Gradually better global growth

Worsening geopolitical situation Rising trade friction But inflation and rates will come down

May 2024

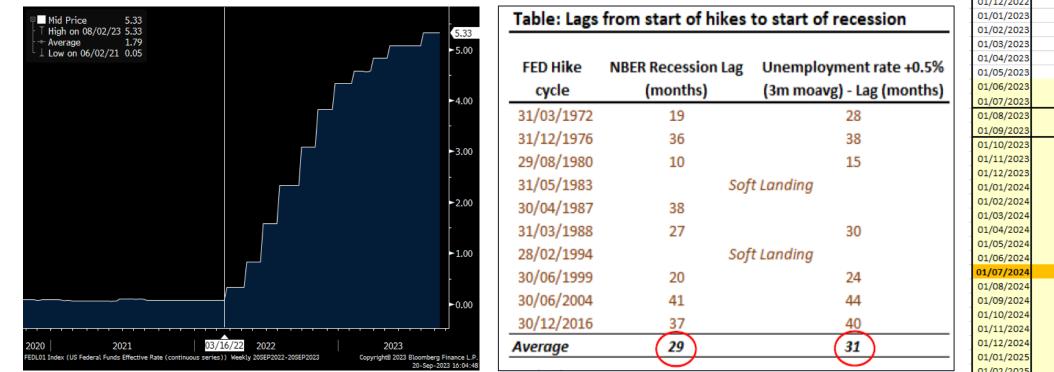
Bjarne Schieldrop

Chief analyst commodities

SEB, Oslo, Norway



US recessions: On av. 29 mths from first hike Ranging from 10 mths to 41 mhts



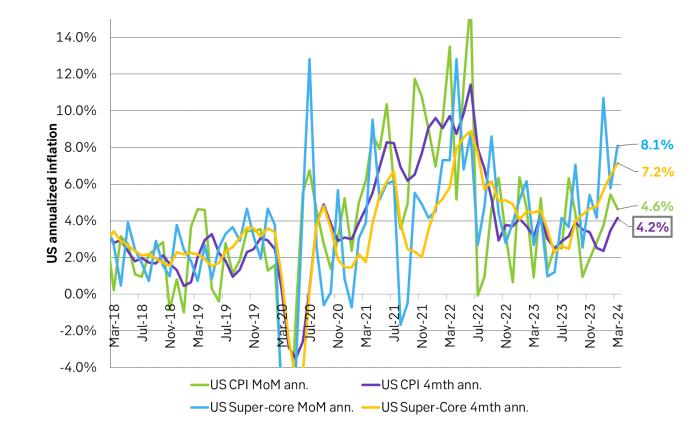
Date	Mths from first hike	Probability colour	Fed Fun
01/02/2022	0		0.08
01/03/2022	1		0.20
01/04/2022	2		0.33
01/05/2022	3		0.7
01/06/2022	4		1.2
01/07/2022	5		1.6
01/08/2022	6		2.3
01/09/2022	7		2.5
01/10/2022	8		3.0
01/11/2022	9		3.7
01/12/2022	10		4.1
01/01/2023	11		4.3
01/02/2023	12		4.5
01/03/2023	13		4.6
01/04/2023	14		4.8
01/05/2023	15		5.0
01/06/2023	16		5.0
01/07/2023	17		5.1
01/08/2023	18	P	5.3
01/09/2023	19		
01/10/2023	20		
01/11/2023	21		
01/12/2023	22		
01/01/2024	23		
01/02/2024	24		
01/03/2024	25		
01/04/2024	26		
01/05/2024	27		
01/06/2024	28		
01/07/2024	29	29	
01/08/2024	30		
01/09/2024	31		
01/10/2024	32		
01/11/2024	33		
01/12/2024	34		
01/01/2025	35		
01/02/2025	36		
01/03/2025	37		
01/04/2025	38		
01/05/2025	39		
01/06/2025	40		
01/07/2025	41		
01/08/2025	42		

Mths from first hike Probability colour Fed Fur

Hard to tame US inflation while running 6.5% deficit US IRA boom is peaking in 2025. Recession in 2026?

US IRA Cement boom





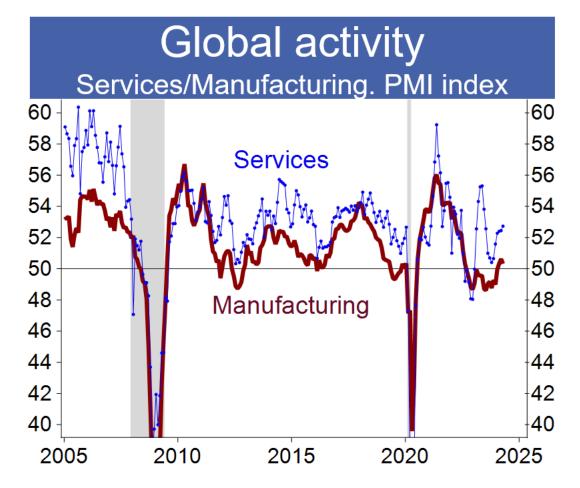
Measures of US inflation

Overview: A changing operating environment



- A worsening geopolitical situation: conflict escalation
- Economic normalisation: anaemic growth 2024, up 2025
 Important: ① geopolitics = (3) credit outlook = (3)
- Activity
 →
 →
 + price signals
 = inflation
 + policy rates
 Global inflation outlook is overall positive but it is far from uniform
- Declining [real] interest rates should support asset prices

