



IS THE COMMODITY GOOSE COOKED?

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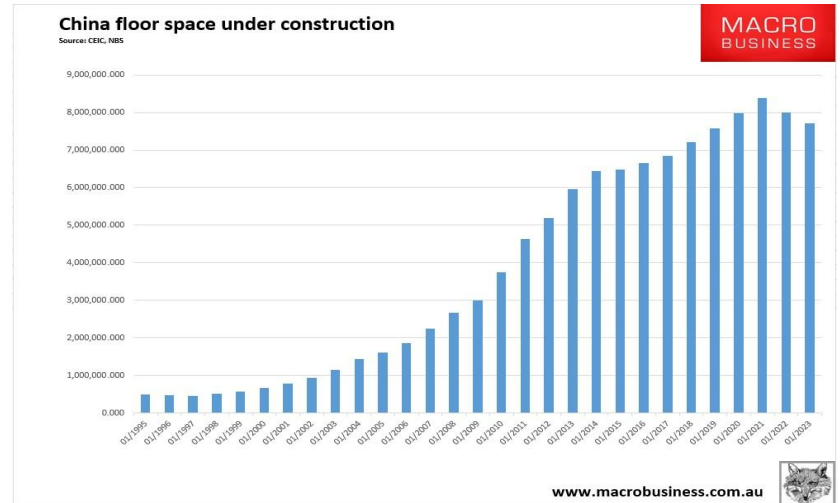
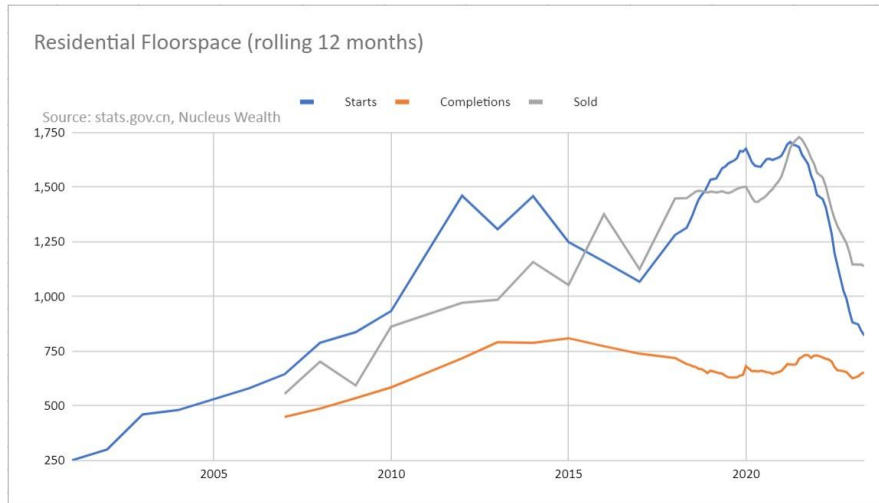
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Agenda:

- Inside the greatest property construction crash in history
- Offsets
- Zoltan Pozsar eats crow
- What does it mean for iron ore, copper, lithium, oil and gas?
- What does it mean for Australia?
- What does it mean for geopolitics?
- What does it mean for asset markets?

The great crash of Chinese property:

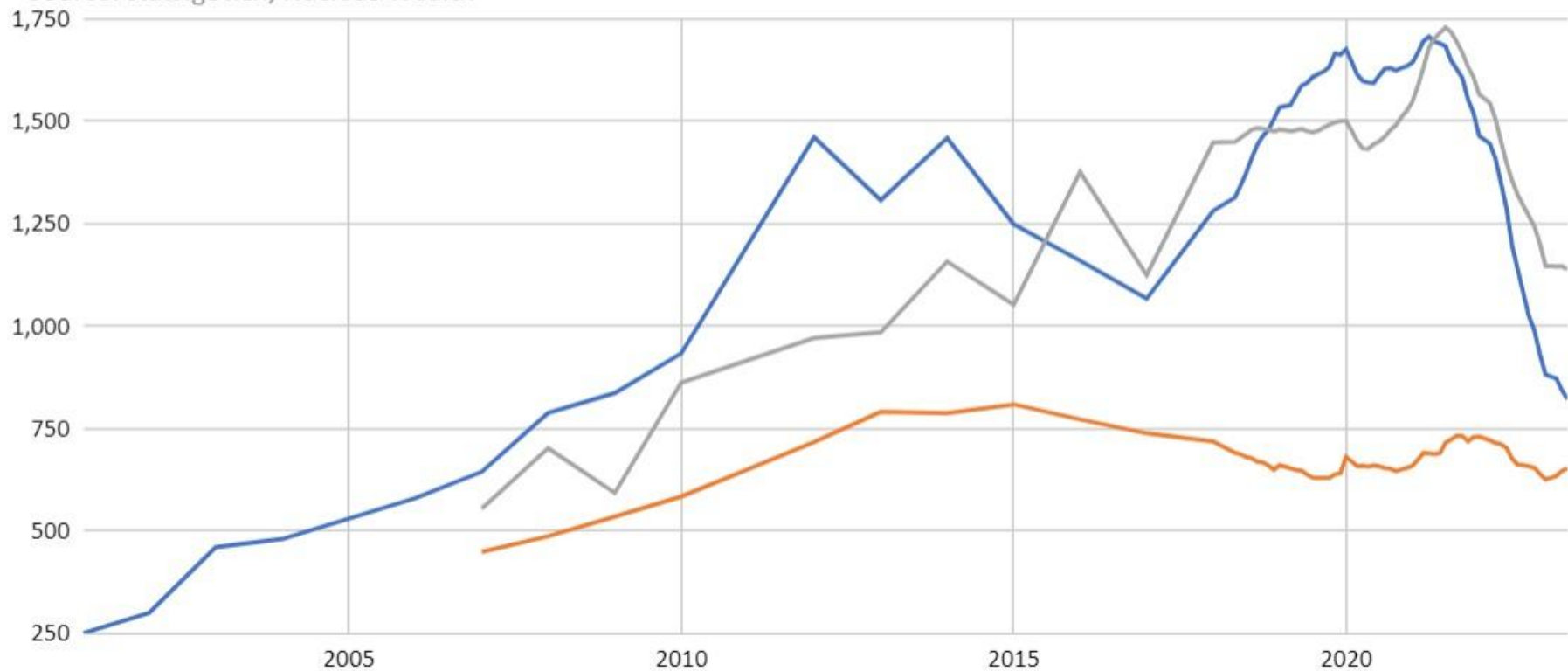
- Structural and engineered by Beijing
- Sales bugged but starts wrecked
- Growth target easy with low base and services
- Youth unemployment
- Stimulus targeted



Residential Floorspace (rolling 12 months)

