

Commodities Outlook 2024

December 2023



Cautious optimism

Commodities Outlook 2024: Cautious optimism

Supportive fundamentals, lingering geopolitical risks and expectations of Federal Reserve easing suggest the complex will trend higher next year. However, with plenty of uncertainty over global growth, we hold a cautiously optimistic view for commodities in 2024

2023 was meant to be a year of strength for the commodities complex. Commodities were the best performing asset class in 2021 and 2022, and coming into this year, it was a potential contender to be the top performer again, particularly with fears around gas supply over the 2022/23 European winter, and heightened geopolitical tensions.

However this has not been the case, with the complex down on the year. Europe had an unusually mild 2022/23 winter, which left the gas market very comfortable. Markets also underestimated the ability of trade flows to adjust to sanctions and bans related to Russia's invasion of Ukraine, while China's reopening story has not gone as planned, with a number of weak spots in the economy, particularly the property sector. Meanwhile, central bank tightening and a stronger US dollar have provided strong headwinds to commodity markets.

We hold a moderately supportive view on large parts of the complex for 2024. Fundamentals for most commodities range from neutral to mildly bullish. In addition, the heightened geopolitical environment will likely persist through 2024. Expectations that the US Federal Reserve will reverse policy tightening and start to cut interest rates next year, along with a weaker USD should also provide some tailwinds to commodities. However, there are clear demand risks given expectations for softer global growth next year.

For oil, OPEC+ policy will be crucial for the outlook. The group and in particular Saudi Arabia have demonstrated their desire to support prices this year and we do not expect this to change through 2024. Admittedly, the more OPEC+ cuts, the more difficult it will become for the group to agree on deeper cuts. For now, we see the oil market balanced over the first half of 2024 before moving into deficit in the second half of the year, which should see prices trade higher from current levels. A key risk around oil supply remains tensions in the Middle East and the potential for stricter enforcement of US sanctions against Iran. This would leave the oil market much tighter than expected.

We hold a neutral view on European natural gas having started the 2023/24 heating season with full storage. We expect storage to exit this winter below last winter's levels, but still well above average. This should once again make the job of refilling storage next summer manageable. The risk of a strong demand response and limited LNG supply in the short term is also why we believe the downside in TTF is limited. However, global gas markets will start to see new LNG export capacity starting up towards the end of 2024, leaving Europe less vulnerable from late 2024.

A large portion of LNG capacity additions in 2024 will be driven by the US, which will see export demand growing at a time when domestic natural gas output growth is expected to slow. As a result, we hold a relatively more constructive view on US natural gas prices next year.

The outlook for metals largely hinges on China. The property sector is likely to remain weak through 2024, suggesting that there will not be a significant recovery in metals



Warren Patterson
Head of Commodities Strategy
warren.patterson@asia.ing.com



Ewa Manthey
Commodities Strategist
ewa.manthey@ing.com

demand. In addition, LME base metal inventories have edged higher in recent months (from multi-decade lows), easing concerns over tight markets in the short term, although on a historical basis, exchange inventories are still tight. For 2024, most base metal markets are expected to either be largely balanced or in small surplus though these balances could flip into deficit quite easily, depending on how demand plays out. Constructive longer-term fundamentals for several metals and historically tight inventories suggest that there is still some upside for most metals in 2024, despite largely balanced markets.

Among base metals, nickel has the most bearish fundamentals for 2024, with the market set to remain in large surplus for several years, driven by strong Indonesian output growth.

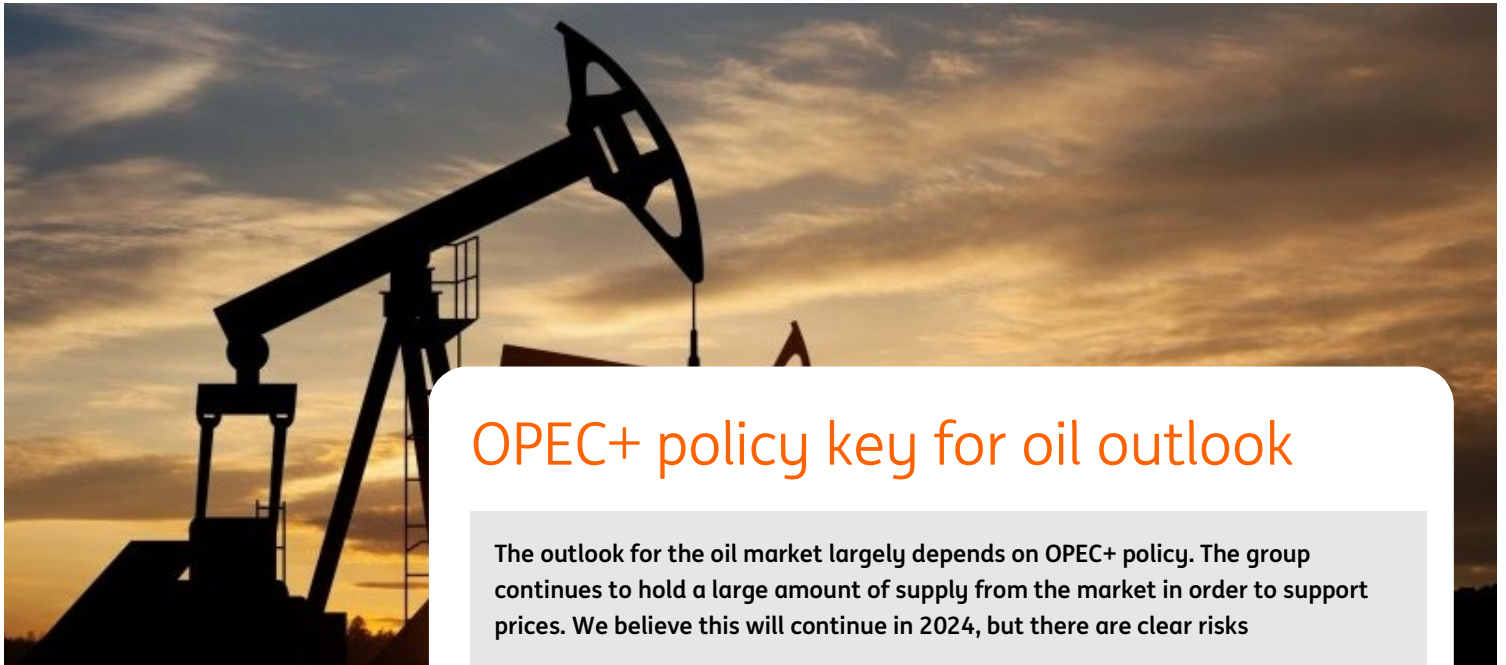
Precious metals are likely to move higher next year, and we see gold trading to new record highs in 2024. Expectations that the Fed will start cutting rates, along with the expectation of a weaker US dollar should see investment demand return, following strong ETF outflows this year. Stronger investment demand, combined with a continuation of central bank buying will be bullish for gold prices.

Food protectionist measures are something that arose following Russia's invasion of Ukraine, with worries over food security. El Nino has meant this trend has continued for much of this year. And with elections in several developing nations next year, it is likely that food protectionism will persist in 2024.

Grain markets have come under pressure this year despite Ukrainian grain exports falling following the suspension of the Black Sea Grain Initiative. Strong supply growth from other key suppliers has offset concerns over lower Ukrainian exports. Heading into 2024, corn prices are likely to remain under pressure with rising stocks, while we expect soybean prices to edge lower on the back of strong South American output. We are relatively more supportive towards the wheat market, with global stocks set to continue to tighten this season.

Soft commodities have had a volatile year with El Nino and broader weather events leading to significant concerns over supply. London cocoa has traded to record levels and with expectations of a third consecutive deficit, the cocoa market is likely to remain volatile through 2024. Given current stock levels, however, it is difficult to justify the degree of strength that we have seen in the market. The sugar market has also been a strong performer this year with El Nino expected to hit output in Asia and leave the global market in deficit over 2023/24. We see prices remaining elevated at least until the start of the next Centre-South Brazil harvest, which is set to be another big crop.

Overall, we go into 2024 with a cautiously optimistic view on the commodities complex.



OPEC+ policy key for oil outlook

The outlook for the oil market largely depends on OPEC+ policy. The group continues to hold a large amount of supply from the market in order to support prices. We believe this will continue in 2024, but there are clear risks

Warren Patterson
 Head of Commodities Strategy
 warren.patterson@asia.ing.com

Tighter oil market in the second half of next year

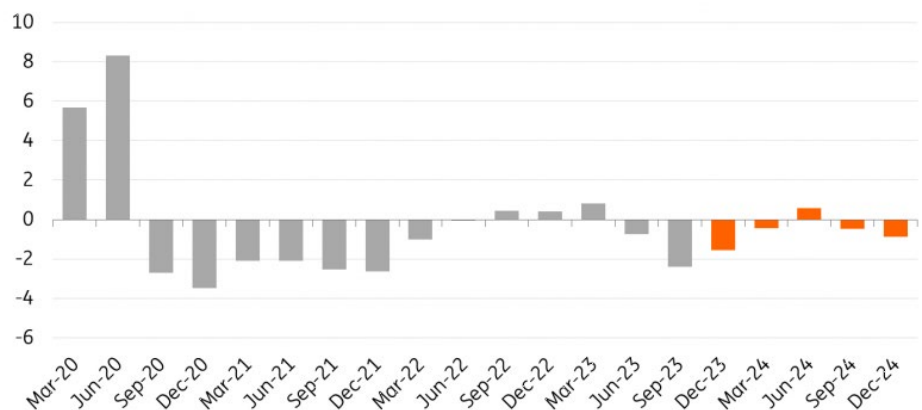
Going into 2024, the market has been concerned about a looming surplus in the first quarter of next year, driven by seasonally weaker demand. However, at their last meeting, OPEC+ took action to erase this expected surplus. Saudi Arabia and Russia will roll over voluntary additional supply cuts through until the end of 1Q24, whilst a handful of other members have announced their own additional voluntary supply cuts. In total, these cuts amount to a little less than 2.2MMbbls/d. However, the amount that is actually included in the new additional cuts is 900Mbbbls/d.

These supply cuts should be enough to remove the surplus in 1Q24 and, in fact, leave the market in a small deficit early next year. However, our balance still shows a small surplus in 2Q24, which means that the market is largely balanced over 1H24. This could and will likely change depending on how OPEC+ members go about unwinding these voluntary cuts.

Given that balanced market, we expect ICE Brent to remain trading in the low \$80s in the early part of next year.

The second half of 2024 will see the market return to deficit, which suggests we see prices moving higher in 2H24. We forecast Brent to average US\$91/bbl over the last six months of 2024.

Global oil balance (MMbbls/d)



Source: IEA, EIA, OPEC, ING Research

OPEC+ policy is key

OPEC+ has been very active over the last year in an attempt to support the market. Saudi Arabia has led the way in pushing for deep cuts, and this is evident with the voluntary cuts we are seeing from the Kingdom. Saudi Arabia has a fiscal breakeven oil price of a little over US\$80/bbl, so they are keen to ensure that oil prices remain mostly above this level.

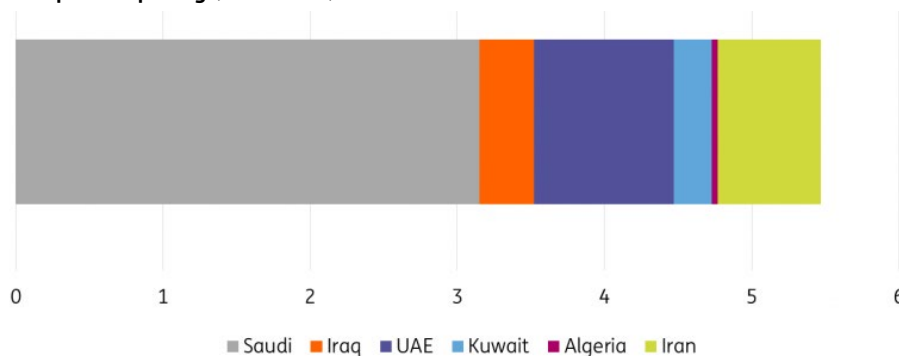
The view that US supply growth is slowing has also given OPEC+ confidence in cutting supply without the risk of losing market share. While US supply growth has surprised to the upside this year, it is expected to slow substantially next year, which suggests that the Saudis will remain comfortable holding supply from the market.

However, the latest OPEC+ meeting has highlighted some key issues within the group. Firstly, some members (Angola specifically) are not happy with their production quotas for 2024 and have already said that they will reject their quota level for next year. However, from a supply point of view, given the pressure we have seen on Angolan output this is unlikely to move the needle much.

A bigger concern for OPEC+ should be the fact that they have been unable to agree on group-wide cuts. Instead, we are seeing voluntary cuts from a handful of members. Clearly, given the scale of cuts we are already seeing from the group, it is becoming increasingly more difficult for some members to stomach further cuts.

Also, given the scale of cuts we are seeing, OPEC is sitting on a substantial amount of spare capacity. If we include Iran, OPEC has around 5.5MMbbls/d of spare capacity. And this will only increase over 1Q24 following the latest announced reductions. 58% of this sits with Saudi Arabia. This spare capacity should also offer some comfort to markets given that should we see significant price strength, one would expect this capacity to start to return to the market.

OPEC spare capacity (MMbbls/d)



Source: IEA, ING Research

Sanction risk

Sanctions leave a lot of supply risk in the market next year. And this is particularly the case for Iran and Venezuela. The US also appears to be enforcing the G-7 price cap on Russian oil more strictly in recent months.

Iran has increased its supply significantly over 2023, rising from around 2.5MMbbls/d at the beginning of the year to around 3.1MMbbls/d currently. This has happened despite US sanctions remaining in place against the country. The US has been concerned about the high-price environment and supply risks facing the market since Russia's invasion of Ukraine and appears to have taken a softer stance against Iran.

However, following recent events in Israel and the possibility of Iranian involvement, there is the risk that the US will start to enforce sanctions more strictly in future. If this

were to happen, we could see more than 500Mbbbls/d of supply lost. For now, we are assuming Iranian flows will remain at around 3.1MMbbbls/d in 2024.

As for Venezuela, the US has eased oil sanctions in return for fairer general elections in the country next year. However, if this does not happen, we could very well see these sanctions reintroduced against Venezuela. The supply at risk would be around 200Mbbbls/d.

In recent months, the US Treasury has also been more active in sanctioning shipping companies which have transported Russian oil above the \$60/bbl price cap. This move may drive many Western shipping companies away from transporting Russian oil altogether, given the sanction risk they face if it turns out the oil is priced above US\$60/bbl. Therefore, going into next year, it might become more challenging to ship Russian oil using Western shipping services. Although, Russia has built up a sizeable fleet of its own tankers in order to get around the G-7 price cap.

US supply growth

US oil supply growth has surprised to the upside in 2023, with it estimated to grow by 1MMbbbls/d to a record high of 12.9MMbbbls/d.

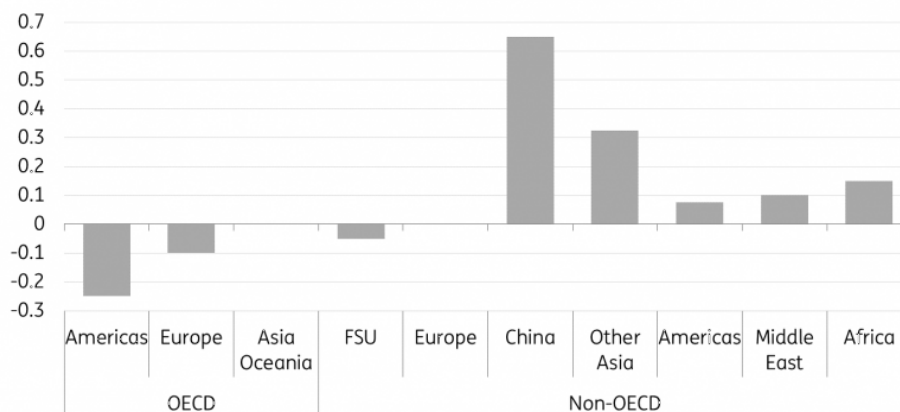
However, drilling activity in the US has slowed significantly this year, which suggests that the US will see more modest supply growth in 2024, with it forecast to grow by 250Mbbbls/d to 13.15MMbbbls/d. A focus on shareholder returns, cost inflation, tighter credit conditions, and increased consolidation within the industry are some of the factors holding back drilling activity.