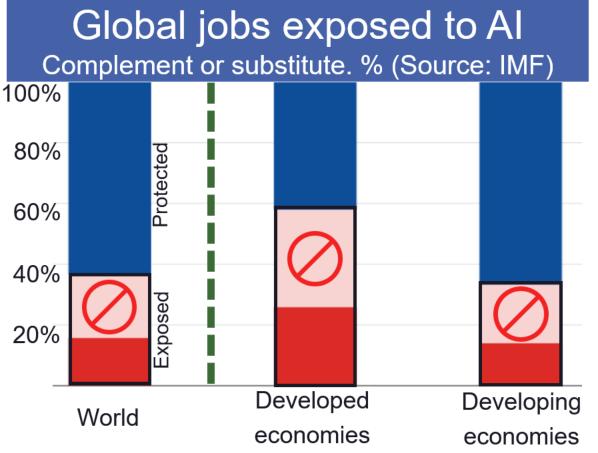
Globally: Business cycle – key drivers 2024-2025



Positive growth drivers Opportunities for Nordic economies

- Structural investment cycle
 ⇒ Safer & greener economy
 ⇒ Digital/physical infrastructure
- Private consumption
 - ⇒ Improving purchasing power Goods or services – or both?

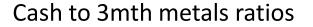
Globally/AI: Impact on labour market & wages

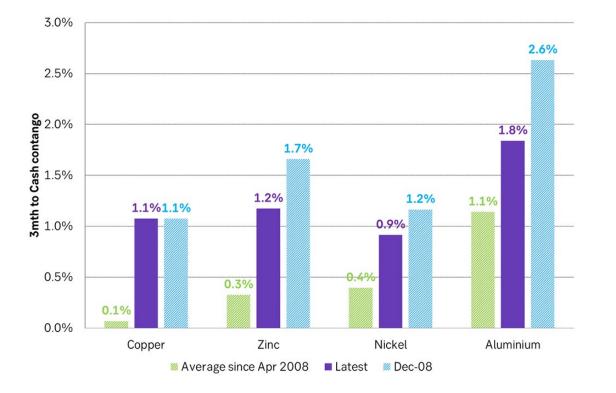


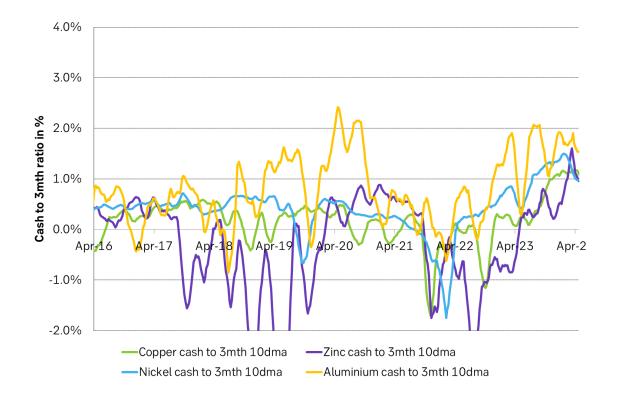
- Globally: 40% of all jobs are exposed to Al
 - complement or substitute?
- 20% 🖉 could be replaced
- OECD economies will be most affected

Rising cash to 3mth metals contango signals weakness An indication that the global economy isn't accelerating. Global economic weakness

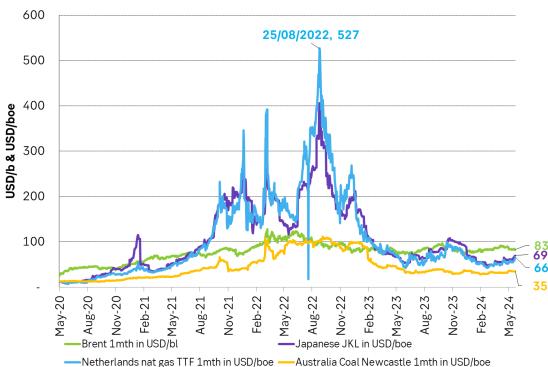
Cash to 3mth ratios: Now, Hist av., Dec-2008