Starts Completions Sold

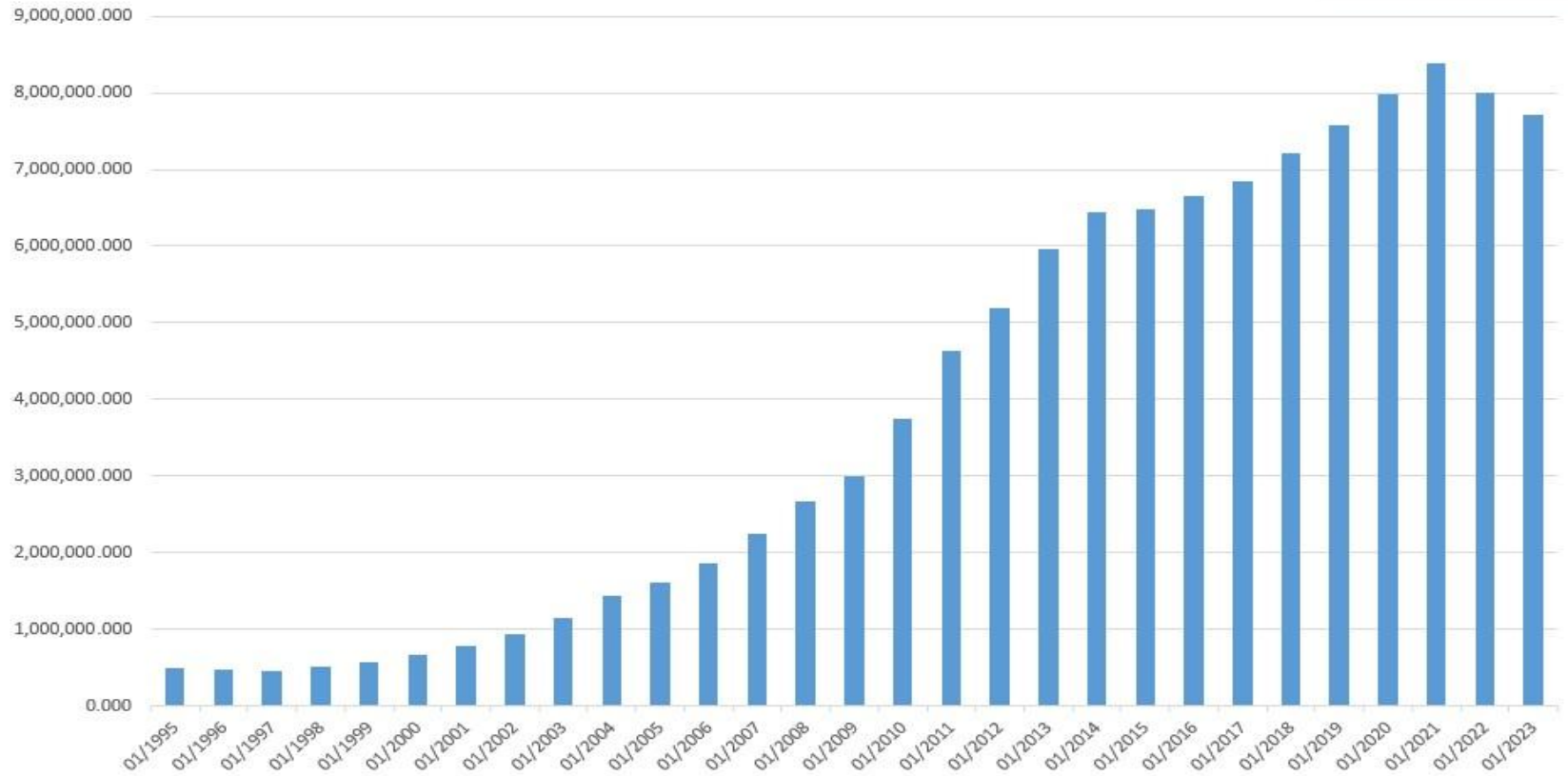
Source: stats.gov.cn, Nucleus Wealth



China floor space under construction

Source: CEIC, NBS

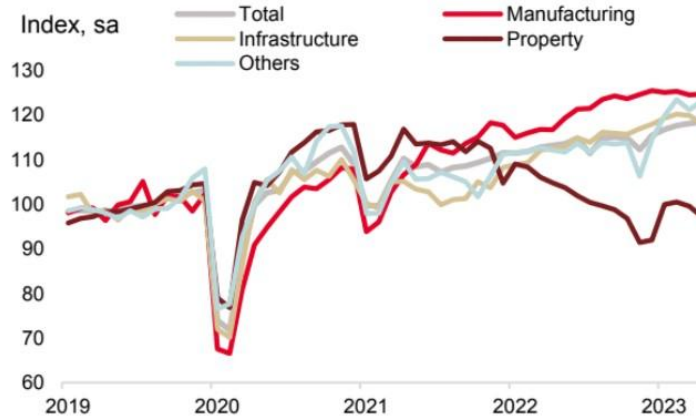
MACRO
BUSINESS



Offsets

- Infrastructure, running out headroom
- Stimulus targeted to soft infrastructure
- Shanty town renovation too small
- Manufacturing heading into export headwinds

Fixed asset investment index



Source: NBS, MoF, CEIC, SG Cross Asset Research/Economics

Government's fund revenue and land revenue

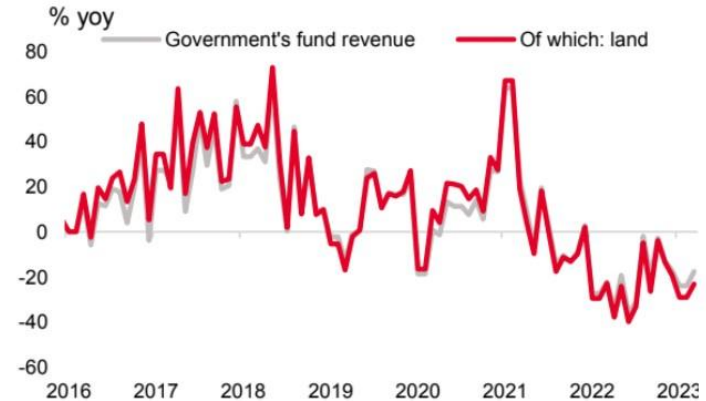
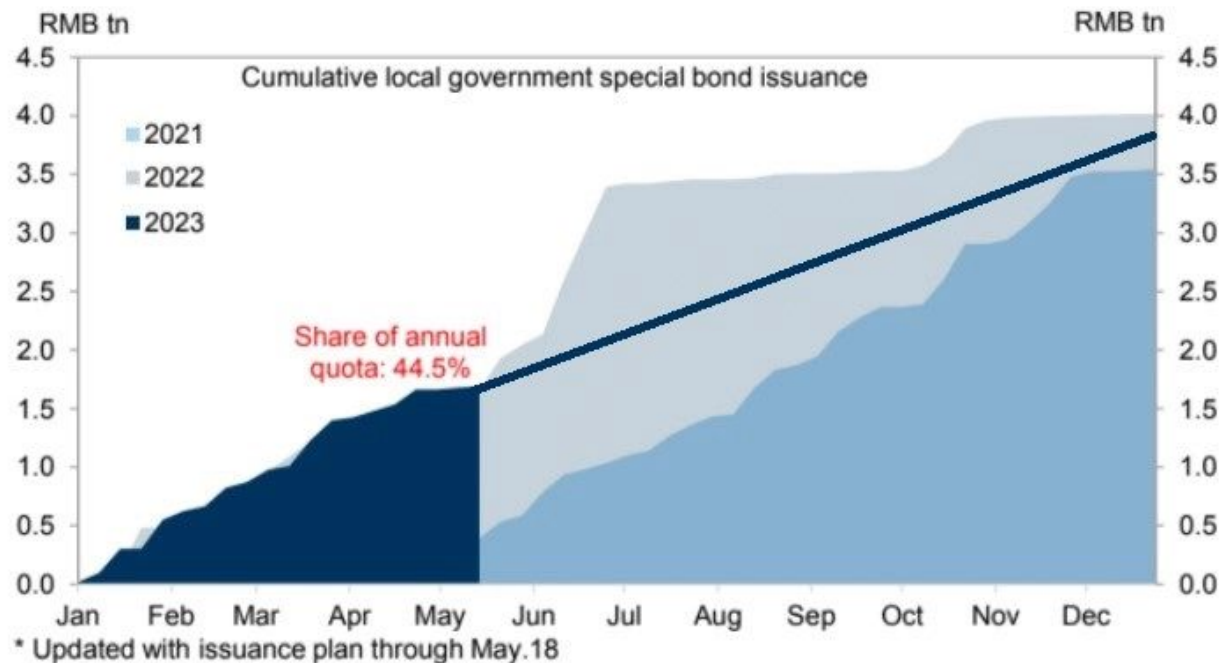
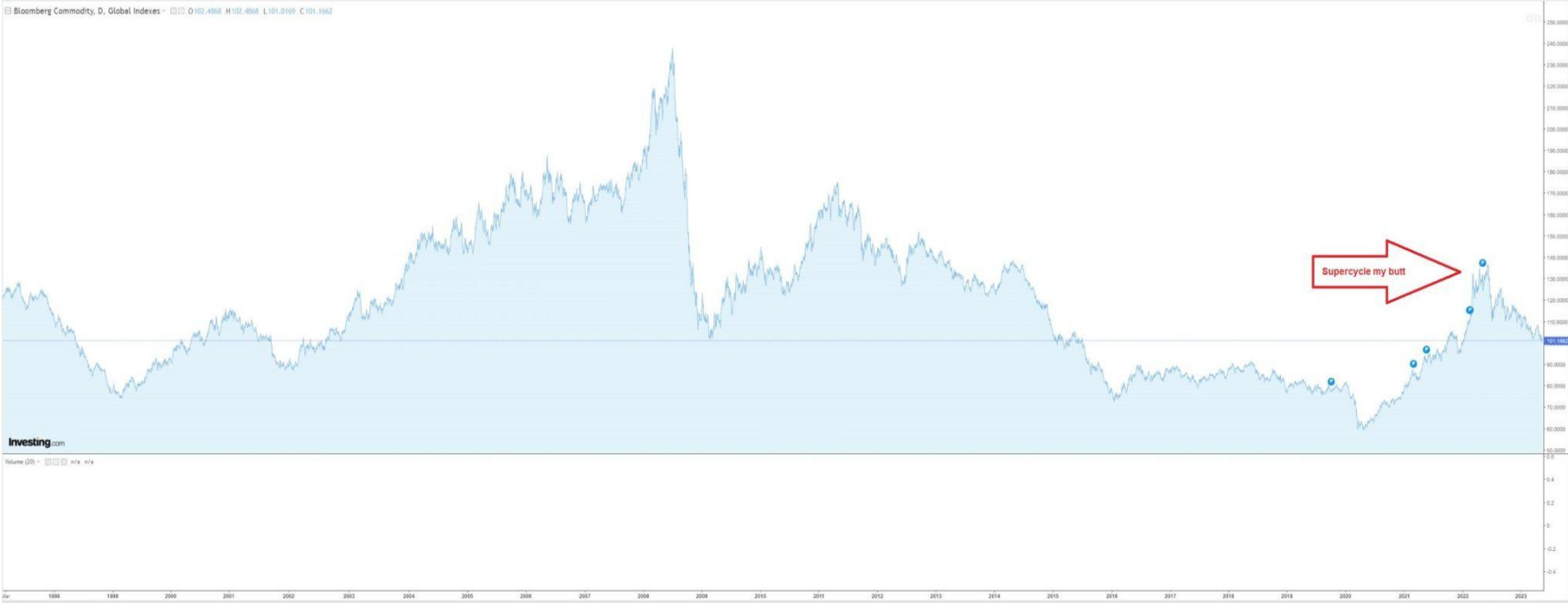


