



PT Aneka Tambang Tbk (ANTM.JK)

An Indonesian-listed nickel giant poised to capitalize on the global EV surge

Pyramids &
Pagodas



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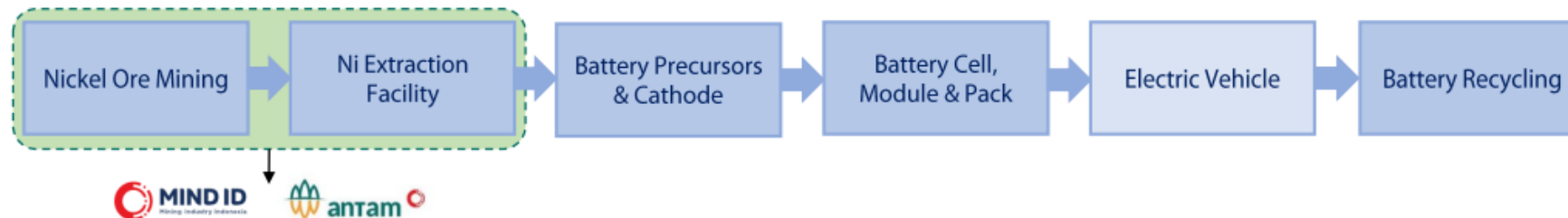
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Business overview



- PT Aneka Tambang Tbk (ANTM.JK, ANTM IJ) [“ANTAM” or “the Company”], founded in 1968 and listed on the Indonesian Stock Exchange (IDX) in 1997 and as a foreign exempt entity (ATM.AX, ATM AU) on the Australian Stock Exchange (ASX) in 1999, is a diversified vertically integrated metals and mining leader that owns the largest nickel reserves domestically and is a significant global player among peers.
- The Company was exposed to several different mining minerals particularly in the early days, but over the past 5 years, has focused on its profitable core businesses namely nickel (ferronickel “FeNi” and nickel ore) and gold mining.
- Revenue sales destination as per FY22 Dec ended showed 20% and 80% split between export and Indonesia (domestic) respectively.
- ANTAM’s clients differ by segment, but broadly:
 - **Nickel business** – feedstock to stainless steel producers in China, Japan, South Korea and Taiwan.
 - **Gold and refinery** – precious metals, jewellers and industrial users in Indonesia. Antam has supplied gold bars to Indonesia’s Central Bank since 1997 as part of the country’s drive to diversify its FX reserves.
 - **Bauxite and Alumina** – Aluminium smelters (including SOEs/government) domestically and abroad.
 - **Precious metals refinery** – Precious metal traders and jewellery manufacturers domestically and abroad.

Electric Battery Value Chain Development



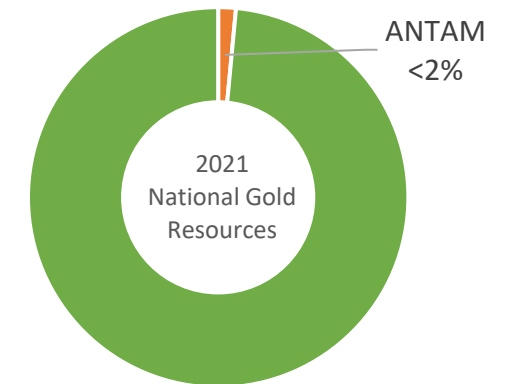
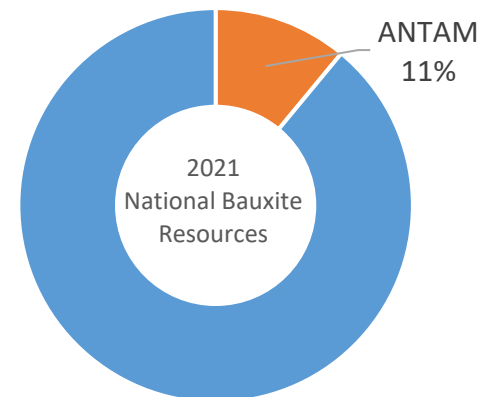
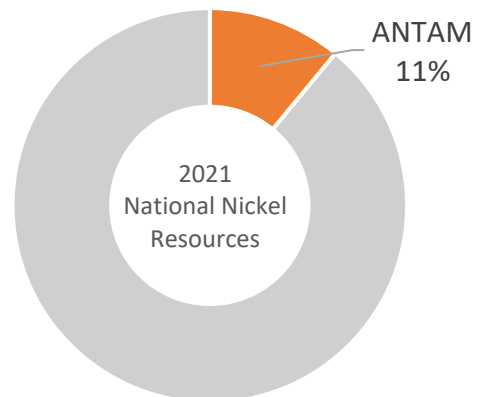
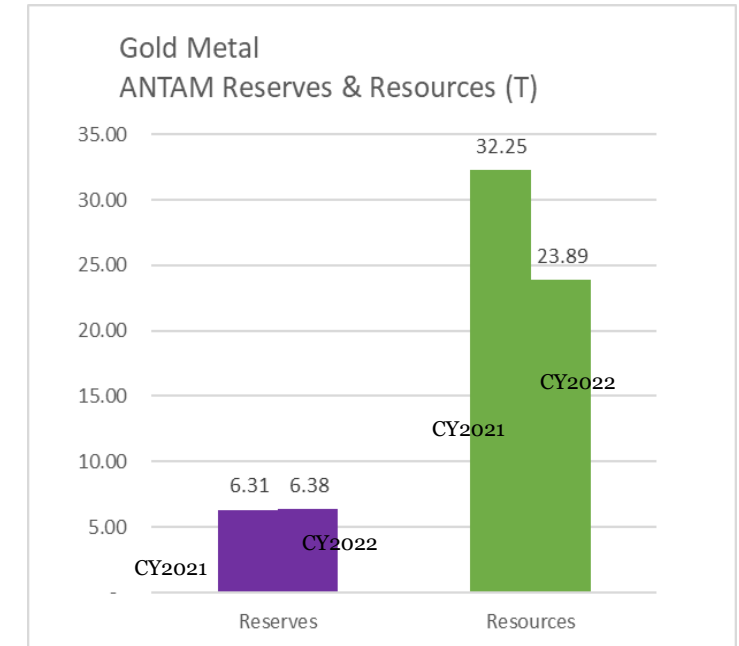
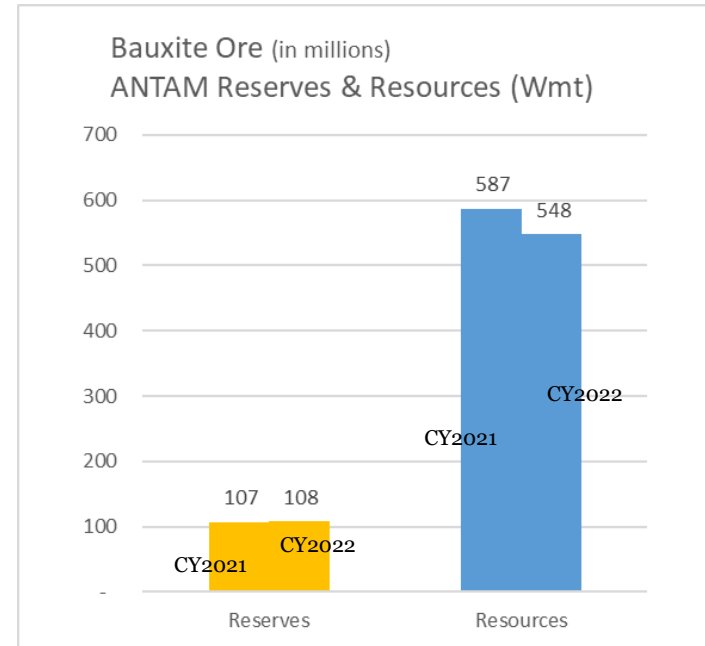
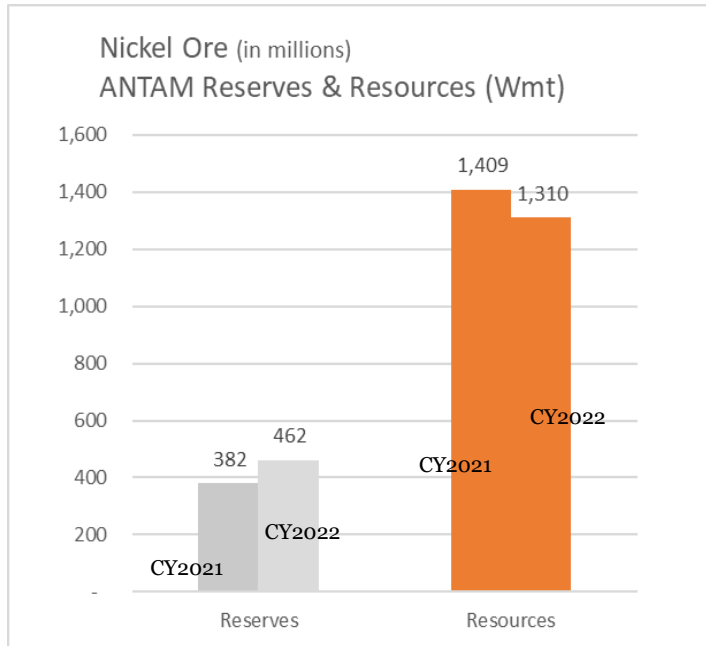
Source: Company presentation