Energy crisis is (almost) over With coal, nat gas and oil all below USD 100/boe

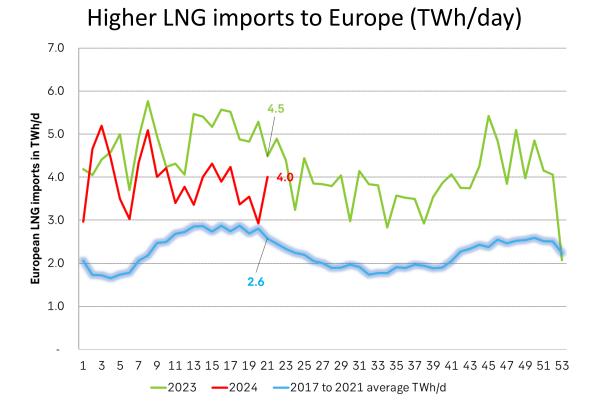


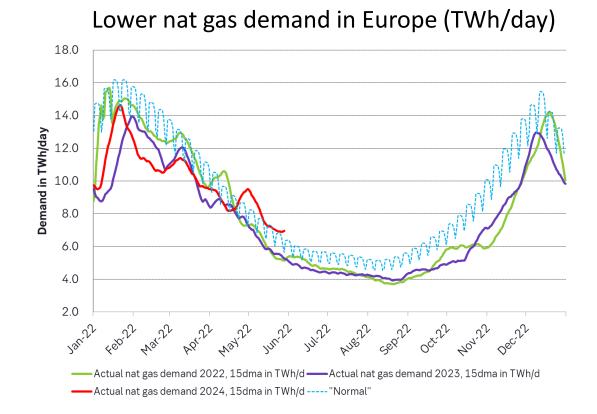
Fossil energy prices in USD/boe



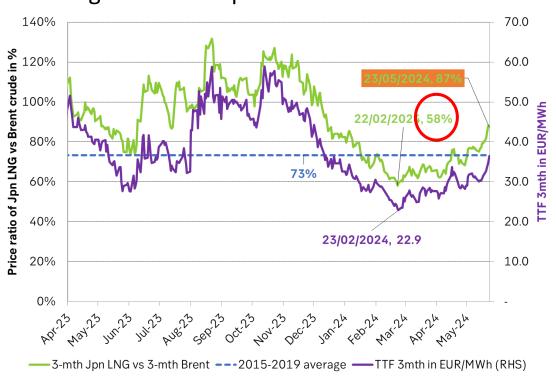
Oil + Coal + Nat gas cost to EU & UK economy

The solution: Lower nat gas demand and higher LNG imports Higher LNG imports = lower nat gas demand in Asia. Demand destruction everywhere

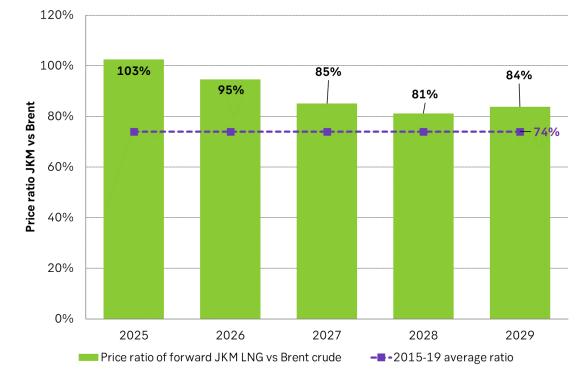




Asian appetite for nat gas depends on LNG vs oil price LNG was priced at only 58% vs. oil in Feb. Now at 87% and 106% for 2025

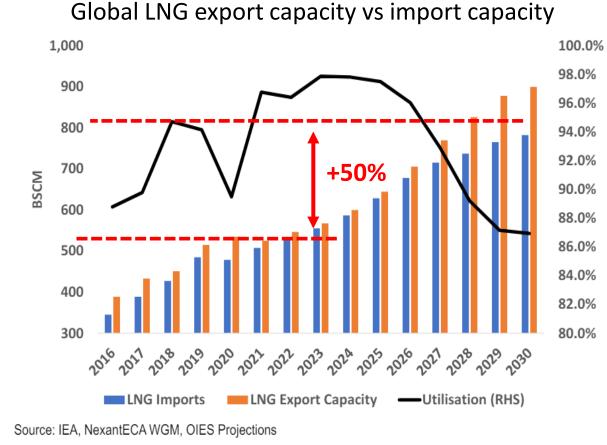


Nat gas was 'cheap' in Asia in Feb at 58% to oil

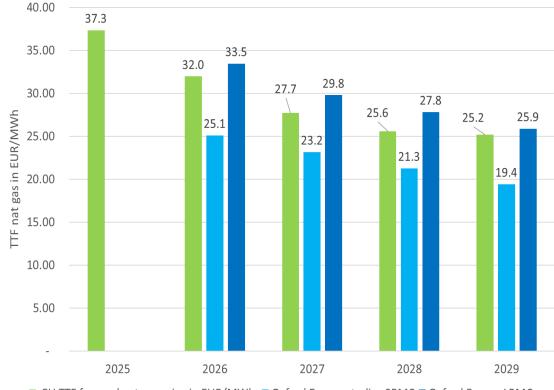


Asian appetite for LNG should soften on forward basis

Global LNG growth to outpace import capacities to 2030 Lower export capacity utilization will push LNG prices lower post 2026



TTF nat gas prices in EUR/MWh

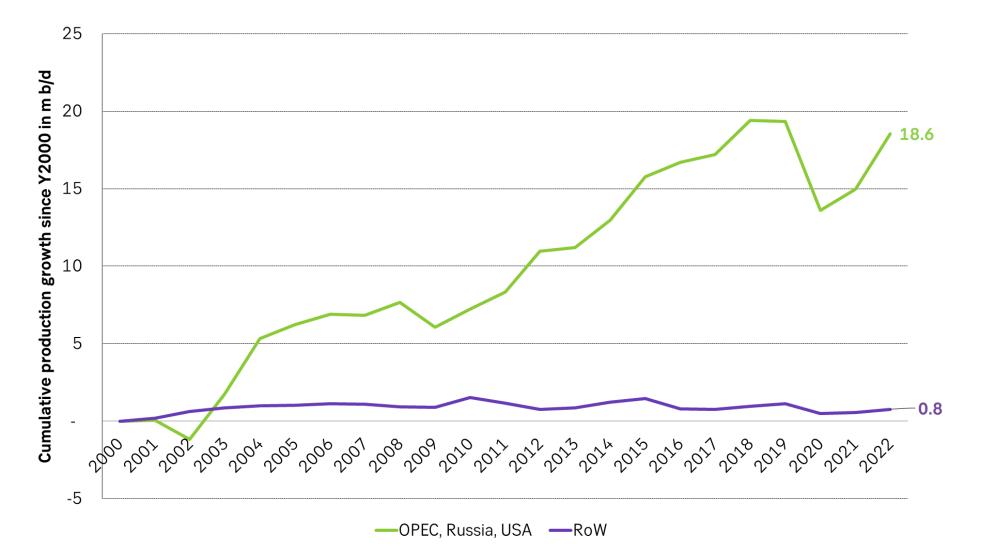


■ EU TTF forward nat gas price in EUR/MWh ■ Oxford Energy studies SRMC ■ Oxford Energy LRMC

