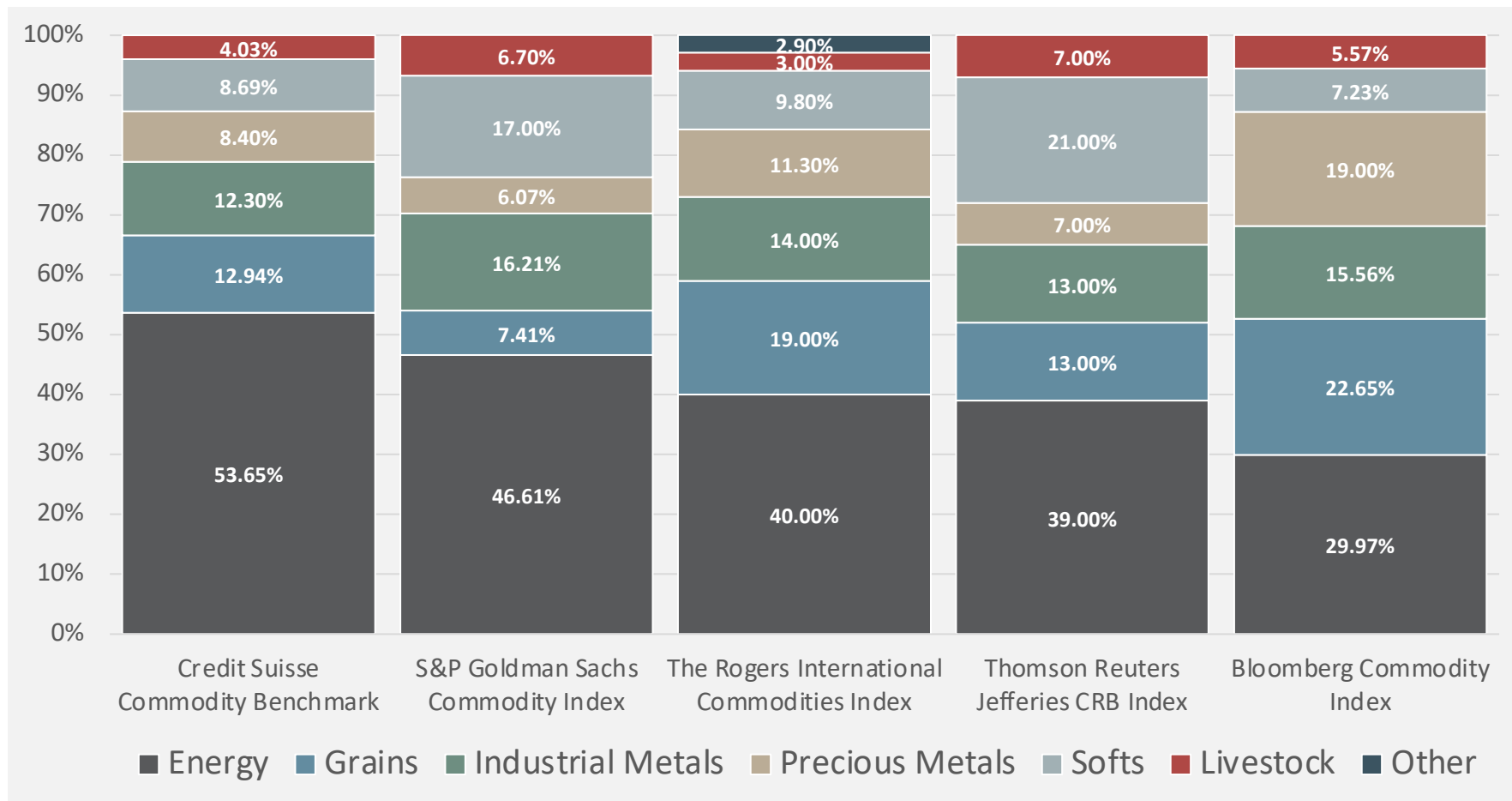
Asset Class	# of ETFs	AUM million	%
Equity	1772	4,941,789.20	79.10%
Fixed Income	455	1,144,017.97	18.31%
Commodities	99	136,326.06	2.18%
Asset Allocation	85	15,613.85	0.25%
Alternatives	48	7,866.43	0.13%
Currency	17	1,858.71	0.03%
Total	2476	6,247,472.22	100.00%





Almost all commodity indices are heavily exposed to energy, and almost none of them have a meaningful exposure to tomorrow's commodities.

