Global Energy Weekly

Weak EU economy captures carbon again

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Commodities
Global

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European carbon is falling mostly on weak power demand

It has happened before. A weak economy, more renewables, a warm winter, falling European energy prices, and high interest rates have all come together to push European Union Allowances (EUA) from a high point of €97/t last year to ~€60/t recently. Unlike most commodities, the price of carbon is an entelechy built by regulators to simultaneously reduce the release of CO_2e into the atmosphere while minimizing the negative impact this clean-up process has on the economy. However, carbon closely tracks electoral pressures and political cycles, as it is the public that demands decarbonization in a free-market democracy. Thus, any EUA dip into the €50-60/t range should be temporary, and we believe carbon prices will eventually exceed €150/t by 2030. Yet the European Parliament elections this summer could limit the scope for verbal intervention to support the EUA market, capping the upside on permits.

California allowances have bucked the European trend

Beyond the weak short-term fundamental and political backdrop for EUAs, it is also worth noting that trading volumes have surged as spec shorts hit record levels. ETF redemptions suggest real-money investors have reduced exposure to carbon too. Moreover, rising rates have contributed to a steeper contango in the EUA term structure and increased the cost of carrying this commodity on corporate balance sheets, likely encouraging some companies to sell. Moreover, a large drop in United Kingdom Allowances (UKAs) has also likely hurt confidence in European compliance markets, as policy changes and a weak economy mixed up with UK elections to drive British carbon lower. Bucking the trend, California carbon has continued to rally due to tighter supply conditions and robust power demand in the Pacific US Coast. EU policymakers will likely monitor this closely and may prescribe tighter EU ETS policy measures to boost prices and avoid falling behind.

Despite short-term woes, CBAM is a key catalyst in ‘26

While EU carbon has rolled off partly due to a weak German industry, the Carbon Border Adjustment Mechanism (CBAM) should eventually set the ground rules to level the playing field between industrial players in Europe and abroad. With the introduction of a carbon border tax, the European Commission expects negative carbon leakage across some sectors as a result of CBAM, which may help push down non-EU emissions too. Some internationally traded commodity sectors like steel, aluminum and fertilizer are the main target of the CBAM, although the risk here of course is that trade suffers as a result of this fresh tariff and that the de-industrialization process in Europe speeds up as a result of this new policy. Still, the European political project can’t be delinked from decarbonization and CBAM should reset CO_2 allowance prices before 2026, in our view.

Exhibit 1: BofA Commodity Research Themes and Outlook
Key takeaways

	View	Recent reports
Macro outlook	■ Our economists see world GDP rising 3% in 2023 and expanding by 2.8% in 2024.	
WTI and Brent crude oil	■ We project Brent and WTI to average \$80/bbl and \$75/bbl, respectively, in 2024. ■ The global oil balance should remain in a mild surplus during 2024, as OPEC+ withholds more supply from the market to counteract slowing demand growth ■ We forecast global demand growth of 2.3mn b/d YoY in 2023 and 1.2mn b/d in 2024. ■ Non-OPEC supply should grow roughly 2.24mn b/d YoY in 2023 and 1.35mn b/d in 2024. ■ We project total US crude and NGL supply to rise 1.5mn b/d in 2023 and 700k b/d in 2024. ■ OPEC crude oil supplies are set to fall 470k b/d in 2023 and 260k b/d in 2024 as OPEC+ actively manages balances	• Can (geo)politics Trump fundamentals? 04 January 2024 • The grind of the oil bulls 26 September 2023 • Money breaks oil's back 08 May 2023 • OPEC+'s whatever it takes moment 05 April 2023 • Global Energy Paper: Medium-term oil outlook 26 February 2023
Atlantic Basin oil products	■ Refined product markets face risks from OPEC+ cuts, a looming recession, and the pace of global refining capacity growth. ■ We forecast RBOB-Brent to average \$13/bbl in 2024, and we see ULSD-Brent cracks averaging \$26/bbl over the same period. ■ OPEC+ cuts, rising complex refining capacity, lower gasoline and diesel cracks create upside for 3.5% fuel oil cracks, which we see averaging -\$12/bbl in 2024.	• Waiting for Dangot(e) 31 October 2023 • Diesel weasels out of a cyclical downturn 29 August 2023 • In the fuel oil market, high sulfur is king 31 July 2023
US natural gas	■ US gas supply and demand growth should hit 1.6Bcf/d and 2.6Bcf/d YoY in 2024, pushing stocks to 3.95Tcf by October. ■ We forecast US Henry Hub natural gas prices will average \$3/mmbtu in 2024	• US nat gas rollercoaster nears the bottom 17 February 2023
LNG	■ LNG supply growth is manageable from historical view at 10MMT in 24 and 16MMT in 25, leaving demand to dictate future price path ■ JKM and TTF should average \$15/MMBtu and €50/MWh in 2024, but they could easily hit \$25/mmbtu or €100/MWh on cold weather	• Liquid gas can float and fly. So can oil 17 October 2023 • LNG is now a buyer's market 17 April 2023
Thermal coal	■ Seaborne coal prices pulled back on softer balances. Yet, China has come back in earnest, more than doubling thermal coal imports ■ We are constructive in 2024 on strong Asian demand and declining Russian supply	• China coal floors global gas 05 September 2023 • King coal loses its crown 31 March 2023

Source: BofA Global Research estimates

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Exhibit 2: BofA Global Research Commodity Price Forecasts
(period averages)

	units	1Q23F	2Q23F	3Q23F	4Q23F	2023F	1Q24F	2Q24F	3Q24F	4Q24F	2024F
WTI Crude Oil	(\$/bbl)	76	74	82	82	78	73	75	77	75	75
Brent Crude Oil	(\$/bbl)	82	78	86	86	83	78	80	82	80	80
US NY Harbor ULSD (HO) Cracks to Brent Crude Oil	(\$/bbl)	41	25	40	37	36	30	25	25	25	26
US RBOB Cracks to Brent Crude Oil	(\$/bbl)	23	31	29	7	22	11	21	14	7	13
NWE Low Sulphur Gasoil Cracks to Brent Crude Oil	(\$/bbl)	31	17	32	29	27	23	20	20	19	21
NWE Eurobob Cracks to Brent Crude Oil	(\$/bbl)	15	22	27	7	18	5	14	10	3	8
NWE 1% Residual Cracks to Brent Crude Oil	(\$/bbl)	-13	-8	-3	-7	-8	-6	-5	-5	-5	-5
NWE 0.5% Residual Cracks to Brent Crude Oil	(\$/bbl)	2	2	4	3	3	2	2	2	2	2
NWE 3.5% Residual Cracks to Brent Crude Oil	(\$/bbl)	-23	-11	-4	-14	-13	-13	-12	-12	-12	-12
US Natural Gas	(\$/MMBtu)	2.74	2.32	2.66	3.15	2.72	2.90	2.50	3.00	3.60	3.00
Thermal coal, Newcastle FOB	(\$/t)	253	160	147	145	176	148	148	151	153	150
Aluminium	\$/t	2,401	2,260	2,160	2,250	2,268	2,250	2,500	2,750	2,750	2,563
Copper	\$/t	8,941	8,461	8,367	8,000	8,442	8,000	8,500	8,750	9,250	8,625
Lead	\$/t	2,137	2,118	2,171	2,200	2,156	2,000	2,000	2,000	2,000	2,000
Nickel	\$/t	25,973	22,277	20,392	18,500	21,786	18,500	18,500	19,000	19,000	18,750
Zinc	\$/t	3,132	2,527	2,435	2,500	2,648	2,500	2,500	2,250	2,250	2,375
Gold	\$/oz	1892	1977	1927	1900	1924	1950	1950	2000	2000	1975
Silver	\$/oz	23	24	24	23	23	23	23	24	24	23
Platinum	\$/oz	995	1,027	932	950	976	1,000	1,000	1,100	1,100	750
Palladium	\$/oz	1,568	1,445	1,254	1,250	1,379	900	800	700	600	750