OIES 2023 fcst. adj. for real inflation and EURUSD by SEB

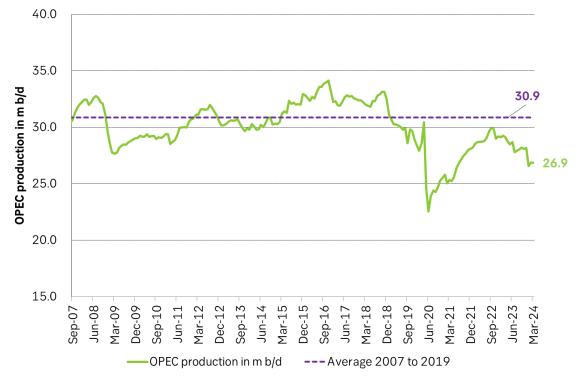
S|E|B

Everything changes when US shale oil production slows No growth in global oil supply outside of OPEC, Russia and the US since Y2000

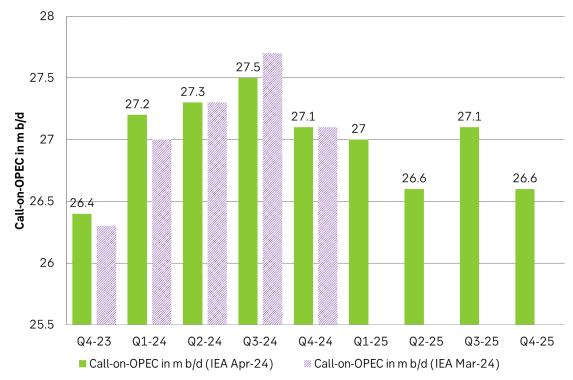


OPEC is cutting deep to get the price they want

Hope is that the need for oil from OPEC will rise so OPEC can normalize production



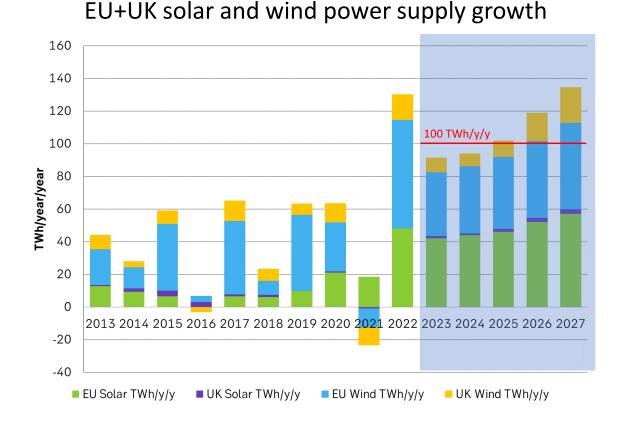
OPEC production at only 26.9 m b/d vs normal 31



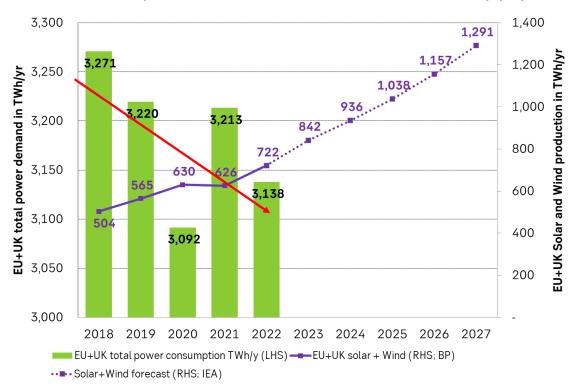
Need for oil from OPEC is rising to Q3-24, then softer

Is EU de-industrializing or de-carbonazing

EU + UK power demand needs to rise by 200 TWh/yr be on right path to zero by 2050



EU+UK power demand vs. renewable supply

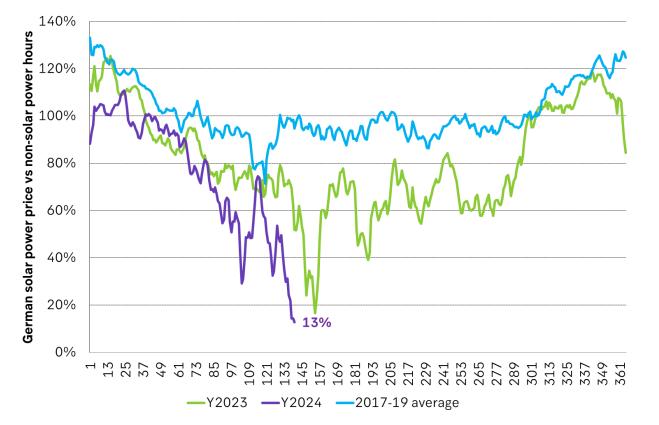


Global solar power boom and solar hara-kiri

80% of solar power production is done in 22% of the hours in the year

Global solar saturation will likely happen sometime between 2026 and 2030

German power demand 2023	458	TWh/y
German solar power production 2023	55	TWh/y
German solar share 2023	12%	%