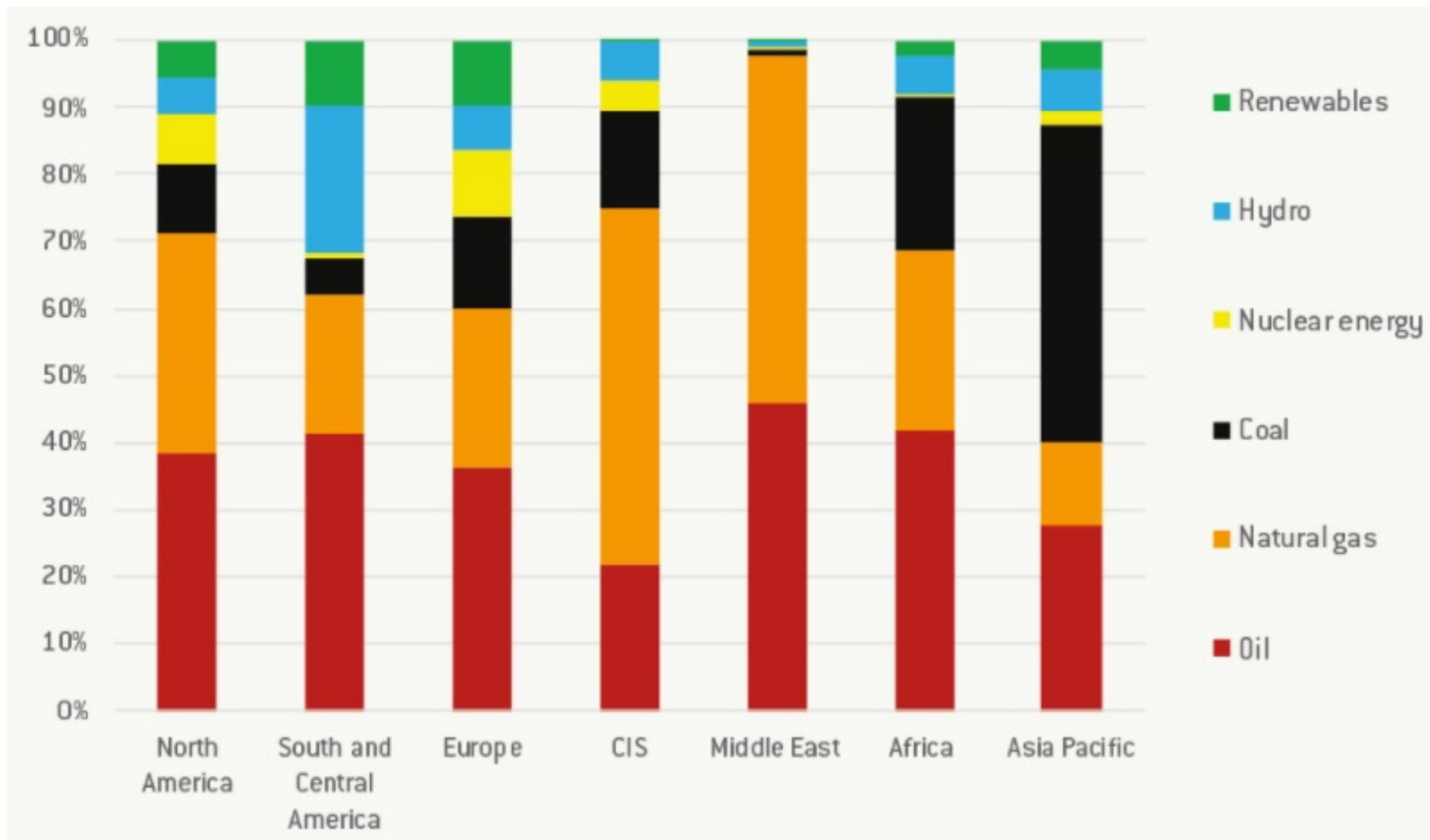
Composition of Various Commodity Indices





Fossil fuels still account for 70-90% of the energy mix in most parts of the world.