Business model



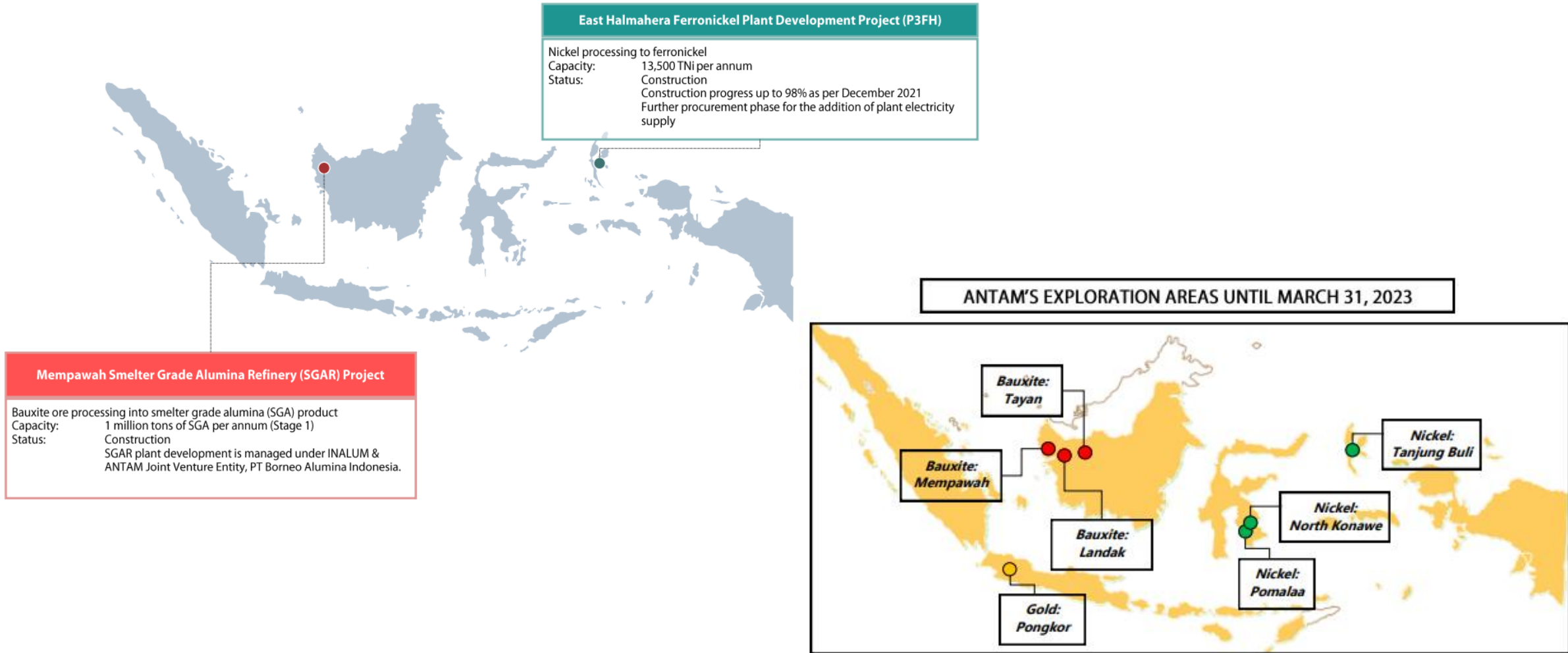
Source: Company presentation

Long reserves with large resource base





Upcoming projects and exploration areas



Source: Company presentation

Diversified revenues and growing margins



<i>P&L, IDR bn</i>	2016	2017	2018	2019	2020	2021	2022
Total Sales	9,106	12,654	25,275	32,719	27,372	38,446	45,930
COGS	(8,254)	(11,010)	(20,613)	(28,271)	(22,897)	(32,087)	(37,720)
Gross profit	852	1,644	4,662	4,447	4,476	6,359	8,211
Selling exp	(136)	(249)	(1,319)	(1,444)	(533)	(1,078)	(918)
Admin exp	(707)	(794)	(1,787)	(2,047)	(1,910)	(2,543)	(3,351)
Operating profit (EBIT)	8	601	1,556	956	2,032	2,738	3,942
Share of profit of associates	(282)	(488)	(1,260)	(88)	129	453	931
Finance income	343	260	261	120	110	90	85
Finance costs	(319)	(608)	(1,130)	(233)	(565)	(359)	(381)
Gain/(loss) on FX, net	97	(57)	276	(236)	(134)	61	564
Gain on acquisition	-	-	2,226	-	-	-	-
Other gain/loss	390	747	84	168	70	61	74
Profit before tax (PBT)	237	454	2,013	687	1,641	3,044	5,215
Tax expense	(172)	(318)	(377)	(493)	(492)	(1,182)	(1,394)
Net profit after tax (NPAT)	65	137	1,636	194	1,149	1,862	3,821
Non-controlling interests (NCI)	(0)	(0)	0	0	(0)	0	0
Adj. NPAT	65	137	1,636	194	1,149	1,862	3,821
EBITDA	397	956	1,144	1,987	3,269	4,147	5,707
Adj. EBIT	80	601	1,846	1,236	2,293	4,021	4,901
D&A	(670)	(843)	(848)	(1,119)	(1,108)	(956)	(834)
Adj. EBITDA	750	1,444	2,694	2,355	3,401	4,978	5,735

<i>P&L metrics, IDR bn</i>	2016	2017	2018	2019	2020	2021	2022
Group sales yoy growth (%)		39%	100%	29%	-16%	40%	19%
GPM (%)	9%	13%	18%	14%	16%	17%	18%
OPM (%)	0%	5%	6%	3%	7%	7%	9%
EBITDA Margin (%)	8%	11%	11%	7%	12%	13%	12%
Adj. NP Margin (%)	1%	1%	6%	1%	4%	5%	8%
Adj. NPAT yoy growth (%)		111%	1098%	-88%	493%	62%	105%
Share of associates (%)	-3%	-4%	-5%	0%	0%	1%	2%
Other g/l (%)	4%	6%	0%	1%	0%	0%	0%
Selling exp (%)	-1%	-2%	-5%	-4%	-2%	-3%	-2%
Admin exp (%)	-8%	-6%	-7%	-6%	-7%	-7%	-7%
Interest income (%)	-7%	-7%	-3%	-3%	-4%	-3%	-2%
Finance income (%)	4%	2%	1%	0%	0%	0%	0%
Finance cost (%)	-4%	-5%	-4%	-1%	-2%	-1%	-1%
Tax exp (%)	73%	70%	19%	72%	30%	39%	27%
D&A % of revenue	7%	7%	3%	3%	4%	2%	2%

- Revenue has grown @31% CAGR since 2016
- Improving GPM and OPM

Source: Pyramids & Pagodas (*analysis*)

Revenue breakdown (1/2)



<i>P&L, IDR bn</i>	2016	2017	2018	2019	2020	2021	2022
Revenues							
Ferronickel	2,782	3,223	4,688	4,871	4,658	6,356	6,854
Nickel Ore	295	1,370	2,934	3,706	1,869	4,384	5,169
Gold	5,544	7,375	16,706	22,466	19,357	25,942	31,625
Silver	134	126	136	152	146	116	120
Bauxite	104	398	478	758	557	503	618
Alumina			-	547	583	932	1,313
Coal	129	26	53	50	33	12	-
Other precious metals	4	3	5	2	1	1	0
Purification of precious metals and other s	114	133	276	165	168	201	229
yoy (%)		17%	108%	-40%	1%	20%	14%
Total Sales	9,106	12,654	25,275	32,719	27,372	38,446	45,930
Revenue yoy growth (%)							
Ferronickel		16%	45%	4%	-4%	36%	8%
Nickel Ore		364%	114%	26%	-50%	135%	18%
Gold		33%	127%	34%	-14%	34%	22%
Silver		-6%	8%	12%	-4%	-21%	4%
Bauxite		282%	-	59%	-26%	-10%	23%
Alumina				#DIV/0!	7%	60%	41%
Coal		-80%	104%	-4%	-35%	-64%	-100%
Other precious metals		-13%	40%	-53%	-62%	-35%	-51%
Purification of precious metals and other services		17%	108%	-40%	1%	20%	14%
Total sales		39%	100%	29%	-16%	40%	19%
Revenue by segment (%)							
Ferronickel	31%	25%	19%	15%	17%	17%	15%
Nickel Ore	3%	11%	12%	11%	7%	11%	11%
Gold	61%	58%	66%	69%	71%	67%	69%
Silver	1%	1%	1%	0%	1%	0%	0%
Bauxite	1%	3%	2%	2%	2%	1%	1%
Alumina	0%	0%	0%	2%	2%	2%	3%
Coal	1%	0%	0%	0%	0%	0%	0%
Other precious metals	0%	0%	0%	0%	0%	0%	0%
Purification of precious metals and other s	1%	1%	1%	1%	1%	1%	0%
Group sales yoy growth (%)		39%	100%	29%	-16%	40%	19%

- Segmental revenues have been on the uptrend with the exception of 2020 due to COVID-19
- Gold segment largest contributor of group revenues.