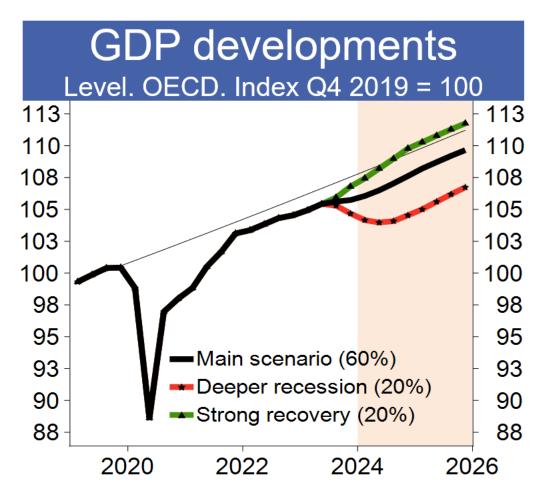


Projected global demand and global solar capacity

	GW	TWh/y	TWh/y	%
	Inst.d global solar cap.	Solar power prod.	Global power prod.	Solar share of global prod.
2012	104	110	22,833	0.5%
2013	141	148	23,468	0.6%
2014	181	190	24,074	0.8%
2015	229	241	24,309	1.0%
2016	301	316	24,952	1.3%
2017	396	416	25,699	1.6%
2018	489	514	26,746	1.9%
2019	592	623	27,099	2.3%
2020	720	757	26,986	2.8%
2021	862	906	28,520	3.2%
2022	1,053	1,107	29,165	3.8%
2023	1,520	1,598	29,891	5.3%
2024	2,123	2,232	30,636	7.3%
2025	2,782	2,925	31,399	9.3%
2026	3,489	3,667	32,181	11.4%
2027	4,244	4,461	32,982	13.5%
2028	5,002	5,259	33,803	15.6%
2029	5,864	6,165	34,645	17.8%
2030	6,790	7,137	35,508	20.1%
2031	7,780	8,179	36,392	22.5%
2032	8,841	9,294	37,298	24.9%
2033	9,977	10,488	38,227	27.4%
2034	11,194	11,767	39,179	30.0%
2035	12,497	13,137	40,155	32.7%

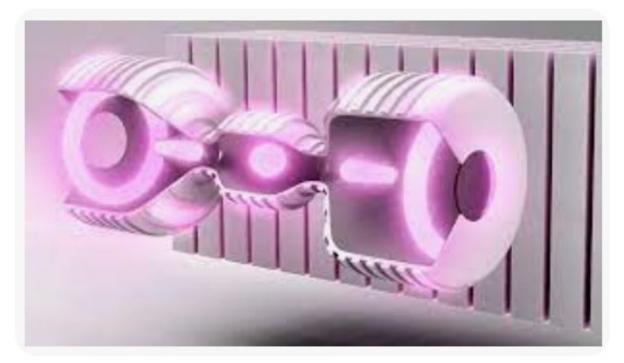
Globally: Normal slowdown – recovery 2025

SEB's GDP forecast, %	2022	2023	2024	2025
World	3.4	3.2	3.0	3.1
US	1.9	2.5	2.5	1.8
China	3.0	5.2	5.0	4.4
Euro area	3.4	0.4	0.5	1.7
Nordic countries	2.5	0.3	1.1	2.7
OECD	2.9	1.7	1.7	1.9
Baltics	1.9	-0.9	1.2	2.9
EM economies	3.7	4.4	4.1	4.1

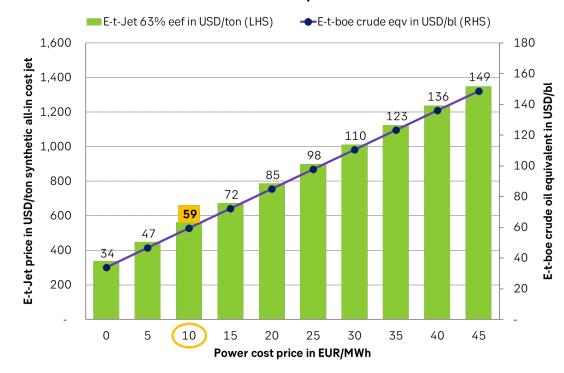


Fusion electric power at USD 10/MWh. Proof of concept 2025? Industrial scaling not before 2030, but "light-bulb-moment" could be 2025

Helion fusion energy?