Global oil demand growth slows

There is plenty of uncertainty over oil demand in 2024, given the uncertainty over the macro picture next year.

Global oil demand is still expected to grow by around 1MMbbbls/d next year, which would be down from around 2MMbbbls/d of growth this year. It is largely Asia, and specifically China, which is expected to be behind the bulk of demand growth next year. Over 60% of oil demand growth is expected to come from the country next year. Meanwhile, Europe and the Americas are expected to see a small decline in demand next year amid weaker economic growth.

Global oil demand growth-2024 (MMbbbls/d)



Source: IEA, ING Research

ING forecasts

	1Q24	2Q24	3Q24	4Q24	FY24
ICE Brent (US\$/bbl)	82	86	90	92	88
NYMEX WTI (US\$/bbl)	79	83	87	89	85

Source: ING research



Comfortable European gas market

Europe has entered winter with full storage. We expect Europe to finish the 2023/24 heating season with above-average storage, which suggests a fairly neutral view for European prices. However, we expect the US gas market to tighten in 2024 which should support Henry Hub

Warren Patterson

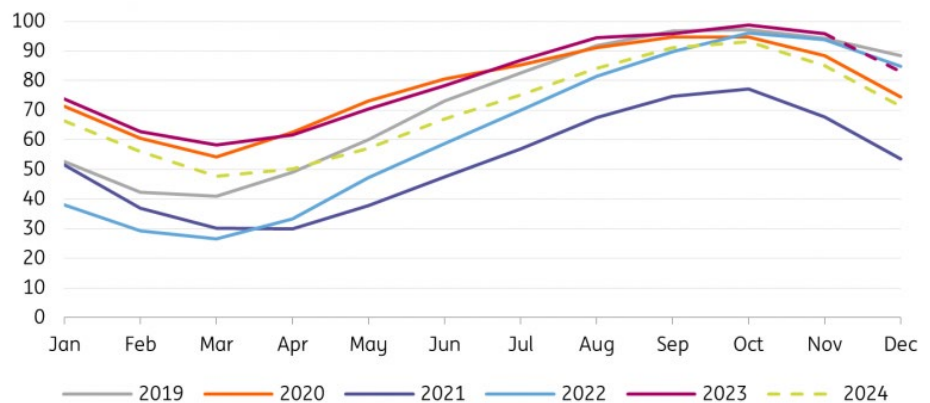
Head of Commodities Strategy
warren.patterson@asia.ing.com

European storage at record levels

The European gas market couldn't have entered the 2023/24 heating season in better shape. The heating season started with storage essentially 100% full. And while storage has started to draw, it is doing so at a relatively slow pace, which has ensured that storage remains at record levels for this time of year. The market has increasingly come around to the idea that Europe should get through the 2023/24 winter comfortably. This is reflected in a somewhat flatter front end of the futures curve, suggesting less concern over tightness in the peak of the winter months.

Our balance sheet suggests that Europe should exit the 2023/24 heating season with storage somewhere between 45-50% full. This is below the 56% seen at the end of last winter, but well above the five-year average of 34%. Expectations of comfortable storage suggest that there is limited upside in gas prices through the winter, and therefore, we hold a neutral view on the market going into 2024. There are of course risks to this view, largely centred around any demand spikes or supply shocks through the heating season.

European storage set to end 23/24 heating season comfortably (% full)



Source: GIE, ING Research

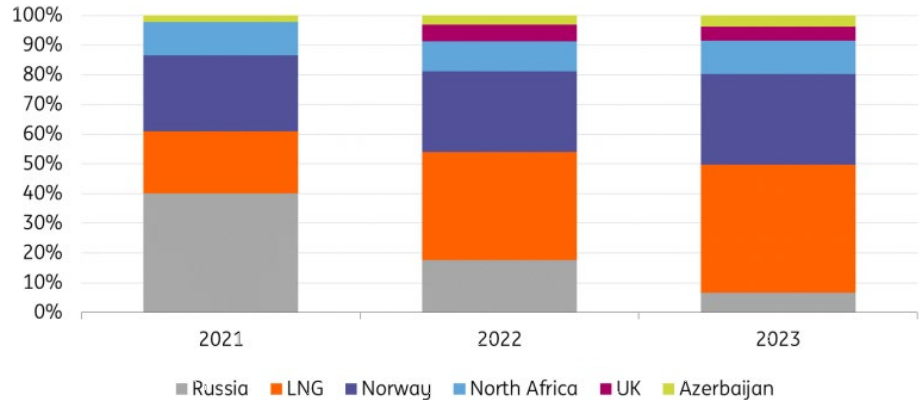
The shift in European gas imports

The big shift in European gas trade flows occurred in 2022 with the stoppage of most Russian pipeline gas flows to Europe. Imports into the EU this year have been steadier, with the exception of some disruptions in Norwegian flows due to extended outages over the summer. In 2023, LNG is estimated to make up around 43% of total EU gas imports, this is up from 36% last year and 26% in 2021. Norway's share in 2021 was

around 26%, which is expected to increase to 31% this year. Russian pipeline flows this year are expected to make up around 7% of total imports, which is down from 40% in 2021. We are currently not assuming any large shifts in the import mix for 2024. Although, LNG’s share is likely to creep higher as new LNG export capacity starts up.

Obviously, the key risks to supply include the stoppage of remaining Russian pipeline flows or moves to tackle Russian LNG flows into Europe.

EU natural gas import mix (%)



Source: ENTSOG, GIE, ING Research

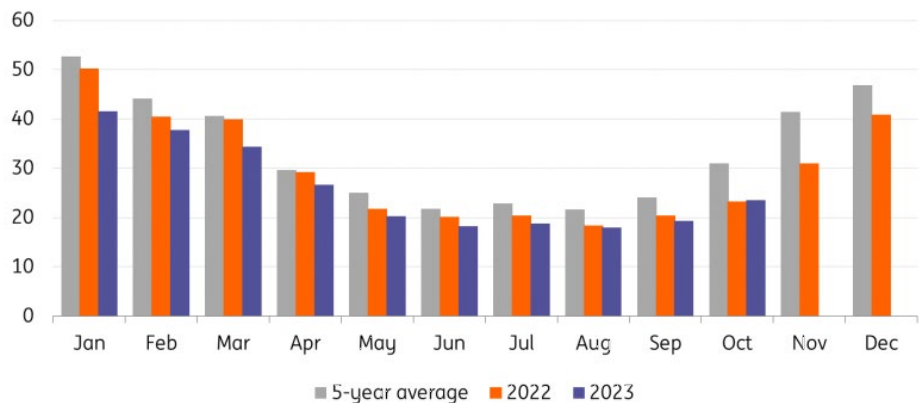
European demand still under pressure

Despite the sell-off seen in the gas market from last year’s levels, the region continues to see significant demand destruction. Demand so far this year is almost 7% below last year and around 16% below the 2017-21 average. The lack of demand response to weaker prices has helped to ensure that storage has remained more than comfortable.

It is not just industrial demand that is weak, demand from the power sector has also been weaker. Firstly, net power generation in the EU has fallen this year, whilst the mix has also shifted more towards renewables. Spark spreads have been in negative territory and remain so through the winter, which suggests that demand from the power sector will remain weak.

In our balance, we are assuming that demand remains 15% below the five-year average through until the end of March 2024. This is followed by the assumption that demand starts to make a comeback from April onwards with it 10% below the five-year average. This partial recovery in demand would still allow for European storage to exceed the European Commission’s target of being 90% full by 1 November 2024.

EU natural gas demand (bcm)



Source: Eurostat, ING Research

Chinese demand recovers

When it comes to Asian LNG demand it is worth splitting it into two. The first being Japan and South Korea, and the second being China and the rest of Asia.

Firstly, Japan and South Korean demand has come under pressure this year, and this is a trend which is expected to increase into 2024 and beyond. The decline has been driven by the power sector with increased nuclear availability, along with the growth in renewable power generation. With South Korea announcing official plans to increase nuclear generation and with further reactors to restart in Japan, LNG imports into these two key markets are likely to continue to trend lower.

As for the other group, China has seen imports returning to growth, following the contraction last year. Imports this year are likely to finish the year around 12% stronger year-on-year. China has also been very active in securing long-term contracts this year, suggesting that demand will continue to grow at a healthy pace in the years ahead. Meanwhile, we are also seeing increased appetite from buyers, such as Pakistan and Bangladesh, with lower spot prices seeing demand re-emerge from these markets.

LNG export capacity set to grow

There has been limited new LNG export capacity that has come onto the market this year, which has obviously left the market vulnerable and therefore nervous about any supply shocks. This was evident over fears of strike action at a number of Australian LNG facilities this year. However, for next year there is more export capacity coming onto the market which should help ease fears. In 2023, a little less than 8bcm of export capacity came onto the market, while for 2024 there is more than 50bcm of new export capacity that is scheduled to come online. More than 50% of this capacity will start up in the US. The bulk of this capacity is currently scheduled to start up sometime over the second half of 2024. Then from 2025 through until the end of the decade, there is a significant amount of export capacity which is set to start up, leaving the European and global LNG market more comfortable.

Tighter US market

We hold a supportive view of the US natural gas market through 2024. This is despite the fact that US natural gas storage is 7% above both levels seen last year and the five-year average. A mild 22/23 winter and strong supply growth this year allowed for strong storage builds through 2023.

US natural gas output is estimated to grow by a little over 4 bcf/day in 2023. However, we have seen a significant slowdown in both oil and gas drilling. The fall in gas rigs is not too surprising given the weakness seen in prices for much of the year. This will have implications for output next year with US domestic production set to grow by less than 1.5bcf/day.

While domestic US demand is expected to be largely flat through next year, export demand is expected to continue to grow. This will be driven by a combination of stronger pipeline exports, but more importantly due to growing LNG export capacity.

Therefore, a combination of much more modest supply growth and further export demand growth means that the US domestic balance should start to tighten next year, particularly over the latter part of 2024, when a large amount of new LNG export capacity is set to start up.

ING forecasts

	1Q24	2Q24	3Q24	4Q24	FY24
TTF (EUR/MWh)	45	40	40	45	43
Henry Hub (US\$/MMBtu)	3.3	3.0	3.4	3.8	3.4

Source: ING research



Subdued carbon

EU allowances have been trending lower for much of this year. Weaker demand, increased renewables and the front loading of allowances have weighed on the market. Pressure is likely to persist as we enter 2024

Warren Patterson

Head of Commodities Strategy
warren.patterson@asia.ing.com

EUAs fall on demand pressures

As we have approached year end, EU allowances (EUAs) have traded down to their lowest levels since November 2022, approaching EUR70/t. While the longer-term outlook for EUAs remains constructive as allowances in the market are reduced, short-term dynamics are more bearish. The EU has seen reduced industrial activity, which means lower emissions and the need for installations to surrender fewer allowances. Emissions over the first half of this year totalled 1.76b tonnes CO₂eq, down 4.2% year-on-year.

If we look at the power sector, in addition to overall power generation having fallen this year, we have also seen changes in the power mix. Renewables output has been strong, and in France nuclear power output has also recovered, therefore reducing the number of allowances needed. EU electricity generation has been in a YoY decline since March 2022. Meanwhile, generation from coal and natural gas has been under pressure throughout the year.

Looking ahead, this is not expected to change anytime soon. Both forward spark and dark spreads are firmly in negative territory in the coming months, suggesting that power generation from natural gas and coal will remain under pressure through the 2023/24 winter. This all suggests that EUA prices are likely to remain subdued in the short term.

Front loading of allowances

Supply dynamics have also played a role in pressuring EUAs, dimming the short to medium outlook. This is partly due to REPowerEU, which aims to end the EU's reliance on Russian fossil fuels by diversifying energy sources, energy savings and accelerating the roll-out of renewables. Part of the REPowerEU plan is set to be funded by the Recovery and Resilience Facility (RRF) through the sale of Emissions Trading System (ETS) allowances. The Commission's aim is to raise EUR20 billion from allowance sales. Some 40% of these funds are set to be met by bringing forward the auction of allowances scheduled to be auctioned between 2027-2030. These will now be brought forward to before 31 August 2026. Meanwhile, the remaining 60% will be met by sales of allowances from the Innovation Fund.

The EEX auction calendar shows an additional 35.3mn allowances are to be auctioned in 2023 for the RRF, whilst auction regulation from the Commission shows 86.7mn allowances to be auctioned in both 2024 and 2025 and 58mn allowances in 2026 for the RRF. This adds up to a total of 266.7mn allowances.

While the short-term outlook remains subdued and the medium-term outlook less bullish than originally envisaged, the longer-term picture remains bullish. Ambitious targets under Fit for 55 mean a more aggressive reduction factor will be used for allowances moving forward. A reduction factor of 4.3% per year will be used between 2024 and 2027 and 4.4% between 2028 and 2030. This compares to a previous linear reduction factor of 2.2%. In doing so, the Commission hopes to see emissions under the ETS fall 62% from 2005 levels by 2030 compared to a 43% reduction target previously. This is also slightly more aggressive than the proposed 61% reduction.

Furthermore, to help hit the target there will be two one-off reductions in the cap, effectively reducing it by 90mn allowances in 2024 and a further 27mn allowances in 2026.

Shipping falls under ETS from 2024

1 January 2024 will also see the shipping sector fall under the EU Emissions Trading System. Although, there have been calls from a number of member states to delay the inclusion of the shipping sector. These countries, including Spain and Italy, have cited concerns that the extra cost faced by shippers could drive traffic away from EU ports and that we could actually see increased emissions with some shippers taking longer routes to avoid stopping in EU ports.

Initially, carbon emissions from all large ships (above 5,000 gross tonnage) entering EU ports and transporting passengers or cargo for commercial purposes will fall under the ETS. There will be a phase-in period where shippers will only have to surrender allowances for 40% of their emissions for 2024, 70% for 2025 and 100% for 2026 emissions. Furthermore, only carbon emissions will be included from 2024, but from 2026, methane and nitrous oxide emissions will also be included.

100% of emissions will be covered for intra-EU trips and those that fall within an EU port, whilst 50% of emissions will be covered for extra-EU voyages that either start or end in an EU port.

The inclusion of the shipping sector in the EU ETS will see 78.4mn allowances added to the ETS, which will be subject to the same reduction rate as the wider ETS. This compares to total ETS-applicable emissions from the maritime industry in 2022 of 83.4mtCO₂e.

Phase out of free allowances for the aviation sector

2024 will also start to see free allowances for the aviation sector phased out. Free allowances will be reduced by 25% in 2024 and 50% in 2025 while the industry will have to pay for 100% of their emissions from 2026. Given the difficulty in decarbonising the aviation sector and the continued recovery in air travel, demand for EUAs from the sector will continue to grow in 2024.



China stimulus optimism supports iron ore prices

Iron ore has been the best-performing industrial metal this year, with prices rising more than 17% year-to-date to November. We believe prices will be supported looking into 2024 amid optimism around China's recovery and further support for the country's property sector

Ewa Manthey
Commodities Strategist
ewa.manthey@ing.com

Iron ore holds above \$100/t in 2023

Iron ore prices have managed to stay above the key \$100/t mark for most of the year. Prices are now trading at their year-to-date highs, fuelled by strong demand and multi-year low inventory levels in China.

