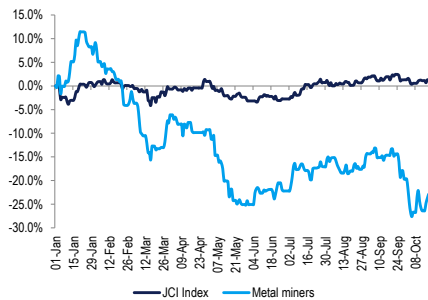


Sector Index Performance

	3M	6M	12M
Absolute	-3.9%	-14.5%	-17.7%
Relative to JCI	-5.3%	-16.0%	-19.1%



Summary Valuation Metrics

P/E (x)	2023F	2024F	2025F
ADMR IJ	11.4	9.6	8.8
ANTM IJ	13.0	11.5	10.4
HRUM IJ	7.9	11.1	9.3
INCO IJ	15.1	28.6	51.4
MBMA IJ	506.2	27.5	16.1
MDKA IJ	N/A	31.2	24.9
NCKL IJ	10.3	7.0	6.1
EV/EBITDA (x)	2023F	2024F	2025F
ADMR IJ	7.7	6.8	5.5
ANTM IJ	9.7	8.6	7.6
HRUM IJ	5.4	5.8	6.1
INCO IJ	6.4	11.1	13.1
MBMA IJ	41.4	10.5	7.6
MDKA IJ	16.7	6.9	6.3
NCKL IJ	7.6	4.9	3.9
Div. Yield	2023F	2024F	2025F
ADMR IJ	N/A	N/A	N/A
ANTM IJ	4.3%	3.9%	4.3%
HRUM IJ	N/A	N/A	N/A
INCO IJ	N/A	N/A	N/A
MBMA IJ	N/A	N/A	N/A
MDKA IJ	N/A	N/A	N/A
NCKL IJ	N/A	2.9%	4.3%

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Oversupply situation to limit NPI and NiSO4 pricing

- Indonesia and China combined NPI output (+14% yoy in 9M23) continue to outpace downstream demand growth (+c.1% at FY23F).
- Upside to NiSO4 price is limited despite stronger demand seasonality in 2H23F as tight MHP & HGNM supply is set to gradually ease.
- We expect limited upside on NPI and NiSO4 price and re-iterate our Neutral rating on the sector.

NPI: soft ex-China demand dragging down prices

China's nickel-based stainless steel production (#300 series) were up by +9% yoy in 9M23 while the amount of volume exported overseas were relatively soft (-13% yoy in 8M23), indicating that ex-China demand has remain relatively poor. While rising Indonesian NPI supply putting pressure on NPI price has been a widely accepted norm among traders and investors YTD, recent pressure in NPI price (from US\$14.5k/ton to US\$13.7k/ton) was likely driven by soft demand rather than easing Indonesian ore supply, as our channel check indicated that the dollar premium to nickel ore benchmark price (HPM) remain relatively similar on a monthly basis since the illegal mining case in Mandiodo block. This is also in-line with the decline in stainless steel price (-4% mom, Fig. 5), which is a leading indicator to soft demand. We expect NPI prices to continue to trade closer to marginal costs of production (US\$12.9k/ton, as of latest). Downside risk will be on easing Indonesian ore tight supply.

NiSO4: raw material supply disruption has lift up MHP prices

NiSO4 prices have been trending upwards to US\$18k/ton from US\$17k/t as nickel sulphate production in China have taken a dip in Sep-23 (-13% mom) on the back of logistical challenges as MHP and HGNM output from Indonesia (c.80-90% of raw material used in China) remain relatively unaffected. This has led to rising MHP coefficient against battery-grade nickel sulphate from c.79% in Aug23 to c.83%, as of latest. We expect NiSO4 pricing to remain relatively flat from stronger 2H23F demand seasonality in addition to rising sulphur price (c.20-25% of MHP's cash costs) which shall support prices, while temporary supply disruption may ease gradually with overall market-balance still at an oversupply.

Maintain our sector Neutral rating on soft NPI price

We maintain our Neutral sector rating as we continue to see limited upside from China-centric nickel prices (i.e. NPI and NiSO4); our commodity price assumptions are also unchanged. As a result, we continue to prefer names that can deliver better than expected 3Q23F earnings (i.e. ADMR, NCKL), and/or poised for structural long-term re-rating (i.e. MBMA) on the back of its solid nickel projects pipeline and upstream assets.