Power-to-Liquids



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Globally: 2 big trends = predictable unpredictability

\$ -7,000bn (IMF)

Geoeconomic fragmentation

Artificial intelligence

\$ +7,000bn (IMF)

Globally: Potential long-term inflation drivers

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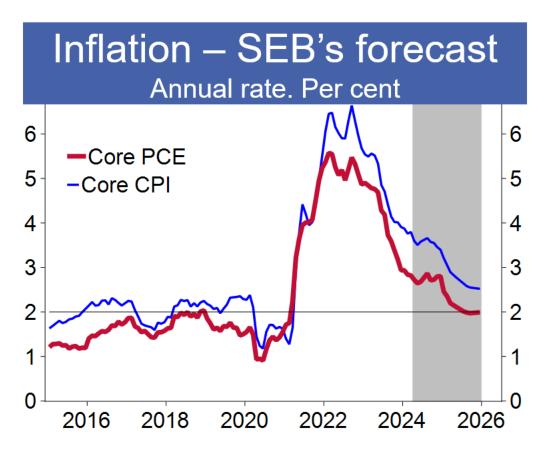
- Paradigm shifts → uncertainty
- 1. Geoeconomic fragmentation 😕
- 2. Energy transition
- 3. Al revolution & productivity ③
- 4. Stable inflation expectations 😳
- 5. China's excess capacity



Globally: Approaching 2% with restrictive rate policy

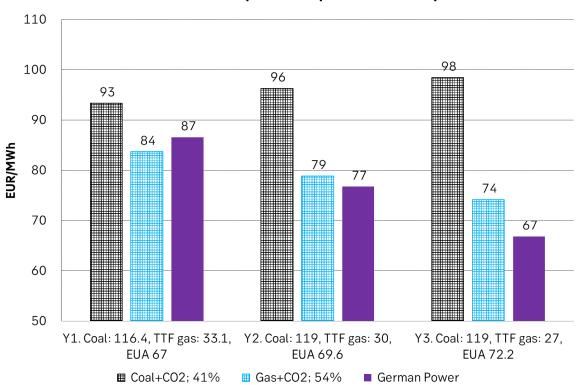
Core inflation, % SEB forecast	Latest	Dec 2024	Dec 2025	Policy rate, % SEB forecast	Today ²⁰²⁴	Dec 2024	Dec 2025
US (PCE)	2.8	2.8	2.0	Federal Reserve	5.50	5.00	4.00
Euro area	2.7	2.6	1.9	ECB	4.00	3.00	2.00
UK	4.2	3.0	2.3	Bank of England	5.25	4.25	3.25
Japan	2.6	1.6	1.8	Bank of Japan	0.00	0.20	0.20
Sweden (CPIF)	2.9	1.6	2.0	Riksbank	3.75	3.00	2.25
Norway (CPI-ATE)	4.4	3.3	2.4	Norges Bank	4.50	4.00	3.00

US: Strong growth, less impressive fundamentals

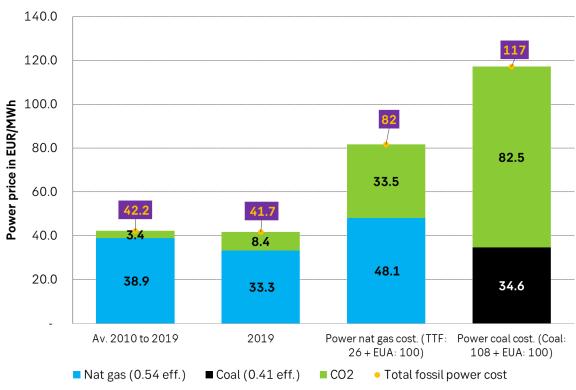


Per cent, per cent of GDP, level Source: SEB, IMF, Fed	2022	2023	2024	2025	*
GDP	1.9	2.5	2.5	1.8	1.8
Unemployment	3.6	3.6	3.9	4.1	4.1
Wage growth	5.4	4.5	3.9	3.1	3.5
Core-PCE	5.2	4.1	2.8	2.2	2.0
Public balance	-4.1	-8.8	-6.5	-7.0	-3.0
Public debt	120	122	123	126	80
Policy rate	4.50	5.50	5.00	4.00	2.20

Fossil fuels back to normal, but cost of power is higher than before Coal no longer on the margin 2026++. Carbon costs an issue for heavy industry

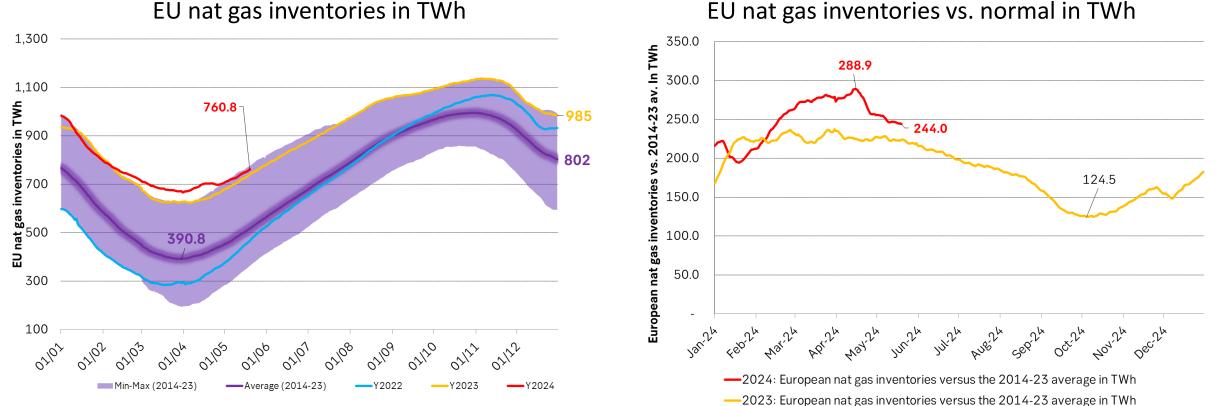


Forward German power prices and power costs



Cost of German power historically and cost struct.