Over the last couple of months, the Chinese government has moved forward with a series of stimulus measures to turn around its ailing economy, which have supported iron ore prices. However, there are still concerns when it comes to China's economy, particularly surrounding anything related to the property sector, which accounts for about 40% of demand for iron ore. The country's property new home starts – the biggest steel demand driver – fell sharply in 2023, now down more than 23% year-to-date. This should continue to suppress steel demand in 2024.

In its latest efforts to revive the struggling steel-intensive property sector, China plans to provide at least 1 trillion yuan of low-cost financing to the country's urban village renovation and affordable housing programs. The latest plan comes after Beijing announced fiscal stimulus, including raising the budget deficit with the issuance of an additional 1 trillion yuan of sovereign bonds. This has added to the positive sentiment in the iron ore market. With China ramping up investment in infrastructure and manufacturing, it should boost demand for steel in these sectors in 2024, supporting iron ore prices looking forward.

However, the uneven pace of China's economic recovery has capped the upside for iron ore prices. The country's manufacturing PMI has remained in contraction for most of the year, underscoring the fragility of its economic recovery.

With the recovery path for China still bumpy, we believe iron ore will remain sensitive to Chinese policies. Prices are therefore likely to remain volatile, at least in the short term.

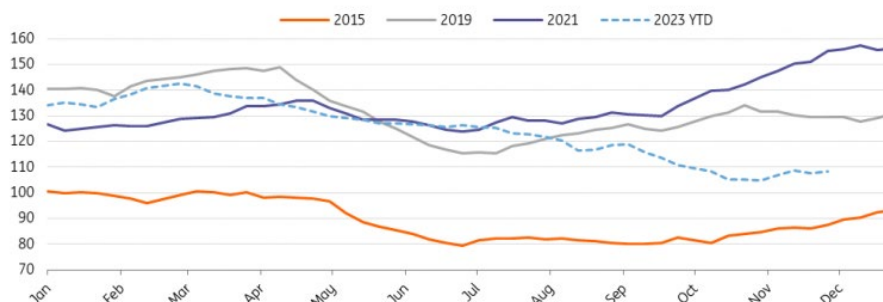
China iron ore imports remain elevated

China saw growth in global seaborne iron ore imports in 2023, with the country's full-year imports on course to rise for the first time since 2020. While China's iron ore imports dropped 1.8% month over month to 99.4 million metric tonnes in October, marking a second successive monthly decline, imports for the first 10 months were 59 million tonnes higher year over year at 977 million tonnes.

At the same time, iron ore inventories at Chinese ports have reached an eight-year low as mills have been cautious about restocking amid property woes. China's iron ore port

inventory is a key indicator that reflects the supply and demand balance, as well as the safety net and imbalance between the iron ore supply and the steel mill demand. We believe low inventories should support iron ore's price at elevated levels, with restocking before February's Lunar New Year likely to boost prices in the first quarter.

China's healthy appetite draws down stocks (million tonnes)



Source: Steelhome, ING Research

Strong steel exports support production

China's steel production has been robust this year, supported by strong growth in the country's steel products exports. So far this year, they've reached over 750 million tonnes, up from over 670 million in the same period last year, according to the latest China Customs data.

Stable domestic demand amid government support for the infrastructure and manufacturing sectors has also kept steel production in the country at elevated levels, and the World Steel Association has forecasted the country's steel consumption to grow 2% in 2023.

In the January-September period of 2023, China's crude steel production reached 795 million tonnes, up 1.7% from the same period last year, according to data from Worldsteel. In 2022, China's output reached 1.018 billion tonnes. Still, we believe that the uncertainty around mandatory steel curbs will weigh on the outlook for steel production. After China's steel output climbed to a record of more than 1 billion tonnes in 2020, the government responded by ordering production cuts in each of the next two years to cut back on emissions and match supply with demand.

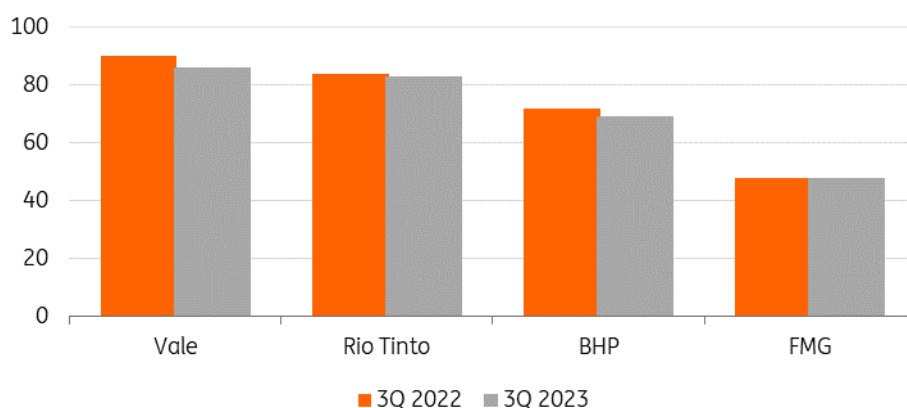
The intensity and the timeline of production cuts this year are still unknown, but any steel output cut would add to bearish risks for the iron ore market. Given Beijing's concerns over economic growth, however, we expect production cuts to be less stringent this year – and that should cap the downside for iron ore prices.

Supply from majors lags

Meanwhile, slow iron ore supply growth has dampened the impact of China's slowdown. The market is very balanced in the supply and demand sides. Total iron ore production from the top four miners (Vale SA, Rio Tinto, BHP and Fortescue Metals Group) reached 287 million metric tons in the third quarter of 2023. This was 2% lower than a year earlier, as operational issues and maintenance impacted production across the board.

There are some concerns over iron ore supply in the near term. Brazilian exports will be constrained due to the suspension of operations at Tubarão. A slowdown in Australia's shipments – after train drivers at BHP's Pilbara iron ore hub in Western Australia announced a restrained strike from 24 November over pay and benefits – also poses a threat.

We believe that with the supply side largely stable, it will be demand in China continuing to drive iron ore prices going forward.

Iron ore supply from majors (million metric tonnes)

Source: Company results, ING Research

China policy key to iron ore prices

Iron ore prices are set to remain volatile as the market continues to respond to any policy change from Beijing. We expect them to average \$120/t in 2024, assuming the government will introduce additional measures to support the economy, with iron ore remaining dependent on economic stimulus from China.

With demand largely stable, a further boost for China's property sector will be crucial in supporting demand going forward. The downside risk for 2024 is if the stimulus effect is weaker than expected.

Beijing's possible interventions to curb iron ore prices remain a downside risk for the market. Since the start of the year, the National Development and Reform Commission (NDRC) and other authorities have been enhancing the collaborative supervision and regulation of the iron ore market and have cracked down on price gouging, excessive speculation, and illegal activities. Previously, government interventions to calm the markets have included subduing trading and ordering steel capacity cuts. If we see similar measures used again, this could add further downside pressure to our view.

Looking further ahead, downside risks include China looking to replace older steel capacity with electric arc furnace capacity in order to help the country meet its decarbonisation goals. Growth in electric arc furnace (EAF) capacity at the expense of basic oxygen furnace (BOF) capacity will be a concern for the medium to long-term outlook for Chinese iron ore demand, reflecting increasing secondary production. Currently, 9.5% of China's steel capacities are electric steel mills. The country plans to increase the share of steel from EAFs to 15% by 2025 amid a drive to reduce carbon emissions, increasing its appetite for ferrous scrap. China aims to achieve carbon neutrality by 2060.

ING forecast

	1Q24	2Q24	3Q24	4Q24	FY24
Iron ore 62% (US\$/t)	125	120	120	115	120

Source: ING Research



Uncertain global economic recovery looms over copper

LME copper prices are now close to where they were a year ago. Prices have fallen throughout 2023 as global monetary tightening has weighed on developed economies. The short-term demand outlook for the red metal remains weak amid recession fears, China's slowdown in the property sector, and weakening global manufacturing activity

Ewa Manthey
Commodities Strategist
ewa.manthey@ing.com

China's recovery is still uncertain

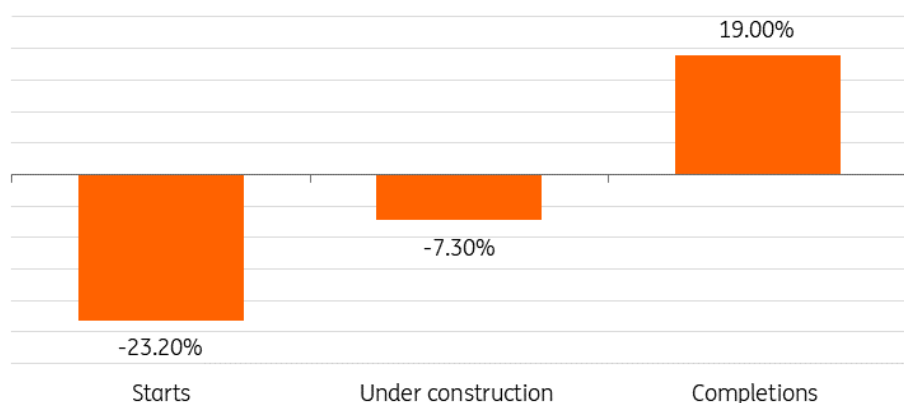
China was anticipated to be a bright spot for copper demand after last year's Covid lockdowns ended. Despite efforts from Beijing to stimulate the economy, China's economic recovery has mostly disappointed this year. That lacklustre recovery has weighed on copper. LME prices are now down around 11% from the year-to-date highs of \$9,550.50/t in January following China's reopening after Covid lockdowns.

Over the last couple of months, the Chinese government has moved forward with a series of stimulus measures to turn around its ailing economy. But there are still concerns, particularly related to the property sector. We believe this will continue to cap gains for copper.

A slump in China's property market has been a major headwind to copper demand this year and a continued slowdown in the sector remains the main downside risk for the metal. While housing starts are down more than 23% this year, completions, a key source of copper consumption, have been rising. However, the 19% year-to-date rise hasn't been enough to lift copper prices. Under-construction numbers are also down, falling more than 7% year-to-date.

We believe that until the market sees signs of a sustainable recovery and economic growth in China, we will struggle to see a long-term move higher for copper prices.

Slump in Chinese property market remains a headwind to copper demand (YTD September, % growth)



Source: National Bureau of Statistics, ING Research

Fed loosening will support copper

Elevated rates and a stronger dollar have been a drag on industrial metals in the past two years. Looking forward to 2024, copper prices will be supported by a weaker US dollar on the back of US Federal Reserve easing. We believe the Fed's interest rate path will continue to drive copper's short-term price outlook.

Our US economist expects the starting point for Fed rate cuts in the second quarter of 2024. Copper prices will benefit from looser monetary policy, which will alleviate the financial strain on manufacturers and construction companies by reducing borrowing costs. But if US rates stay higher for longer, this would lead to a stronger US dollar and weaker investor sentiment, which in turn, would translate to lower copper prices.

Comfortable balance to persist in 2024

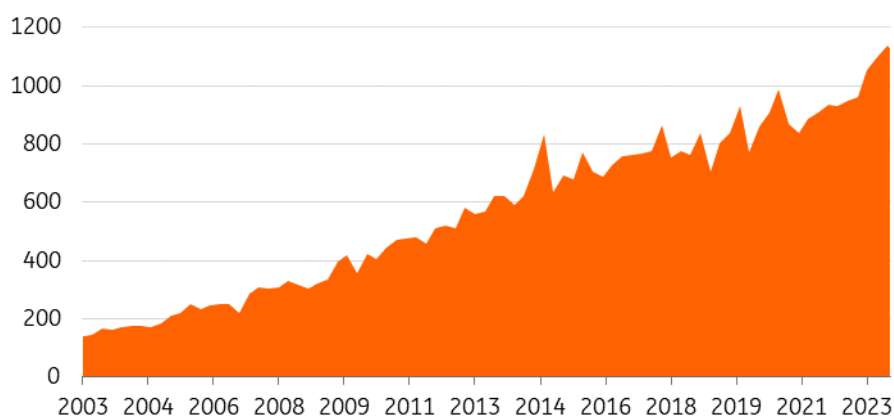
The copper concentrates market is expected to tighten this year with smelters around the world increasing capacity, while political risks continue to increase for mining operations globally. For example, in Panama, Canada's First Quantum mine has ignited massive protests in the country and was recently forced to shut down activity. The spark for the protests was the government's decision to award the Canadian miner a renewed 20-year lease to mine the facility. Cobre Panama copper mine, an open pit mine, is one of the world's largest sources of copper, accounting for 1% of global copper output. About half of First Quantum's 750,000 tonnes of annual production comes from the flagship Cobre Panama mine. The shutdown is likely to tighten global mine supply further, however, there is still uncertainty about how long it will last.

In Peru, protests also threaten to dent the supply outlook for copper. Mining projects in Peru have long been met with opposition from communities across the country, who are concerned about the potential damage to the environment and water resources. Peru's central bank forecasts mining investments in the country will drop 18% this year and almost 8% in 2024 due to the lack of big mining projects. After Chile, Peru is the world's second-largest producer of copper.

In Chile, the world's biggest supplier of copper, Codelco is struggling to return production to pre-pandemic levels of about 1.7 million tonnes a year by the end of the decade from around 1.3 million tonnes this year, which marks the lowest level in a quarter century amid ageing assets and declining ore grade.

In a sign that the copper ore market is tightening as smelters expand, copper-concentrate supply contracts for 2024, that set processing charges, have been set 9% lower for 2024. Treatment charges are a key sign for copper's future direction. This marks the first decline in treatment and refining fees in three years and follows a six-year high set for 2023.

However, despite supply disruptions looming, refined metal is forecast to be in a surplus next year with Chinese production of refined copper heading for a record this year after the country's expansion of its smelting and refining capacity. The shift is largely driven by China's strategic need for copper as demand from the green energy sector grows for the red metal.

China's refined copper output hits record as smelters expand (thousand tonnes)

Source: National Bureau of Statistics, ING Research

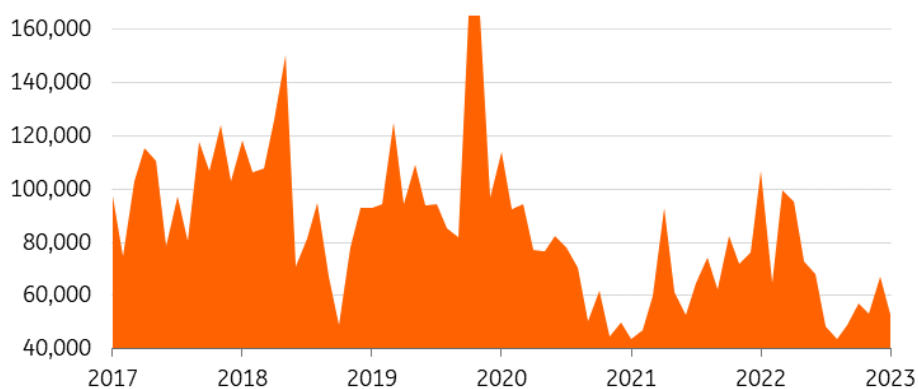
The increase in smelting is making China less dependent on imported copper metal, which might lead to an oversupply of refined metal, which sets the LME price.

China is expected to contribute around 50% of the refined global copper production in 2024. China's annual copper smelting capacity is about 8.8 million tonnes. A near-30% expansion of 2.4 million tonnes is set for completion by 2026, according to data from Antaika.

Chile's sales volumes of refined copper to China, China's traditional supplier, have been under pressure as China's own output of the metal grows. China is the biggest consumer of copper and accounts for 40% of the world's total copper imports.

Chile's Codelco recently said that Asia will represent at least 40% of its copper sales in the future, compared to 47% last year and around 60% a decade ago.