Exhibit 8: Cumulative issuance of local government special bonds has been RMB1690bn year-to-date



Source: Wind, Goldman Sachs Global Investment Research

Zoltan Pozsar eats crow:



Choose themes to screen from your portfolio away from (i.e. remove stocks)

Climate Change

War

Human Rights

Health

Vices

Animal Rights

Religion

Asset Class

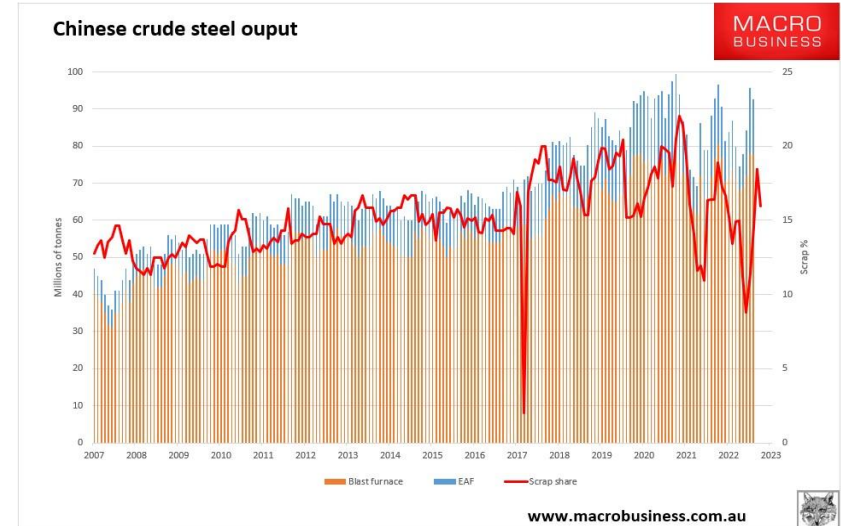
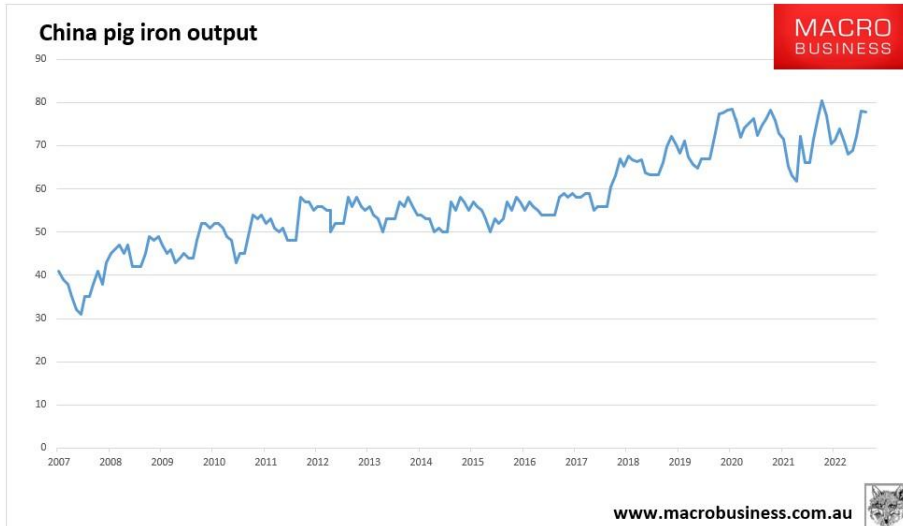
Thematic

Climate Change

- No Fossil Fuels (Worst Offenders) ⌵
- No Fossil Fuels (Any) ⌵
- No Coal Seam Gas or Fracking ⌵
- No Nuclear Power ⌵
- No Old Growth Forest Logging ⌵

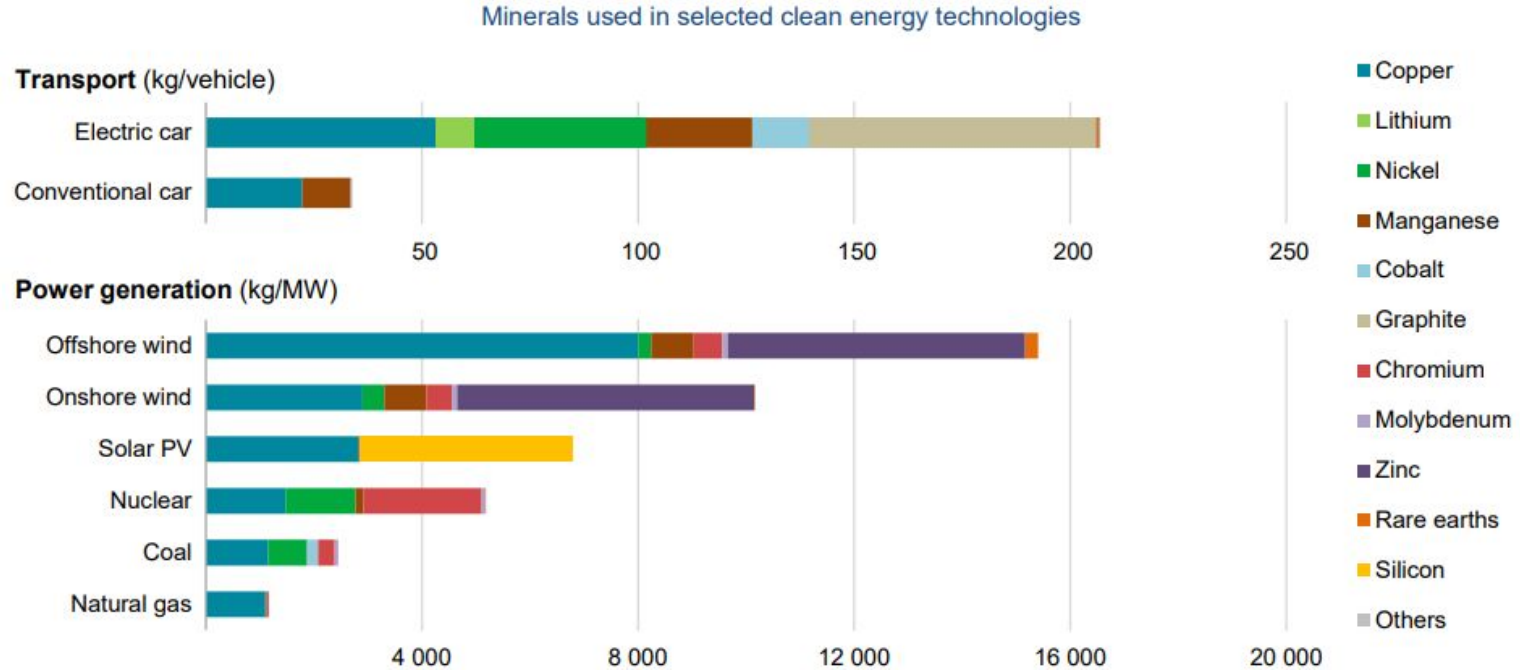
\$20 iron ore?