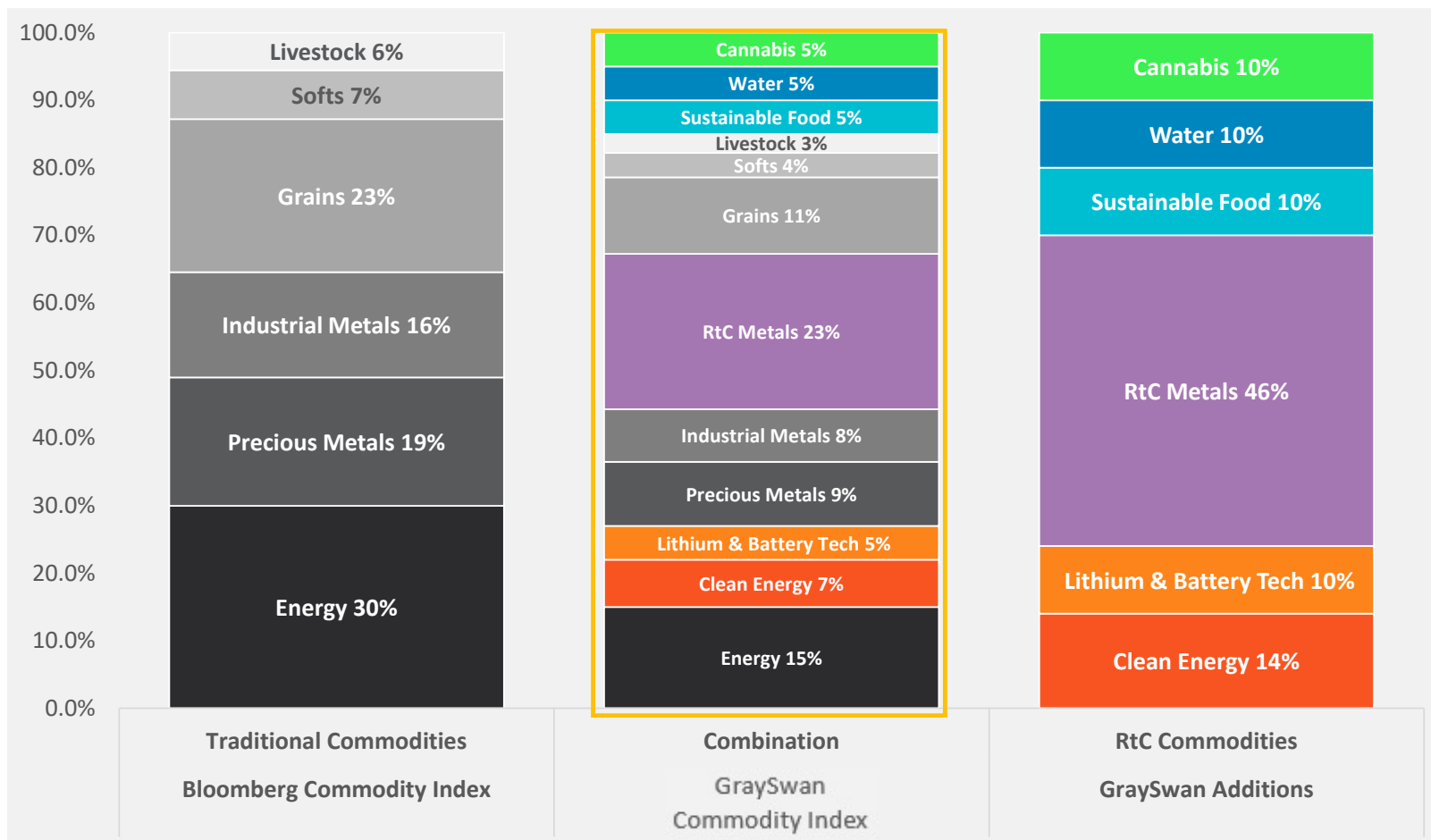
Energy Mix by Region, 2019





GraySwan has solved this problem by establishing a new index, consisting of 50% BCOM and 50% commodities of the future.

Sector Breakdown of GraySwan's Commodity Index





You can invest in the GraySwan Commodity Index through two different online platforms.