China's total imports of refined copper from Chile are on track to be the lowest since 2008 in annual volume terms. Instead of metal, China is buying more copper concentrates.

China's imports of refined copper from Chile (metric tonnes)

Source: General Administration of Customs, ING Research

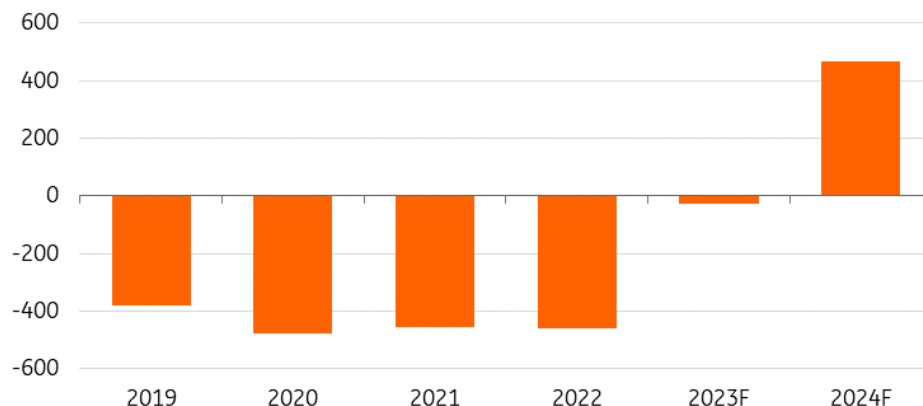
Elsewhere, Indonesia, India, Chile and the Democratic Republic of Congo (DRC) have been expanding their copper smelter capacities, adding to concerns around oversupply. The International Copper Study Group (ICSG) forecasts copper mine supply to grow 3.7% in 2024 compared to 2023.

The DRC is set to become the second largest producer, surpassing Peru. Kamoakakula mine is expected to reach around 680,000 tonnes of production by 2028, becoming the

fourth largest mine after Escondida, Collahuasi and Grasberg. Chinese companies own around 50% of the country's production.

The ICSG forecasts an oversupply of 467,000 tonnes of refined metal in 2024, following a 27,000-tonne deficit this year.

Global copper market balance (thousand tonnes)

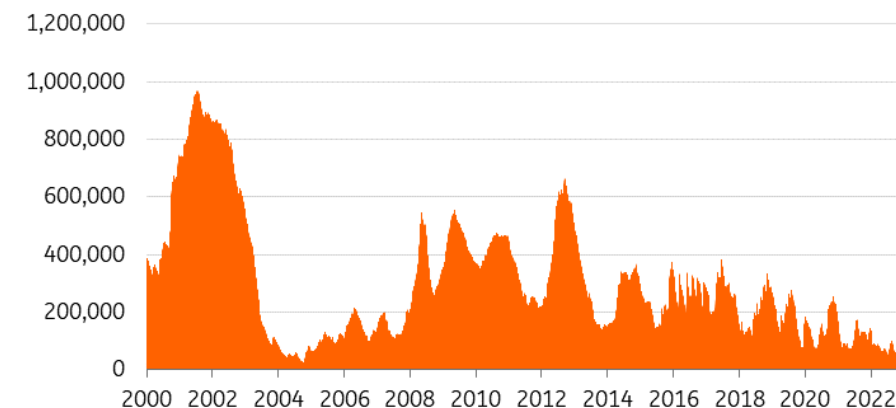


Source: ICSG, ING Research

On the demand side, copper usage is expected to contract by 1% from last year's level mainly due to weaker refined usage in the EU and North America. However, in China, apparent usage is forecast to grow by 4.3% in 2023 as green energy sectors, including power and electric vehicles, have softened the broader decline in the manufacturing sector. In 2024, global usage growth is forecasted at 2.7%.

The ICSG reports Chinese apparent demand using only reported data such as domestic production, net trade and changes in visible stocks.

LME stocks are low, but rising (metric tonnes)



Source: LME, ING Research

Weak demand for copper this year has also translated into rising inventories in LME-registered warehouses, the market of last resort. LME inventories have grown from 55,000 tonnes in July to more than 180,000 currently, with the bulk of the build-up in the Americas and Europe. They now stand at the highest level in two years.

By historical standards, however, LME stockpiles of copper remain low. We believe low inventories raise the possibility of spot prices increasing rapidly if consumption picks up sooner than expected.

Meanwhile, the gap between cash prices and three-month futures has been growing. The cash three-month spread has recently hit the widest contango since the 1990s,

signalling ample near-term supplies. With rising LME inventories and loosening nearby spreads, more weakness may lie ahead for copper prices.

Downside risks remain short-term

For copper, risks remain to the downside heading into the new year as the outlook for the global economy is subdued.

In particular, the uncertain outlook for China's property sector will put downward pressure on the copper market. China will continue to be the key driver of global copper demand. We believe commodity-intensive stimulus is needed to support short to medium-term demand growth. We forecast an average of \$8,450/t in 2024.

Although in the longer term, the outlook for copper remains bullish because of its key role in the energy transition, for 2024, it will be the supply and demand balance that will drive the copper price, with lagging Western demand and surging Chinese production dampening the outlook in the short-term.

We believe the short-term outlook remains bearish to neutral for copper demand and we do not foresee a substantial recovery in prices before the second quarter of the year, which should mark the starting point for Fed rate cuts. We see prices averaging \$8,300/t in 1Q before moving higher to \$8,400/t in 2Q. Prices are likely to remain volatile through the year as markets will continue to react to macro drivers.

A strategic need for copper

Copper's future looks bright longer term as demand from green industries will continue to grow. Copper is used in everything from EVs to wind turbines and power grids.

In EVs, copper is a key component used in the electric motor, batteries, and wiring, as well as in charging stations. Copper has no substitute for its use in EVs, wind and solar energy, and its appeal to investors as a key green metal will support higher prices over the next few years.

This year, rising demand for renewables and EVs in China has already offset the slump from the more traditional sectors, like the property market.

ING forecast

	1Q24	2Q24	3Q24	4Q24	FY24
LME Copper (US\$/t)	8,300	8,400	8,500	8,600	8,450

Source: ING Research



Aluminium surplus to persist as demand disappoints

Global economic uncertainty will continue to weigh on the outlook for aluminium. However, we believe the growing adoption of electric vehicles and green energy infrastructure should cushion the slowdown in more traditional sectors for the lightweight metal

Ewa Manthey
Commodities Strategist
ewa.manthey@ing.com

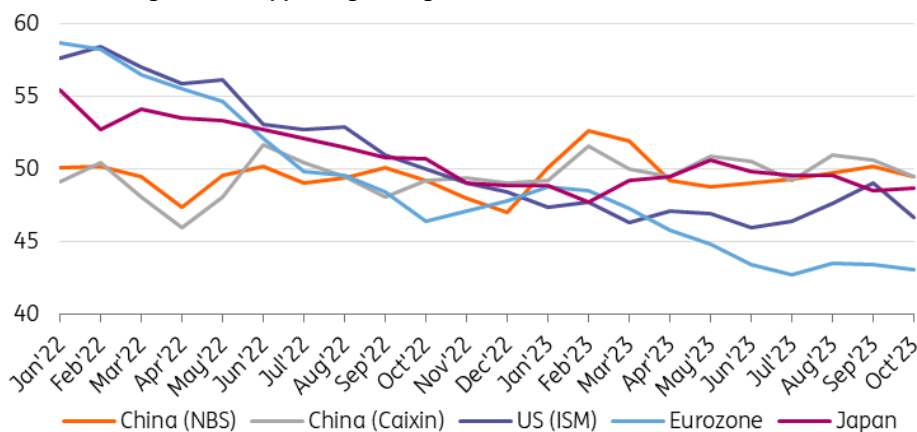
Demand mostly disappoints

The LME aluminium price is down about 7% this year as China has been slow to recover from the Covid-19 lockdowns, while economic growth in Europe and the US has remained sluggish.

While Chinese aluminium has been stronger than expected – mainly due to increased appetite from the green sector in the country – demand from more traditional sectors like building and construction has mostly disappointed. Sales, starts, and under construction year-to-date numbers are all in negative territory. This will continue to weigh on aluminium demand looking further ahead, given the current low level of starts and the lag between starts and aluminium usage.

In Europe and the US, building and construction also remain weak, with manufacturing PMIs stagnating globally, and we believe higher borrowing costs and uncertainty over monetary policy will continue to be a drag on demand for the metal. European demand has been hit the hardest in 2023, and we expect it to be the major reason behind weak growth in 2024.

Manufacturing PMIs disappoint globally



Source: Refinitiv Eikon, ING Research

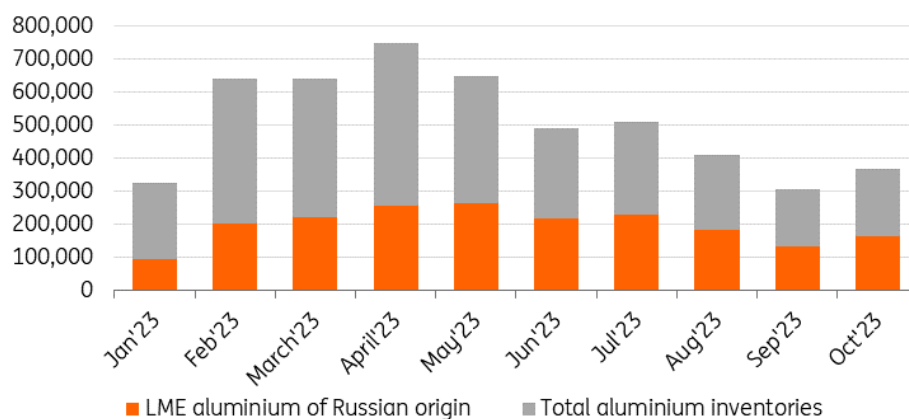
LME warehouse stocks pile up

Weak demand for aluminium amid China's slow economic recovery and a global slowdown in manufacturing has translated into rising inventories in LME-registered warehouses, the market of last resort. And as LME inventories continue to rise, a lack of brand variety is adding to concerns for the aluminium market. About 79% of aluminium

in the LME's warehouses was of Russian origin at the end of October, up from less than 10% before the start of the war in Ukraine. This is the highest level seen in at least a decade. However, the share of the Russian metal declined from 81% at the end of August. India is the other major source of LME aluminium stocks.

There are no sanctions on buying Russian material, but some European buyers have been self-sanctioning since the invasion of Ukraine, leading to fears that LME warehouses could be used as a dumping ground for unwanted Russian metals. In turn, this has led to a disconnect between LME and actual traded prices. If the share of Russian aluminium on the LME continues to grow, this could ultimately lead to action from the exchange. If the LME bans Russian metal, this will likely be bullish for the metal. However, for now, the expectation is that the LME will take no action unless targeted sanctions are adopted by governments.

Russian metal continues to dominate LME stocks (metric tonnes)

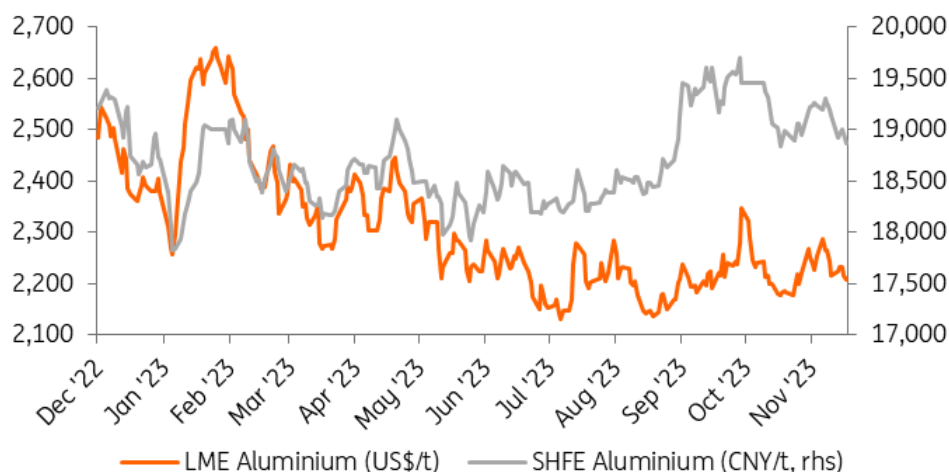


Source: LME, ING Research

Open arb boosts aluminium flows into China

Aluminium prices in China have remained stronger than global prices for most of the year. LME aluminium prices have slumped around 7% this year, while prices on the Shanghai Futures Exchange (SHFE) are up around 1% year-to-date. Chinese demand for aluminium has been resilient throughout the year amid growing demand from the green sector, despite the country's disappointing economic recovery.

An open arbitrage window resulting from SHFE prices outperforming the LME boosted aluminium flows into China. China's imports of unwrought aluminium and products jumped 27.5% year-to-date to October to 1.8 million tonnes. However, Russian material still dominates these imports. With many Western buyers self-sanctioning since the invasion of Ukraine, China has been absorbing a large part of this shunned material. This trend is likely to continue as Europe presses on with self-sanctioning.

SHFE prices have remained stronger than LME for most of 2023

Source: LME, SHFE, ING Research

China aluminium output hits a record

Imports are continuing to surge despite domestic output hitting new highs, mainly due to the open arbitrage window throughout most of August and September. However, with the arbitrage opportunity now closed, China's primary aluminium imports will likely decline from November onwards.

Primary aluminium output continued to increase in October, now up more than 3.5% year-to-date to October. However, if the upcoming dry season has insufficient rain, Chinese output could disappoint again. Starting in the first week of November, Yunnan's aluminium smelters already began reducing output in reaction to the province's limited power supply during the dry season. A total of 1.16 Mt/y of aluminium smelting capacity is set to be halted and is expected to remain offline until May 2024, when the rainy season usually begins. This will mark the third consecutive year that Yunnan smelters have reduced output during the dry season. Further cuts remain a possibility.

Additional supply cuts due to a lack of hydropower could lead to higher imports, which could absorb the world ex. China surplus. Last year, smelters in the province were forced to cut output amid low rainfalls and low water levels, reducing 2 million tonnes of capacity. The capacity cap of 45 million metric tonnes will also limit smelter expansion in the country, which could drive the need for more imports.

Surplus to persist as demand lags behind

Still, global aluminium output will rise slightly faster than demand this year. The aluminium market is expected to be in a surplus in 2024 as China continues to drive growth over the next two years.

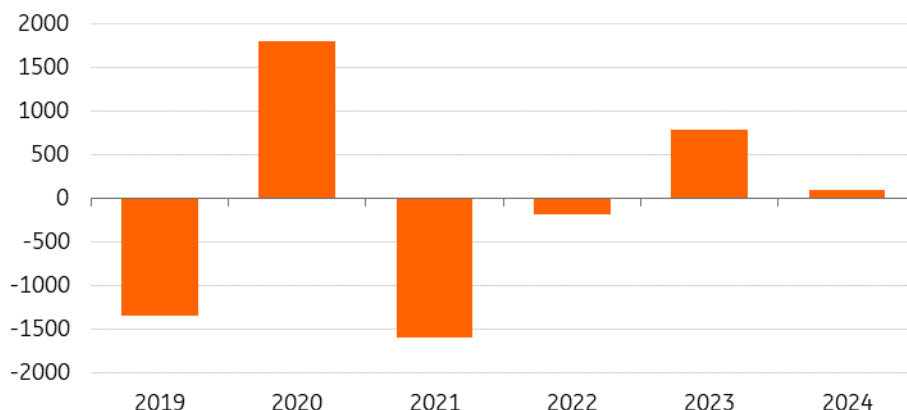
Meanwhile, restarts in Europe are not expected until 2025. Several output cuts have taken place in Europe since December 2021, accounting for 2% of the global total. Soaring energy costs following Russia's invasion of Ukraine have squeezed producers' margins, with energy-intensive metals like aluminium being particularly affected.