- Construction was roughly one third of Chinese steel @ 350mt
- So far, pig iron output has held up thanks to falls in steel recycling of 68mt
- But, another 100mt of steel output is at risk if no recovery
- More supply coming



Copper: Here is the grain of truth

The rapid deployment of clean energy technologies as part of energy transitions implies a significant increase in demand for minerals

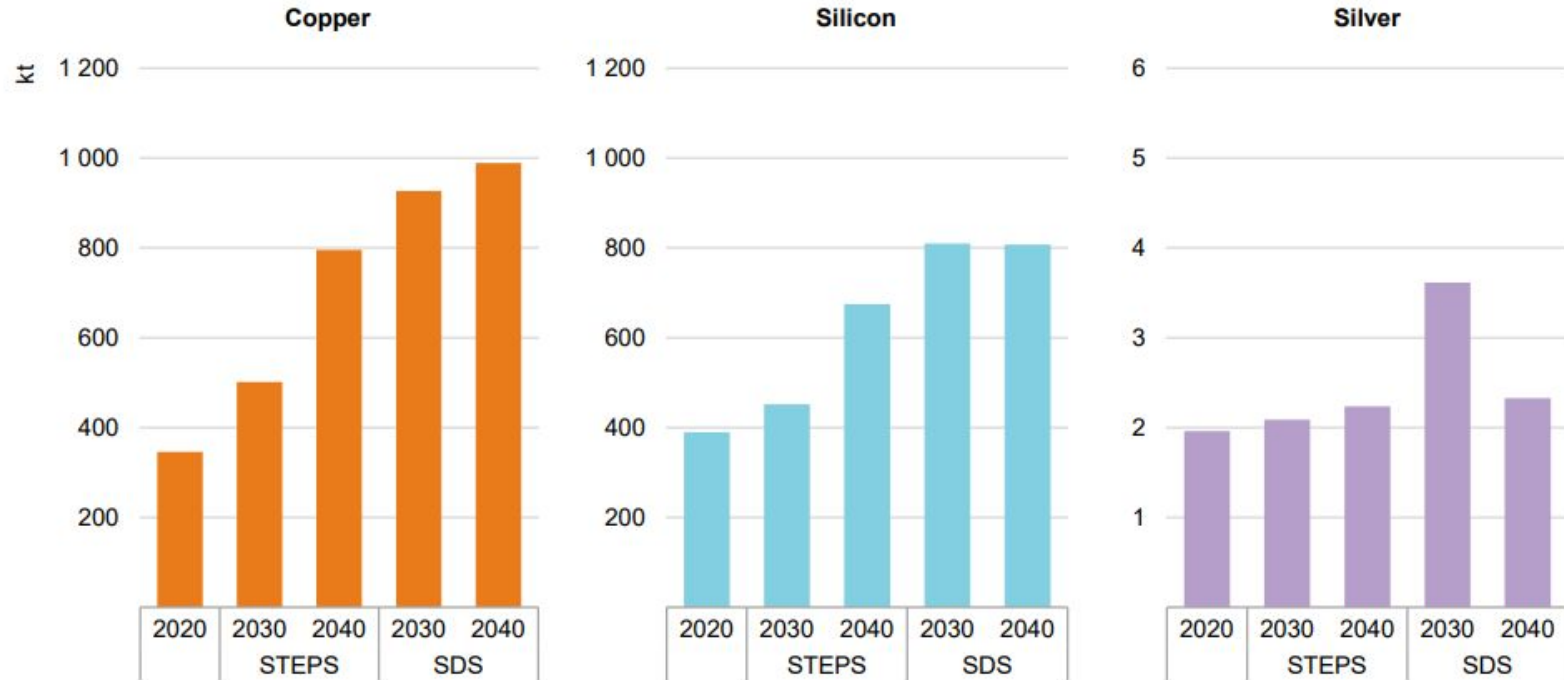


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Notes: kg = kilogramme; MW = megawatt. Steel and aluminium not included. See Chapter 1 and Annex for details on the assumptions and methodologies.

Copper: Lots of growth in green demand

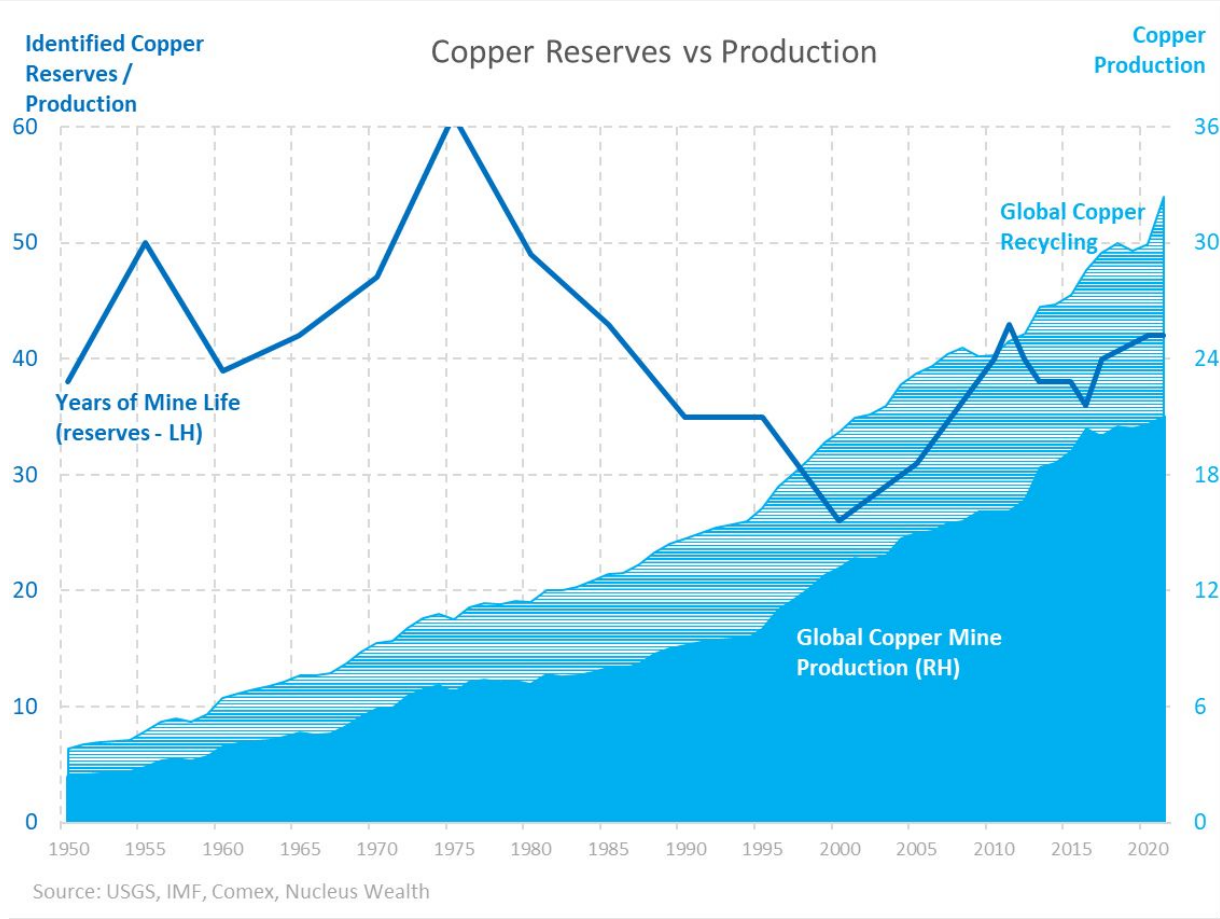
Demand for copper, silicon and silver for solar PV by scenario