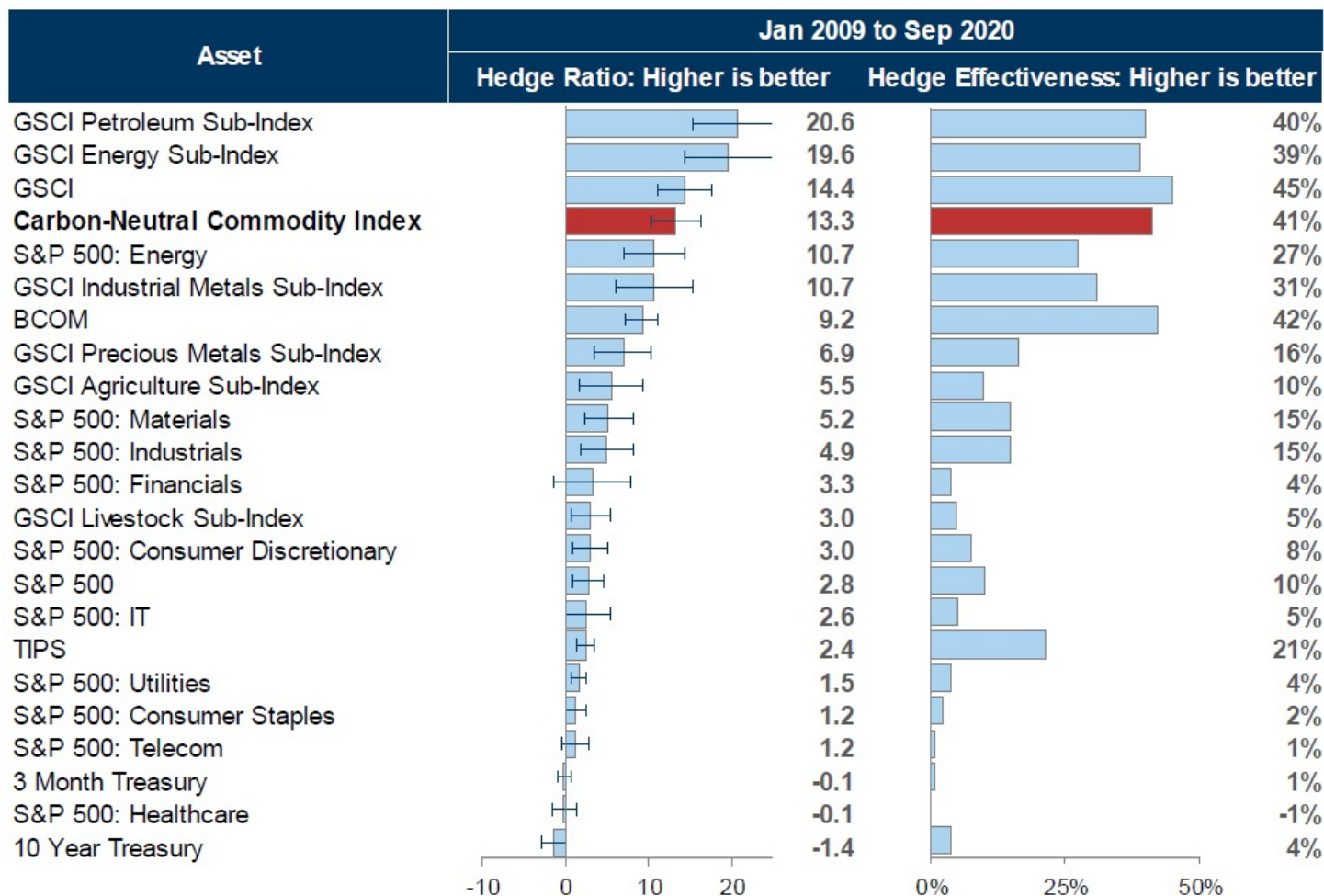


Contact GraySwan at info@grayswan.co.za where an advisor will assist you with setting up a discretionary mandate and opening an account with either one of the below illustrated platforms.



Even if you don't believe that this is the start of a new supercycle, commodities remain the best hedge against inflation.

Hedge Ratio & Hedge Effectiveness



Part 6

CONCLUDING OBSERVATIONS





My Conclusions (1 of 2)

- For a commodity supercycle to be established, commodity prices must typically rally in tandem and, for that to happen, a catalyst is usually required.
- The energy transition is indeed a catalyst, but the negative impact the energy transition will have on fossil fuel prices, makes it a rather controversial catalyst, where commodity prices will most likely **not** rally in tandem.
- The supercycle outcome is therefore not the *Fait Accompli* it is assumed to be by a growing number of investors and commentators.
- That said, commodities that will benefit from the energy transition – and in that respect, copper is very high on my list – should have at least 5-10 exceptionally robust years ahead of them.
- My other long-term favourites are (in that order) water, graphene (graphite) and aluminium.
- ... (continued on next page).



My Conclusions (2 of 2)

- Agricultural commodities should also do very well in the years to come, as rising living standards in many EM countries will drive protein consumption higher.
- Likewise lumber, which should continue to benefit from urbanisation.
- Bottom line: _____ We may not be in a conventional commodity supercycle but does it matter? Many commodities are likely to do well over the next 5-10 years.