Power prices have eased, but we haven't seen European restarts on a wide basis. Restarting a smelter is a long and costly process, meaning some of the production halts we have seen since 2021 could be permanent. Weak demand for aluminium is the second key obstacle for smelter restarts after higher power prices. We don't expect any major restarts in Europe before 2025 unless demand in the region surprises to the upside.

We expect the global aluminium market to be in a small surplus of around 100,000 tonnes, after a surplus of around 800,000 tonnes in 2023. China should account for more

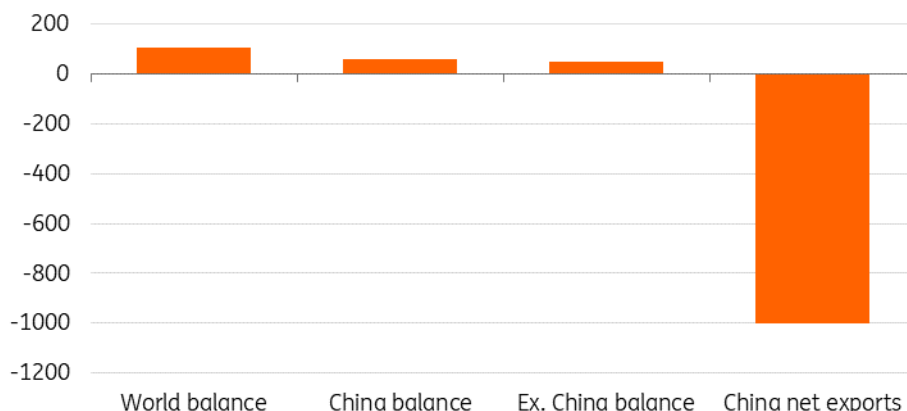
than half of the global production increase, while European production will be mostly unchanged. Extended production cuts in the Yunnan province due to tight power supply provide an upside risk to our outlook.

Global aluminium market balance (thousand tonnes)



Source: ING research

2024 aluminium market balance (thousand tonnes)



Source: ING research

China’s green push to boost green metals demand

China’s construction sector remains under pressure and is adding to short to medium-term challenges for aluminium demand. At the same time, the green parts of the economy are growing, which should offset the weakness from the more traditional sectors and boost the need for green metals, including aluminium.

Aluminium is a key component in mobility and transport, buildings, construction, packaging, aerospace, and defence. It is also used in almost all energy generation, transmission, and storage technologies – particularly those that will deliver the energy transition, such as wind and solar power, alternative fuel cells, hydrogen production, high-voltage cables, and batteries. Beijing’s decarbonisation efforts have boosted the need for metals that are key to renewable energy-related manufacturing, from EVs to solar panels. China’s green energy drive is part of its efforts to meet dual carbon goals set in 2020, when it pledged to achieve peak CO2 emissions before 2030 and carbon neutrality by 2060.

More than half of the electric cars on roads worldwide are now in China, and the country has already exceeded its 2025 target of 20% for new energy vehicle sales, according to data from the International Energy Agency. As the demand for EVs continues to grow, so does the demand for the minerals inside them. This trend should support aluminium demand looking forward. And if we see governments introducing even firmer policies to

fight climate change, this will lead to an even faster adoption of EVs and green energy-related infrastructure, which will, in turn, boost the need for aluminium.

China's new energy vehicles (NEV) sector, including battery electric vehicles and plug-in hybrids, is growing rapidly. China's NEV sales reached a new record in October at 956,000, surpassing September's previous record of 904,000, according to data from the China Association of Automobile Manufacturers (CAAM). This represents an increase of about 34% over the 714,000 units sold in the same period last year and an increase of 5.75% over September. The CAAM's NEV sales are the carmaker's wholesale sales, including those in China and those exported to overseas markets. Excluding exports, China's NEV sales in October were a record 832,000 units, up 2.9% from September.

In battery electric vehicles, aluminium is used in e-drive housing, battery pack housings, ballistic battery protection, and cooling plates. Additionally, aluminium plays a crucial role in electromobility infrastructure, including power cables and charging stations.

However, China's energy transition path is not without its challenges. Droughts last summer forced cities in southwest China to curb power supply to heavy industries, disrupting aluminium production in the country. As China continues to decarbonise its aluminium industry, and as more smelters move from coal-dominated Shandong to the hydropower-dominated Yunnan province, it's left more vulnerable to further disruptions, with green energy being heavily reliant on weather conditions and patterns.

Prices to gradually recover in 2024

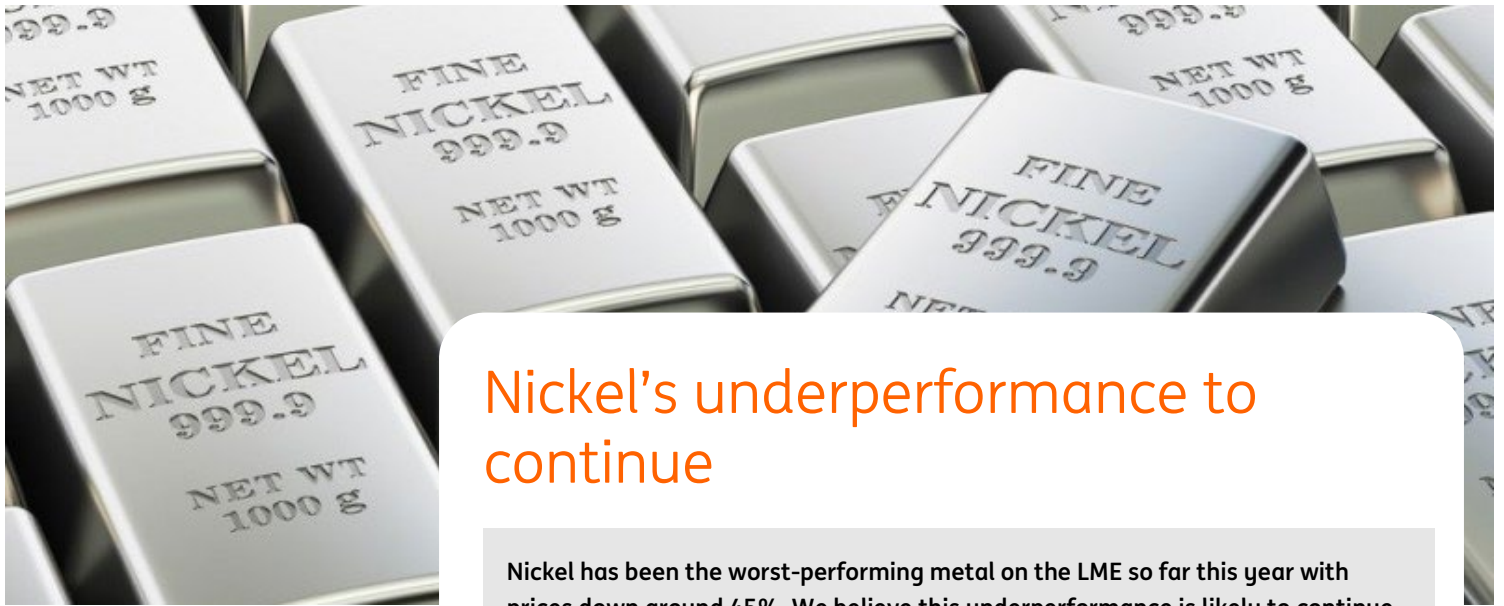
While there are some upside risks mainly to do with green energy growth in China, outside of China demand outlook remains lacklustre. Still, we believe that prices will start rising slowly next year as demand begins to recover gradually.

Our short-term outlook remains neutral to bearish for demand, and we do not foresee a substantial recovery before the second quarter of 2024, which should be the starting point for US Fed rate cuts. There is a risk, however, for demand to weaken further if high inflation keeps interest rates high. We see prices averaging \$2,260/t in 2024.

ING forecast

	1Q24	2Q24	3Q24	4Q24	FY24
LME Aluminium (US\$/t)	2,220	2,250	2,270	2,300	2,260

Source: ING research



Nickel's underperformance to continue

Nickel has been the worst-performing metal on the LME so far this year with prices down around 45%. We believe this underperformance is likely to continue, at least in the near term, amid a weak macro picture and a sustained market surplus

Ewa Manthey
Commodities Strategist
ewa.manthey@ing.com

Indonesia's output surges

One of the key drivers for nickel's underperformance this year has been the supply surge from Indonesia, the world's largest nickel producer. It holds the world's largest reserves of the metal with much of Indonesia's output being of Class 2, lower purity material, used in stainless steel production.

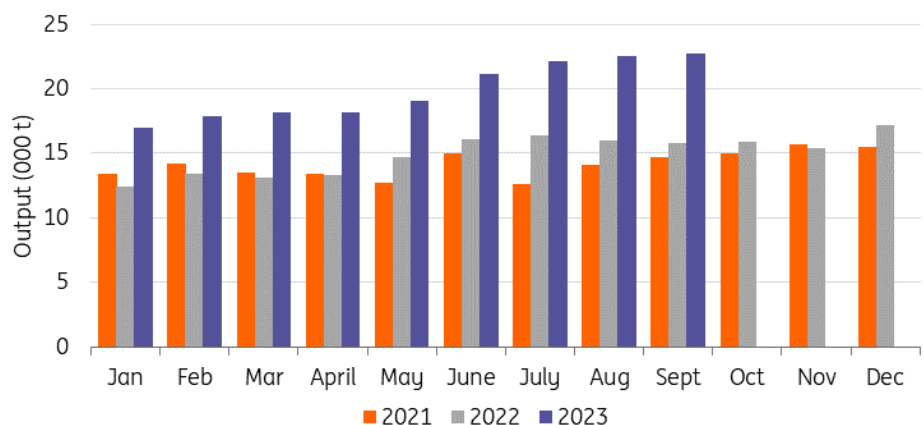
Indonesia's nickel mine production hit an estimated 1.6 million tonnes last year, up 54% from 2021, according to the US Geological Survey. That makes up nearly half of global nickel production, which totalled an estimated 3.3 million tonnes.

Nickel smelting has expanded in Indonesia since the government imposed a permanent ban on nickel ore exports in January 2020 in a drive to attract foreign investors, encourage domestic processing and further downstream use of its raw materials. The ban has enticed foreign investors, mainly from China, to build local smelters and has helped to boost the value of Indonesia's exports.

We believe rising output in Indonesia will continue to pressure nickel prices next year.

In China, the world's second-largest producer, Class 1 nickel output also continues to expand. China's refined Class 1 output rose more than 36% year-on-year in the first three quarters of the year, in response to historically elevated LME prices.

China's refined class 1 nickel output has increased in 2023



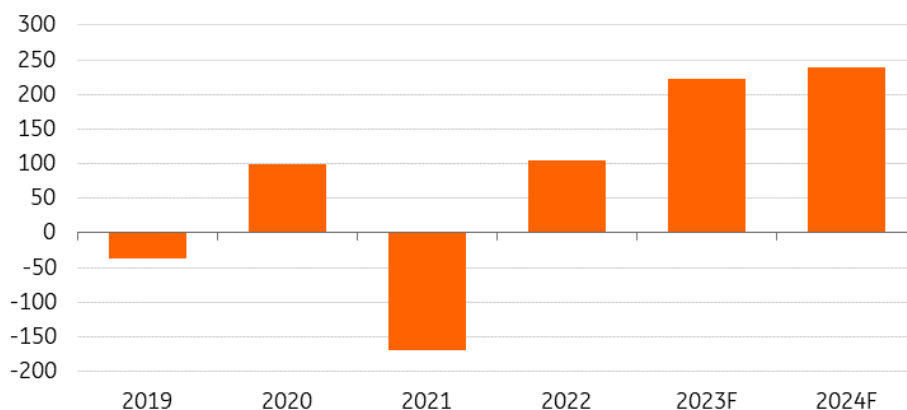
Source: Shanghai Metals Market, S&P Global, ING Research

The surplus in the global nickel market is expected to widen to 239,000 metric tons in 2024, the International Nickel Study Group (INSG) forecasts, marking the third consecutive year of excess supply. The surplus will be the largest yet.

It expects global output to increase to 3.71 million tons in 2024 from 3.42 million in 2023 as Indonesia’s nickel pig iron (NPI) production continues to rise. Indonesia’s new high-pressure acid leaching (HPAL) plants that produce mixed hydroxide precipitate (MHP) are also continuing to ramp up output, and the conversion of NPI to nickel matte is growing.

Last year, the market was in a 104,000 tonnes surplus, which is set to rise to 223,000 tonnes this year. The cumulative forecast surplus over the three years amounts to 566,000 tonnes.

Nickel market balance (thousand tonnes)

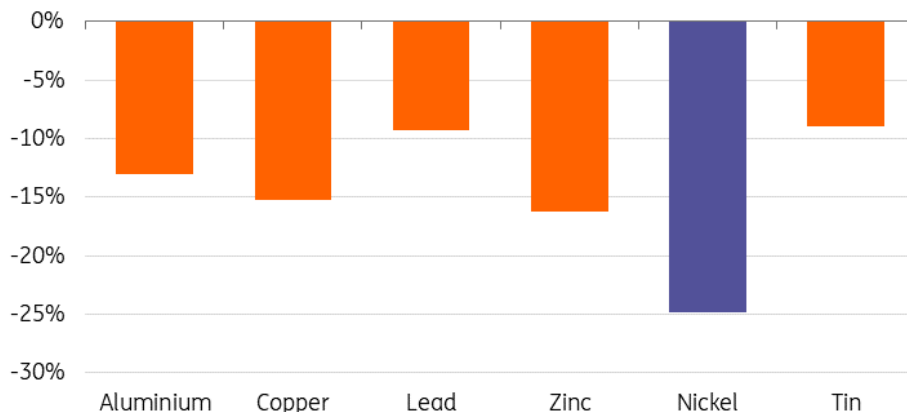


Source: INSG, ING Research

Historically, market surpluses have been linked to LME deliverable/class 1 nickel but in 2023 and 2024, the surplus will be mainly related to class 2 and nickel chemicals.

Concerns about the oversupply in the nickel market have been reflected in investor positioning on the LME, which is the most bearish it has been since 2019. The nickel short position is the largest of the six LME base metals. This build-up makes nickel vulnerable to violent price spikes should inventors unwind their short positions.

LME nickel net short position grows



(LME investment funds’ short position, % of total open interest)

Source: LME, ING Research

Demand disappoints

On the demand side, in more traditional sectors like construction, demand has mostly disappointed. China’s flagging recovery following Covid lockdowns has hurt the country’s construction sector and has weighed on demand for nickel this year. Investment in

property development fell 9.3% in the first 10 months of 2023, while residential property sales fell 3.7% in January-October compared to the same period in 2022.

However, looking into next year, global consumption for nickel is expected to increase to 3.47 million tonnes from 3.2 million in 2023 due to the recovery of the stainless-steel sector and increased usage of nickel in electric vehicle batteries. Batteries now account for almost 17% of total nickel demand, behind stainless steel. In EV batteries, nickel boosts their energy density and increases their driveable range.

Russia-origin material increases in LME sheds

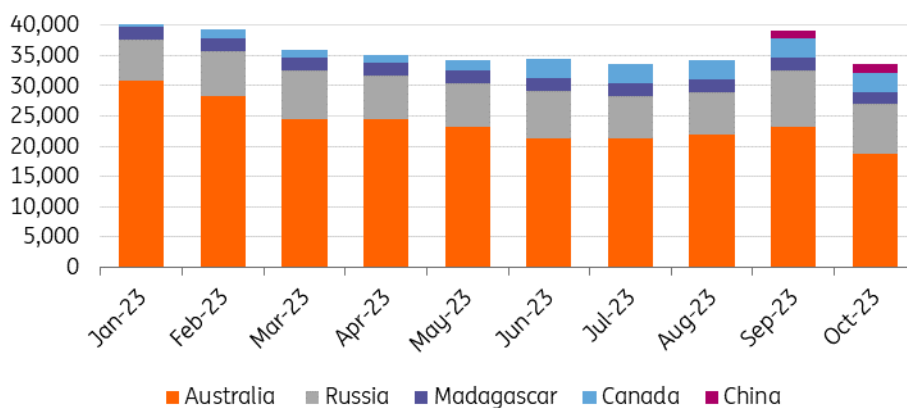
LME nickel stocks have been rising amid inflows of Russian-origin material. In October, Russia-origin refined Class 1 nickel stocks stood at 8,238 tonnes. This compares to 6,756 tonnes in January this year, however, it was down from September's 9,336 tonnes. Russia-origin material is behind Australia-origin metal, which stood at 18,834 tonnes in October.