Source: BofA Global Research estimates

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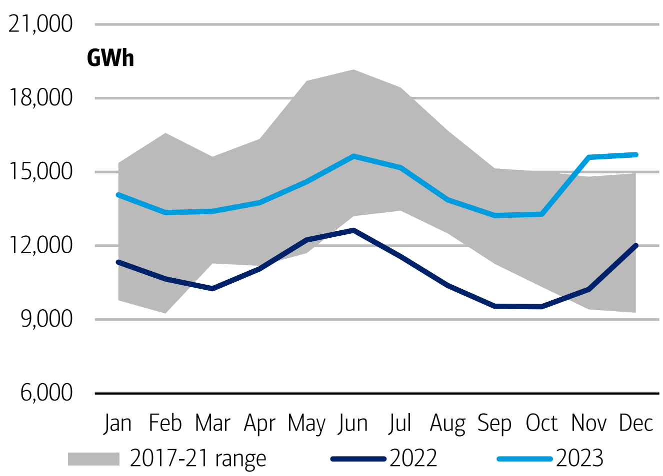
Weak EU economy captures carbon again

Rising renewable generation and warmer winter weather...

Falling European natural gas and thermal coal prices, coupled with declining spark and dark spreads, have come together to push European Union Allowances (EUA) from a high point of €97/t last year to ~€60/t in recent weeks. Following an extreme drought across Europe in 2022, hydro levels have recovered across countries including France, Italy and Spain (Exhibit 3), boosting both renewable and nuclear power generation, and reducing the need for fuels like gas or coal. Meanwhile, weather has been warmer than normal across most of Europe so far this winter compared to the 10-year average (Exhibit 4).

Exhibit 3: Hydro levels (France, Spain, Italy)
Following an extreme drought suffered across Europe in 2022, hydro levels have recovered across countries including France, Italy and Spain



Source: Bloomberg

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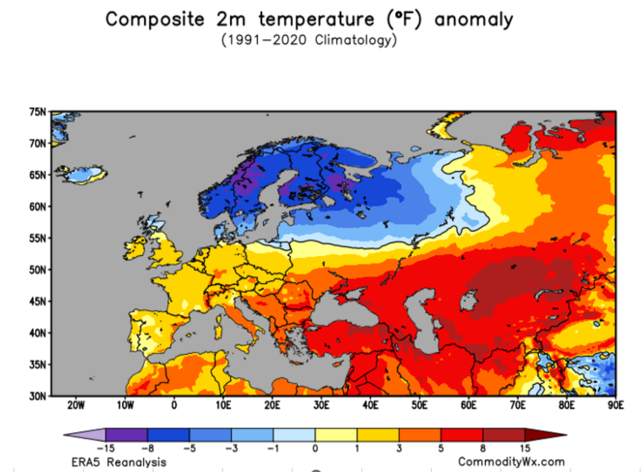
Exhibit 4: Winter to date temperature anomaly to 10-year average
Meanwhile, weather has turned warmer than normal across most of Europe so far this winter compared to the 10 year average



Source: Commodity Weather Group

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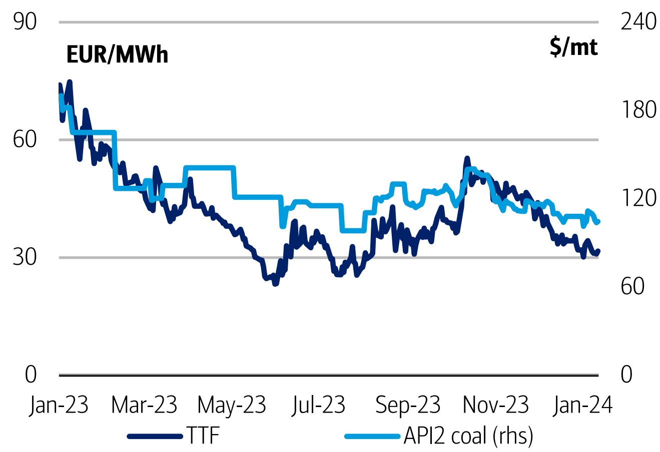
...have pushed gas & coal prices lower in recent months...

As a result of these trends, Europe is burning a lot less thermal energy. In turn, carbon prices are starting to reflect this reality. Due to warmer than normal winter temperatures and rising renewable power generation levels, European gas and coal prices have come off too (Exhibit 5) from as high as €75/MWh for TTF (Title Transfer Facility, European gas benchmark) and $190/t for API2 thermal coal in early January of last year to a more moderate €32/MWh and $105/t today. In turn, limited demand for natural gas has also allowed European inventories to decline slowly, tracking 2023 levels and currently sitting at nearly 80% of full (Exhibit 6). With stocks at reasonable levels and the end of winter only a few weeks away, TTF natural gas prices have rolled off, dragging down carbon in the process.

Exhibit 5: TTF and API2 coal prices

Due to warmer than normal winter temperatures and rising renewable power generation levels, European gas and coal prices have come off



Source: Bloomberg

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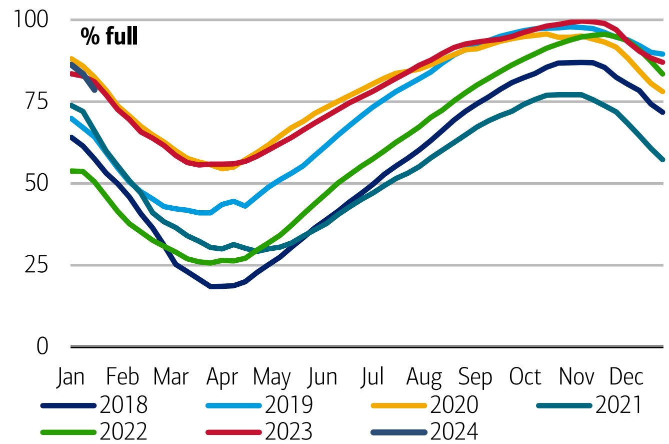
Exhibit 6: Europe gas storage

Limited demand for natural gas has also allowed European inventories to decline slowly, tracking 2023 levels and currently sitting at nearly 80% full



Source: Bloomberg

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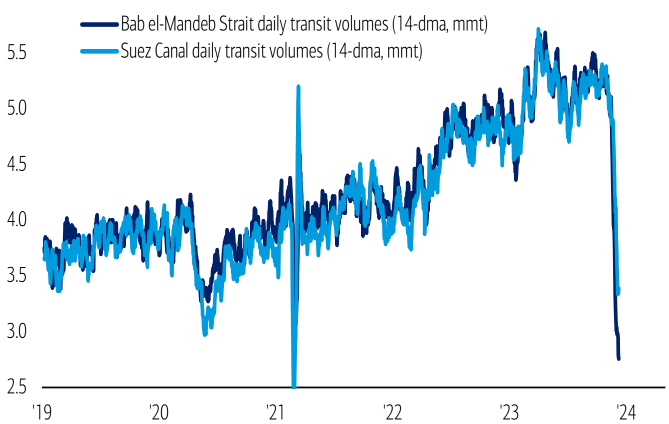
…despite tensions in the Red Sea driving up freight costs

The decline in energy prices in Europe has been remarkable in the context of the collapse of shipping activity in the Red Sea due to Houthi attacks (Chart 7). Despite a 96% reduction in liquefied natural gas (LNG) tankers crossing the Bab El-Mandeb straight to enter the Mediterranean through the Suez Canal, European gas has continued to sell off, as the market expects supplies can be re-routed and inventories are high enough to prevent an imminent shortage. The drop is particularly noticeable in the light of rising freight costs as many ships now have to sail around the Cape of Good Hope in South Africa, but the increases have been manageable so far (Exhibit 8).