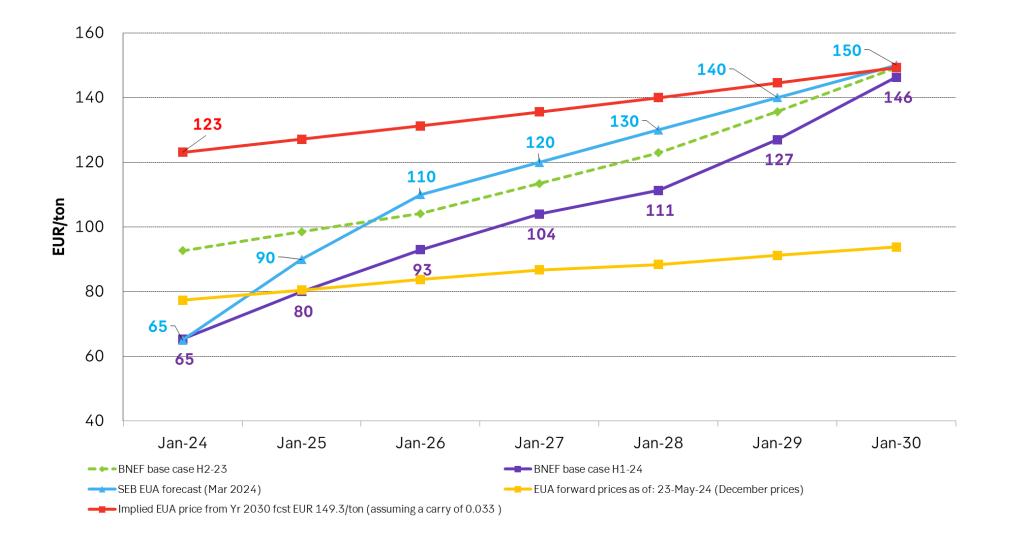
EU nat gas inventories are very high but fading a little lately Slight revival in EU nat gas demand and softer LNG imports are driving it lower



EU nat gas inventories vs. normal in TWh

EUA price of EUR 150/ton 2030 implies EUR 118/ton today

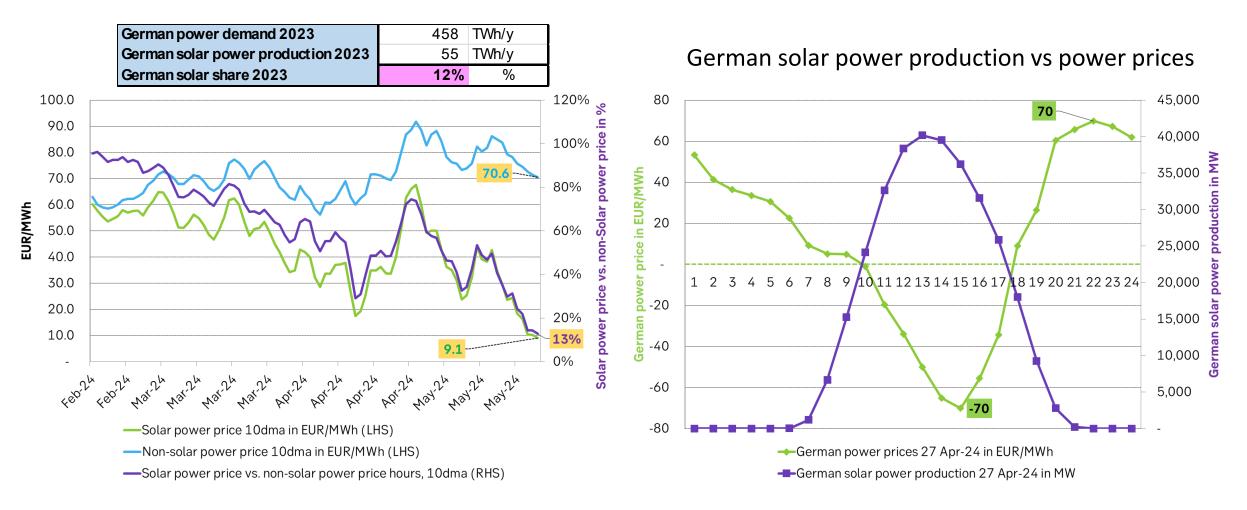
Value today is implicitly set by future price through bankability



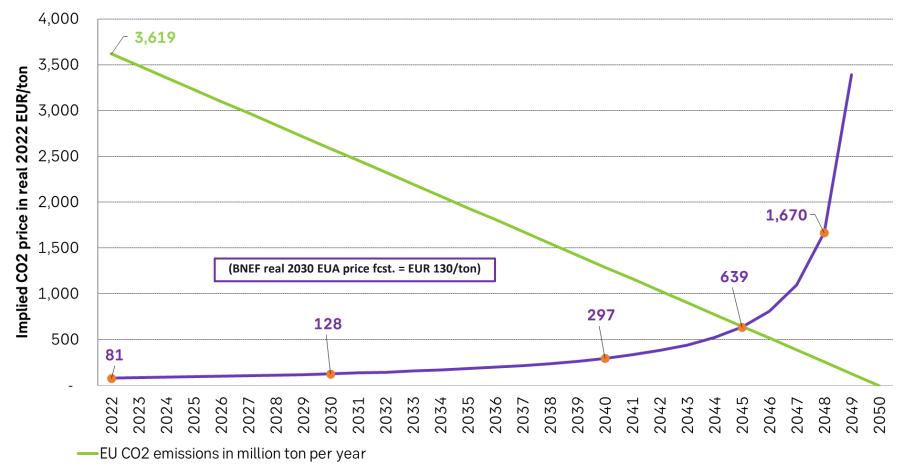
Solar power boom and the hara-kiri of solar power prices