Appendix

THE SIX MEGATRENDS



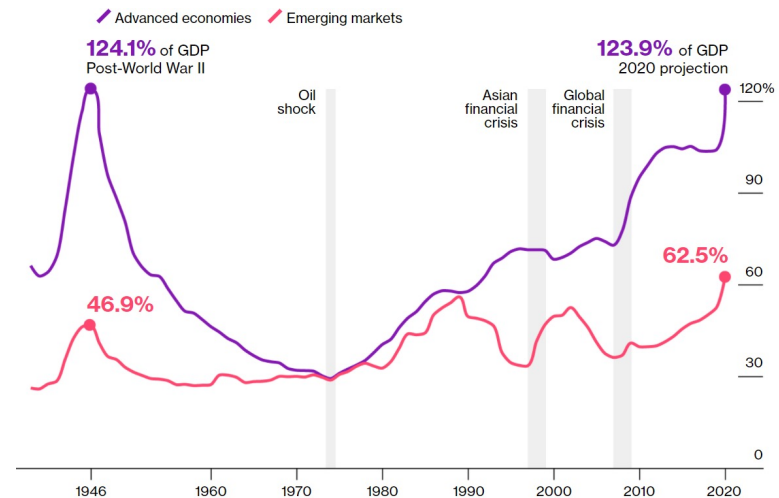


Last Stages of the Debt Supercycle



- In the early stages of a typical debt supercycle, GDP and debt grows 1:1, but that ratio deteriorates as the cycle matures. All prior debt supercycles have come to an end when GDP grows only \$0.20-0.25 for every dollar of added debt. China is now at 0.21 and the US at 0.28.
- The fact that Δ Productivity and Δ GDP are both struggling to gain momentum at present are powerful indications that we are fast approaching the end of the current debt supercycle.
- The pandemic has driven global government indebtedness to the highs of the previous supercycle and has moved the end of this supercycle closer.

Total Govt. Debt:
(% of GDP)

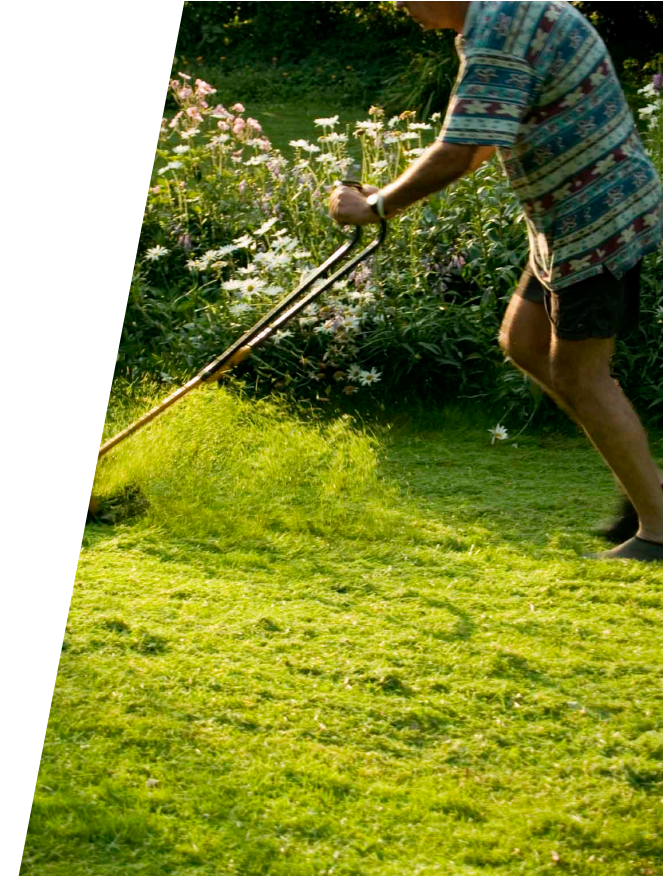
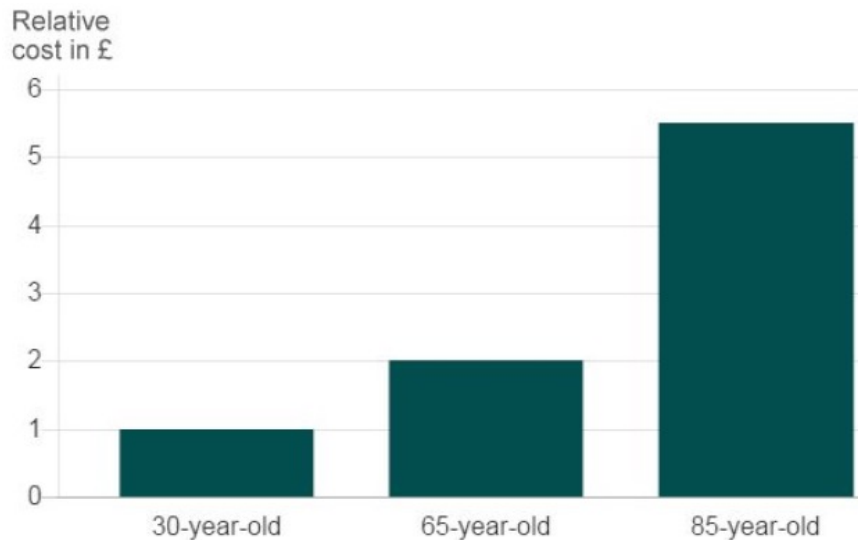