Fig. 1: Metal miners valuation summary

Ticker	Company	Rating	Target price (Rp/share)	P/E			EV/EBITDA			Dividend yield (%)		
				23F	24F	25F	23F	24F	25F	23F	24F	25F
ADMR IJ	Adaro Minerals Indonesia	Buy	1,800	11.4	9.6	8.8	7.7	6.8	5.5	N/A	N/A	N/A
ANTM IJ	Aneka Tambang	Buy	2,050	13.0	11.5	10.4	9.7	8.6	7.6	4.3%	3.9%	4.3%
HRUM IJ	Harum Energy	Buy	2,150	7.9	11.1	9.3	5.4	5.8	6.1	N/A	N/A	N/A
INCO IJ	Vale Indonesia	Hold	5,560	15.1	28.6	51.4	6.4	11.1	13.1	N/A	N/A	N/A
MBMA IJ	Merdeka Battery Materials	Buy	940	506.2	27.5	16.1	41.4	10.5	7.6	N/A	N/A	N/A
MDKA IJ	Merdeka Copper Gold	Buy	3,230	N/A	31.2	24.9	16.7	6.9	6.3	N/A	N/A	N/A
NCKL IJ	Trimegah Bangun Persada	Buy	1,300	10.3	7.0	6.1	7.6	4.9	3.9	N/A	2.9%	4.3%

Source: Bloomberg, Indo Premier

Oversupply situation to limit NPI and NiSO4 pricing

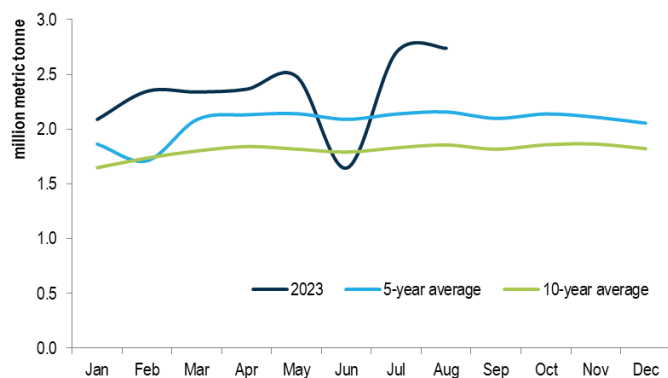
Nickel in stainless demand: China production offset by the decline in EU

China nickel-based stainless steel production went up by +9% year-to-date (YTD, Fig. 2 & 3), which continues to showcase that demand may actually is quite resilient in China, but such increase has been offset by the ongoing suspension of Delong Obsidian stainless steel mills in Indonesia (installed capacity at c.2% of global stainless steel production in FY22) in addition to relatively poor demand from EU/U.S, reflected in Outokumpu's stainless steel deliveries that have declined by 9%/20% yoy in EU/U.S in 1H23.

In Oct-23, ISSF (International Stainless Steel Federation) expects world stainless steel consumption to remain relatively flattish at 1% yoy growth in FY23F, before rebounding in FY24F to 3% yoy growth. As a result, we fine-tune our Class-2 nickel demand for FY23F by +37kt to 1.8mt (-2% yoy from previously -4% yoy growth).

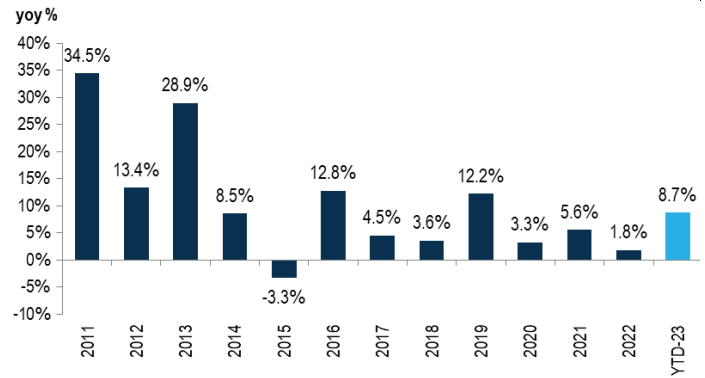
Nonetheless, stainless steel price continues to trend downward since Sep-23 (Fig. 5), with stainless-steel exports from China have underperformed the China stainless steel production (-13% yoy in 8M23, Fig. 4), confirming our view that downstream demand (particularly ex-China) is relatively soft.