80% of solar power production is done in 22% of the hours in the year

Germany getting serious destruction of solar power prices. First gradually. Then suddenly



Political strategy: Keep CO2 costs = fixed share of GDP Price can rise as emissions falls without increasing pain to economy

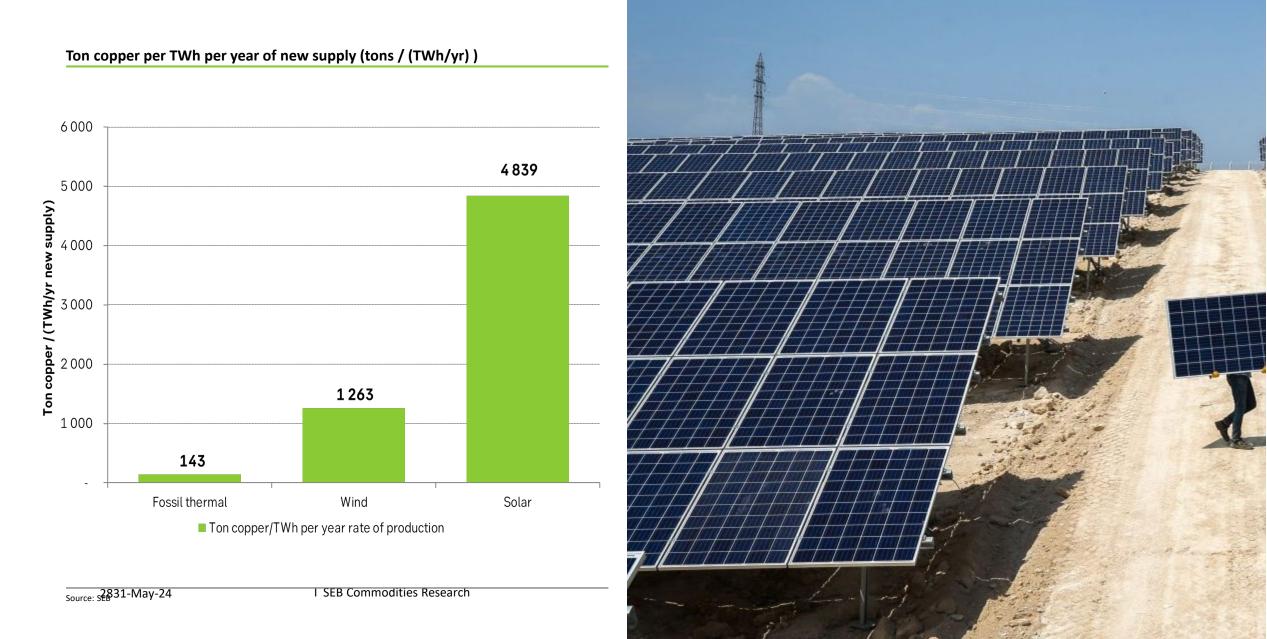


-Implied CO2 price in EUR/ton assuming 1.8% fixed cost share to economy. Economic real growth of 1.5% p.a.

Solar requires large land areas...

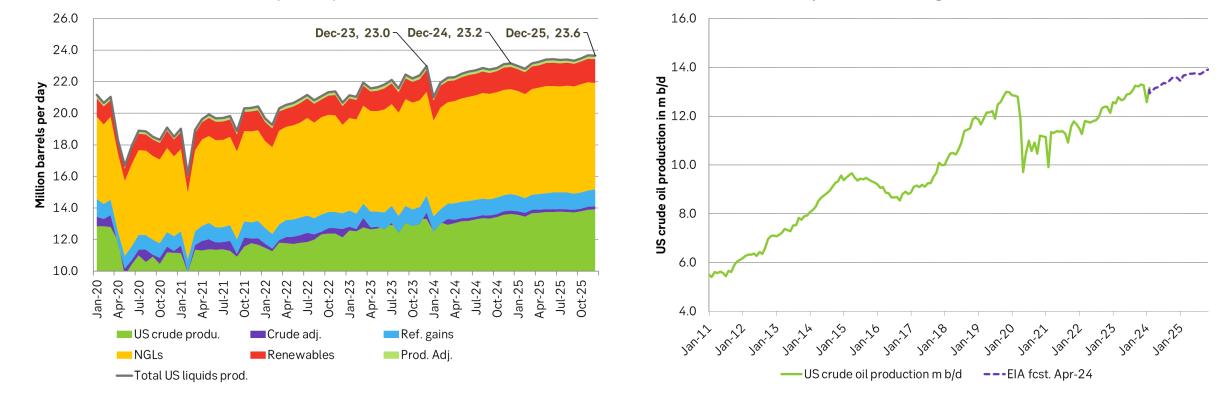
lifting copper demand

SEB



Will US liquids production start to slow or not That will be key to the price of oil in the years to come. All power to OPEC+?

Growth in total US liquids production is set to slow



US crude oil production growth assumed to slow