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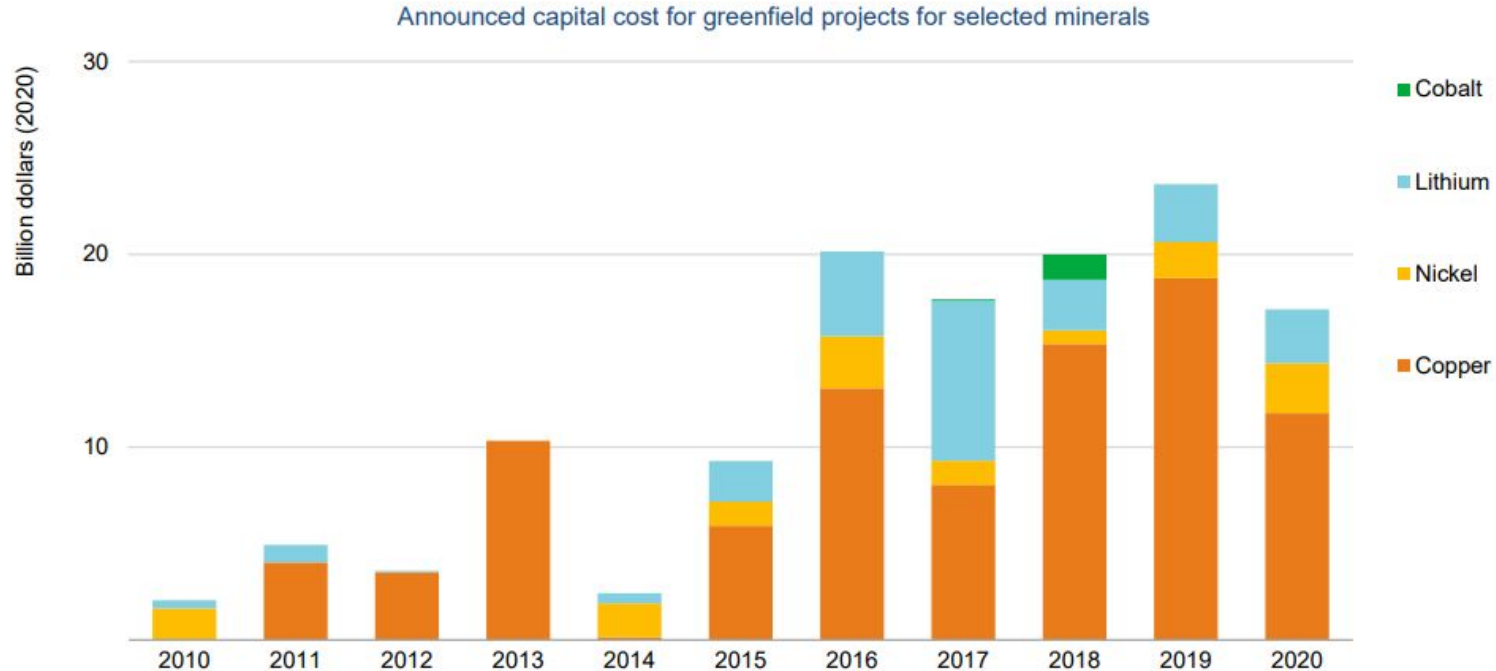
Note: kt = thousand tonnes.

Copper: But green demand is a drop in the bucket



Copper: Lots of investment

Investment in new mineral supply projects has been on an upward path...

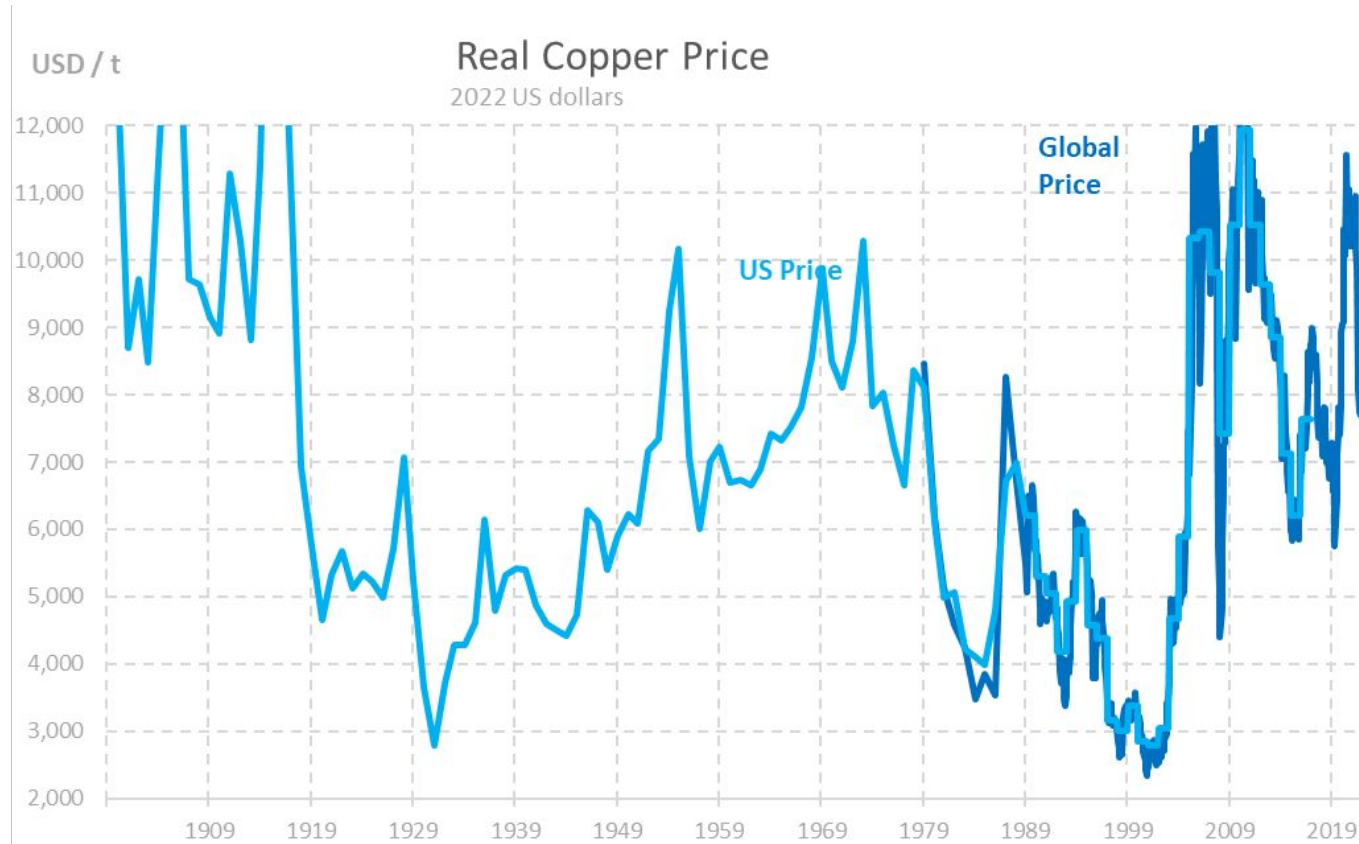


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Notes: Capital cost for cobalt includes only those projects whose primary commodity is cobalt. The figures do not include sustaining capital expenditure.

Source: S&P Global (2021).

