

The Alchemist looks back...*The Alchemist*

Issue 1

24 October 2003

2003 revisited

2003 was a heady year for sports, culture and technology. 50 Cent was In Da Club, The Lord of the Rings was in da cinema and Nemo was in a dentist's fishtank in Sydney. The Tampa Bay Buccaneers won Super Bowl XXXVII, Manchester United won the Premier League before David Beckham joined Real Madrid, Tyrone won their first All-Ireland Senior Football Championship, the Brisbane Lions completed an historic three-peat in the AFL and Australia won the Cricket World Cup in South Africa but lost the Rugby Union World Cup in Australia.

The world of technology and business also saw some significant milestones during the year. The first public version of Skype went live, Nokia introduced the first camera phone in the North American market and Apple forever reshaped the business of music distribution with the launch of the iTunes Music Store.

2003's biggest launch

In our opinion, however, the most consequential launch of 2003 was The Alchemist, which RFC Research (as it was back then) debuted in October. Issue 1 (briefly) analysed the market capitalisations of the largest mining companies and the mining industry, comparing them to the global titans of the time.

20 and a bit years later, we have decided to revisit The Alchemist 1, to see what's changed and if the key themes from 2003 still hold true.

Key Findings of Alchemist 1, 2003

- The market capitalisation of global mining companies in 2003 was relatively small, representing just 1.4% against the value of the global stock markets
- Seven countries represented the primary listing locations of the top 20 mining companies
- The value of the top five mining companies represented only half of Microsoft's market capitalisation

Key Findings of Alchemist 42, 2024

- The market capitalisation of global mining companies is still relatively small, comprising only 3.7% of the combined capitalisation of the global major indices utilised in this report
- Ten countries represent the primary listing locations of the top 20 mining companies in 2024 compared to seven in 2003; South Africa is no longer represented
- The past two decades have seen a significant amount of large cap mining M&A, with seven of the top 20 mining companies from 2003 having disappeared
- A small shift in global money flows into the mining sector could drive significantly increased economic activity within it

Recap of the Alchemist Issue 1

The very first Alchemist report explored the market size of the metals and mining industry with an analysis of their share of global markets and a comparison with key mega-cap companies of the day. The report considered public markets in Australia, Canada, the United States, UK, and South Africa.

The analysis revealed that the total market capitalisation of the global mining industry was only marginally greater than that of the world's largest company at the time, Microsoft. Figure 1 over the page, in all of its multicoloured glory, is the chart from The Alchemist 1 showing the comparison of the global mining industry market capitalisation versus the top three companies of the time – Microsoft, General Electric and Exxon Mobil.

In 2003, the global mining industry accounted for only 3.1% of the US stock markets and a mere 1.4% of global stock markets in terms of total capitalisation – a startling figure for an industry crucially tied to global supply chains. The report explored the idea that even a small relative shift in global money flows, with a reallocation towards mining and metals, could likely have positive repercussions for the market capitalisation of the global mining industry.

Comparison of Global Mining Industry Market Capitalisation with US Major Companies (US\$bn)

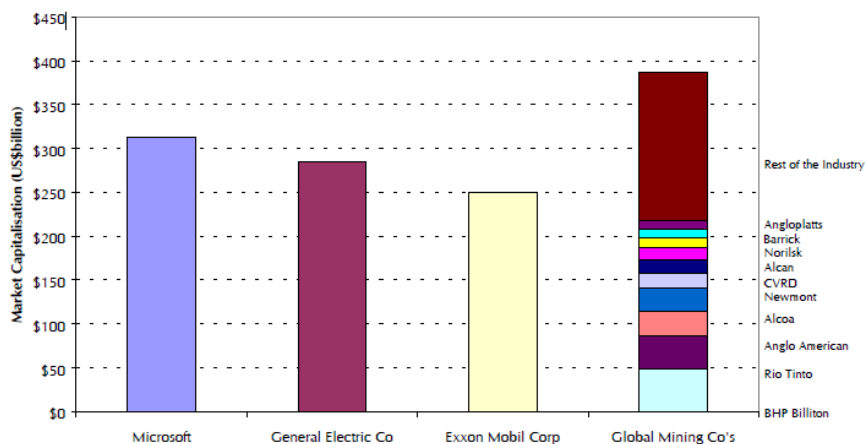


Figure 1. 2003 comparison of global mining industry market capitalisation with US mega-cap companies. Source: The Alchemist Issue 1

Changes in Methodology and Criteria for Deal Inclusion

The methodology of the original article focused on select markets, using the Australian, Canadian, US, UK, and South African markets as benchmarks for comparison. However, due to the shift in the primary listing locations of the largest mining companies, it was considered appropriate to include a broader range of indices for the 2024 analysis. A breakdown of the indices used is shown in Table 1. A total of 4,524 companies were analysed and used as the global market capitalisation to compare the representative share of the global mining industry.