Fig. 2: China nickel-based stainless steel production



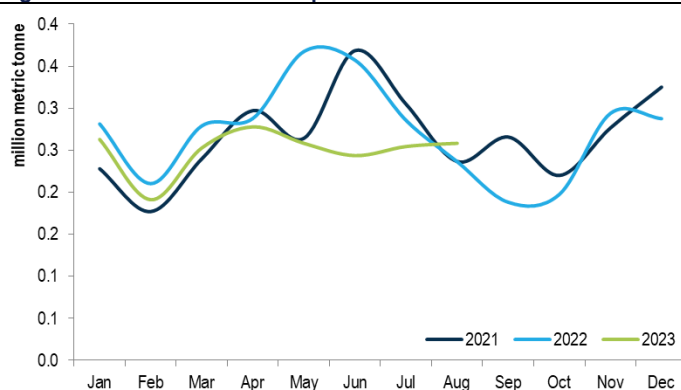
Source: Bloomberg, Indo Premier

Fig. 3: China nickel-based yoy growth %



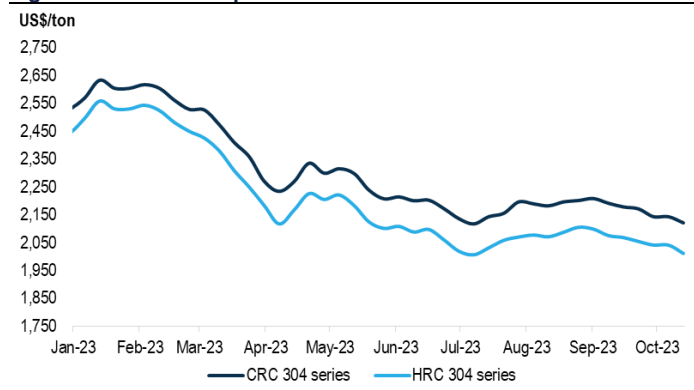
Source: Bloomberg, Indo Premier

Fig. 4: China stainless-steel export



Source: Bloomberg, Indo Premier

Fig. 5: Stainless-steel price



Source: Bloomberg, Indo Premier

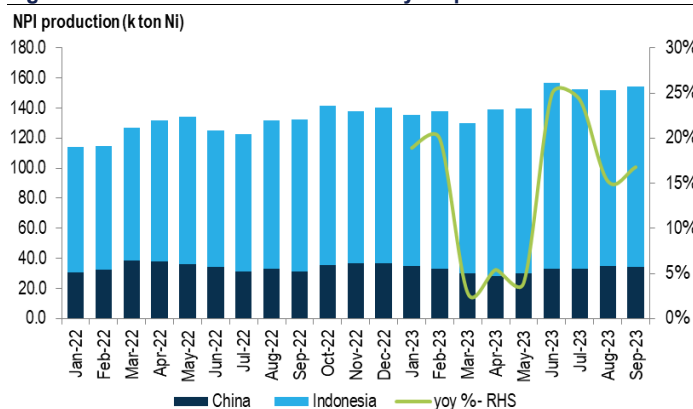
Supply addition from Indonesia continues to weigh on prices

However, despite relatively strong demand, additional supply from Indonesia has kept flowing. Recently, Ministry of Energy and Mineral Resources (MEMR) has re-iterated its plan by not allowing any permit or licenses for Class-2 nickel smelters. While theoretically it should be positive for NPI/FeNi price, several planned Class-2 nickel smelters that have obtained the permit and licensing prior to the moratorium will continue to be built and completed (Fig. 9), including those that are planned by metal-miners under our coverage. As of 9M23, Indonesia's NPI output has been growing by 22% yoy to 1mt (vs. 829kt in 9M22), partly offset by declining China NPI output at -5% yoy to 291kt (Fig. 7) leading to total NPI output increase of 164kt in 9M23 (+14% yoy vs. 9M22).

As of recently, ANTM's 13.5ktpa smelter in East Halmahera has entered first metal tapping production stage and is set to enter commercial operation by 4Q23F, similar to Kalla Group's Bumi Mineral Sulawesi (BMS, Fig. 9), which would continue to further add supply into Class-2 nickel market.