Chart 7: Geopolitics

The decline in energy prices in Europe has been remarkable in the context of the collapse of shipping activity in the Red Sea due to Houthi attacks



Source: BofA Global Investment Strategy, Bloomberg. MMT = million metric tons

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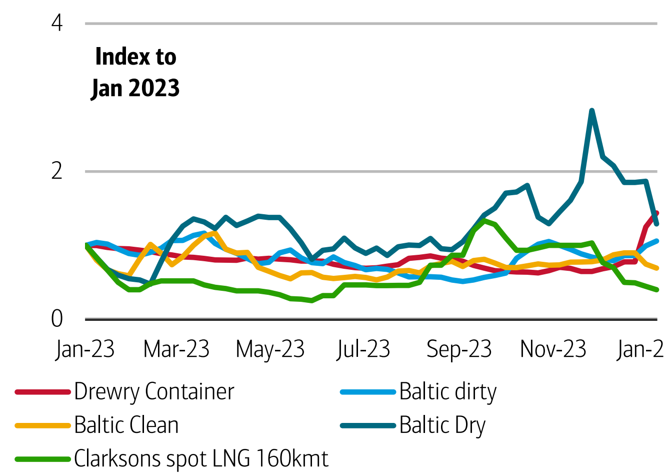
Exhibit 8: Baltic freight indices

Freight costs have surged as many ships opted to reroute via the Cape of Good Hope in South Africa, but the increases have been manageable so far



Source: Bloomberg, Clarksons, BofA Global Research

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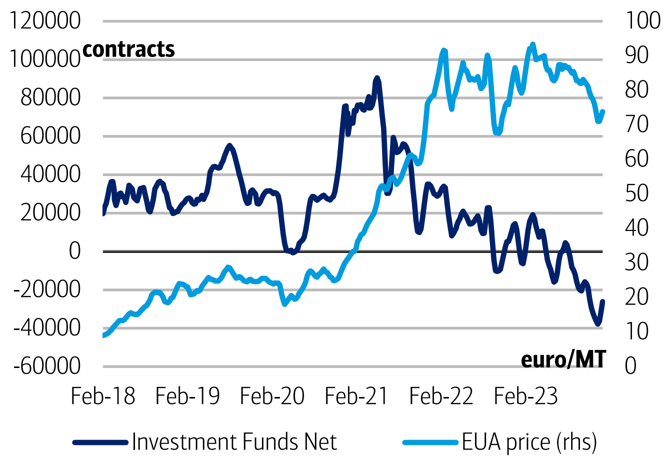
EUA trading volumes have surged as spec shorts expanded…

As demand for thermal fuels in the power generation sector has come down across most of Europe, investors have increased their short positions in European Union Allowances (EUAs) (Exhibit 9). The reasons that led to large and concentrated long speculative positions in EUAs in 2021 have flipped due to the fundamental shifts described above, and investors are now instead carrying one of the largest net shorts positions in recent memory. Importantly, the recent declines in EUA prices have coincided with significant increases in trading volumes, stressing the role of speculative positions (Exhibit 10) in driving the price of carbon at the margin.

Exhibit 9: EUA prices and investment fund positioning, 4-week MA
As demand for thermal fuels in the power generation sector has rolled over in Europe, investors have increased their short positions in EUAs



Source: Bloomberg

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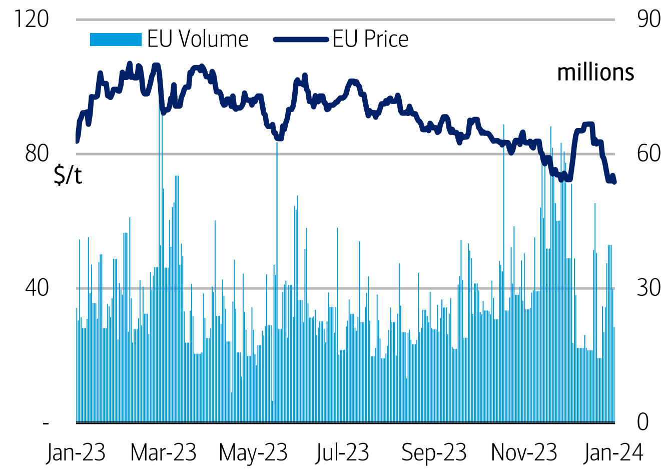
Exhibit 10: EU carbon price and volume
Importantly, the recent declines in EUA prices have coincided with significant increases in trading volumes, stressing the role of speculative positions



Source: BNEF

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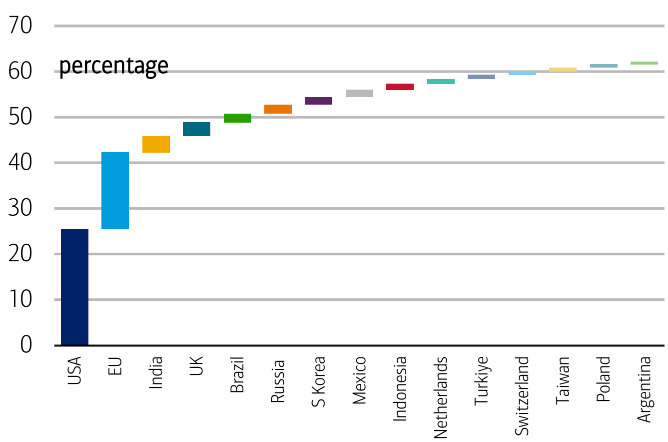
...as investors have generally reduced exposure to carbon

Unlike most commodities, the price of carbon is an entelechy constructed by regulators to simultaneously reduce the release of CO_2e into the atmosphere while minimizing the negative impact this clean-up process has on the economy. In the medium term, it tracks closely electoral pressures and political cycles (Exhibit 11), as it is the public that demands decarbonization in a free-market democracy. In the short run, however, it often trades as a reflection of what is happening in other markets, including energy and interest rates. Not surprisingly, investor positioning in the KRBN ETF shows a significant reduction in shares outstanding for this instrument (Exhibit 12).

Exhibit 11: Cumulative share of world GDP
Over 60 countries representing about half of the world's population (and most of the world's GDP) will go to the polls this year



Source: Bloomberg, BofA Global Research

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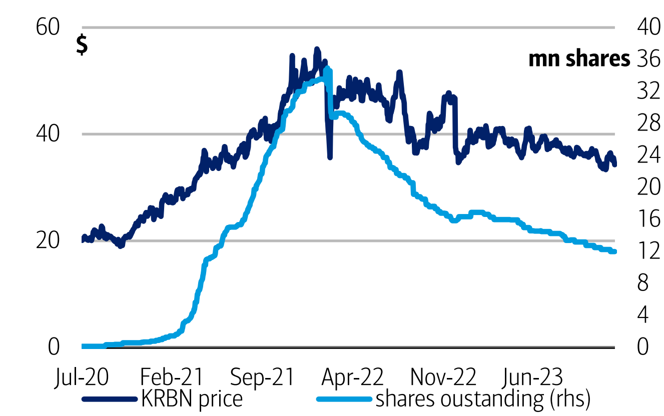
Exhibit 12: KRBN ETF price and shares outstanding
Investor positioning in the KRBN ETF shows a significant reduction in shares outstanding for this instrument