Changing Demographics

- 150 million OECD workers will retire between now and 2050.
- Servicing the elderly is extremely costly. According to the NHS, servicing a man in his mid-80s is 5-6 times more expensive than servicing a man at the age of 30.

NHS Spending on People by Age



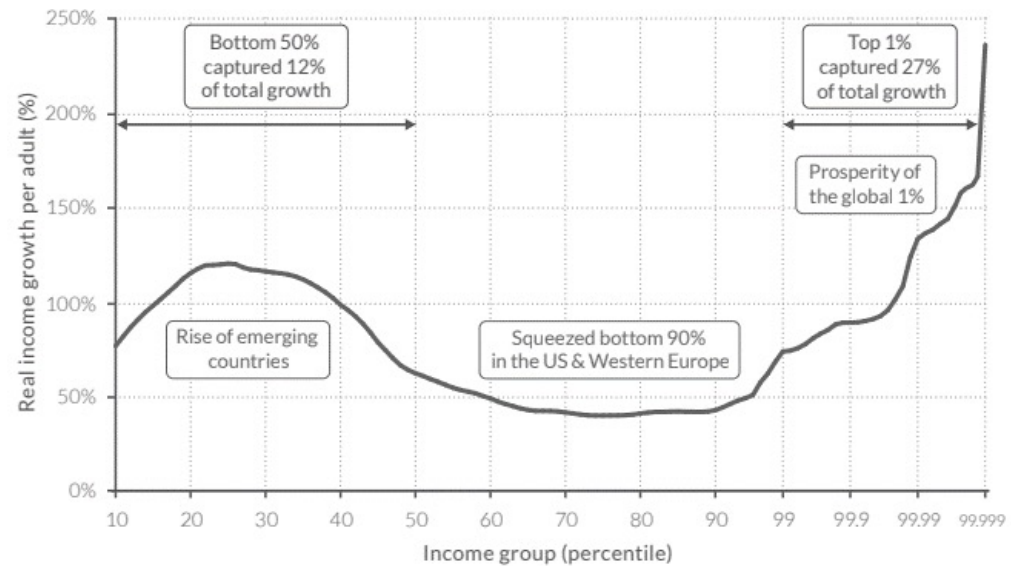


The Rising Gap between Rich and Poor

- Workers in many countries have not experienced any meaningful growth in real wages for years.
- Low or no real wage growth negatively affects aggregate demand and partly explains why GDP growth is so low everywhere.



Global Inequality





Rise of the East

- In PPP terms, China has more middle class families now than the US.
- The first thing people spend more money on when living standards improve is more and better quality food – almost always more protein-rich food.
- One should seek exposure to the phenomenal growth in the Chinese economy without being exposed to the over-leveraged financial system in China.