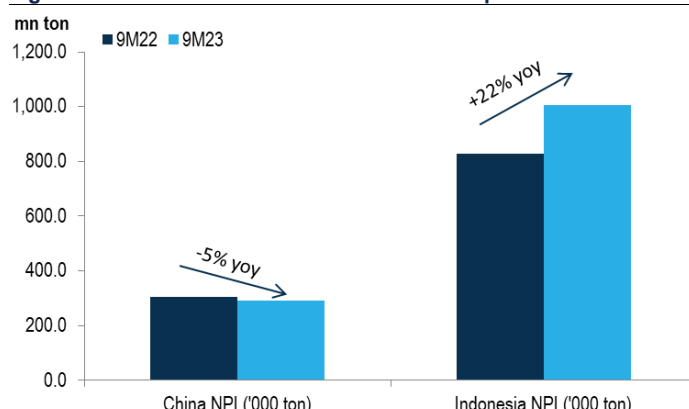
Nonetheless, we have taken into account additional capacity from ANTM and BMS which shall result in higher-than-expected NPI output YTD into our demand-supply market balance (Fig. 8), which we expect would remain at a surplus in our forecast period (FY23F-25F). Our NPI price forecast remains unchanged at US\$13,750/ton and US\$14,000/ton in FY24F/25F, respectively.

Fig. 6: Indonesia and China NPI monthly output



Source: Shanghai Metal Market (SMM), Indo Premier

Fig. 7: Indonesia and China NPI cumulative output



Source: Shanghai Metal Market (SMM), Indo Premier

Fig. 8: Class-2 nickel supply-demand balance

Supply-demand balance (kt)	2019	2020	2021	2022	2023F	2024F	2025F
Class-2 nickel (NPI/FeNi)							
Refined production	1,446	1,493	1,681	1,884	1,928	2,022	2,112
Supply growth yoy (%)		3.3%	12.5%	12.1%	2.3%	4.8%	4.4%
Refined consumption	1,615	1,714	1,894	1,877	1,839	1,931	2,028
Demand growth yoy (%)		6.1%	10.5%	-0.9%	-2.0%	5.0%	5.0%
Market balance	(169)	(221)	(213)	7	89	90	84
Price forecast							
Nickel pig iron 8-12% (US\$/t)	13,256	13,020	17,293	18,761	14,593	13,750	14,000

Source: Bloomberg, Indo Premier

NPI price: cost-support at US\$12.9k/ton

China's nickel pig iron (NPI, 8-12% Ni content) price have recently dipped below US\$14k/ton level (c.19% discount to LME nickel price), mainly driven by softer ex-China downstream demand in stainless-steel, in addition to oversupply situation which has continues to limit NPI price to move upwards. We think NPI price would continue to trade close to its marginal costs of production with China NPI producers' costs as a benchmark (c.22% of global NPI production) due to higher nickel ore price (from Philippines).

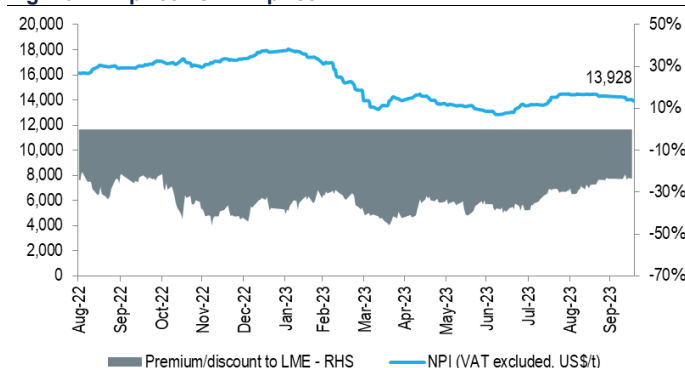
Fig. 9: Class-2 nickel smelters pipeline

Class-2 pipeline	Owner	Annual capacity	Timeline
FeNi Halmahera	Aneka Tambang	13,500	4Q23
Bumi Mineral Sulawesi	Kalla Group	33,000	4Q23
Halmahera Jaya Feronikel	Trimegah Bangun Persada, Lygend	95,000	3Q23/4Q23 full ramp-up
Zhao Hui Nickel	MBMA, Tsingshan Group	50,000	2024 fully ramped-up
PT Ceria FeNi	Ceria Nugraha Indotama	55,600	2024
Karunia Permai Sentosa	Trimegah Bangun Persada, Lygend	185,000	2025
Bahodopi FeNi	PT Vale Indonesia, Shandong Xinhai	73,000	2026