Source: Pyramids & Pagodas (*analysis*)

Revenue breakdown (2/2)



P&L, IDR bn	2016	2017	2018	2019	2020	2021	2022
Mining production (volume)							
Ferronickel (TNi)	20,293	21,762	24,868	25,713	25,970	25,818	24,334
Nickel Ore (Wmt)	1,635,024	5,572,056	9,317,963	8,696,479	4,763,238	11,007,668	8,622,796
Gold (Kg/t oz) - conv (1 kg to 32.1507 oz)	70,957	63,240	62,919	63,111	53,756	54,334	40,766
Silver (Kg/t oz) - conv (1 kg to 32.1507 oz)	508,561	456,251	501,905	530,969	385,552	353,723	263,732
Bauxite (Wmt)	241,202	705,322	1,102,385	1,726,734	1,553,457	1,673,956	1,652,196
Alumina (t)	-	-	-	104,537	92,606	95,209	151,565
Sales (downstream volume)							
Ferronickel (TNi)	20,888	21,813	24,135	26,349	26,163	25,992	24,209
% of production	103%	100%	97%	102%	101%	101%	99%
Nickel Ore (Wmt)	734,886	2,830,335	6,335,281	7,558,733	3,296,292	7,643,323	6,953,759
% of production	45%	51%	68%	87%	69%	69%	81%
Gold (Kg/t oz) - conv (1 kg to 32.1507 oz)	328,806	424,454	896,812	1,093,864	700,789	944,750	1,124,215
Silver (Kg/t oz) - conv (1 kg to 32.1507 oz)	587,941	533,316	590,191	660,440	469,047	320,575	368,800
Bauxite (Wmt)	298,012	838,069	920,031	1,659,920	1,226,836	1,422,095	1,240,587
Alumina (t)	-	-	-	70,517	82,785	133,001	143,991
Average USD/IDR rate (Bank of Indo)							
	13,292	13,330	14,073	14,063	14,542	15,190	14,848
ASP (USD)							
Ferronickel (TNi)	10,021	11,083	13,804	13,147	12,243	16,099	19,068
Nickel Ore (Wmt)	30	36	33	35	39	38	50
Gold (Kg/t oz)	1,268	1,304	1,324	1,460	1,899	1,808	1,895
Silver (Kg/t oz)			16	16	21	24	22
Bauxite (Wmt)			37	32	31	23	34
Alumina (t)	#DIV/0!	#DIV/0!	#DIV/0!	552	485	461	614
AMP (USD) - LME, LBMA, Fastmarkets, Metal Bulletin							
Ferronickel (TNi)	10,827	13,721	14,841	14,841	14,856	17,735	26,044
Nickel Ore (Wmt)	10,827	13,721	14,841	14,841	14,856	17,735	26,044
Gold (Kg/t oz)	1,257	1,269	1,272	1,425	1,890	1,778	1,802
Silver (Kg/t oz)	18	17	16	16	24	25	22
Bauxite (Wmt)	43	47	50	52	55	56	53
Alumina (t)	295	300	310	320	330	340	362
ANTM premium/discount (%)							
Ferronickel	-7%	-19%	-7%	-11%	-18%	-9%	-27%
Nickel Ore	0.28%	0.26%	0.22%	0.23%	0.26%	0.21%	0.19%
Gold	1%	3%	4%	2%	1%	2%	5%
Silver	-100%	-100%	4%	3%	-11%	-7%	1%
Bauxite	-100%	-100%	-26%	-38%	-43%	-58%	-37%
Alumina	#DIV/0!	#DIV/0!	#DIV/0!	72%	47%	36%	70%

Points to note:

- Production volumes do not all digest through to downstream.
- ASPs for each segment re-constructed through actual sales and downstream volume.
- AMPs for each segment retrieved from relevant exchange market data.
- FeNi sold at discount to market owing to class-2 exposure.

Source: Pyramids & Pagodas (analysis)

Segment margin breakdown (1/2)



COGS/GPM trend	2017	2018	2019	2020	2021	2022
<u>Cash costs p/unit</u>						
Ferronickel (USD/lb)	3.52	3.95	3.95	3.36	5.11	6.80
Ferronickel (USD/kg)	7.76	8.71	8.71	7.41	11.27	15.00
Nickel ore (USD/Wmt)		20.37	23.23	19.28	12.92	22.12
Gold (USD/t oz)	900.00	900.00	900.00	980.00	1,111.38	1,200.00

COGS/GPM trend	2017	2018	2019	2020	2021	2022
<u>Nickel (FeNi + ore) segment</u>						
Nickel sales	4,592	7,622	8,577	6,527	10,740	12,023
Nickel COGS + OPEX	(3,522)	(5,284)	(6,476)	(4,302)	(6,413)	(8,053)
COGS	(3,365)	(4,500)	(5,397)	(3,943)	(5,536)	(7,176)
OPEX	(156)	(785)	(1,079)	(360)	(877)	(877)
Nickel op income	1,071	2,338	2,101	2,224	4,327	3,970
EBIT margin (%)	23%	31%	24%	34%	40%	33%

<u>Ferronickel (IDR bn)</u>						
Total cash cost	2,047	2,684	2,928	2,557	4,036	4,891
Gross profit	1,175	2,005	1,944	2,101	2,321	1,963
GPM (%)	36%	43%	40%	45%	37%	29%
<u>Nickel ore</u>						
Total cash cost	1,318	1,816	2,470	1,386	1,501	2,284
Gross profit	52	1,118	1,236	483	2,883	2,885
GPM (%)	4%	38%	33%	26%	66%	56%

- ANTAM does not provide segment gross margins.
- We derive rough GPM estimates through a combination of cash costs, head office expenses and operating income.
- Stable FeNi GPM relative to nickel ore based on our deduction.

Segment margin breakdown (2/2)



COGS/GPM trend	2017	2018	2019	2020	2021	2022
<u>Gold/Precious metals</u>						
Total cash cost	759	797	799	766	917	726
Purchases of precious metals	6,006	15,273	20,863	17,440	23,385	28,238
COGS	6,765	16,070	21,662	18,206	24,302	28,964
Total gross profit	611	636	804	1,152	1,640	2,661
Total GPM (%)	8%	4%	4%	6%	6%	8%
<u>Gold ASP</u>						
Gold ASP	1,304	1,324	1,460	1,899	1,808	1,895
Gold spot (cost)	1,269	1,272	1,425	1,890	1,778	1,802
Disc/prem to spot	3%	4%	2%	1%	2%	5%
Spread (points)	5.55	- 0.25	1.09	5.45	4.65	3.25
<u>Bauxite + Alumina segment</u>						
Bauxite and Alumina sales		478	1,305	1,141	1,435	1,932
Bauxite and Alumina COGS + OPEX		(374)	(1,708)	(1,513)	(2,911)	(1,622)
COGS		(335)	(1,609)	(1,461)	(2,831)	(1,536)
OPEX		(39)	(100)	(52)	(80)	(86)
Bauxite and Alumina op income		104	(403)	(372)	(1,476)	310
EBIT margin (%)		22%	-31%	-33%	-103%	16%
<u>Total gross profit</u>						
Total gross profit		142	(303)	(320)	(1,396)	396
Total GPM (%)		30%	-23%	-28%	-97%	20%

- Stable GPM for gold and precious metals based on our deduction.
- Seemingly more volatile GPM for bauxite and alumina segments based on our deduction.

Share of profit of associates



ANTM Mining Properties in IDR (bn)	2017	2018	2019	2020	2021	2022
<u>Investments in associates</u>						
PT Nusa Halmahera - Minerals ("NHM") - 25%	1,685	1,060	614	656	650	495
PT Meratus Jaya Iron Steel ("MJIS") - 34%	-	-	-	-		
PT Borneo Alumina - Indonesia ("BAI") - 40%	-	79	124	303	499	406
PT Nasional Hijau Lestari ("NHL") - 25%	-	-	-	683		
PT Nikei Halmahera Timur ("NHT") - 50%	28	28	28	28		
PT Antamloka Hailmun Energi ("AHE") - 25%	50	50	50	50		
PT Menara Antam Sejahtera ("MAS") - 25%	2	5	6	6	7	
PT Pelsart Tambang Kencana ("PTK") - 15%	-	-	-	-		
PT Sumbawa Timur Mining ("STM") - 20%	-	-	-	-		
PT Weda Bay Nickel ("WBN") - 10%	-	-	-	105	587	1,727
PT Industri Baterai - Indonesia ("IBI") - 25%	-	-	-	-	28	72
PT Antam Niterra Haltim ("ANH") - 30%	-	-	-	-	-	-
Others	4	2	0	1	0	7
<u>Investment in JV</u>						
ICA - 80%	835	-	-	-	-	-
Total	2,603	1,223	822	1,833	1,770	2,708

Source: Pyramids & Pagodas (*analysis*)

- PT Weda Bay Nickel (WBN) to be a solid contributor of income in subsequent years.
- We expect to an uplift of at least IDR 1 trillion (~USD 68 million) to earnings p/a (based on ANTAM's 10% share) of Weda.