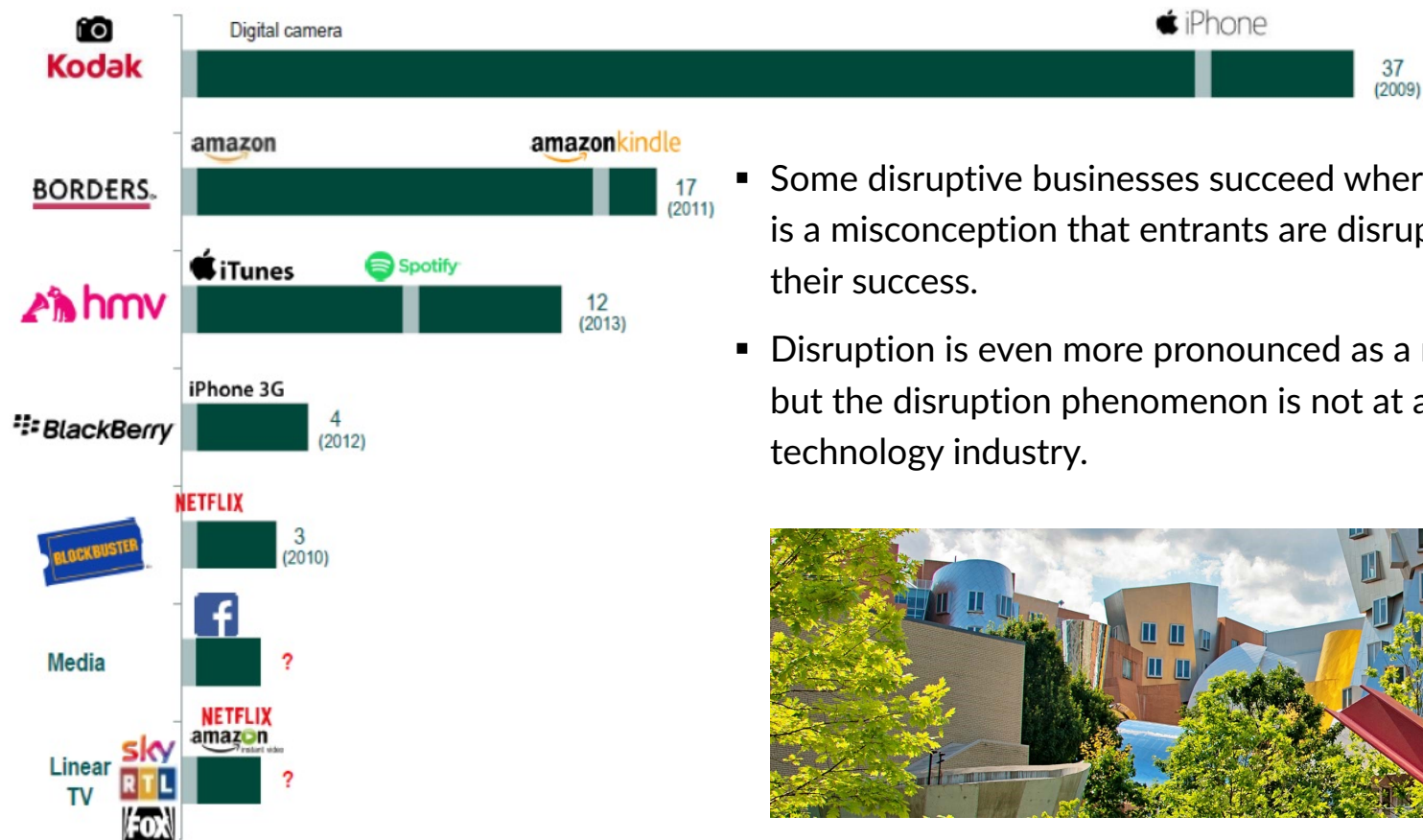
Chinese GDP Catch-Up under Various Assumptions

		Annual Chinese GDP Growth		
		3.00%	5.00%	7.00%
Annual	1.00%	2047	2032	2027
US GDP	1.50%	2057	2034	2028
Growth	2.50%	n/a	2041	2030



The Era of Disruption

No. of Years to Disrupt Incumbent's Businesses



- Some disruptive businesses succeed whereas others don't; it is a misconception that entrants are disruptive by virtue of their success.
- Disruption is even more pronounced as a result of digitisation, but the disruption phenomenon is not at all limited to the technology industry.