Copper

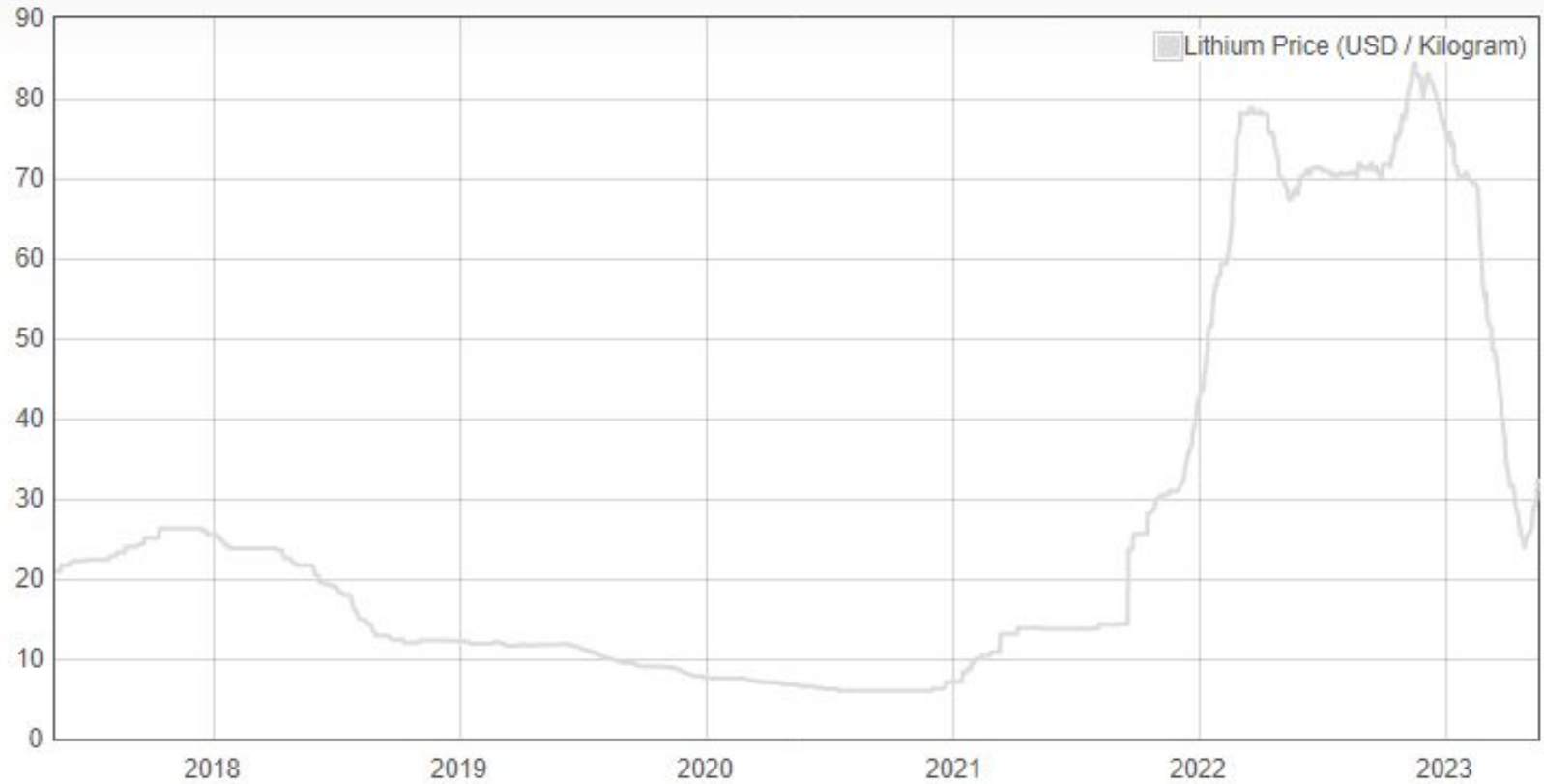


Source: USGS, IMF, Comex, Nucleus Wealth

Lithium: We need lots, there is lots

<i>Property</i>	<i>Country/Region</i>	<i>Development Stage</i>	<i>Primary Reserves and Resources (t)</i>
Uyuni Salt Flat	Bolivia	Construction Started	39,000,000
Cauchari-Olaroz	Argentina	Construction Started	9,938,000
Alberta	Canada	Prefeas/Scoping	9,878,000
Bonnie Claire	USA	Prefeas/Scoping	8,358,700
Lithium Nevada	USA	Feasibility Started	7,321,000
Manono	Dem. Rep. C	Feasibility Complete	6,640,000
Salar de Olaroz	Argentina	Expansion	6,600,000
Vulcan	Germany	Feasibility Started	6,415,046
Chaerhan Lake	China	Operating	5,600,000
McDermitt	USA	Prefeas/Scoping	5,373,000
Cuenca Centenario-Ra	Argentina	Feasibility Started	4,015,000
Greenbushes	Australia	Operating	3,716,327