Source: Bloomberg, Indo Premier

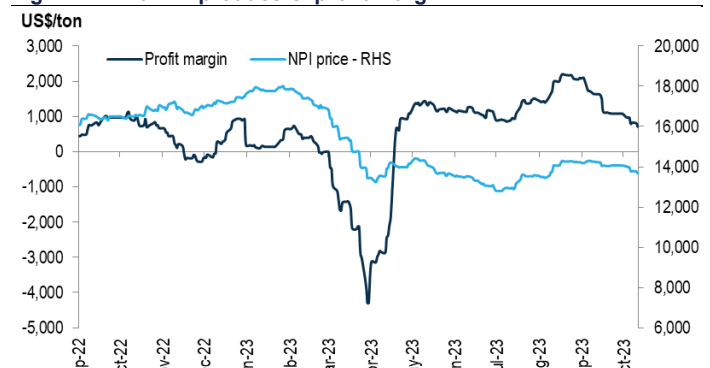
Currently, China's NPI producers have cash costs of US\$12.9k/ton vs. US\$10-11k/ton for Indonesian NPI producers, based on our channel check, mainly due to China's higher nickel ore costs as Philippine ore price is currently trading higher vs. Indonesian ore. However, we have started seeing a decline in Philippines' ore price (1.8% grade CIF from US\$96/wmt to US\$92/wmt), but with while stainless steel prices have been trending downwards, we think recent decline in NPI price is mainly caused by soft demand rather than easing Indonesian ore supply, as our channel check indicate that the dollar premium to nickel ore benchmark price (HPM) remain relatively similar on a monthly basis since the illegal mining case in Mandiodo block.

Fig. 10: NPI price vs LME price



Source: Bloomberg, Indo Premier

Fig. 11: China NPI producers' profit margin



Source: Bloomberg, Indo Premier

Nickel sulphate (NiSO4) – Narrowing discount to LME nickel price

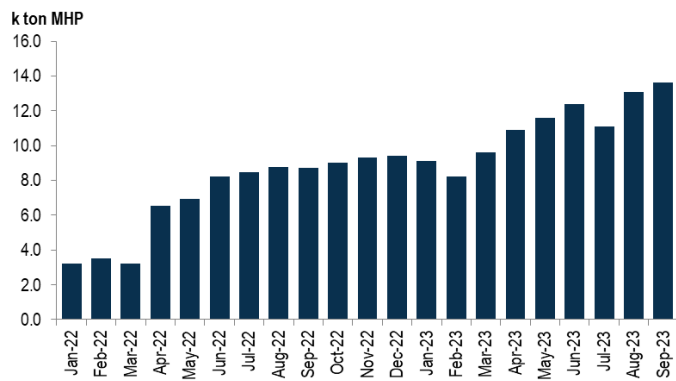
Nickel sulphate price along intermediate products (i.e. MHP/mixed-hydroxide precipitate) has been on the rise in the past month and is currently trading at US\$18k/ton up by +3% mom (-18% YTD), driven by combination of costs support (i.e. higher China sulphur price in Aug-Sep 2023) and tight supply of MHP and high-grade nickel matte (HGNM)

coming from Indonesia (Fig. 12 & 13), which led to reduced China nickel sulphate output in Sep-23 (-13% mom, Fig. 14).

As of 9M23, China nickel sulphate production grew by +24% yoy, while its first-use demand, NMC (nickel manganese cobalt) ternary cathode precursor, grew only by +14% yoy, leading to an oversupply condition in the China nickel sulphate market.

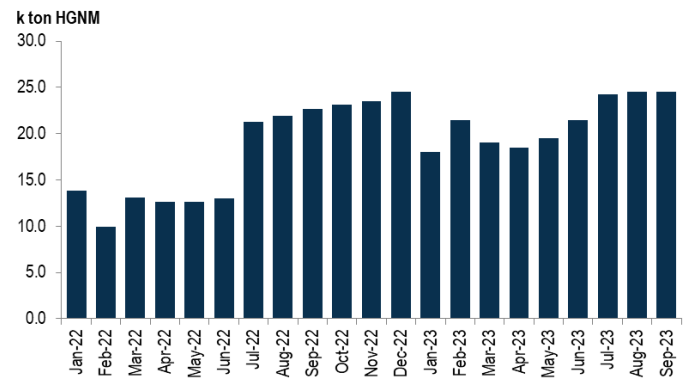
However, note that the recently tight supply in MHP and nickel-matte was not caused by operational issues, as MHP and HGNM output are still growing on month-to-month basis (Fig. 12 & 13), but instead was caused by several cargoes from the newest Indonesian HPAL, PT Huafei, unable to arrive at ports on time for some reasons, according to Shanghai Metal Market (SMM). As such, with demand unlikely to surprise for the rest of FY23F, we expect limited upside on nickel sulphate price and maintain our nickel sulphate price forecasts to average at US\$19.3k/ton in FY23F, US\$18k/ton, and US\$18.5k/ton in FY24F/25F.