Source: Bloomberg

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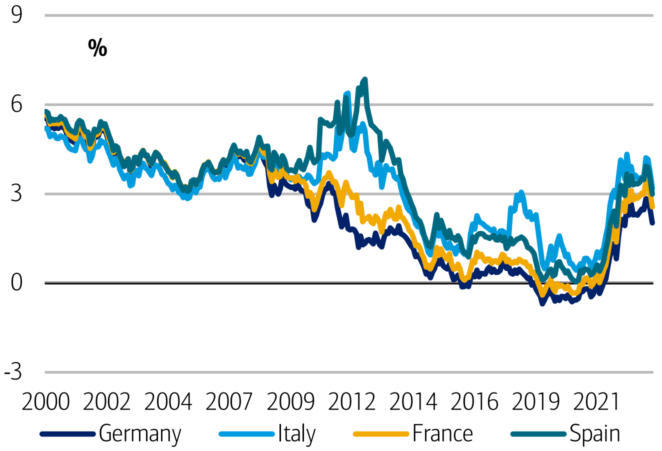
Rising rates have contributed to a steeper EUA contango

While fundamentals are important in day-to-day trading moves and warm winter weather has recently played against carbon, it is not just relative fuel prices that have sunk EUAs during the past 12 months. High interest rates, driven up aggressively in the

European Central Bank deposit facility from -0.5% to 4% in a bid to contain inflation (Exhibit 13), and a steep contango in the curve have also further reduced demand for permits by increasing the cost of carry of this commodity (Exhibit 14), pressuring prices lower. High interest rates, of course, do not work in isolation to create a negative headwind for carbon, and rather work in conjunction with economic performance.

Exhibit 13: 10-year government bond yields

Interest rates in Europe have increased very significantly as the ECB tightened monetary policy to combat a run up in inflation



Source: Bloomberg

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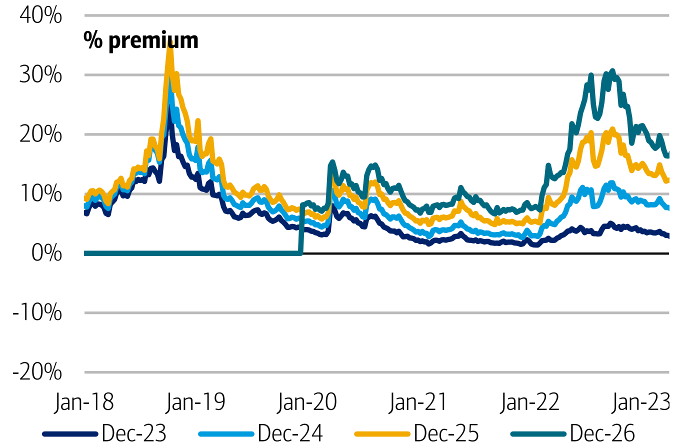
Exhibit 14: Forward EUA price premium vs spot

With interest rates going up, the price premium of forward EUA contracts has steepened substantially versus the spot



Source: Bloomberg

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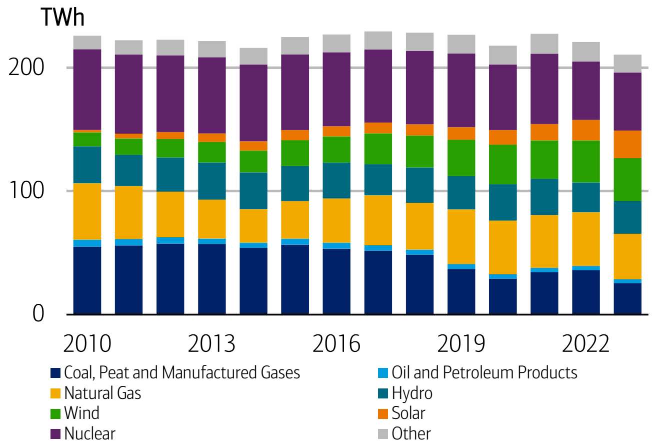
Dragged by Germany, EU generation has dropped in 2023

Thus, beyond the weather, a key factor driving down the price of carbon emissions in Europe has been an aggregate drop in power generation (Exhibit 15). In fact, a softer power market has been in the works for a while due to a weakening industrial backdrop in Germany, Europe's economic powerhouse. The gap left by the collapse of Russian natural gas supplies led to a 20% or so permanent reduction in European industrial gas demand (and surge in renewables), and power markets have not been immune to the rapid de-industrialization of Europe. Of course, there are a number of factors driving EUA prices (Exhibit 16). On the demand side, weakening coal and gas generation across Europe has become a growing negative impact on prices by weakening demand. The impact of a weakening manufacturing sector (and demand once again) on prices is also growing in recent months, albeit more slowly than gas and coal. On the supply side, the increased auction volume has had one of the greatest impacts on weakening prices.

Exhibit 15: Average monthly EU* electricity generation by fuel type
Beyond the weather, a key factor driving down the price of carbon emissions in Europe has been an aggregate drop in power generation



Note: excludes Romania and United Kingdom; 2023 data is through September
Source: IEA, BofA Global Research

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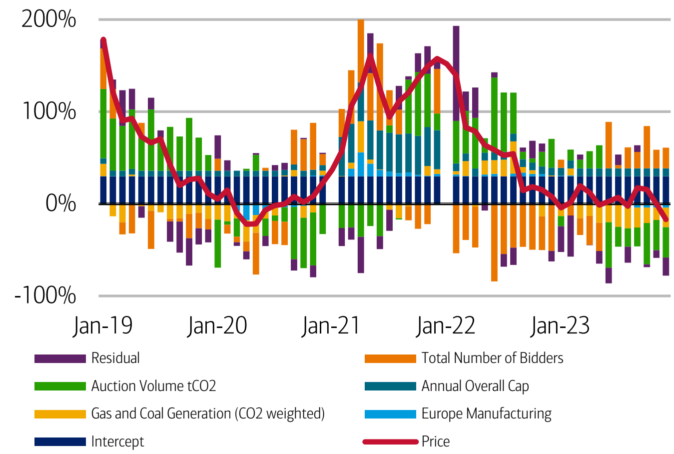
Exhibit 16: YoY EUA price change by contributing factor
There are a number of factors driving EUA prices and we note that lower gas and coal generation as well as manufacturing have dominated the downward price action as of late



Source: BofA Global Research estimates, Bloomberg, EEX, Platts

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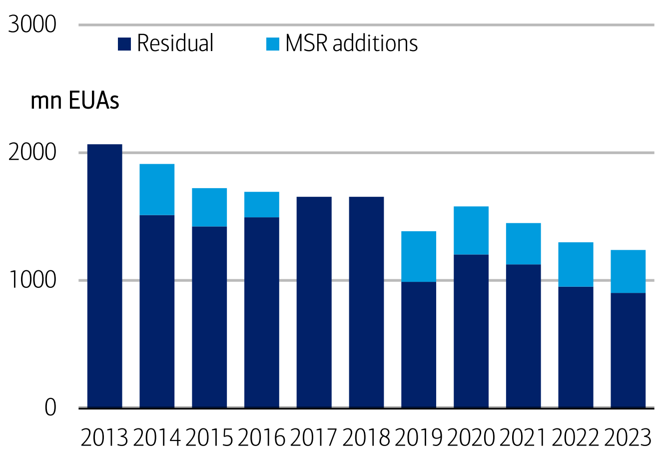
A rising supply of EU allowances has not been helpful

Government interventions to remove or add allowances are a powerful instrument to manage prices, and incremental volumes have helped cap the run up to triple-digit prices (Exhibit 17) in EUAs. In an attempt to control this, from 2023 the EU began invalidating allowances held in the Market Stability Reserve (MSR) above the previous year's auction volume. Roughly 2500 million allowances in the MSR became invalid at the beginning of last year. MSR holdings have therefore collapsed in 2023, with just 400mn allowances remaining (Exhibit 17).