Strong balance sheet



Balance Sheet in IDR (bn)	2017	2018	2019	2020	2021	2022
Inventories	1,388	1,258	1,846	1,796	2,626	2,906
Other current assets	542	727	178	788	718	972
Accounts receivables	834	971	944	1,002	1,344	1,833
Other receivables	156	406	51	428	469	514
Prepaid expenses	86	89	24	14	9	22
ST investments	-	-	-	-	-	964
Cash and cash equivalents	7,623	5,551	4,299	3,636	3,984	5,089
Total current assets	10,630	9,002	7,342	7,665	9,151	11,728
Net PP&E	14,612	15,692	20,893	20,277	19,638	17,712
Goodwill	102	102	102	68	68	68
Other intangible assets	-	-	51	43	47	33
Long term investments	3,217	2,526	1,145	745	1,072	2,708
Other non-current assets	842	2,360	2,521	1,267	1,580	1,261
Deferred charges	18	25	-	-	-	-
Deferred income tax assets	561	307	141	129	173	160
Total non-current assets	19,351	21,012	24,853	22,530	22,579	21,942
Total assets	29,982	30,014	32,195	30,195	31,730	33,637
LT borrowings	6,649	5,298	7,348	5,564	3,388	2,082
Lease liabilities	-	-	-	-	88	63
Pension and other post retirement benefits	366	412	412	605	917	976
Other non-current liabilities	205	262	425	599	744	832
Total non-current liabilities	7,220	5,971	8,185	6,768	5,137	3,954
Account payables	586	806	868	740	673	1,302
Other accruals	278	467	853	608	977	1,337
Current tax liabilities	33	0	8	18	309	101
ST borrowings	2,687	2,716	1,821	1,777	1,441	558
Current portion of LT borrowings	568	1,386	1,122	1,585	3,133	738
Lease liabilities	-	-	-	-	73	83
Other current liabilities	201	177	890	565	949	1,853
Total current liabilities	4,352	5,552	5,562	5,293	7,553	5,972
Total liabilities	11,573	11,524	13,747	12,061	12,690	9,925
Common stock	2,403	2,403	2,403	2,403	2,403	2,403
Additional paid-in capital	3,935	3,935	3,935	3,935	3,935	3,935
Retained earnings	9,661	9,766	8,148	7,913	8,786	13,143
Treasury stock	-	-	-	-	-	-
Other comprehensive income	2,410	2,387	3,962	3,883	3,915	4,228
NCI	0	0	0	0	0	0
Total equity	18,409	18,490	18,448	18,133	19,039	23,712
Total liabilities and owners equity	29,982	30,014	32,195	30,195	31,730	33,637

- Sits on net cash position.
- Reduction in i/y-bearing debts to IDR 2.5trn (USD 175m) in FY22.
- Well capitalized business.
- Strong pipeline, which can be covered by sale of debt/equity investments.

Profitability and short term liquidity



<i>C/F supplementary, IDR bn</i>	2016	2017	2018	2019	2020	2021	2022
Levered Free Cash Flow	(594)	(1,604)	1,105	(1,332)	1,559	3,424	3,237
Unlevered Free Cash Flow	(394)	(1,224)	1,435	(1,019)	1,807	3,603	3,341

<i>Profitability ratios</i>	2016	2017	2018	2019	2020	2021	2022
ROE	0.4%	0.7%	8.9%	1.1%	6.0%	8.9%	16.1%
ROA	0.2%	0.5%	5.1%	0.6%	3.6%	5.7%	11.4%
ROCE	0.0%	2.5%	5.8%	3.8%	8.4%	10.4%	14.2%
ROIC	0.0%	1.1%	7.3%	1.6%	7.9%	8.8%	13.8%

<i>ST liquidity ratios</i>	2016	2017	2018	2019	2020	2021	2022
Inventory turnover days	61	44	27	24	35	33	29
Receivable turnover days	33	26	14	11	16	13	13
Other receivable turnover days	6	8	3	3	6	5	4
Accounts payable days	26	23	15	10	11	12	13
Other payables/accruals days	12	12	12	9	13	11	11
Cash conversion days	69	47	26	24	40	34	29

Source: Pyramids & Pagodas (*analysis*)

- Double-digit ROE, ROA, ROCE and ROIC underpinning a very healthy and profitable business.
- Solid positive FCF generation.
- Expecting to maintain positive trajectory looking ahead.

Growing stainless steel market to boost demand for Class 2 nickel



- Majority of nickel demand arises from stainless steel manufacturing (Class 2 nickel)
- Global stainless-steel market expected to grow from USD 204.17bn in 2022 to USD 298.85bn by 2029 reflecting a 6% CAGR.
- We think cynicism on the stock is because of ANTAM's production on Class 2 nickel which is considered lower-purity. However, this is set to change.

NICKEL USE BY SECTOR

Current situation

Does not require Class One quality

Stainless steel
70%

Require Class One quality

Superalloys
8%

Alloy steel & casting
8%

Plating
8%

Batteries
5%

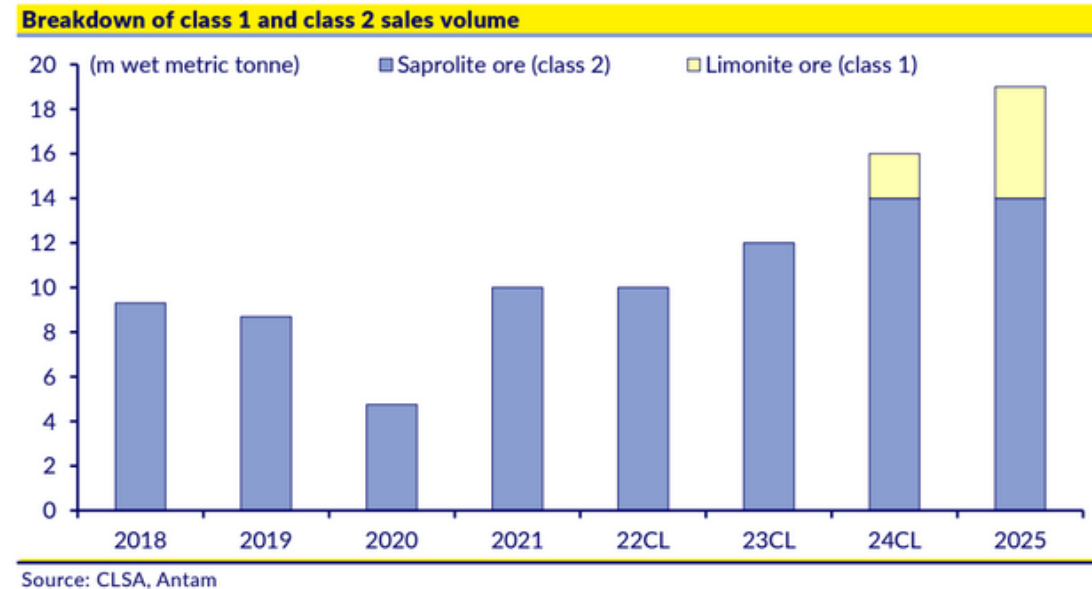
Other
1%

Source: StoneX, Nickel Institute, S&P Global Platts' estimates

Class 1 nickel tailwinds and ANTAM positioning



- Battery cathode production needs Class 1 nickel (>99.8% purity).
- Indonesian ore requires high-pressure acid leaching (HPAL) to produce Class 1 nickel, which is costly, complex, and polluting.
- However, the HPAL process is becoming more economical due to increasing Class 1 pricing.
- Nickel sulphate reserves (HPAL not required) are in short supply and mines have long lead times.
- Russia supplies around 20% of Class 1 nickel – battery and EV manufacturers are looking elsewhere.
- Market not currently pricing in Class 1 output for ANTAM, which will have potentially (material) contribution from late 2024 onwards.