In addition, 1,236 tonnes of China-origin material were delivered into LME warehouses in September. Although it accounted for only 3% of total nickel stocks on the exchange, this was the first arrival of China-origin nickel into the LME warehouses since the exchange started publishing the country-of-origin stock data report in January this year. An additional 1,572 tonnes of Chinese-origin material were delivered in October.

The arrivals also follow the approval of nickel cathodes produced by a subsidiary of Chinese nickel producer Zhejiang Huayou Cobalt in July as an LME-deliverable brand.

We believe there could be more Chinese-origin material delivered to the LME warehouse system in the next few months. In November, the LME approved the listing of GEM-NI1 full-plate cathode for delivery against the nickel contract. CNGR has also applied to the LME to have its full-plate cathode listed.

LME open tonnage by country of origin (metric tonnes)



Source: LME, ING Research

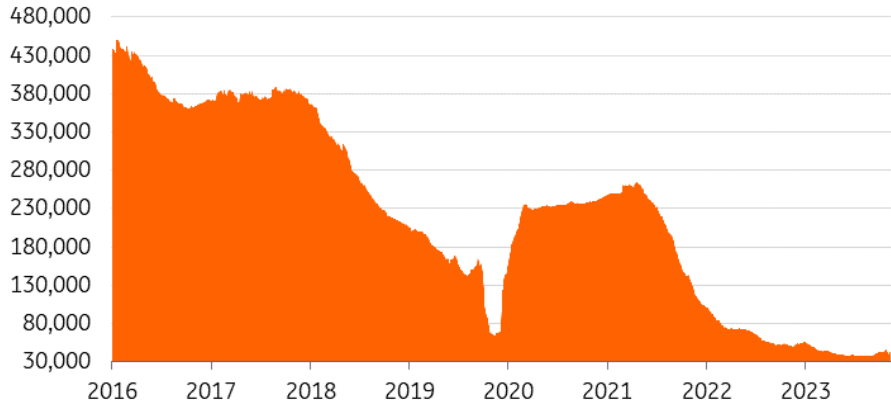
LME nickel stocks remain critically low

However, historically, LME nickel stocks remain critically low despite the recent deliveries. But we believe that the LME's new initiative – which has reduced waiting times for approving new brands that can be delivered against its contract – could potentially increase inventories. We believe Chinese producers will continue to submit fast-track LME nickel brand applications. This will allow them to deliver their Class 1 material to LME warehouses and could potentially increase inventories.

There are also supply risks around Russian metal. If European consumers continue to shun Russia-origin material, this could result in more Russian material being delivered into the LME warehouses. This would put downside pressure on nickel prices. Russia is the third largest primary nickel producer after Indonesia and China, accounting for

around 20% of the global supply, and the largest exporter of refined nickel metal – the type deliverable on the LME. Europe is one of the key destinations for Russian metal. If we see more Russian metal being delivered into LME warehouses, it could potentially mean that LME prices trade at discounted levels to the actual market.

LME nickel stocks are at historical lows (metric tonnes)



Source: LME, ING Research

LME nickel price returns to pre-crisis level

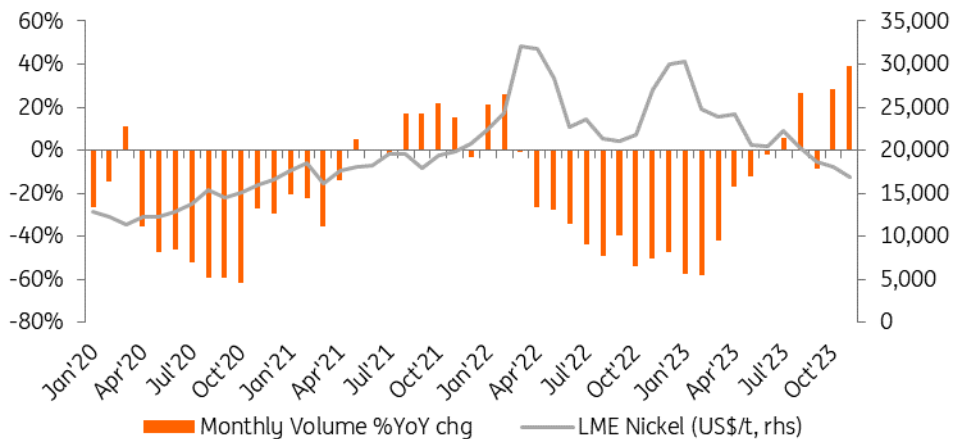
LME nickel prices have now returned to similar levels before the nickel short-squeeze in March 2022 following Russia’s invasion of Ukraine, when prices doubled to more than \$100,000/t in a matter of hours and the LME subsequently cancelled the trades.

The LME has had a difficult year handling the aftermath of the nickel crisis in 2022. The exchange is still struggling to regain momentum following its decision to suspend nickel trading for a week and cancel billions of dollars’ worth of trades. LME volumes have declined since then as many traders have reduced activity or cut their exposure due to a loss of confidence in the LME and its nickel contract.

These low levels of liquidity have left nickel prices exposed to sharp price swings, even amid small shifts in supply and demand balances.

But since the exchange introduced daily price limits and margin requirements fell, volumes have started to pick up. The resumption of Asian trading hours (after a one-year suspension in the wake of the nickel crisis) has also encouraged more volumes and improved liquidity, which in turn has reduced volatility in the contract. The recent win by the LME in a UK court challenge by Elliot and Jane Street over the exchange’s decision to cancel nickel trades in March 2022 has also marked an important milestone for the exchange as it continues to rebuild confidence in its nickel contract.

LME nickel volumes pick up after 2022 crisis



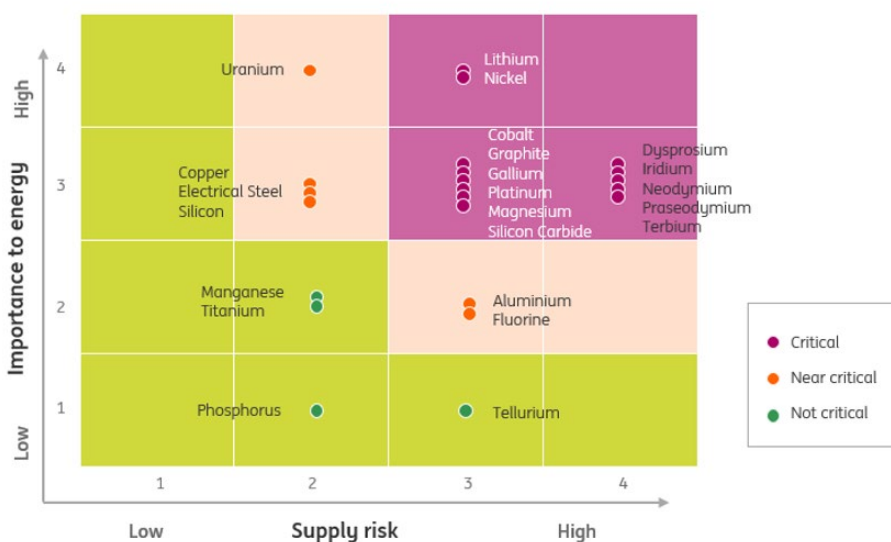
Source: LME, ING Research

Prices to remain under pressure

We forecast nickel prices to remain under pressure in the short term as a surplus in the global market builds and a slowing global economy mutes stainless steel and EV demand. We see prices averaging \$16,600/t in 1Q with prices gradually moving up to average \$17,000/t. We forecast an average of \$16,813/t in 2024.

Prices should, however, remain at elevated levels compared to average prices seen before the historic LME nickel short squeeze in March last year due to nickel's role in the global energy transition. The metal's appeal to investors as a key green metal will support higher prices in the longer term. We believe demand for use in EV batteries will be the key factor in nickel's longer-term story. Although there are signs of a slowdown in 2023, intensified competition and lower relative prices will push the trend forward, with China in the lead.

Nickel is crucial in global electrification push



Source: US Department of Energy, S&P, ING Research

The US has assessed nickel as a critical material in the medium-term. The US Department of Energy (DOE) recently released its 2023 Critical Materials Assessment, which evaluated materials for their criticality to global clean energy technology supply chains. The department expects nickel and lithium to become the most critical minerals globally between 2025 and 2035. The DOE expects nickel to become critical over this period due to the crucial role the metal is expected to play in the wider global electrification push.

ING forecasts

	1Q24	2Q24	3Q24	4Q24	FY24
LME Nickel (US\$/t)	16,600	16,800	16,850	17,000	16,813

Source: ING research



Gold to hit fresh highs in 2024

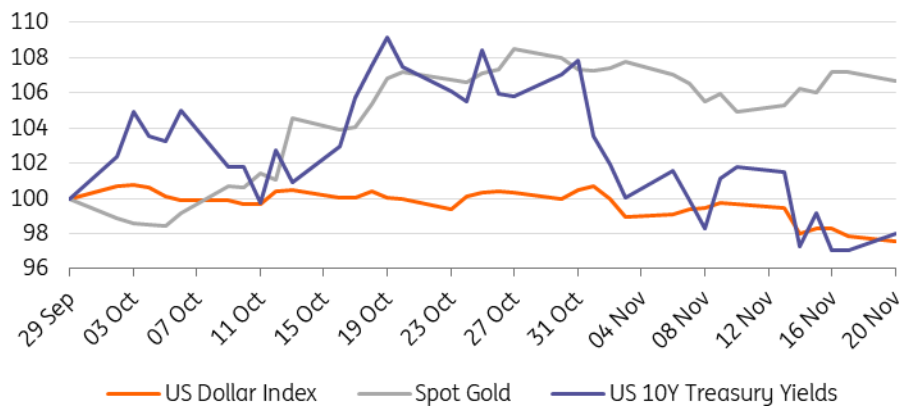
Gold rose to a record high this year amid geopolitical conflicts and economic uncertainty. We believe safe-haven demand and the US interest rate outlook will keep gold supported in 2024 and we expect prices to remain above the \$2,000 level next year

Ewa Manthey
Commodities Strategist
ewa.manthey@ing.com

Gold surges amid falling yields, Middle East tensions

Gold has rallied in the last quarter of the year as demand for safe-haven assets has increased and amid bets that the Federal Reserve will cut rates next year. Following the outbreak of the Israel-Hamas conflict on 7 October, gold neared its previous record of about \$2,075/oz set in 2020. Although concerns over a wider Middle East conflict have now eased, gold has held up well, gaining support from a softer US dollar and US Treasury yields on the US interest rate outlook, with prices reaching a new record high in early December. We expect prices to remain above the \$2,000 level next year as the global rush for gold continues.

Safe-haven demand supports gold



Source: Refinitiv Eikon, ING Research

Fed's policy remains key

We believe Fed policy will remain key to the outlook for gold prices in the months ahead. US dollar strength and central bank tightening have weighed on the gold market for most of 2023. Higher rates are typically negative for gold, which doesn't offer any interest.

The latest US data showed inflation and the labour market are cooling, with markets now pricing in a 50% chance of a rate cut in March and fully pricing in a cut in May.

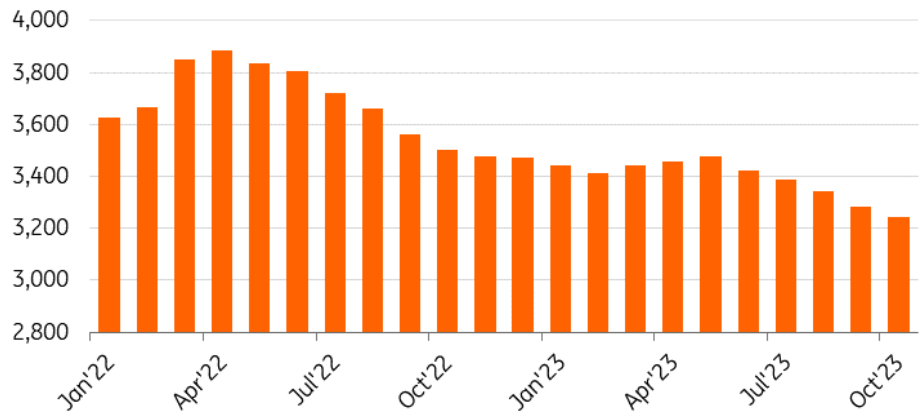
[Our US economist expects](#) the starting point for Fed rate cuts to be in May and is forecasting 150bp of rate cuts next year in total, with a further 100bp in early 2025. This should support gold's move higher.

Gold ETFs see ongoing outflows

Yet, gold demand trends paint a mixed picture. Total holdings in bullion-backed ETFs have continued to decline this year despite rising spot prices. Although global gold ETF outflows continued in October, they were at a slower pace than in September. Year-to-date, global outflows totalled \$13 billion, equivalent to a 225-tonne fall in holdings. Most of these outflows came from European funds, and the other major contributor North America, according to data from the World Gold Council (WGC).

Looking into 2024, we believe we will see a resurgence of investor interest in the precious metal and a return to net inflows given higher gold prices as US interest rates fall.

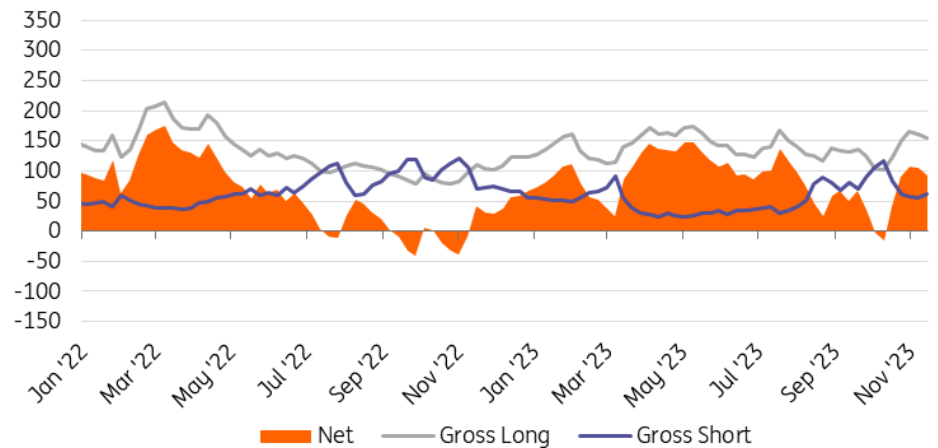
Gold ETF holdings (tonnes)



Source: World Gold Council, ING Research

However, net-long positioning, reflecting sentiment in the gold market, turned positive in the second half of October as spot prices surged amid the outbreak of the Israel-Hamas conflict. COMEX net-long positionings rose 137% month-on-month to 29 October, supported by the rise in geopolitical concerns. Compared to 2019 and 2020, positioning this year is still looking neutral. This suggests that there is still plenty of room for speculators to add to their net long in 2024 and push gold prices even higher.

CFTC gold speculative net positions



Source: CFTC, World Gold Council, ING Research

Central bank demand hits year-to-date record

Meanwhile, central banks have continued to boost their gold reserves. Central banks purchased around 800 tonnes of gold over the first three quarters of 2023, 14% ahead of the same period last year, according to data from the WGC.