Exhibit 17: Total Number of Allowable Credits (TNAC)
Government interventions to remove or add allowances are a powerful instrument to manage prices, and incremental volumes have capped the run up



Source: Platts

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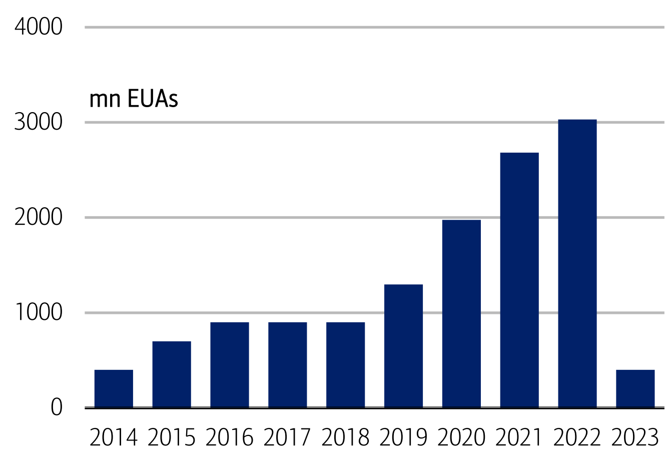
Exhibit 18: Market Stability Reserve holdings estimate
Market stability reserve holdings have collapsed in 2023 as many were invalidated at the beginning of last year



Source: Platts

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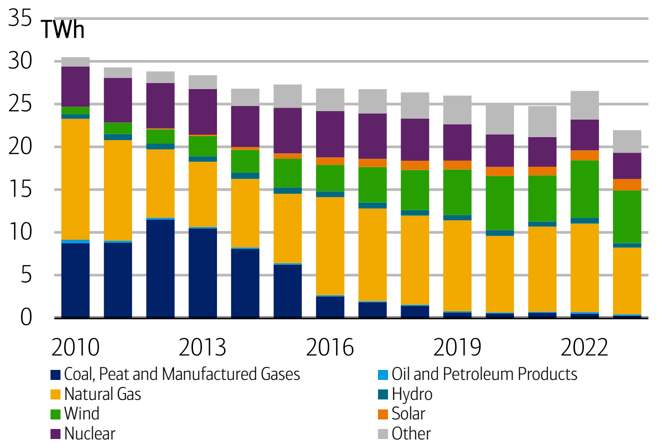
The large drop in UK permits on weak demand and…

Similarly, a weak economic backdrop has triggered a significant reduction in power generation in the UK, pushing coal use to almost zero (Exhibit 19) in Britain. Today, natural gas and wind compete for the top spot in the UK power generation deck, and we note that total renewable generation in the UK is now getting closer to 50% of total, up from less than 10% in 2010, a trend we expect to continue (Exhibit 20) over the coming years. Still, an increasingly clean power generation base has been in the works for awhile, so the reason behind the collapse in UK allowance (UKAs) prices is likely more linked to economic performance and policy changes.

Exhibit 19: Average monthly UK electricity generation by fuel type
Similarly, a weak economic backdrop has triggered a significant reduction in power generation in the UK, pushing coal use to almost zero



Source: IEA, BofA Global Research

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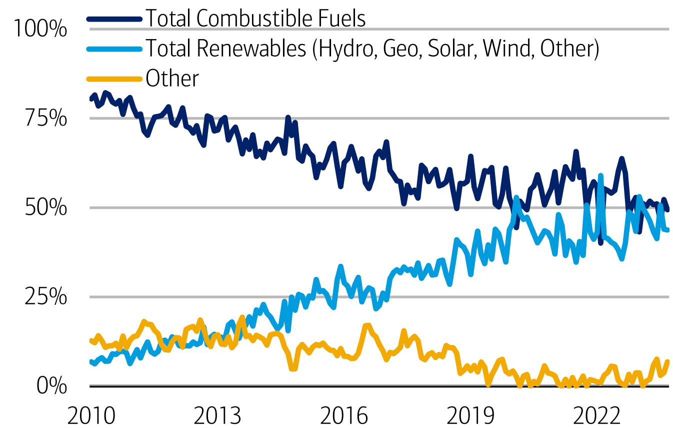
Exhibit 20: Share of monthly UK electricity generation by fuel type
We note that total renewable generation in the UK is now getting closer to 50% of total up from less than 10% in 2010, a trend we expect to continue



Source: IEA, BofA Global Research

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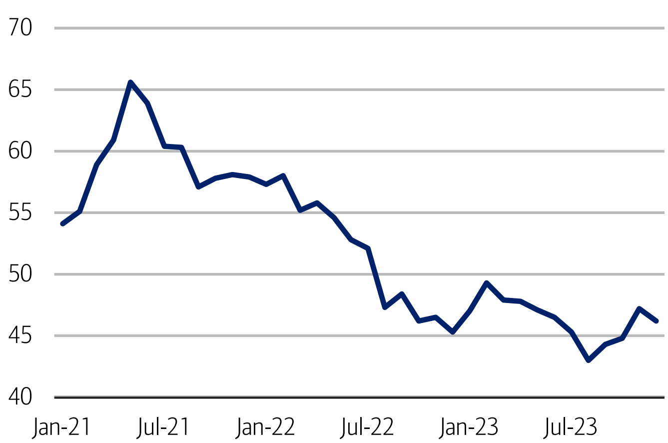
…unexpected policy changes are also hurting confidence…

Indeed, the UK has been experiencing a major economic downturn on the back of the inflationary spike in 2022 and the subsequent Bank of England interest rates hikes. Moreover, the record high UK NBP (National Balancing Point) natural gas prices in the past couple of years have had a devastating impact on the UK industry, just as much as they have across the rest of the continent, with manufacturing activity contracting by 10% last year alone (Exhibit 21). In addition to this, or rather perhaps because of the dire situation of industry, the UK government has recently delayed the phase out of Internal Combustion Engine (ICE) Vehicles from 2030 to 2035 instead of significantly tightening supply (Exhibit 22) eroding confidence in this nascent compliance carbon market.

Exhibit 21: Monthly UK manufacturing PMI
Record high UK NBP natural gas prices in the past couple of years have had a devastating impact on the UK industry



Source: Bloomberg

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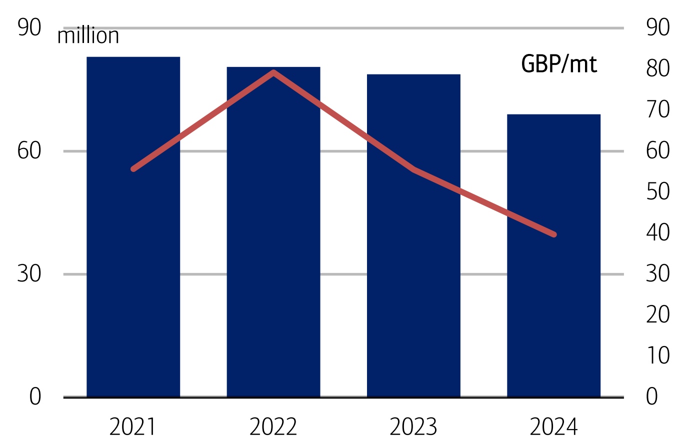
Exhibit 22: UKA annual auction volume versus price
Auction volumes have only moderately declined, however, creating a perfect storm of weaker demand but strong supply to lower prices



Source: Bloomberg, ICE, BofA Global Research
Note: 2024 prices is YTD

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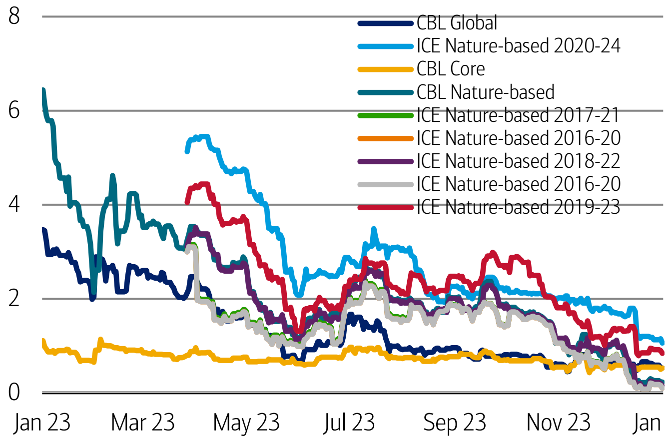
…while the collapse in VCOs has further eroded trust

True, the separation between UKAs and EUAs as a result of Brexit has created separate and distinct compliance markets on both sides of the English Channel, triggering uncertainty and more recently a lack of confidence. Yet another factor adding pressure to global carbon markets has been the outright collapse in voluntary carbon offsets (VCOs) in the past year (Exhibit 23). In part, the drop in VCOs has come on the back of significant scrutiny in the press and public. Television segments, newspaper articles, etc have critiqued the methodology of counting carbon credits (especially in regards to additionality) as well as the effectiveness of the market as a whole. This appears to have eroded some confidence in the system and trading volumes for certain offsets appear to have weakened (Exhibit 24). While voluntary markets do not necessarily mix with compliance markets, the sentiment is dire.