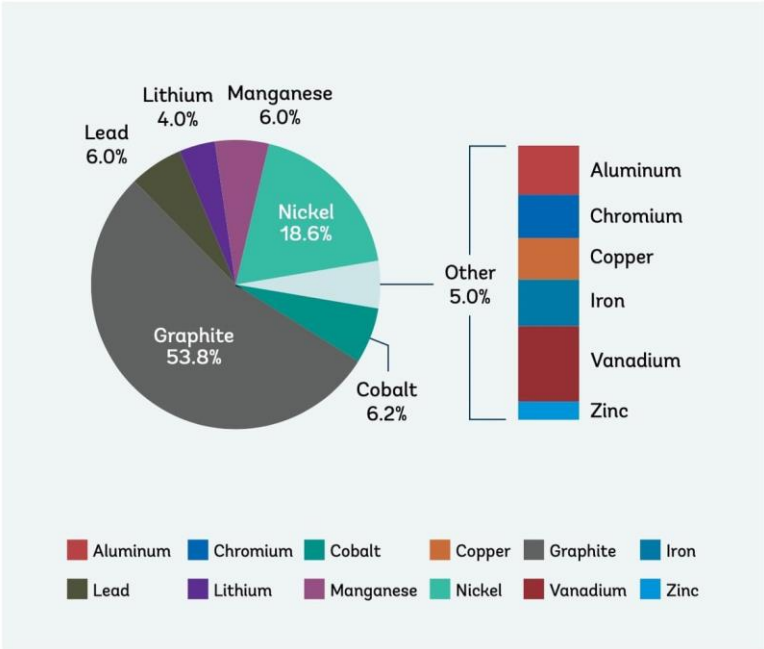




ANTAM and growing battery demand

- Global battery demand increasing at 12.3% CAGR from 2021 to 2030.
- Among EV minerals, nickel is particularly exposed to the thematic, due to its relative importance to other minerals in the battery manufacturing process.

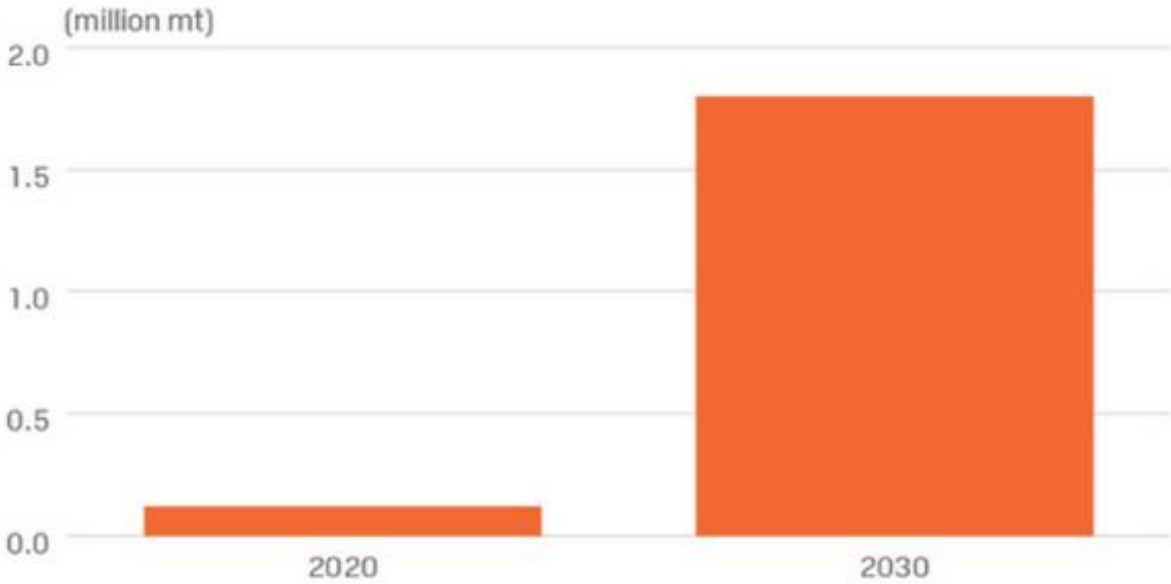
Figure 3.19 Share of Mineral Demand from Energy Storage Under IEA 2DS Through 2050



Note: 2DS = 2-degree scenario, IEA = International Energy Agency.

Source: World Bank

Batteries future estimation

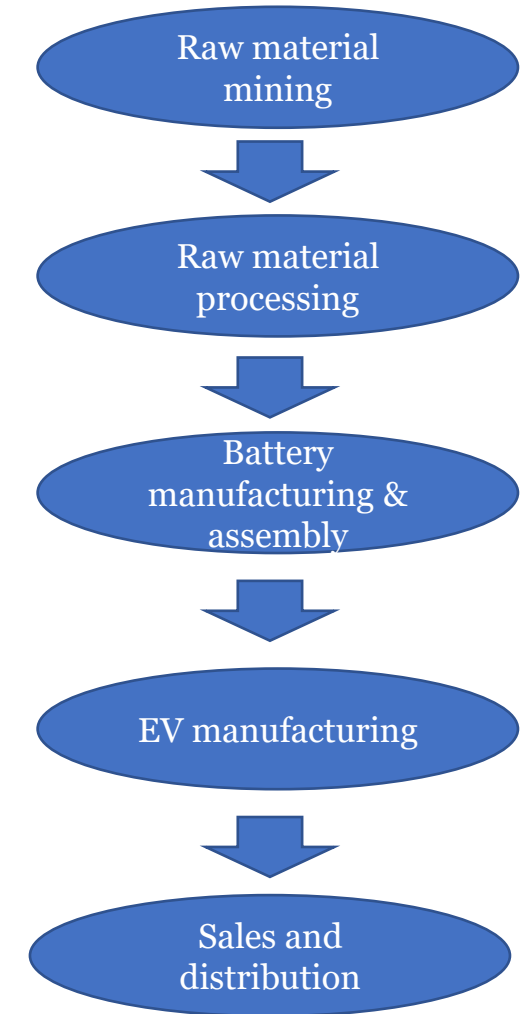


Source: StoneX, Nickel Institute, S&P Global Platts' estimates

ANTAM and Indonesia's EV hub push



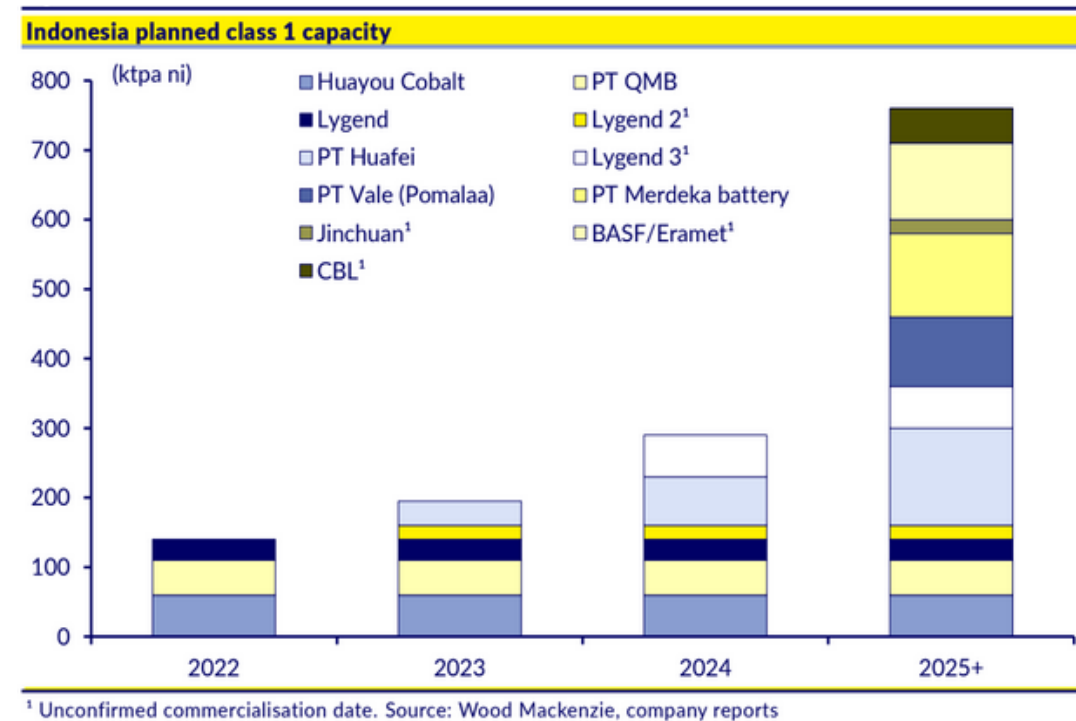
- Indonesia Battery Corporation formed in 2021 to manage battery ecosystem. SOE shareholders (25% each) in different parts of the supply chain:
 - Inalum & **ANTAM** (upstream mining and refining).
 - Pertamina (intermediate - construction and operation of plants).
 - PLN (downstream – battery distribution and recycling).
- Indonesia has received 84.5% of the USD 47 bn foreign investment in ASEAN EV sector between 2018 and 2022.
- Indonesia EV market share to grow from 0.06% to 4.87% in 2030. Across ASEAN this will grow from 0.71% to 7.6%.
- High-profile investments by Huayou Cobalt, Tesla, Foxconn, Hyundai, Toyota, and LG.
- Hyundai and LG broke ground on first electric battery factory (USD 1.1 billion) in Indonesia in mid 2022 – to enter commercial production in H2 2024.