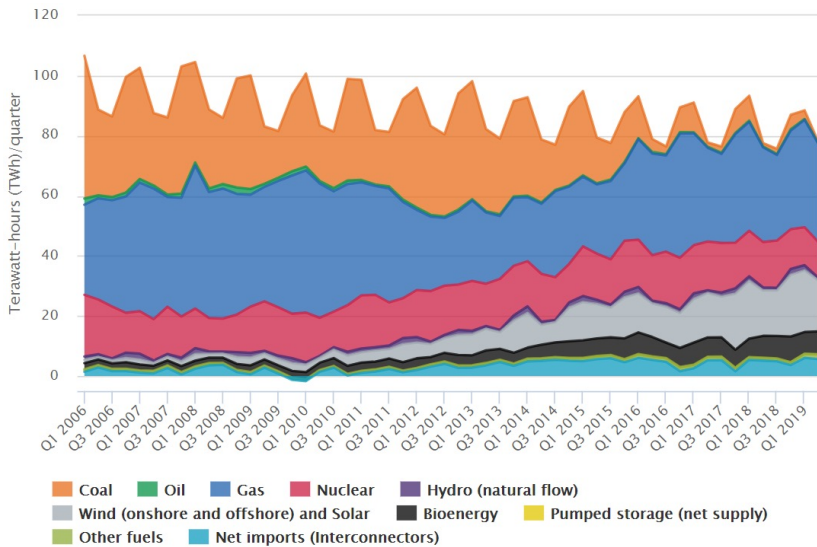


Megatrend #6

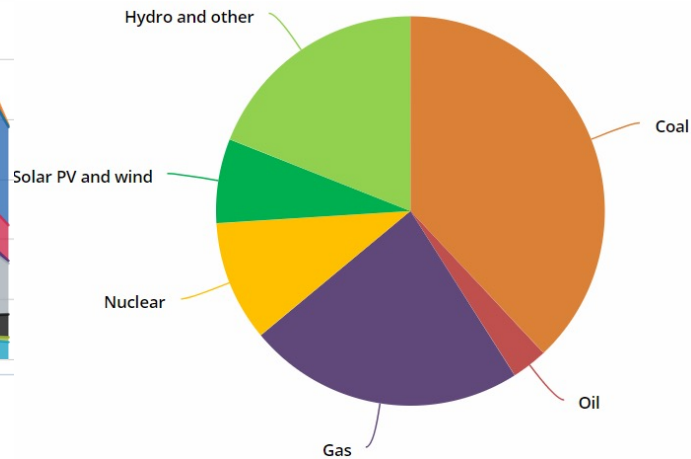
Climate Change

- The fight against global warming will drive governments all over the world to electrify most transportation and heating, dramatically reducing demand for fossil fuels.
- Food production must rise 60% in the next 20 years, and food production accounts for nearly 70% of all freshwater consumption globally. With the climate change doing damage to our water supplies, how will this pan out?

UK Fuel Mix in Electricity Generation



Global Fuel Mix (2018)





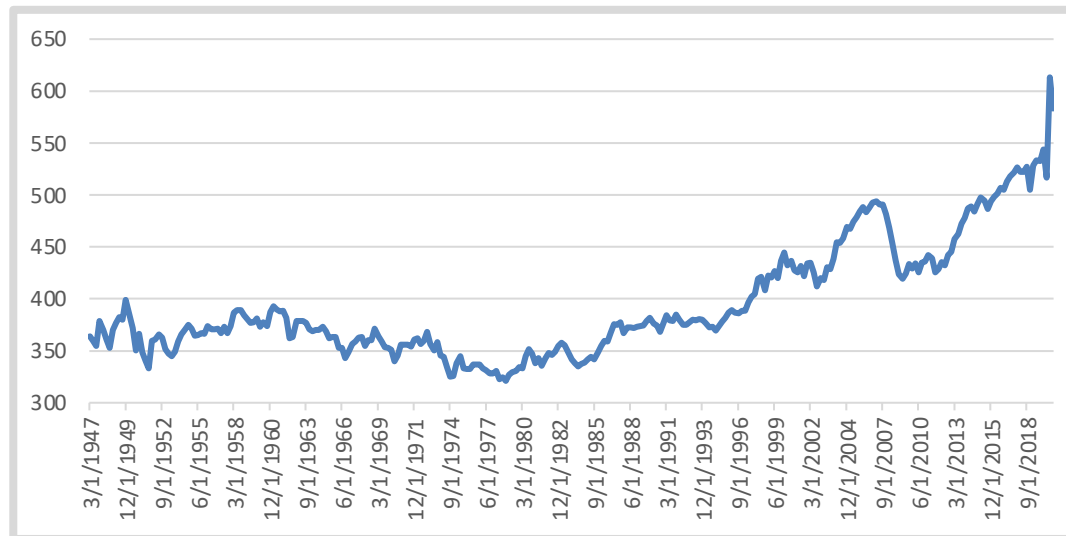
... and the aggregate result of those six megatrends

Mean Reversion of Wealth-to-GDP

- Asset prices have grown much faster than GDP since the 1980s and, in the long run, one **cannot** outgrow the other.
- Every single time wealth has deviated meaningfully from its long-term mean value (380%), it has regressed to the mean, and US wealth is now (as of the 30th September 2020) almost 600% of US nominal GDP.



Total US Household Wealth-to-GDP since 1950





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