Exhibit 23: Global offset prices
Another factor adding pressure to carbon markets has been the outright collapse in voluntary carbon offsets (VCOs) in the past year



Source: Bloomberg

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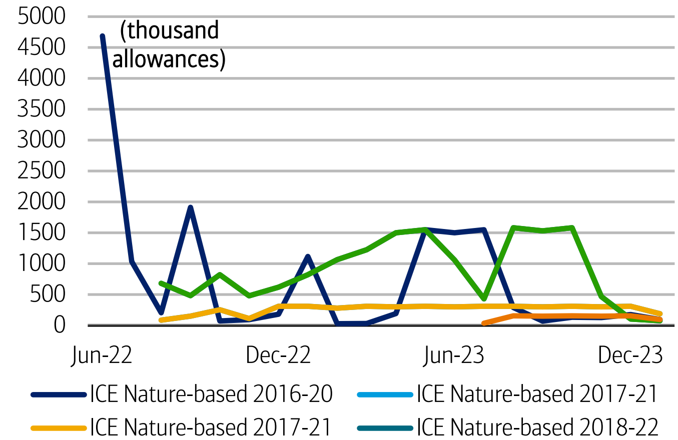
Exhibit 24: ICE Nature-based monthly trading volumes
Trading volumes (and interest) for certain offset types appear to have weakened amid scrutiny



Source: Bloomberg

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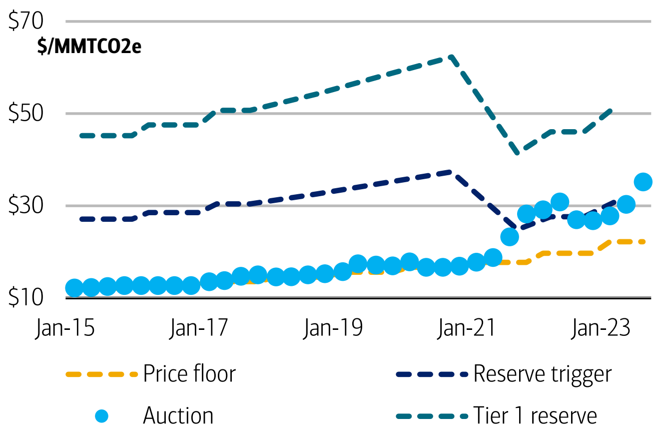
Meanwhile, California carbon has trended up due to…

In stark contrast, while European and UK allowance prices have rolled over in recent months, the price of carbon in California has rallied past $40/t (Exhibit 25), staging a 30% run up as its European counterparts have come down crashing. How did California beat the odds? For starters, the state passed a more aggressive plan for emissions reductions at the end of 2022, a supply push that has lifted carbon prices higher in the past 12 months. Importantly, California carbon prices are expected to keep rising indefinitely because of a rising floor mechanism, unless the politics of the state take a U-turn.

Exhibit 25: CCA auctions results and price limits
While European and UK allowance prices have rolled over in recent months, the price of carbon in California has rallied past $40/t



Source: CARB, BofA Global Research

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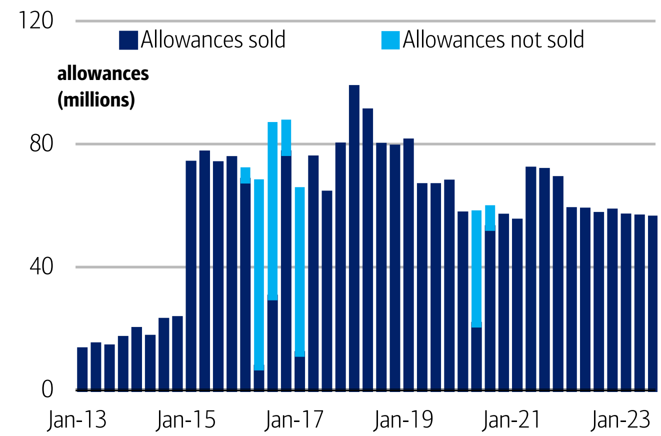
Exhibit 26: Allowances sold and not sold at CARB auctions
Auction demand has been exceptionally strong with all allowances selling since January 2021



Source: CARB, BofA Global Research

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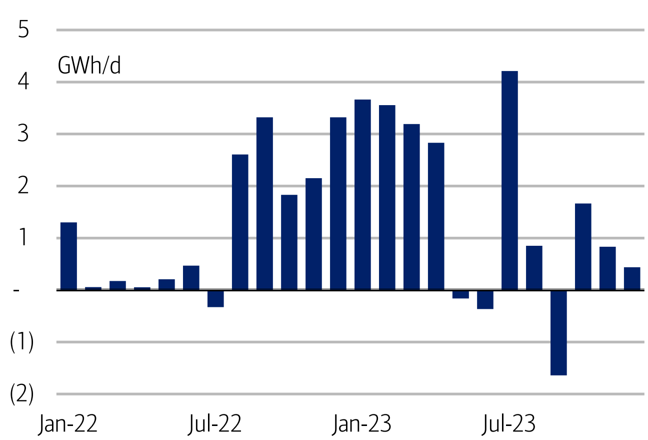
...a combination of tighter supply but also demand growth

Having said that, we think it would be wrong to attribute the bullish run in prices simply to supply-side changes in the Golden State. Looking carefully at the available power generation data, we note that the CAISO (California Independent System Operator) region also had record electricity generation last year in just about every month. Of the 24 months in 2022 and 2023 just four saw year on year generation declines, often of which were so small that one could argue generation was flat (Exhibit 27). Instead, the bulk of the past two years have had substantial year-on-year generation and demand gains. What is more, while renewables have grown substantially in CAISO over the years, the majority of growth in the generation stack has come from thermal generation. In CAISO nearly all thermal generation is from gas, and gas generation hit record monthly average highs in 8 of the past twelve months. While some of the run-up in electricity generation and therefore gas burns is likely due to weather, much of the gains in California can also be attributed to industry and population growth.