Fig. 12: Indonesia's MHP output



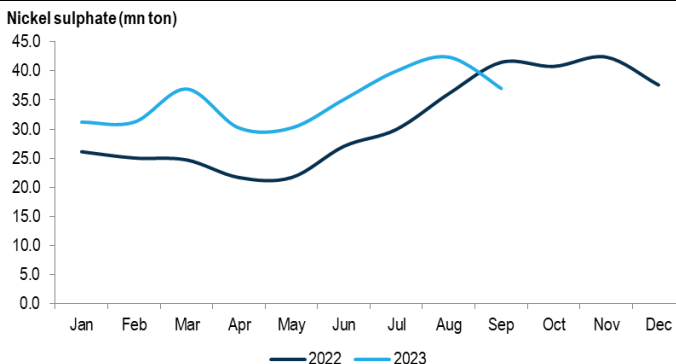
Source: Shanghai Metal Market (SMM), Indo Premier

Fig. 13: Indonesia's HGNM output



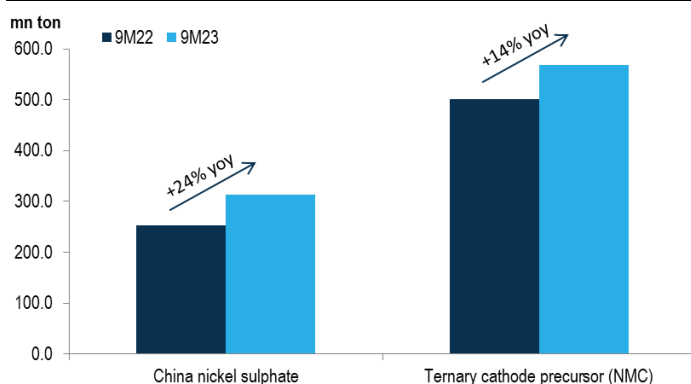
Source: Shanghai Metal Market (SMM), Indo Premier

Fig. 14: China nickel sulphate output in Sep-23 declined on yoy and mom basis, indicating tight supply



Source: Shanghai Metal Market (SMM), Indo Premier

Fig. 15: China nickel sulphate vs NMC ternary cathode precursor output (9M23)



Source: Shanghai Metal Market (SMM), Indo Premier

Sensitivity analysis: MBMA/NCKL/HRUM affected the most by soft NPI price; NCKL to benefit from stronger NiSO4 price

We conducted sensitivity analysis for metal-miners under our coverage, by assessing the impact of 1% change in the underlying commodity prices assumptions into its earnings per share (Fig. 16) in FY23F/24F or EBITDA specifically for MDKA/MBMA given its relatively low nominal earnings versus peers.

Fig. 16: Sensitivity analysis on 1% change in the underlying commodity price

FY23F	ADMR	ANTM	HRUM	MDKA	MBMA	NCKL	INCO
LME nickel		1.7%		0.1%	0.2%	0.9%	3.6%
Nickel pig iron (NPI)/FeNi		1.0%	0.3%	2.6%	7.4%	2.7%	
Copper				0.3%			
Coking-coal	1.9%						
Nickel sulphate						0.9%	
Thermal coal			2.1%				
Gold		0.2%		0.6%			
FY24F	ADMR	ANTM	HRUM	MDKA	MBMA	NCKL	INCO
LME nickel		1.6%		0.2%	0.4%	0.8%	5.5%
Nickel pig iron (NPI)/FeNi		1.3%	2.1%	1.8%	2.9%	2.3%	
Copper				0.3%			
Coking-coal	2.0%						
Nickel sulphate						0.7%	
Thermal coal			2.0%				
Gold		0.2%		0.3%			

Source: Company data, Indo Premier estimates; We conducted sensitivity analysis on EBITDA for MDKA/MBMA, while the rest are based on earnings/net profit.