This was a record amount bought for a nine-month period, as geopolitical concerns pushed central banks to increase their allocation towards safe assets. Central banks' healthy appetite for gold is also driven by countries' concerns about Russian-style sanctions on their foreign assets, following the decision of the US and Europe to freeze Russian assets, and shifting strategies on currency reserves.

Central banks increased their gold purchases to 337 tonnes over the third quarter of the year primarily due to higher buying from China (+78 tonnes), Poland (+57 tonnes), Turkey (+39 tonnes) and India (+9 tonnes). China has been the largest buyer of gold this year amid an 11-month buying streak. The People's Bank of China has purchased 181 tonnes this year, taking gold holdings to 4% of its reserves.

This insatiable appetite has helped gold prices defy surging bond yields and a strong dollar for most of the year.

Gold tends to become more attractive in times of instability, and demand has been surging over the past two years. Last year, global central banks purchased a record 1,136 tonnes of gold, compared to 450 tonnes bought in 2021, mostly driven by a flight towards safer assets amid soaring inflation. Last year was not only the thirteenth consecutive year of net purchases, but also the highest level of annual demand on record back to 1950.

We expect central banks to remain buyers and to near or exceed last year's purchases in 2023 due to geopolitical tensions and the economic climate.

This continued central bank buying amid stronger investment demand sets gold up to move higher through 2024

Gold to hit fresh highs

We believe gold prices will be supported going into 2024 amid a weaker US dollar on the back of US monetary easing. The risk of tensions escalating in the Middle East should also provide support to the precious metal.

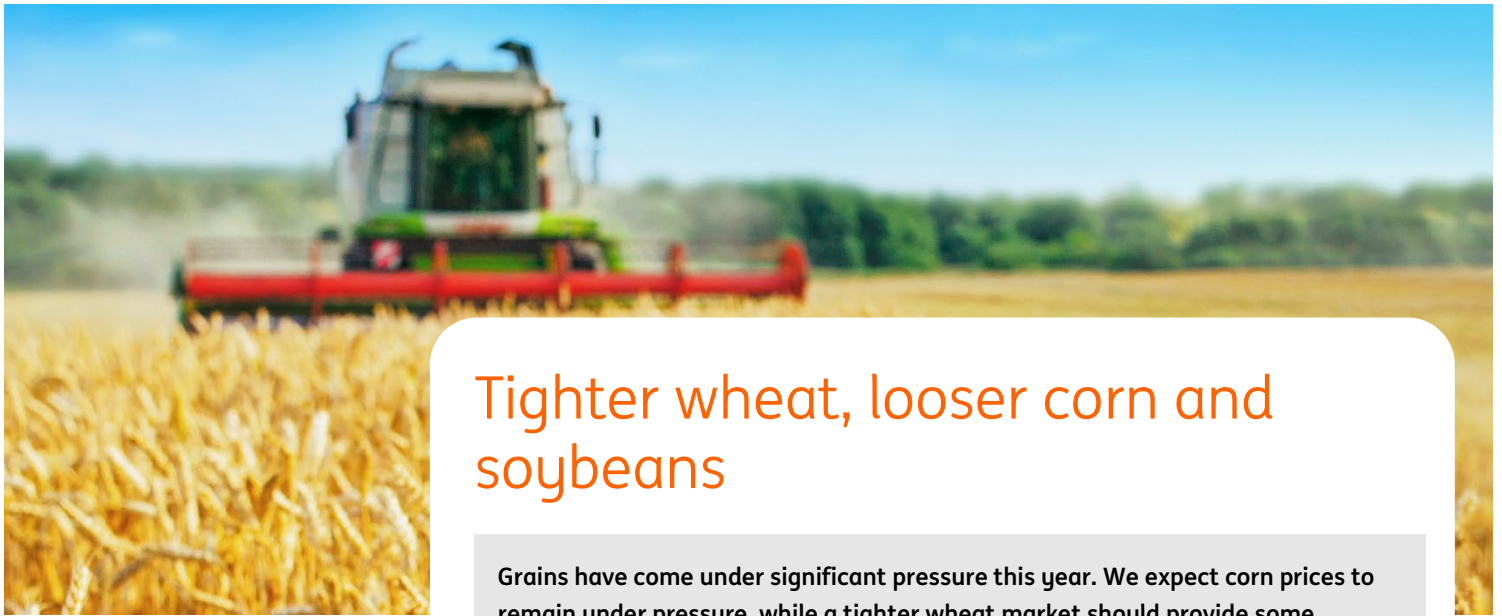
We expect gold prices to hit fresh highs next year and to average \$2,100/z in 4Q, with a 2024 average of \$2,031/oz on the assumption that the Fed starts cutting rates in the second quarter of next year, the dollar weakens, safe-haven demand continues amid global economic uncertainty and central bank buying remains at high levels.

Downside risks revolve around US monetary policy and dollar strength. The higher-for-longer narrative could see a stronger dollar for longer and weaker gold prices. Meanwhile, geopolitical instability offers upside risks for the gold market in 2024.

ING forecasts

	1Q24	2Q24	3Q24	4Q24	FY24
Spot gold (US\$/oz)	1,975	2,000	2,050	2,100	2,031

Source: ING research



Tighter wheat, looser corn and soybeans

Grains have come under significant pressure this year. We expect corn prices to remain under pressure, while a tighter wheat market should provide some support to wheat. Meanwhile, larger South American soybean supply suggests soybean prices will trend lower

Warren Patterson
 Head of Commodities Strategy
 warren.patterson@asia.ing.com

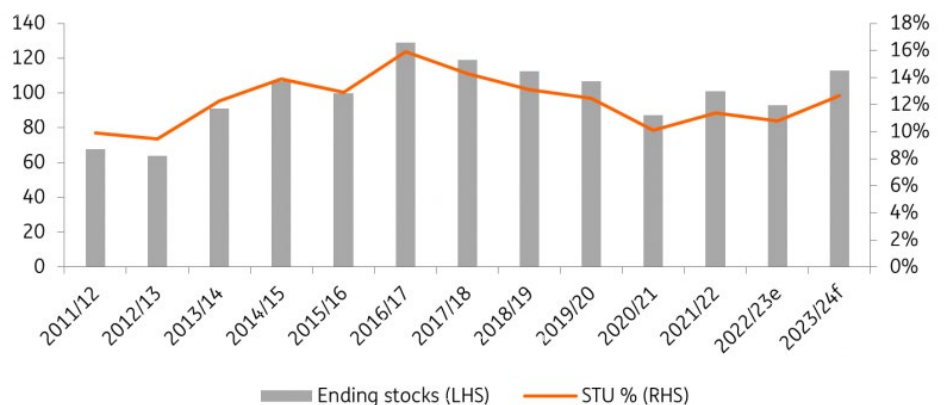
Global corn ending stocks grow in 2023/24

Global ending stocks for 2023/24 are estimated at close to 315mn tonnes, an increase of almost 16mn tonnes year-on-year and the highest levels since 2018/19. Both the ex-China and US balance show a similar trend.

This is largely due to expectations that global corn output will grow by almost 64mn tonnes YoY. Supply increases from key producers have more than offset concerns over Ukrainian export supply. Meanwhile, weaker prices mean that global demand should rebound by a little over 3% in 2023/24, after declining by more than 1.5% the season before.

Supply dynamics suggest that corn prices are likely to remain under pressure for much of 2024 with prices needing to send a signal to farmers to reduce corn acreage.

Global (ex-China) corn ending stocks (mn tonnes)



Source: USDA, ING Research

US corn plantings to fall in 2024

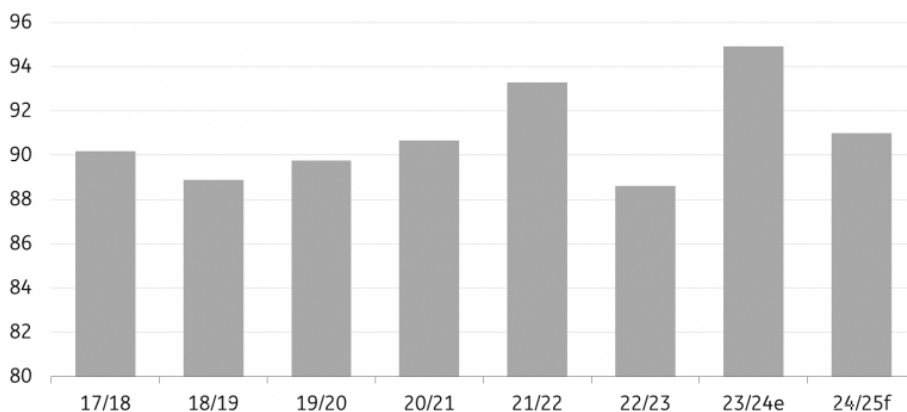
A key driver behind the increase in global output is the US, which is expected to produce a record crop of 15.24bn bushels (387mn tonnes) in 2023/24, an increase of 11% YoY. The increase has been driven by record acreage, whilst yield expectations have also improved as the season has developed.

However, with the 2023/24 US corn harvest largely complete, attention will be turning to 2024 plantings and what it means for the 2024/25 crop. The soybean/corn ratio in late

2024 (Nov'24 soybeans and Dec-24 corn), suggests that US farmers should increase soybean acreage at the expense of corn area.

We believe that planted corn acreage in 2024 could fall by around 4mn acres YoY to around 91mn acres. Yields in line with the five-year average would mean a US corn crop of 14.27bn bushels (363mt), down 6% YoY. This should still leave the US balance comfortable. However, obviously much will depend on how the weather plays out through the 2024 summer.

US corn planted area (mn acres)



Source: USDA, ING Research

Argentina recovery adds to looser corn balance

Expectations are that Argentina will see a recovery in its output in 2023/24 following last year's drought. Argentine corn output is expected to increase by 21mn tonnes YoY to 55mn tonnes in 2023/24. Plantings for this crop are still underway.

Surprisingly, even Ukrainian output is estimated to have grown by 2.5mn tonnes YoY to 29.5mn tonnes in 2023/24. The weather has proved beneficial to yields, which has helped the crop. However, whilst Ukraine is seeing a larger harvest, this does not mean that additional supply will make its way onto the world market. The end of the Black Sea Grain Initiative has weighed heavily on Ukrainian grain exports. Therefore, if the war persists and there is no export deal, it is difficult to see a recovery in export volumes. As a result, we are likely to see a further buildup of stock in Ukraine, which could mean lower plantings and lower output in the upcoming season.

A region where we are set to see a fairly large decline in output is Brazil, where it is estimated that corn output will fall 8mn tonnes YoY to 129mn tonnes in 2023/24. Plantings are currently underway and weaker corn prices mean that farmers are expected to reduce plantings.

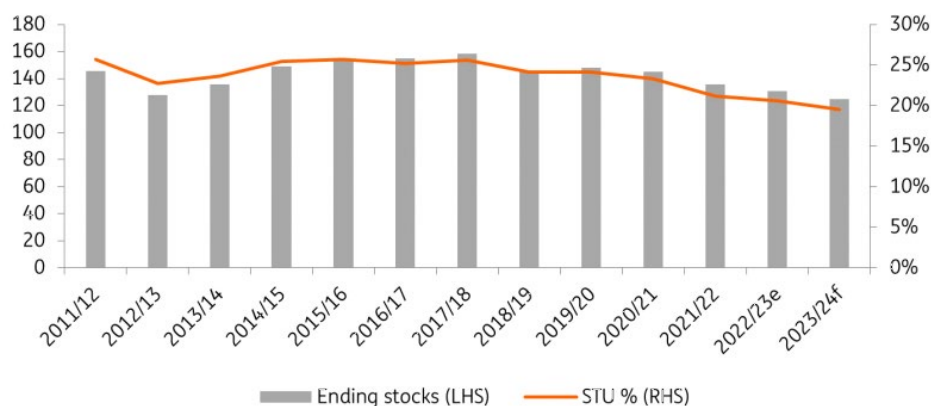
Wheat market set to tighten further

The global wheat balance is set for another deficit through 2023/24. Global ending stocks are set to fall by 4% YoY to a little under 259mn tonnes, which will be the fourth consecutive season of declines in stock, leaving them at their lowest levels since 2015/16. However, a large amount of stock sits in China (52% of global). So, if we look at the ex-China balance, stocks are even tighter at less than 125mn tonnes, which is the lowest level since 2008/09. And if we look at the stocks-to-use (STU) ratio, to take into account the growth in consumption, the STU is 19.5%, the lowest since 2007/08.

While global ending stocks are set to edge lower this season, US wheat stocks are estimated grow by 10% to 1.8bn bushels (18.6mn tonnes) in 2023/24.

However, the tightening in the global balance (particularly the ex-China balance) suggests that wheat prices should be relatively better supported through 2024. We hold a moderately constructive view on wheat.

Global (ex-China) wheat ending stocks (mn tonnes)



Source: USDA, ING Research

US wheat acreage to edge lower in 2024

The US wheat market is relatively well supplied in 2023/24 with ending stocks edging higher over the course of the season. Higher acreage has helped to push the season's crop to its highest levels since 2020/21. Still, while yields are also up from last season, they are quite a bit lower than levels seen between 2019/20 and 2021/22, particularly for hard red winter. However, higher acreage has offset lower-than-average yields.

Looking further ahead, winter wheat plantings for 2024 are already close to complete and the condition of the winter wheat crop is looking better than last year. While acreage is expected to decline by 3% in 2024, the current condition of winter wheat suggests that yields could be better YoY. Better yields and larger harvested area suggest that next season's US wheat crop could be larger, despite a lower planted area.

Ukraine wheat output surprises to the upside

The resilience of Ukraine's agricultural sector has really stood out through the war. For the 2023/24 season, expectations were for the domestic wheat crop to fall on the back of lower acreage. However, yields have performed better than expected due to good precipitation and soil moisture, which has seen this season's wheat crop grow a little less than 5% YoY to 22.5mn tonnes. This is also well above forecasts for a crop of less than 17mn tonnes earlier this year. However, as we have seen with most Ukrainian crops, the issue is the ability to export grain to the world market. As a result, we will likely see higher levels of stock carried in the domestic market. One would think this may lead to reduced plantings for 2024, however, Ukraine's agricultural ministry estimates that planted area will likely be largely unchanged for next year.

Russian wheat output estimates creep higher

A large part of the pressure on wheat prices this year has been driven by stronger-than-expected supply from Russia. Russia produced a record wheat crop of 92mn tonnes in 2022/23 and the expectation earlier in the year was for the 2023/24 crop to fall to a little less than 82mn tonnes. However, the crop has surprised and is estimated to total 90mn tonnes, the second-largest crop on record. As a result, Russia has retained its title as the largest wheat exporter and is expected to have record export supply of 50mn tonnes in 2023/24, up from 47.5mn tonnes last season. The recently announced grain export quota of 24mn tonnes for the period 15 February - 30 June 2024 should allow for another large export programme.

Australian wheat supply to fall in 2023/24

Australia had three years of record wheat harvests through until 2022/23, with output totalling 39.7mn tonnes last season. Good rainfall and higher plantings helped with this record output. However, for 2023/24, the outlook is not as positive. Weather conditions have been drier, which should see yields fall from the record levels of more than 3t/ha last year to less than 2t/ha in 2023/24. These significantly lower yields and a 3% reduction in area mean that the Australian wheat harvest is estimated to fall 38% YoY to 24.5mn tonnes.