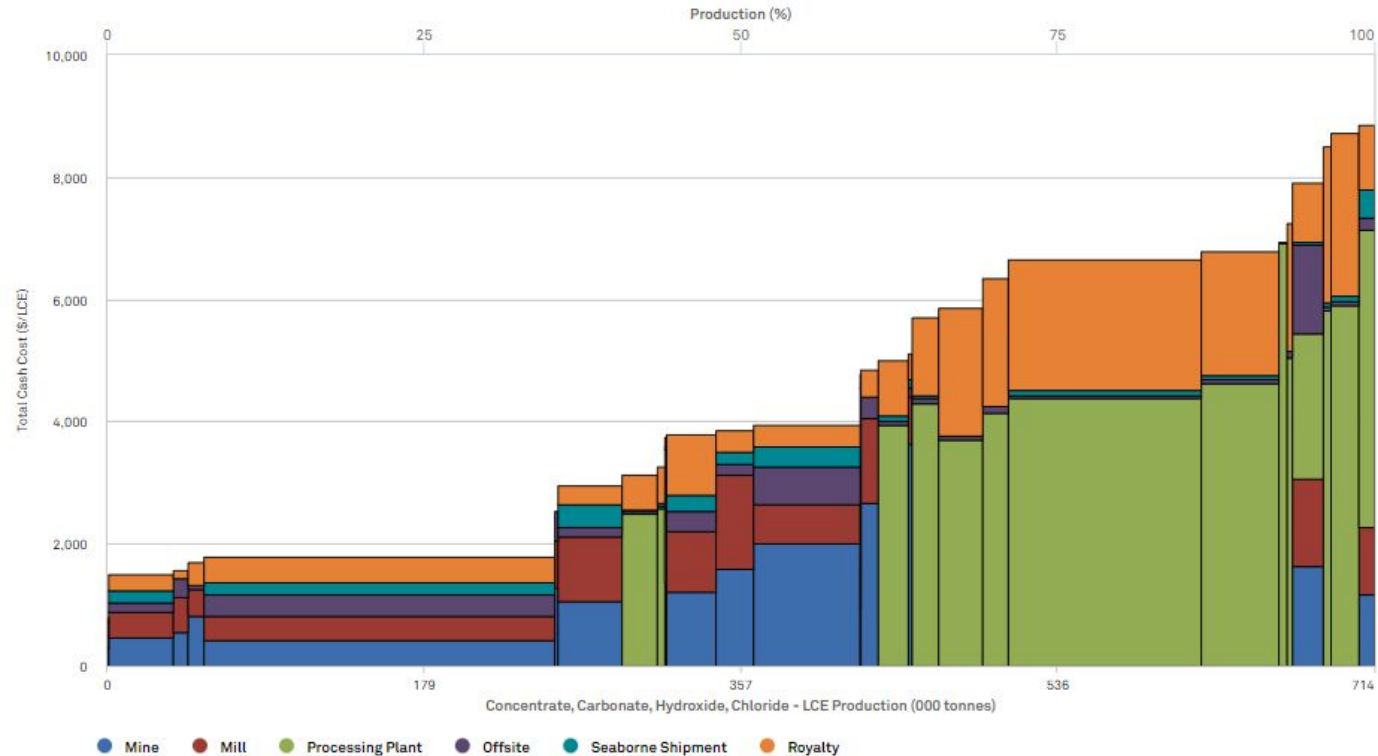
Lithium: A volatile ride



Lithium: the hardrock vs brine investment decision

2022 Lithium Production Ranked on Total Cash Cost*

Scenario: Market Intelligence 2021 Constant USD

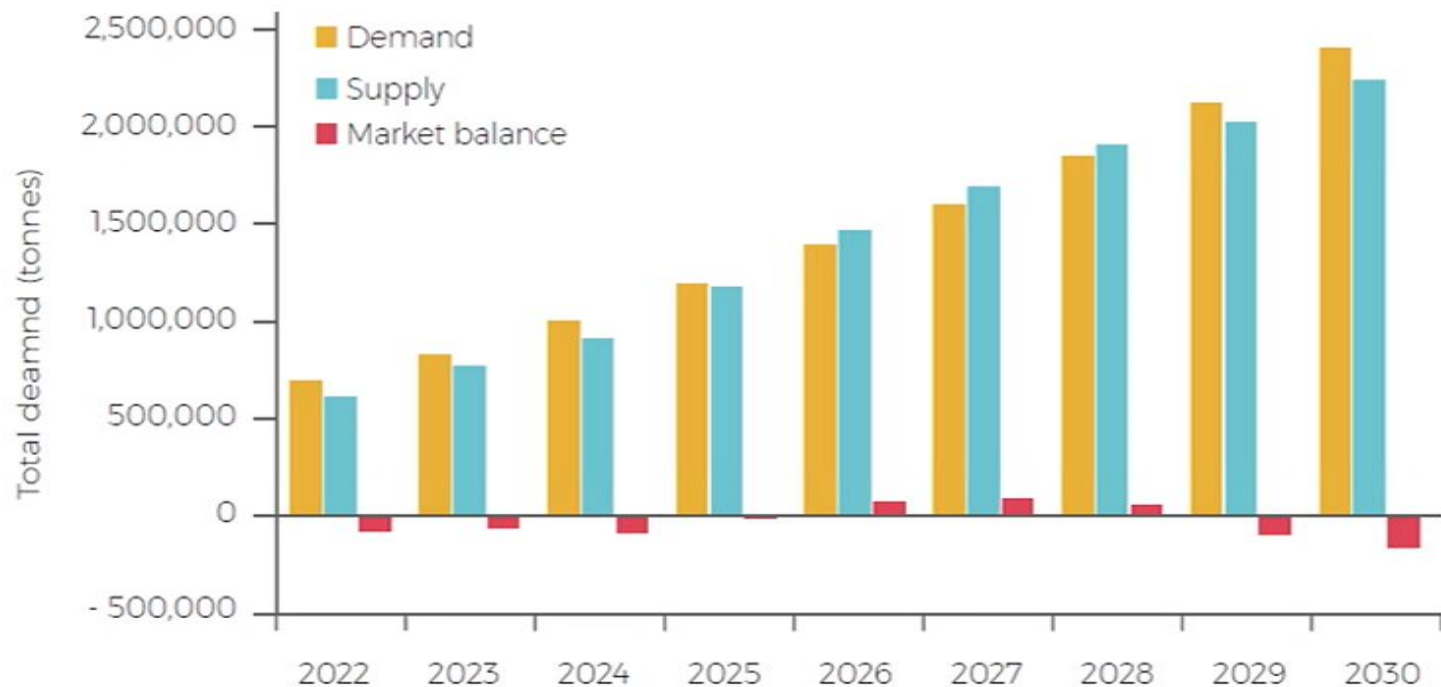


*Figures pre-2022 are based on reported/actual data where available. Figures from 2022 and later are based on S&P Global Market Intelligence's estimates and forecasts. For Market Intelligence's Constant scenario, all forecasts for prices are in constant 2021 US dollars (e.g. wage rates, electricity prices, reagent or fuel costs and metal prices).

Lithium: Small changes = big effects

Industry deficits over medium to long term

Lithium supply forecast 2022-2030



Personalise Your Portfolio

Screens

You can exclude the below to customise your portfolio

Climate Change	War	Human Rights	Health	Vices
Animal Rights	Religion	Asset Class	Thematic	

- No Fossil Fuels (Worst Offenders) ?
- No Fossil Fuels (Any) ?
- No Coal Seam Gas or Fracking ?
- No Nuclear Power ?
- No Old Growth Forest Logging ?

Tilts

You can add the below to customise your portfolio

Investment Style Factors	Climate Change	Technology	
Consumption	Commodities	Military	GICS Sectors

- Quality Stocks ?
- Value Stocks ?
- Growth Stocks ?
- Defensives ?



Personalise your portfolio now >



Build Your Portfolio

Need help with this page? Video Tutorial

- Account Selection
- Investment Choice
- Risk Profile
- Build Your Portfolio**
- Ethical Overlay
- Review
- Applicants
- Bank Details
- Compliance
- Final Review