Exhibit 27: Year on year change in monthly net generation in CAISO
CAISO reported record electricity demand in nearly every month last year with significant YoY gains since Summer 2022



Source: Bloomberg, BofA Global Research

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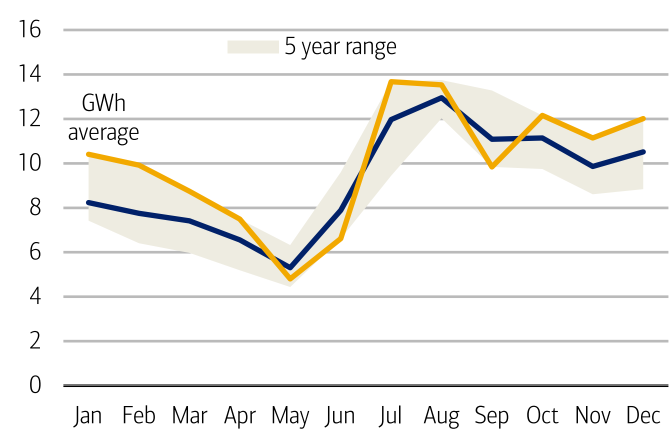
Exhibit 28: CAISO gas generation
This has come from gas generation hitting record monthly average highs in 8 of the twelve months of 2023



Source: Bloomberg, BofA Global Research

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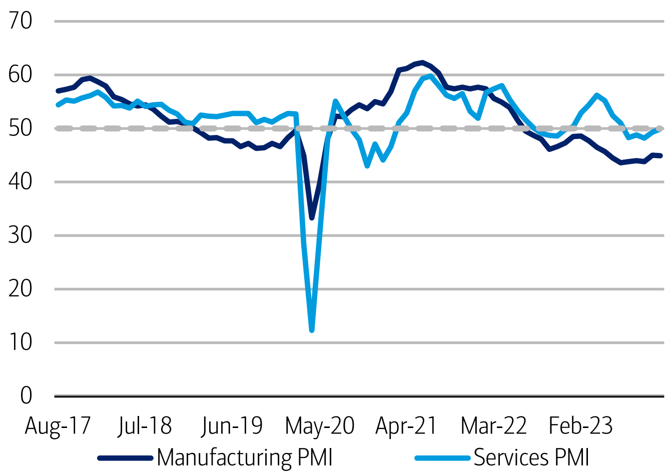
A weak German economy and ailing European industry...

In short, the diverging economic outcomes in the US and Europe following years of pandemics and wars are also playing out through the price of carbon, something that perhaps monetary policy makers should pay some attention to. While the services sector has held up a little better, manufacturing PMIs in Europe have continued to contract since the start of the Ukraine war (Exhibit 29) in contrast to the more constructive backdrop for US industry. In sum, a softer EU power market has been in the works for a while due to a weakening industrial backdrop in Germany, Europe's economic powerhouse (Exhibit 30).

Exhibit 29: Europe PMIs
While the services sector has held up a little better in Europe, manufacturing PMIs have continued to contract since the start of the Ukraine war



Source: Bloomberg

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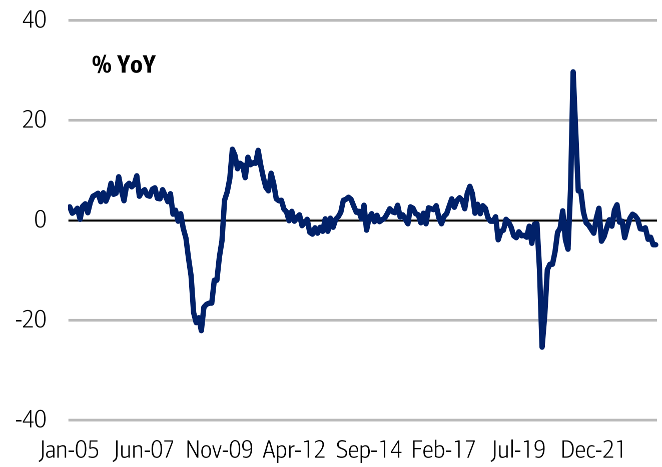
Exhibit 30: Germany industrial production growth YoY
A softer power market has been in the works for a while due to a weakening industrial backdrop in Germany, Europe's economic powerhouse



Source: Bloomberg

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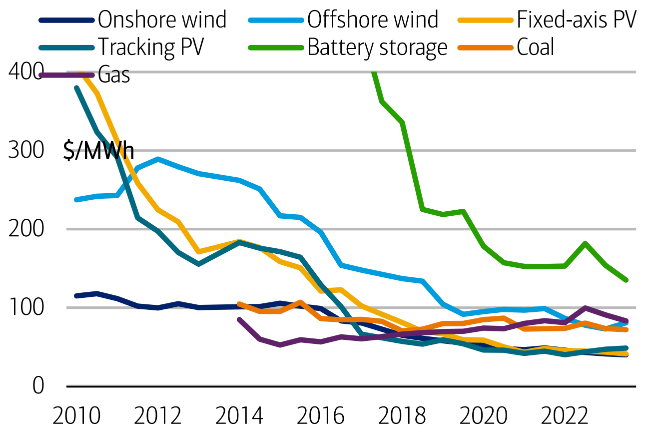
…coupled with historical declines in the cost of energy…

Having said all this, a weak economy, surging renewable generation, and a warm winter are not the only headwinds facing European carbon. The frail economic outlook presented here is also coming against steep declines in the Levelized Cost of Energy (LCOE) (Exhibit 31), which would not be as much of a problem if Europe had implemented a price floor as California did. But in a fully floating carbon market, the falling costs of solar and wind power can at times create a vacuum in the demand for carbon permits. This has helped make it more affordable for companies to sign their own power purchase agreements (PPAs) in Europe (and globally). While last year continued a trend of growing PPAs, the manufacturing offtakers contributed some of the largest gains and helped shift industry away from thermal sources as wind and solar roughly split these agreements.

Exhibit 31: Global LCOE
The frail economic outlook in Europe has also come against steep declines in the Levelized Cost of Energy (LCOE)



Source: BloombergNEF
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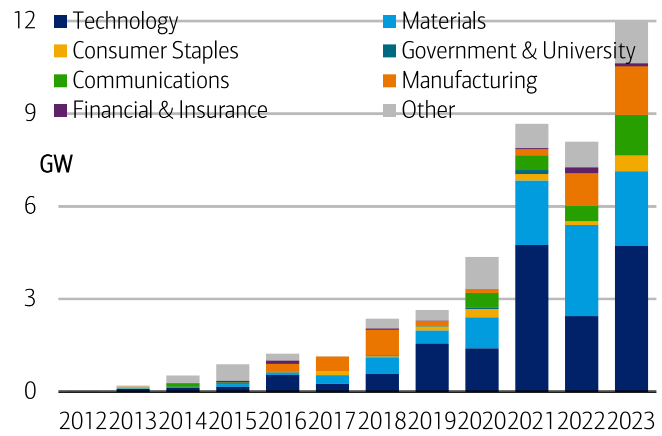
Exhibit 32: EMEA PPAs by offtaker type
PPAs, especially among industry in recent years, are growing, with about half going towards wind and the remainder to solar



Source: BloombergNEF
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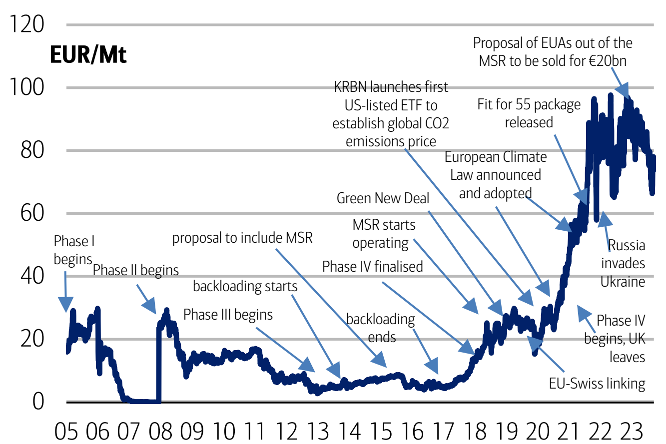
…have sunk EUAs below €65/t, but the floor may be near

EUAs have historically traded between €0 and €100/t with prices significantly picking up since 2020 and now hovering in the €60 to €100/t range. Did €100/t carbon further negatively impact the European economy at a very challenging time? The proposal that €20bn worth of allowances be sold from the Market Stability Reserve (MRS) as prices approached (Exhibit 33) suggests that European governments are not prepared to decarbonize at any cost, particularly ahead of a parliamentary election. Plus, RePowerEU is set to keep pulling more auction volumes forward at a time EUR cash returns are finally attractive. Still, the market could be approaching a floor for European carbon. Further convergence between EUA and California Carbon Allowance (CCA) prices, especially if EUAs continue to weaken, may spur EU regulators to ratchet up policy measures that restrict supply and boost prices. (Exhibit 34).