ANTAM – CATL, CNGR, LG JV as catalysts

- CATL (through subsidiary Ningbo Lygend) penned in a “framework agreement” in April 2022 with **ANTAM** and Indonesia Battery Corporation for USD 6 billion investment into the battery supply chain. Mining portion at advanced stage – status of remaining components unclear.
- Government has also ordered CATL-**ANTAM** JV to break ground on HPAL smelter in North Maluku province – 80k tonnes p/a targeted by 2025
- **CNGR-ANTAM** framework agreement formalized in November 2022 for 80k tonnes nickel matte facility.
- **LG-ANTAM** JV – USD 1.5 billion with Huayou as smelting partner. Status unclear, most likely to succeed in smelting component, output for which can be exported.
- As an ore supplier, **ANTAM** benefits from broad range of smelter JVs breaking ground in country – total of 850k tonnes in annual capacity for Indonesia to be added between 2021 and 2025.



Gold prices to outperform



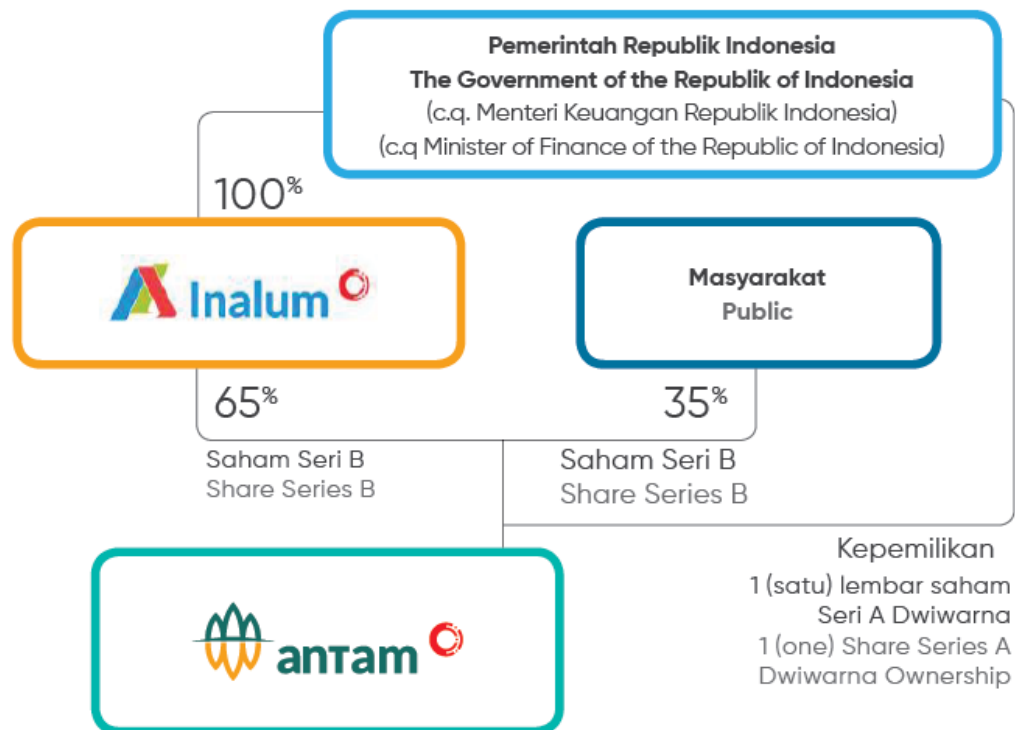
- Central bank demand for gold at 55 year high, particularly among emerging market central banks due to long term de-dollarization.
- “Peak cheap energy” being incompatible with continued debt backed and over-indebted financial systems pushing Central banks to increase their gold reserves.
- Sell-off of US treasuries among these banks fueled by weaponization of USD amid Ukraine conflict and other geopolitical risks.
- General fears over recession also fuel demand for gold in the near to medium term.
- Gold price now at all time highs; as highlighted in our previous 2022 round up article as an outperforming asset class.

<https://www.pyramidsandpagodas.com/p/2022-roundup-and-key-trends-going>

Directors / Shareholding structure



- Former Vale Indonesia CEO Nico Kanter appointed as President Director of **ANTAM** in December 2021.
- None of the company’s directors appear to be political appointees – no major red flags.
- Observable corporate governance risk appears low.



Holder	CSO	% Of CSO	MV (IDR in mm)
PT Indonesia Asahan Aluminium (Persero)	15,619,999,999	65.0	32,256,227.2
The Vanguard Group, Inc.	230,876,488	0.961	476,773.7
Candriam Luxembourg S.A.	227,267,600	0.946	469,321.1
Mandiri Dinamic Money Rp	146,667,200	0.61	302,876.5
PT Phintraco Securities	146,667,200	0.61	302,876.5
Wonow idjojo, Juni Setiaw ati	117,017,100	0.487	241,647.3
PT. Batavia Prosperindo Aset Manajemen	107,006,500	0.445	220,974.8
Manulife Asset Management	102,189,600	0.425	211,027.6
Djs Ketenagakerjaan Program Jaminan Kecelakaan Kerja	99,702,924	0.415	205,892.5
Schroder Investment Management Limited	98,421,800	0.41	203,246.9

Source: Exchange announcements, annual report

Stock overview



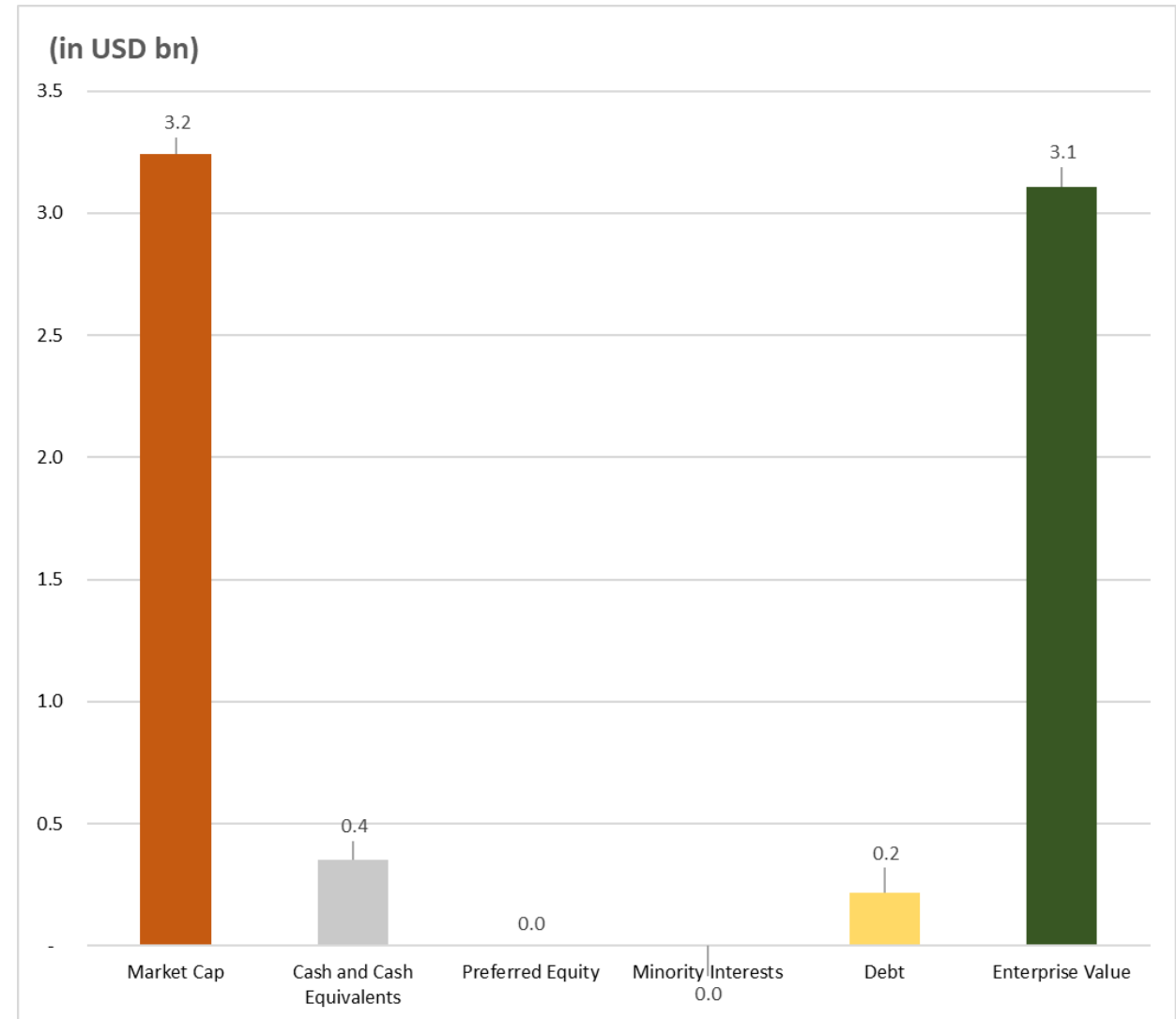
Stock code: ANTM.JK, ANTM IJ / ANTM.AX, ATM AU
Common Shares Outstanding: 24bn/4.8bn
Share price (17 May 23 close): IDR 1,935 / AUD 1.14
Avg 1-yr trading volume: 90.5m / 133
Avg 1-yr trading value (USD): 12.4m / 98
1-yr VWAP: IDR 2,085 / AUD 1.11
2023 ytd VWAP: IDR 2,029 / AUD 1.07