Overall, we expect MBMA/NCKL/HRUM to be affected by the soft NPI pricing, albeit we have taken into account this into our forecast as we are already expecting NPI price to average at around US\$13,750/ton in 4Q23F vs. 4Q23F to-date average of US\$14.1k/ton. MDKA would also indirectly be affected as MBMA are consolidated within MDKA's income/financial statement.

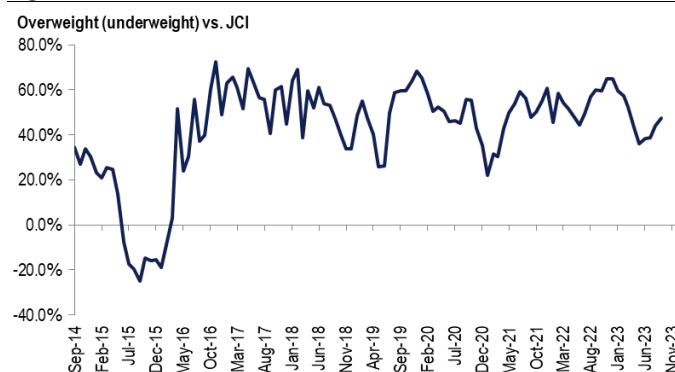
Sep23 funds positioning – Market has turned more bullish?

Sep-23 local funds positioning data on Indonesian nickel miners under our coverage indicated that domestic institutional funds positioning vs. JCI (+170bps higher weighting vs. JCI) have bottomed in May-23. While foreign funds continue to have an underweight position on metal miners (vs. MSCI weight), driven either by ESG-related issues (i.e. HRUM's coal exposure) and/or lesser preference on commodity names given the complexity and volatility nature of commodity-related stocks, based on our discussions with foreign investors.

On company-specific basis, we observed that the rise in local funds positioning have increased across the board (Fig. 17 – Fig. 22), with the exception of **MBMA**. This may have indicated that local funds have generally turned more bullish on metal names.

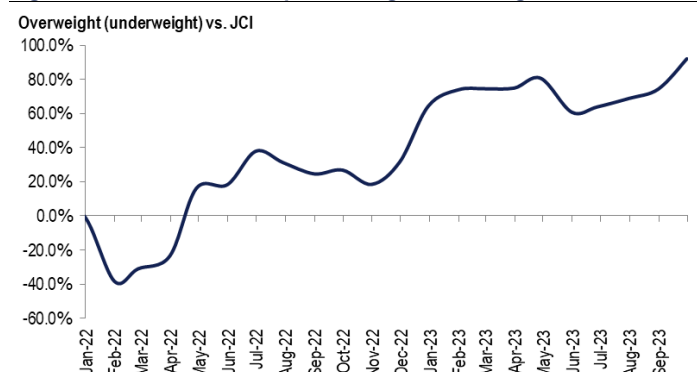
From May-23 to peak, we have seen the most substantial weight increase in **ADMR** (+93% higher weighting vs May-23), **HRUM** & **NCKL** (+54% higher weighting vs. May-23), while local funds positioning on **INCO** were relatively unchanged, despite INCO's share price decline, meaning that local funds are just maintaining their existing position on INCO in spite of the INCO's decline in JCI weighting, leading to local funds having higher overweight position as a bucket vs. INCO's JCI weighting.