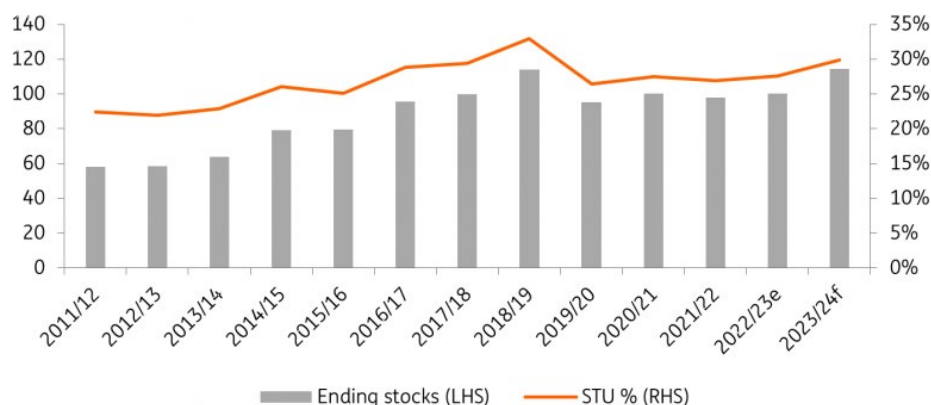
Global soybean stocks edge higher

Despite soybean prices holding up relatively well this year, global ending stocks for 2023/24 are estimated to grow by more than 14% YoY to a record high of almost 115mn tonnes, which would leave the stocks-to-use ratio at close to 30%, also a record high. Expectations of higher ending stocks are being driven by the view that we will see strong output from South America in 2024.

While the global balance is set to loosen this season, the US balance is expected to tighten. US ending stocks are expected to fall a little more than 8% this year to 245mn bushels (6.7mn tonnes), the lowest levels since 2015/16. A smaller harvest this season and higher domestic crush is expected to tighten the market.

However, larger global stocks driven by stronger South American output and the expectation for larger US soybean acreage in 2024 suggest that prices will edge lower through 2024.

Global soybean ending stocks (mn tonnes)



Source: USDA, ING Research

US soybean acreage to increase

This season's US soybean harvest is now complete, and it is estimated that farmers were able to produce 4.13bn bushels (a little more than 112mn tonnes), down around 3% YoY and the smallest crop since 2019/20. The reduction was largely due to reduced acreage, which fell from 87.5mn acres last season to 83.6mn acres this season.

While a smaller crop was harvested this season, domestic demand is estimated to be strong. In fact, demand is expected to hit record levels thanks to a stronger soybean crush. While crush margins have come off their highs, historically they are still at elevated levels. Soybean oil has played a big part in the broader strength in margins.

Looking at 2024 plantings, we expect that soybean acreage will increase. Soybean prices have held up relatively better than corn this year and the forward soybean/corn ratio suggests that farmers should increase soybean acreage at the expense of corn over 2024. Early estimates suggest that US soybean acreage could increase by 4% YoY to

around 87mn acres. And if we were to assume average yields, that would result in a crop of almost 4.3bn bushels (117mn tonnes), up 3.9% YoY.

The ramping up of new crush capacity in the US this year and next suggests that domestic demand will grow next season. In fact, the growth in renewable diesel capacity in the US should continue to prove constructive for soybean demand in the years ahead.

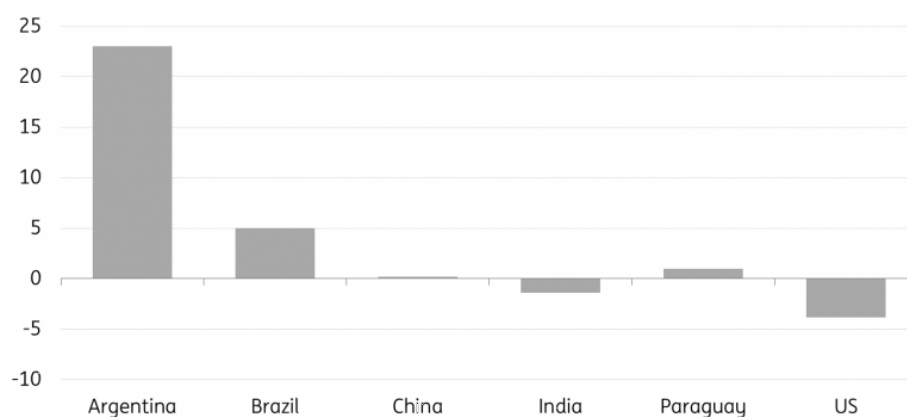
As for export demand, given expectations for strong output from South America, US exports could come under some pressure, which should allow for ending stocks to still build next season.

Strong South American soybean output

South America is set to see strong output in 2023/24. Argentina is expected to see a recovery in output following the drought-hit crop of last season. Domestic production is forecast to grow 23mn tonnes YoY to 48mn tonnes.

As for Brazil, production is forecast to hit record levels for yet another season, with supply expected to grow by 5mn tonnes to 163mn tonnes in 2023/24. This growth is on the back of higher acreage, with soybeans relatively more attractive for farmers than corn. However, there are risks to this crop with dry conditions recently in some key growing regions, which could weigh somewhat on yields

Change in soybean output – 23/24 vs 22/23 (mn tonnes)



Source: USDA, ING Research

Strong Chinese soybean demand, but will it last?

China, the world's largest soybean importer, has seen strong buying this year. Over the first 10 months of the year, imports totalled 82.4mn tonnes, up almost 15% YoY. And it appears as though strong imports will continue into early next year, with Chinese buyers recently booking large volumes of US soybeans for delivery into 1Q24. More recent buying appears to reflect stock building rather than actual consumption though.

Domestic demand fundamentals are weak. Chinese soybean crush margins are negative, whilst hog margins in China are also weak. This suggests that imports will also likely slow eventually, as weak hog margins will weigh on the pig herd size, which will ultimately weigh on feed demand.

ING forecast

	1Q24	2Q24	3Q24	4Q24	FY24
CBOT Corn (USc/bu)	470	500	490	480	485
CBOT Wheat (USc/bu)	630	610	600	640	620
CBOT Soybeans (USc/bu)	1,280	1,300	1,270	1,250	1,280

Source: ING research



Softs volatility to continue

Soft commodities have been the best performing part of the commodity complex in 2023. Uncertainty due to the impact of El Nino and broader weather events suggest prices are likely to remain elevated into 2024

Warren Patterson
 Head of Commodities Strategy
 warren.patterson@asia.ing.com

Global sugar market in deficit

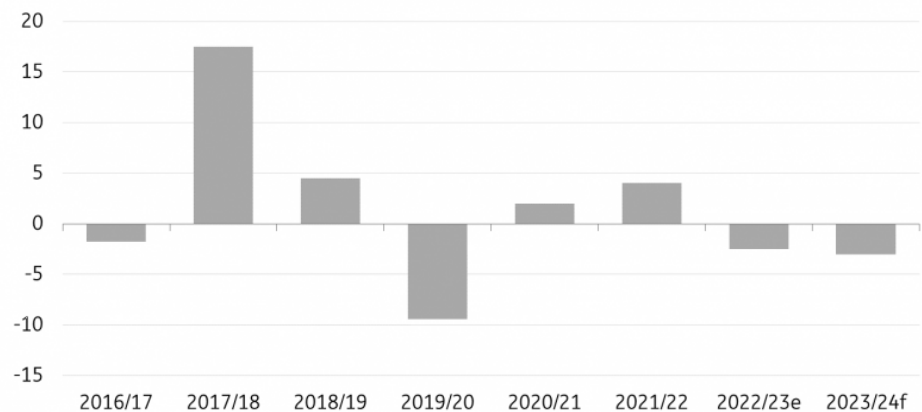
The sugar market has seen significant strength this year with No.11 raw sugar trading above US\$28/lb and to its highest levels since 2011. The strength in the market has come despite Centre-South Brazil on course to produce its largest amount of sugar this season. A large crop from Brazil has been offset by worries over output from key northern hemisphere producers in 2023/24. The global sugar market is expected to be in deficit by around 3mn tonnes this season. It would be the second consecutive deficit, which suggests that prices will remain well supported through into early 2024.

The global market is usually relatively tighter in the first quarter of the year, given it coincides with the CS Brazil offcrop. However, with expectations of weaker supply from Thailand and India this season, the sugar market will be particularly tight over 1Q24.

Prices should ease from 2Q24 onwards as supply from the next CS Brazilian crop starts to come to market. The next crop is expected to see strong output yet again.

Meanwhile, the tightness in the European sugar market is likely to start easing slightly, which should take off some of the upward pressure we have seen on European sugar prices.

Global sugar market balance (mn tonnes)



Source: Czarnikow, ING Research

Record CS Brazil sugar output

The 2023/24 CS Brazilian harvest is drawing to an end and the industry is expected to crush well in excess of 600mn tonnes of cane, which should see sugar output hitting record levels this season of close to 40mn tonnes. Sugar prices have been trading at a

healthy premium to domestic Brazilian hydrous ethanol, so there has been a clear incentive for mills to maximise sugar production. The sugar mix so far this season comes in at 49.41%, up from 45.97% over the same period last season.

While it is still early days and much will depend on how the weather plays out over the CS Brazilian offcrop, it appears as though CS Brazil will see another strong harvest in 2024/25, which gets underway in April. Sugar is set to remain at a strong premium to ethanol, ensuring the incentive to maximise sugar output will persist into next season. While we see strong sugar output, there will once again be logistical risks, given the expectations for yet another record Brazilian soybean harvest in 2024.

Indian and Thai sugar output under pressure

Developments in India and Thailand have been more of a concern, leaving the market tighter than expected this season. El Nino has led to drier weather conditions in Thailand, which has led to significant downgrades to the harvest that recently got underway. Some estimates suggest that Thai sugar output this season could fall into the region of 7.5mn tonnes, down from 11mn tonnes last season, which would be the smallest crop in over a decade. This would weigh on export supply for both raws and whites, and further tighten the market during the CS Brazil offcrop in 1Q24.

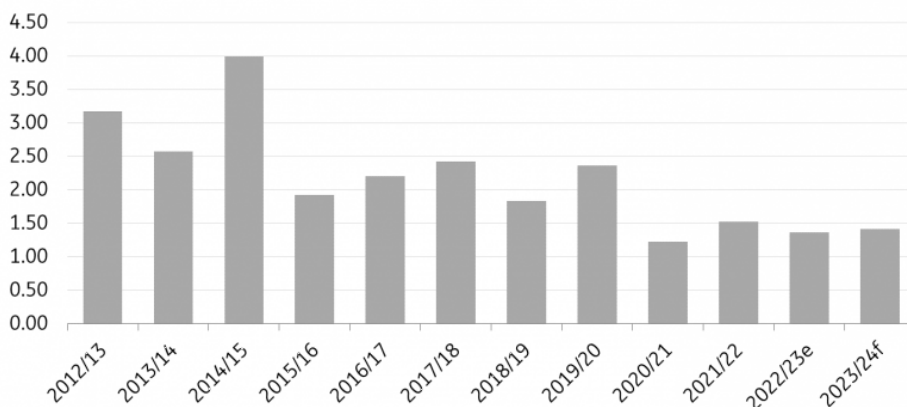
The prospects of no Indian sugar exports in the 2023/24 season will only intensify the tightness in 1Q24. The Indian government, which has issued export quotas in recent years, is yet to do so this season, given worries that a poor monsoon will weigh on the 2023/24 crop. Last season, the government allowed sugar exports of 6mn tonnes. Indian sugar output is estimated to fall close to 3% YoY to 30mn tonnes, and there are still downside risks to this. Weighing on sugar output even further is a larger diversion to ethanol production this year, a trend that we have seen for several years now as the government aims to increase ethanol blending.

The whites premium has remained elevated through this year, reflecting tightness in the white sugar market. And given the expectation for smaller crops from both Thailand and India, the white sugar market is likely to remain tight through at least early next year, which should continue to provide support to the whites premium.

EU sugar supplies improve

The European sugar market has seen significant strength over the last 12 months with EU output last season falling short of expectations due to dry summer conditions over 2022. This led to significant tightening in the market, which pushed prices (monthly average reported) to record levels of EUR821/t, whilst spot prices saw even more strength. For 2023, the region is expected to see somewhat of a recovery in output. EU production is expected to grow by around 1mn tonnes to around 15.6mn tonnes. This increase is driven by a combination of higher planted area and an improvement in yields. As a result, the balance is also expected to slightly loosen in 2023/24 with ending stocks to edge up to more than 1.4mn tonnes.

EU sugar ending stocks (mn tonnes)



Source: European Commission, ING Research

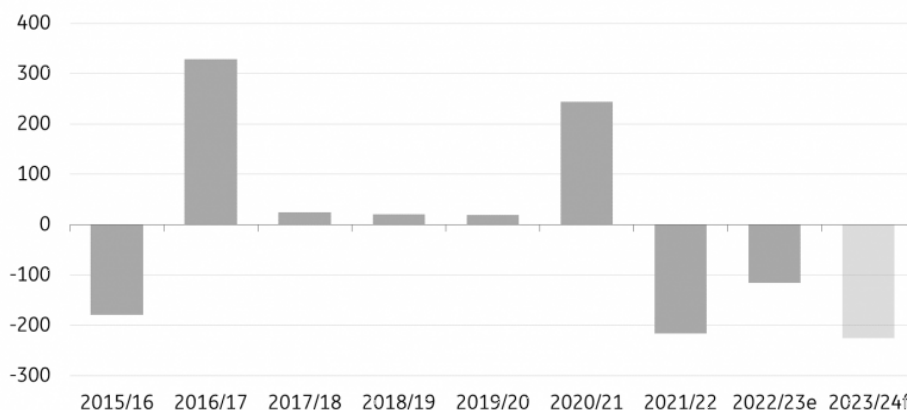
Back-to-back cocoa deficits

The cocoa market has seen significant strength this year with London cocoa hitting record highs. It is the second-best performing commodity this year, with just orange juice rallying more. Back-to-back deficits have tightened the market, and there is the growing likelihood of a third consecutive deficit in the 2023/24 season with concerns over output from West Africa.

The global cocoa market saw a deficit of 216k tonnes in the 2021/22 season, which was followed by a deficit estimated at around 116k tonnes last season. For 2023/24, early numbers suggest we could possibly see a deficit in the region of 200-250k tonnes. This is under the assumption of a large decrease in output from the Ivory Coast, and that the current high price environment leads to continued demand destruction.

A further drawdown in stocks would leave the market increasingly vulnerable, with global stocks at the start of the 2023/24 season estimated at around 1.7mn tonnes, whilst the stocks-to-grind ratio is at a seven-year low of 34.5%. However, it is still difficult to justify the scale of the move higher in cocoa prices, given these stock levels. Clearly, the uncertainty over the balance in 2023/24 is what is driving the market. If supply from West Africa does not turn out to be as bad as feared, the market is in store for an aggressive downward correction.

Global cocoa balance (k tonnes)



Source: ICCO, ING Research

Ivorian cocoa supply under pressure

The key concern for the cocoa market is centered around the key supplier, Ivory Coast. Heavier than usual rainfall has raised worries over black pod disease and the impact this will have on output. In addition, rainfall has also led to transportation issues. Therefore,

arrivals at ports are well below last year. There are some early estimates that suggest the Ivorian cocoa crop in 2023/24 could be as much 20% smaller YoY at around 1.8mn tonnes.

Demand responding to higher cocoa prices

It is no surprise that the high price environment we are seeing is already weighing on demand in a number of regions. Grinding data is down significantly in both North America and Asia. In Europe (the largest grinder), demand is proving to be relatively more robust. Higher prices are attempting to resolve the deficit through demand destruction. The latest data shows that grindings in North America were down 18% YoY in 3Q23, whilst grindings over the first three quarters of the year were down a little more than 11% YoY. In Asia, grindings were down 8% YoY in 3Q23 and down almost 4% YoY over the first three quarters of 2023. As for Europe, grindings were down 1% YoY in 3Q23, and a little over 2% lower over the first three quarters.

ING forecasts

	1Q24	2Q24	3Q24	4Q24	FY24
ICE No.11 Sugar (USc/lb)	27.50	25.00	24.00	23.00	24.90

Source: ING Research

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