Total Market Capitalization: USD 3.2 bn

- Cash and Cash Equivalents: USD 0.4 bn
- Preferred Equity: -
- Minority Interests: -
- Debt: USD 0.2 bn

Enterprise Value: USD 3.1 bn

IDR = Indonesian Rupiah; IDR/USD = 0.000068



Stock performance



Source: Yahoo Finance

Guidance, street and expectations



P&L, IDR bn	2021	2022	2023e	2024e	2025e
Total Sales	38,446	45,930	47,110	48,993	49,215
COGS	(32,087)	(37,720)	(37,284)	(38,539)	(38,442)
Gross profit	6,359	8,211	9,826	10,454	10,772
Selling exp	(1,078)	(918)	(848)	(784)	(787)
Admin exp	(2,543)	(3,351)	(3,298)	(3,332)	(3,248)
Operating profit (EBIT)	2,738	3,942	5,680	6,338	6,737
Share of profit of associates	453	931	1,095	1,073	1,134
Finance income	90	85	87	91	91
Finance costs	(359)	(381)	(391)	(406)	(408)
Gain/(loss) on FX, net	61	564	-	-	-
Gain on acquisition	-	-	-	-	-
Other gain/loss	61	74	76	79	79
Profit before tax (PBT)	3,044	5,215	6,547	7,175	7,633
Tax expense	(1,182)	(1,394)	(1,637)	(1,794)	(1,908)
Net profit after tax (NPAT)	1,862	3,821	4,910	5,381	5,724
Non-controlling interests (NCI)	0	0	0	0	0
Adj. NPAT	1,862	3,821	4,910	5,381	5,724
EBITDA	4,147	5,707	6,535	7,228	7,630
Adj. EBIT	4,021	4,901	6,775	7,412	7,870
D&A	(956)	(834)	(855)	(889)	(893)
Adj. EBITDA	4,978	5,735	7,630	8,301	8,764

Source: Pyramids & Pagodas

- Our forecasts are top end of a wide range.
 - E.g. Sell-side revenue consensus range: IDR 43-48trn
- Q1 release shows that the business is on track.

P&L, IDR bn	2021	2022	2023e	2024e	2025e
Mining production (volume)					
Ferronickel (TNi)	25,818	24,334	33,951	40,500	40,500
Nickel Ore (Wmt)	11,007,668	8,622,796	11,300,000	12,000,000	12,000,000
Gold (Kg/t oz) - conv (1 kg to 32.1507 oz)	54,334	40,766	37,520	37,520	37,520
Silver (Kg/t oz) - conv (1 kg to 32.1507 oz)	353,723	263,732	242,288	242,288	242,288
Bauxite (Wmt)	1,673,956	1,652,196	2,000,000	2,000,000	2,000,000
Alumina (t)	95,209	151,565	131,000	131,000	131,000
Sales (downstream volume)					
Ferronickel (TNi)	25,992	24,209	33,777	40,292	40,292
% of production	101%	99%	99%	99%	99%
Nickel Ore (Wmt)	7,643,323	6,953,759	9,450,000	10,035,398	10,035,398
% of production	69%	81%	84%	84%	84%
Gold (Kg/t oz) - conv (1 kg to 32.1507 oz)	944,750	1,124,215	1,002,330	1,002,330	1,002,330
Silver (Kg/t oz) - conv (1 kg to 32.1507 oz)	320,575	368,800	315,398	315,398	315,398
Bauxite (Wmt)	1,422,095	1,240,587	1,580,000	1,580,000	1,580,000
Alumina (t)	133,001	143,991	131,000	131,000	131,000

ANTAM 2023e (production) guidance:

Ferronickel - 27,201 target prod and sales vol, 12% yoy; installing 13.5k Tni p/a and expected to come online in H223.

Nickel - 11.3m, 31% yoy. 9.45m target sales vol.

Gold - 1,167kg, 28% yoy. 31,176kg target sales vol.

Silver - 7,536kg, 13% yoy. 9,810kg target sales vol.

Bauxite - 2m, 21% yoy. 1.58m target sales vol.

Alumina - 131k target prod and sales vol, 4% yoy.

Model assumptions and drivers



Profit and Loss Statement in	2020	2021	2022	2023e	2024e	2025e
GPM (%)	16%	17%	18%	21%	21%	22%
OPM (%)	7%	7%	9%	12%	13%	14%
EBITDA Margin (%)	12%	13%	12%	16%	17%	18%
Adj. NP Margin (%)	4%	5%	8%	10%	11%	12%
Adj. NPAT yoy growth (%)	493%	62%	105%	29%	10%	6%
Share of associates (%)	0%	1%	2%	2%	2%	2%
Other g/l (%)	0%	0%	0%	0%	0%	0%
Selling exp (%)	-2%	-3%	-2%	-2%	-2%	-2%
Admin exp (%)	-7%	-7%	-7%	-7%	-7%	-7%
Interest income (%)	-4%	-3%	-2%	-2%	-2%	-2%
Finance income (%)	0%	0%	0%	0%	0%	0%
Finance cost (%)	-2%	-1%	-1%	-1%	-1%	-1%
Tax exp (%)	30%	39%	27%	25%	25%	25%
D&A % of revenue	4%	2%	2%	2%	2%	2%

IDR bn	2020	2021	2022	2023e	2024e	2025e
Average USD/IDR rate (Bank of Indo)	14,542	15,190	14,848	15,000	15,000	15,000
ASP (USD)						
Ferronickel (TNI)	12,243	16,099	19,068	18,188	17,712	18,083
Nickel Ore (Wmt)	39	38	50	47	45	49
Gold (Kg/t oz)	1,899	1,808	1,895	1,931	1,942	1,907
Silver (Kg/t oz)	21	24	22	22	23	23
Bauxite (Wmt)	31	23	34	32	32	32
Alumina (t)	485	461	614	593	593	593
AMP (USD) - LME, LBMA, Fastmarkets, Metal Bulletin						
Ferronickel (TNI)	14,856	17,735	26,044	24,251	22,708	21,275
Nickel Ore (Wmt)	14,856	17,735	26,044	24,251	22,708	21,275
Gold (Kg/t oz)	1,890	1,778	1,802	1,839	1,850	1,816
Silver (Kg/t oz)	24	25	22	23	23	23
Bauxite (Wmt)	55	56	53	53	53	53
Alumina (t)	330	340	362	380	380	380
ANTM premium/discount (%)						
Ferronickel	-18%	-9%	-27%	-25%	-22%	-15%
Nickel Ore	0.26%	0.21%	0.19%	0.19%	0.20%	0.23%
Gold	1%	2%	5%	5%	5%	5%
Silver	-11%	-7%	1%	-2%	-2%	-2%
Bauxite	-43%	-58%	-37%	-40%	-40%	-40%
Alumina	47%	36%	70%	56%	56%	56%

P&P Model drivers

Mining production (upstream) – Based on vol guidance and expected ramp up from new facilities/operations coming online.

Sales (downstream) – Based on past ASP trend and premium/discount to expected market commodities price forecasts.

GP – Digging out cash cost and reverse engineering historical GPM trend to use as a basis of forecasts.

Investment in Associates – Constructing Weda Bay (WBN) P/L

Expenses – Assuming flat/slight improvements in OPEX

*Assuming constant days working capital and continued debt reduction

ANTM Mining Properties in IDR (bn)	2020	2021	2022	2023e	2024e	2025e
WBN Assumptions - 10%						
Ferronickel capacity (Tni)	23,500	39,000	36,600	38,000	38,000	38,000
ASP (USD)	12,243	16,099	19,068	18,188	17,712	18,083
Ferronickel sales	4,184	9,537	10,362	10,367	10,096	10,308
Nickel ore volume (sold)	3,400,000	6,600,000	17,900,000	29,800,000	29,800,000	29,800,000
High grade	3,400,000	6,600,000	14,000,000	14,400,000		
Low grade			3,900,000	15,400,000		
Internal use		3,400,000	3,900,000	3,000,000		
Nickel ore volume (sold)	760,195	4,886,012	20,982,225	25,330,000	25,330,000	25,330,000
ASP (USD)	39	38	50	47	45	49
Nickel ore sales (IDR)	431	2,802	15,597	17,533	17,255	18,592
Revenue	4,615	12,340	25,960	27,900	27,351	28,899
D&A	(358)	(992)	(884)			
Finance income	(9)	3	-			
Finance costs	(298)	(222)	(119)			
EBT	1,458	5,673	12,626	13,569	13,302	14,055
EBT (%)	32%	46%	49%			
Income tax expense	(196)	(843)	(2,440)	(2,623)	(2,571)	(2,717)
Tax rate (%)	13%	15%	19%	19%	19%	19%
NPAT	1,263	4,830	10,185	10,947	10,731	11,339
Other comp inc.	1,263	4,830	10,185			
ANTM share - 10%	126	483	1,019	1,095	1,073	1,134