Exhibit 33: European CO_2 emission prices
EUAs have historically traded between €0 and €100/t with prices significantly picking up since 2020 and now hovering in the €60 to €100/t range



Source: Bloomberg
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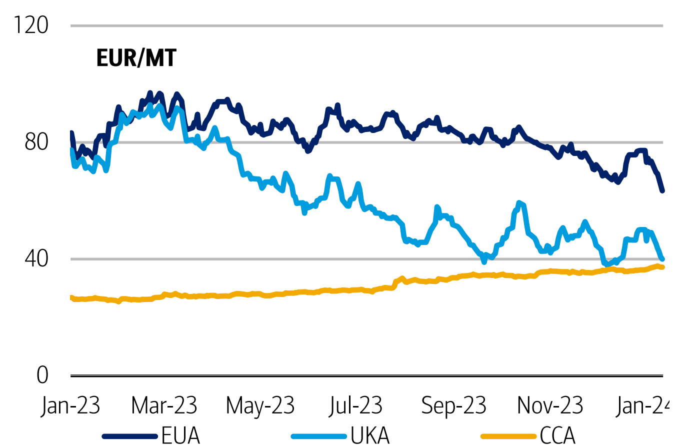
Exhibit 34: EUA, UKA, and CCA prices in EUR
Further convergence between EUA and CCA prices, especially if EUAs continue to weaken, may spur EU regulators to ratchet up policy measures that restrict supply and boost prices



Source: Bloomberg
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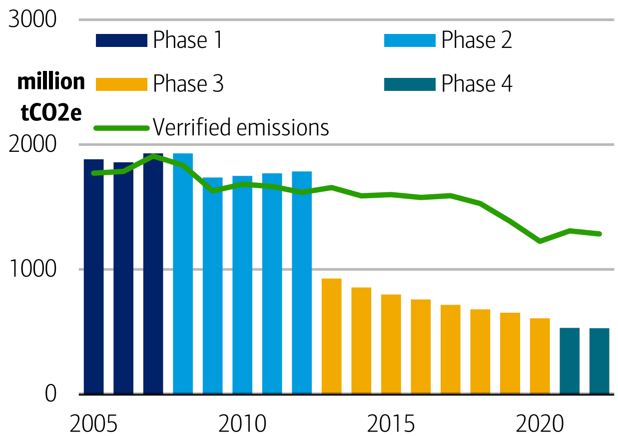
As more sectors enter the scheme, balances will tighten…

Indeed, after 25 years of working on a functional carbon framework, admittedly in fits and starts, it would be embarrassing for Europe to see California taking the lead in the global fight against climate change. In the past, supply side reforms have provided support to EU carbon, with a large removal of free allowances providing a crucial anchor to prices, in our view (Exhibit 35). Looking back, we believe that a key factor driving carbon prices up structurally towards the current €60 to €100/t band was the announcement of a new EU Climate Law. With a tighter legislative approach, the EU carbon market should theoretically move into a structural deficit into the end of the decade (Exhibit 36).

Exhibit 35: Freely allocated allowances

Supply side reforms have provided support to prices, with a large removal of free allowances providing a crucial anchor to prices, in our view



Source: European Environment Agency

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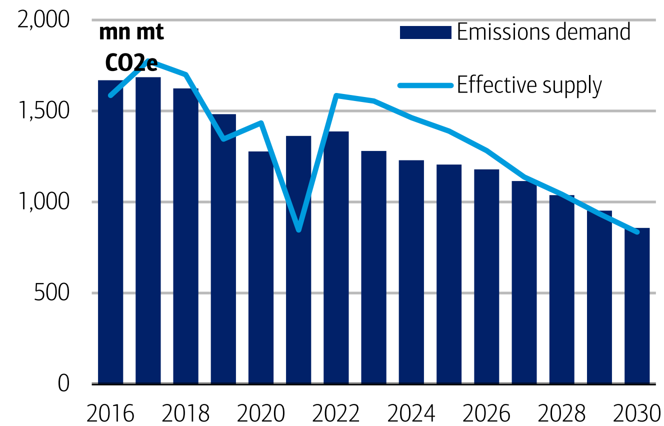
Exhibit 36: EU ETS emissions supply and demand

A key factor driving carbon prices up structurally towards the current €60 to €100/t band was the announcement of a new EU Climate Law



Note: Chart does not include MSR additions. **Source:** Platts, BofA Global Research estimates

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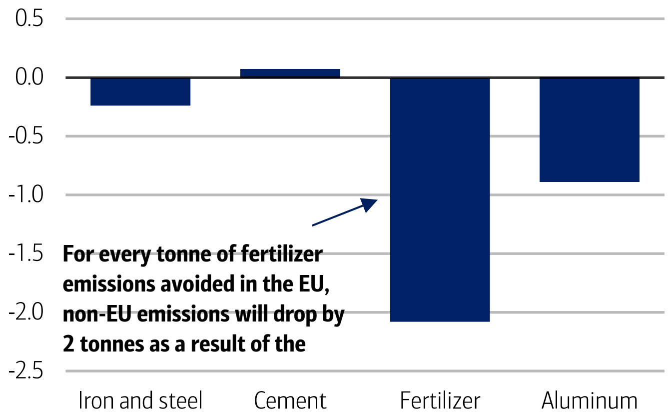
…while the CBAM should act as a catalyst for carbon in '26

On top of this, the Carbon Border Adjustment Mechanism (CBAM) sets the ground rules to level the playing field between industrial players in Europe and those abroad. With the introduction of a carbon border tax, the European Commission expects negative carbon leakage across some sectors as a result of CBAM, which may help push down non-EU emissions too (Exhibit 37). Some internationally traded commodity sectors like steel, aluminium and fertilizer are the main target of the CBAM, although the risk here of course is that trade suffers as a result of this fresh tariff and that the de-industrialization process that Europe is suffering speeds up as a result of this new policy. Still, we believe the European project cannot be dissociated from decarbonization at this point. Thus, any EUA dips into the €50-60/t range will likely be temporary until the CBAM forces a reset higher for global CO_2e allowance prices in 2026.

Exhibit 37: Incremental carbon leakage per ton of EU CO_2 reductions

The European Commission expects negative carbon leakage across some sectors as a result of CBAM, which may help push down non-EU emissions too



Source: EU Commission

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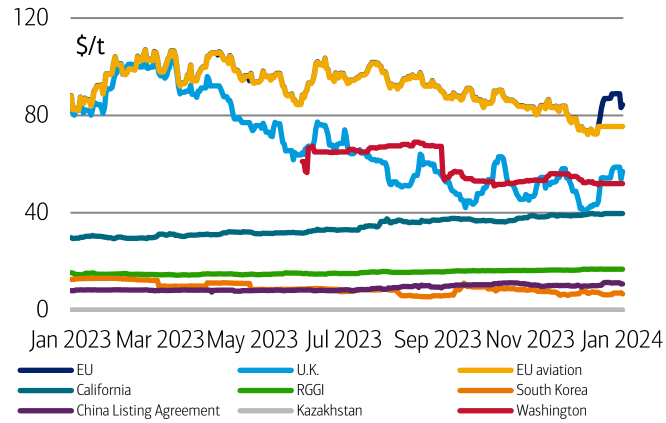
Exhibit 38: Global carbon prices

Any EUA dips into the €50-60/t range will likely be temporary until the CBAM forces a reset higher for global CO2e allowance prices in 2026



Source: Bloomberg

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