Portfolio Tilts



Quality Stocks

Value Stocks

Growth Stocks

Oil & Gas Stocks

Gold Stocks

Agribusiness

Large Technology Stocks

Cloud Computing Stocks

Robotics/AI

Video Gaming

Cybersecurity

Clean Energy

Defensives

Battery Supply Chain

Nuclear Power

Defense Contractors

Travel

Luxury Goods

Logistics

Global Communication Services

Global Consumer Discretionary

Global Consumer Staples

Global Energy

Global Financials

Global Health Care

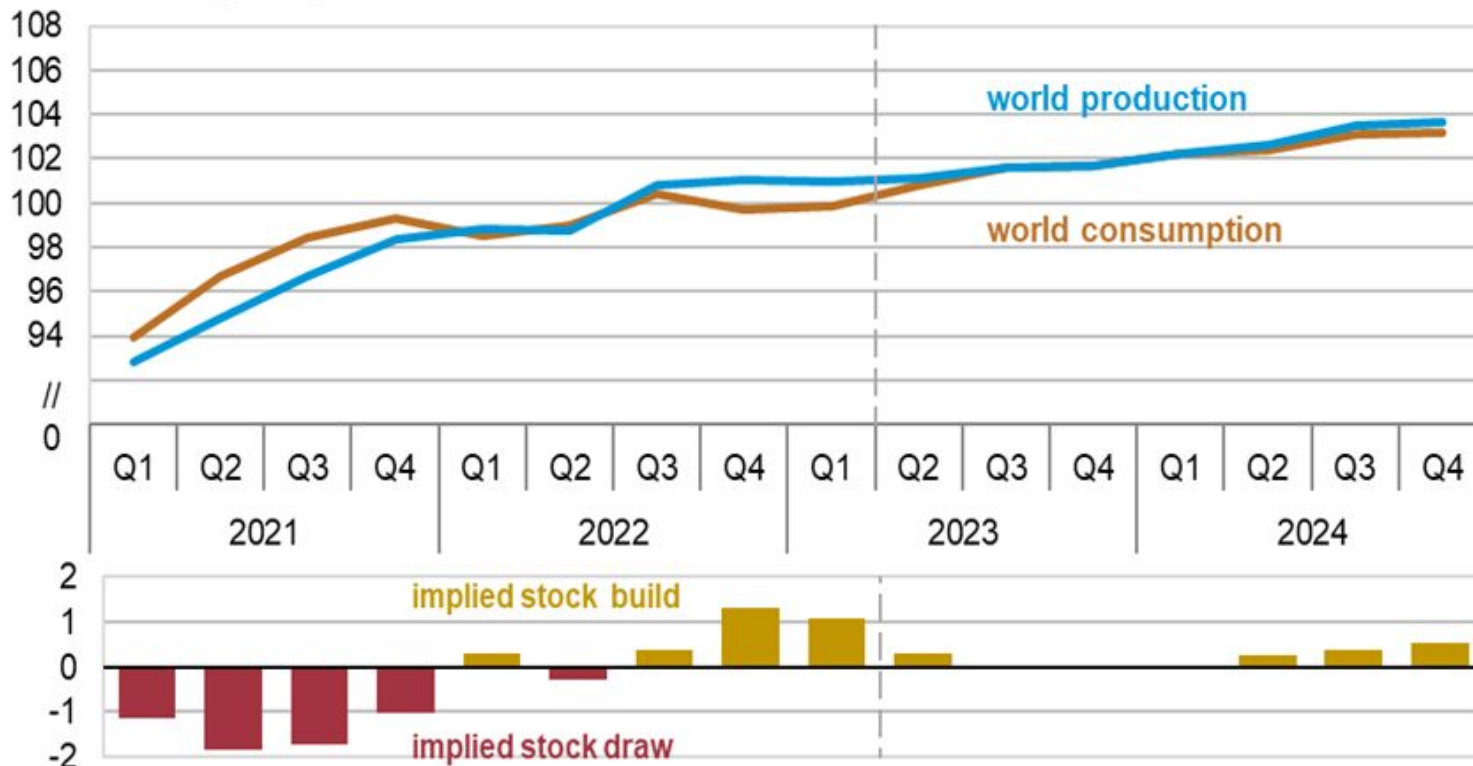
Global Industrials

Global Information Technology

Oil: delicate balance

World liquid fuels production and consumption balance

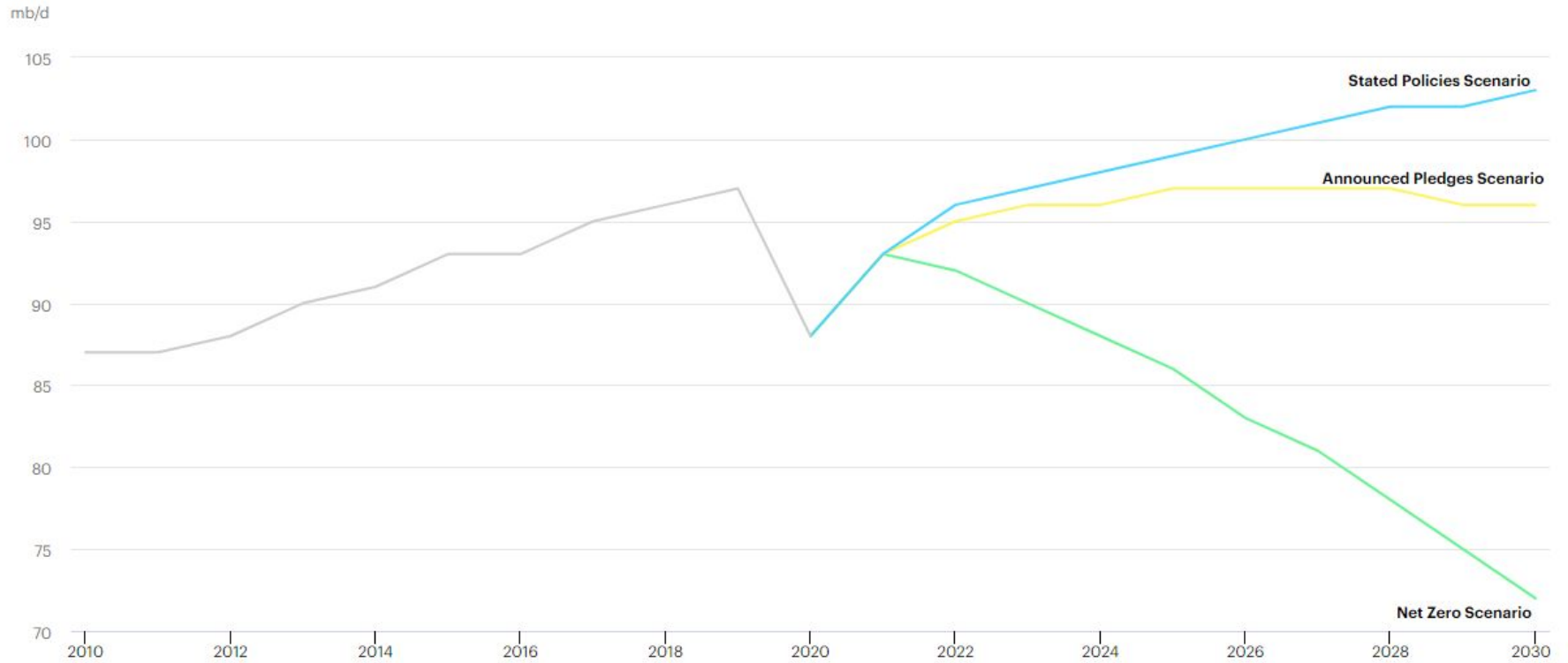
million barrels per day



Data source: U.S. Energy Information Administration, *Short-Term Energy Outlook*, May 2023

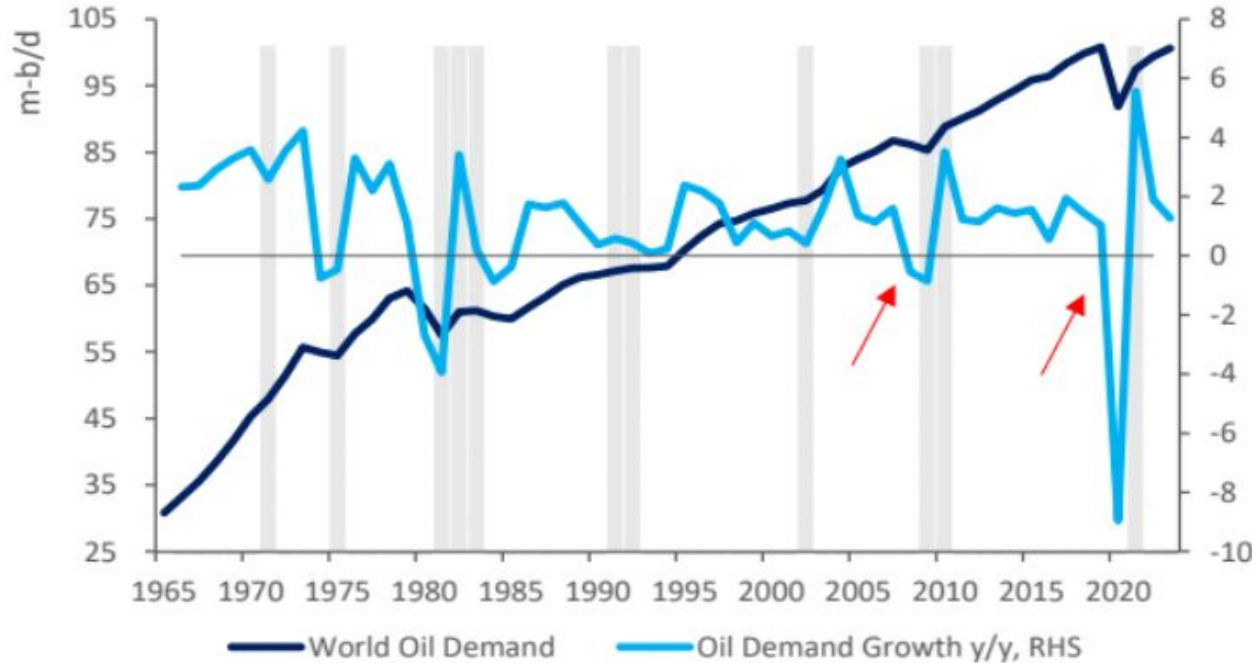


Oil: managing decline



Oil: Recession watch

Figure 3. Global oil demand growth during recession periods



Source: IEA, EIA, EIG, FGE, Bloomberg, Citi Research Estimates

Viewer question of the week:

Is it the end of the line for commodities?

Drop your answers in the comments

What does it do to Australia?

- Tumbling terms of trade very deflationary as budget, stocks, wages hit
- Higher taxes
- Lower nominal GDP
- Immigration to the moon!
- Energy, rents and imported inflation problem to destabilise politics amid weak wages?

What does it mean for geopolitics

- China ex-growth
- Can't support employment and rising living standards
- CCP must either liberalise to boost incomes, or autocratise to crush dissent - obviously going the latter
- Rise of militarism as nationalism a tool of social control
- Possible trigger for Taiwan invasion
- Would end Chinese globalisation

What does it mean for asset markets

- No China rescue
- Commodities keep falling
- AUD keeps falling
- ASX underperforms
- Bonds a good haven

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