Valuation methodologies (DCF, NPV)



DCF Valuation (Perpetuity)		
NPV of Forecasts	35,987.8	52.5%
NPV of Terminal Value	32,545.3	47.5%
Enterprise Value	68,533.1	100.0%
Pref & MI	0.0	
Less: Net Debt (as at 17 May 2023)	(1,991.9)	
Equity Value	66,541.1	
No. Shares (bn)	24.0	
Per Share Equity Value	2,769.00	
DCF Valuation (TV method)		
NPV of Forecasts	35,987.8	50.2%
NPV of Terminal Value	35,673.9	49.8%
Enterprise Value	71,661.7	100.0%
Minority interest	0.0	
Less: Net Debt (as at 17 May 2023)	(1,991.9)	
Equity Value	69,669.7	
No. Shares (bn)	24.0	
Per Share Equity Value	2,899.19	

Terminal Value	
Terminal Growth Rate	3%
Terminal WACC	11.0%
Estimated Terminal Free Cash Flow	7,114.9
NPV of Terminal Value (as at 31 Dec 2032)	88,936.3
NPV of Terminal Value (as at 17 May 2023)	32,545.3
TV EV/EBITDA multiple (Avg 5-yr Fwd EV/EBITDA)	9.9 x
Terminal value	97,485.8

Sensitivity Table						Equity Value
Discount Rate	NPV of FCF	Term Val. At 2032	PV of Term Val.	Enterprise Value	Equity Value	Per Share (IDR)
7.0%	43,004	177,873	92,695	135,699	133,707	5,564.00
8.0%	41,067	142,298	67,800	108,867	106,875	4,447.42
9.0%	39,258	118,582	51,700	90,959	88,967	3,702.20
10.0%	37,569	101,641	40,583	78,151	76,159	3,169.24
11.0%	35,988	88,936	32,545	68,533	66,541	2,769.00
12.0%	34,507	79,054	26,535	61,042	59,050	2,457.27
13.0%	33,119	71,149	21,922	55,041	53,049	2,207.53
14.0%	31,816	64,681	18,307	50,123	48,132	2,002.91
15.0%	30,592	59,291	15,427	46,020	44,028	1,832.15
16.0%	29,441	54,730	13,101	42,543	40,551	1,687.45
17.0%	28,358	50,821	11,200	39,558	37,566	1,563.24

Our initial target range* is conservatively between IDR 2,700 (AUD 1.40) – IDR 3,200 (AUD 1.62)

*Excludes significant imbedded option value from ANTAM's pipeline

CNGR-ANTM JV; one of many value-added projects



CNGR, ANTM nickel matte facility in Pomalaa			
Approx. req. project capex (USD mm)	3,500		
Approx. req. project capex (IDR bn)	52,500	Splits:	
Equity portion (USD bn)	1,050	Equity	30%
Debt portion (USD bn)	2,450	Debt	70%
Opex (as % sales)	0%		
Indo tax rate	25%		
Capacity (T)	80,000		
Cash cost (USD p/T)	11,000		
ANTAM final stake?	10%		
Required rate of return	15%		

Nickel matte facility in Pomalaa to have production capacity of 80k tonnes

Project to be financed by mix of equity/debt; ANTM to contribute % portion of equity with rest through a consortium of banks.

A positive NPV project (and strong IRR) that can significantly drive value of the company and stock.

	2022 (Pre)	2023e	2024e	2025e	2026e	2027e	2028e	2029e	2030e	2031e	2032e	2033e	2034e	2035e	2036e	2037e	2038e	2039e	2040e
Nickel price					20,525	21,208	21,208	21,208	21,319	21,429	21,539	21,539	21,539	21,539	21,539	21,539	21,539	21,539	21,539
Discount to LME price					0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Average USD/IDR rate					15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000
In IDR bn																			
Sales					24,630	25,450	25,450	25,450	25,582	25,715	25,847	25,847	25,847	25,847	25,847	25,847	25,847	25,847	25,847
Cash cost					13,200	13,200	13,200	13,200	13,200	13,200	13,200	13,200	13,200	13,200	13,200	13,200	13,200	13,200	13,200
Gross profit					11,430	12,250	12,250	12,250	12,382	12,515	12,647	12,647	12,647	12,647	12,647	12,647	12,647	12,647	12,647
GPM (%)					46%	48%	48%	48%	48%	49%	49%	49%	49%	49%	49%	49%	49%	49%	49%
D&A (on avg 15 yrs in Indo)					(2,625)	(2,625)	(2,625)	(2,625)	(2,625)	(2,625)	(2,625)	(2,625)	(2,625)	(2,625)	(2,625)	(2,625)	(2,625)	(2,625)	(2,625)
Interest expense					(2,853)	(2,594)	(2,312)	(2,005)	(1,670)	(1,305)	(907)	(473)	-	-	-	-	-	-	-
EBT					5,953	7,031	7,313	7,621	8,088	8,585	9,115	9,549	10,022	10,022	10,022	10,022	10,022	10,022	10,022
Tax (25% indo corp tax rate)					(1,488)	(1,758)	(1,828)	(1,905)	(2,022)	(2,146)	(2,279)	(2,387)	(2,505)	(2,505)	(2,505)	(2,505)	(2,505)	(2,505)	(2,505)
NPAT					(15,750)	-	-	4,464	5,273	5,485	5,715	6,066	6,439	6,837	7,162	7,516	7,516	7,516	7,516
ANTAM portion					(1,575)	-	-	446	527	548	572	607	644	684	716	752	752	752	752
Project NPV																			
ANTAM NPV																			
Equity IRR																			

Source: Pyramids & Pagodas

ANTAM trading at a discount to peers



Name	Ticker	Mkt Cap (USD m)	EV (USD m)	Fwd EV/EBITDA (x)	Fwd P/E (x)	Fwd EV/Sales (x)	LTM GPM (%)	LTM EBITDA Margin (%)	Reserves (m wmt/dmt)	Resources (m wmt/dmt)	EV/Reserves (x)	EV/Resources (x)
PT Aneka Tambang ¹	ANTM IJ / ANTM.JK	3,125	2,991	6.8	8.6	1.0	18.1	12.6	462	1,310	6.5	2.3
PT Vale Indonesia ¹	INCO IJ / INCO.JK	4,341	3,625	6.9	15.7	2.9	27.2	36.2	112	NA	32.5	NA
Norilsk Nickel	GMKN RM / GMKN.ME	31,831	37,487	NA	NA	NA	66.1	50.9	1,127	2,953	33.3	12.7
Nickel Industries Limited	NIC AU / NIC.AX	1,740	2,651	4.6	6.0	1.3	29.6	26.7	215	300	12.3	8.8
Nickel Asia Corporation	NIKL PM	1,446	1,347	4.6	8.0	2.5	52.4	52.6	184	295	7.3	4.6
PT Harum Energy ²	HRUM IJ / HRUM.JK	1,146	1,030	2.3	4.1	1.2	59.7	52.1	110	487	9.4	2.1
PT Merdeka Copper Gold ¹	MDKA IJ / MDKA.JK	5,263	7,333	13.4	42.8	4.0	18.9	26.1	186	1,900	39.5	3.9

¹ Nickel only (Re. reserves and resources)

² Nickel and other commodities (Re. reserves and resources)

High		31,831	37,487	13.4	42.8	4.0	66.1	52.6	1,127	2,953	39.5	12.7
Low		1,146	1,030	2.3	4.1	1.0	18.1	12.6	110	295	6.5	2.1
Median		3,125	2,991	5.7	8.3	1.9	29.6	36.2	186	899	12.3	4.2
Average		6,985	8,066	6.4	14.2	2.2	38.9	36.7	342	1,208	20.1	5.7

Source: Pyramids & Pagodas, Capiq (17 May 23), company websites, annual reports

- Relatively cheap on EV/Reserves and Resources basis

Catalysts for ANTAM?



- Strong and growing demand for stainless steel, for which the majority of ANTAM's nickel production is already used.
- Nickel prices stable and increasing.
- Surging demand for EV battery materials from manufacturers in China and ASEAN; a flourishing EV supply chain in Indonesia to complement this.
- Joint ventures with major foreign players to establish higher grade smelters.
- Diversified business (69% of revenues from gold segment, which we are also bullish on).
- Increased / continued dividend stream (30% payout policy set since 1997 IPO)

Potential downside risks



- Poor ESG rating (mid-tier ranking among diversified metals players).
- Much of **ANTAM**'s smelter operations are powered by coal, although JVs with international players may push stricter emissions standards.
 - Reliance on coal – To partially change over the coming years as the Company targets 34% renewable energy generation – push for EV onshoring is accompanied by similar drive to onshore mineral-intensive wind and solar power manufacturing.
- Potential short term falls in commodities prices, i.e. nickel – can be counteracted in recessionary or unstable macro environment through high gold prices.
- Corruption risk – no major or structural issues found, isolated incidents identified.
- Any disruptions or issues to mining and factory operations.
- Any potential civil or contractual lawsuits.
- Any inconsistencies in accounting and financial reporting.