Fig. 17: Local mutual fund vs. JCI



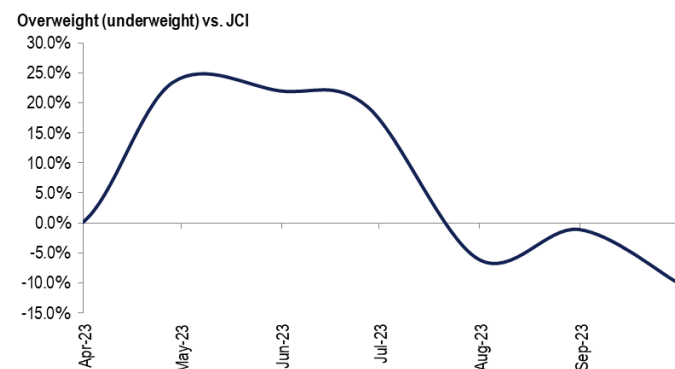
Source: Bloomberg, Indo Premier

Fig. 18: ADMR's local fund positioning vs. JCI weight



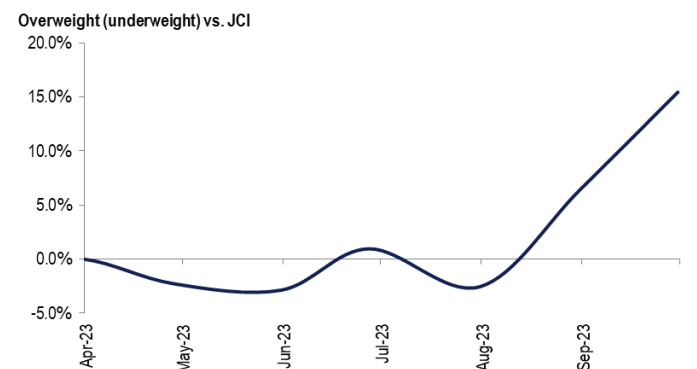
Source: Bloomberg, Indo Premier

Fig. 19: MBMA's local fund positioning vs. JCI



Source: Bloomberg, Indo Premier

Fig. 20: NCKL's local fund positioning vs. JCI weight



Source: Bloomberg, Indo Premier

Fig. 21: MDKA's local fund positioning vs. JCI

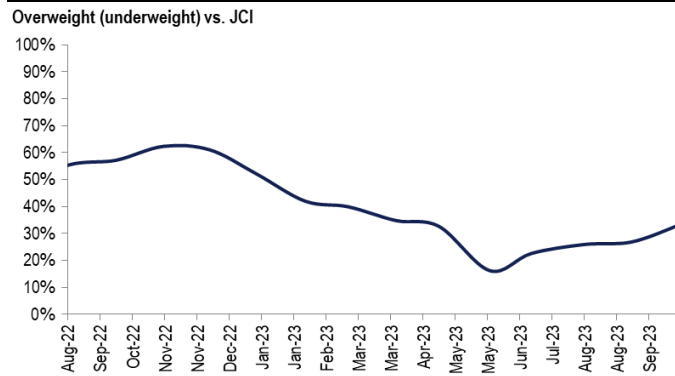


Fig. 22: HRUM's local fund positioning vs. JCI weight



Fig. 23: ANTM's local fund positioning vs. JCI



Fig. 24: INCO's local fund positioning vs. JCI weight



Fig. 25: ANTM's valuation band (1-year forward P/E)



Fig. 26: INCO's valuation band (1-year forward EV/EBITDA)

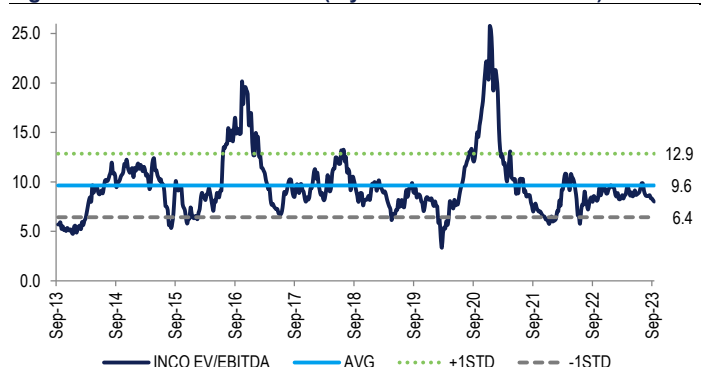


Fig. 27: HRUM's valuation band (1-year forward P/E)



Source: Bloomberg, Indo Premier

Fig. 28: MDKA's valuation band (1-year forward EV/EBITDA)



Source: Bloomberg, Indo Premier

SECTOR RATINGS

- OVERWEIGHT** : An Overweight rating means stocks in the sector have, on a market cap-weighted basis, a positive absolute recommendation
- NEUTRAL** : A Neutral rating means stocks in the sector have, on a market cap-weighted basis, a neutral absolute recommendation
- UNDERWEIGHT** : An Underweight rating means stocks in the sector have, on a market cap-weighted basis, a negative absolute recommendation

COMPANY RATINGS

- BUY** : Expected total return of 10% or more within a 12-month period
- HOLD** : Expected total return between -10% and 10% within a 12-month period
- SELL** : Expected total return of -10% or worse within a 12-month period

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