The search criteria for global mining companies extended beyond those listed in the indices shown in Table 1. Reflecting the thematic changes in the global mining industry, the assessment was expanded to include all mining companies globally.

Data for both 2024 datasets was compiled from both S&P and Refinitiv databases. The approach of only assessing public companies and omitting private companies was maintained.

Norilsk Nickel (now Nor Nickel), the 8th largest global mining company in 2003, has been omitted from the 2024 analysis. Despite remaining a listed company, investment restrictions following the Russian invasion of Ukraine, and the LSE's cancellation of Nor Nickel's admission to trading, have significantly distorted its market capitalisation, making it anomalous and unsuitable for analysis in this report.

Winds of Thematic Change

Over the past two decades, changes in the global mining industry, political landscapes, and technological advances have led to significant shifts in global public markets.

While the Alchemist Issue 1 focused on a select number of key markets for metals and mining companies, the growth of developing economies in mineral-rich nations like Indonesia and China has fragmented the base of the largest global mining companies. This development has led to a greater spread of global mining companies' primary listing locations, with the comparison between 2003 and 2024 shown in Figures 2 and 3.

Table 1. Breakdown of benchmark "all-industries" indices used for comparison

Country	Index Name	Index Code	# of companies	Combined market cap. (US\$bn)
Australia	S&P/ASX 200	AXJO	198	1,730
Brazil	Ibovespa	BVSP	83	703
Canada	S&P/TSX Composite	GSPTSE	223	2,619
China	Shanghai Composite	SSEC	2150	7,707
France	CAC 40	FCHI	40	2,869
Indonesia	Jakarta Composite Index	JKSE	881	769
Saudi Arabia	Tadawul All Share Index	TASI	234	2,825
South Africa	FTSE/JSE All Share	JALSH	116	655
UK	FTSE 100	FTSE	94	2,585
US	S&P 500	SPX	503	47,190

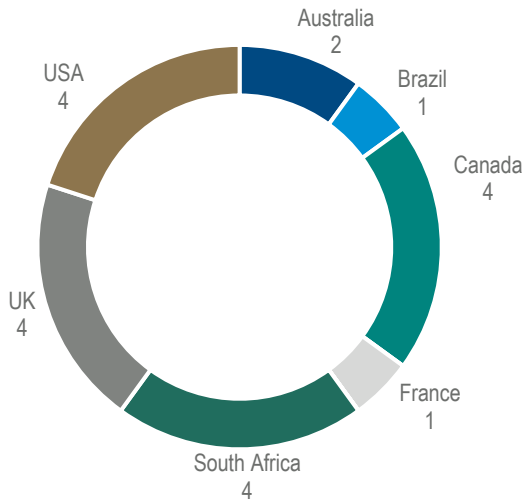


Figure 2 Primary listing location of the top 20 global mining companies by market capitalisation in 2003. Source: Bloomberg

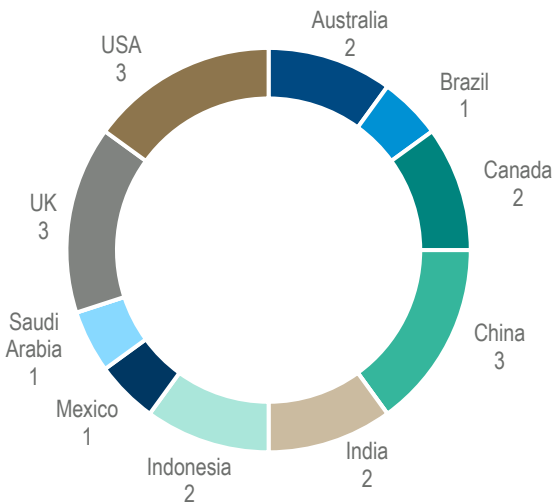


Figure 3. Primary listing location of the top 20 global mining companies by market capitalisation in 2024. Source: S&P Global and Refinitiv

A key point of note is the decline of South Africa as a location for large mining company listings. China's meteoric rise in the natural resources industry has largely supplanted South Africa, with China Shenhua Energy, Zijin Mining Group, and Shaanxi Coal Industry now ranked among the top 20 largest mining companies. Canada's position has also diminished over the last two decades, losing Inco (acquired by Vale in 2006) and Alcan (acquired by Rio Tinto in 2007).

In contrast, Australia has maintained its position. It has two mining companies in the top 20 with BHP retaining its title as the largest global mining company, and Fortescue replacing Alumina Limited (acquired by Alcoa in 2024). The UK has three mining companies maintaining a primary listing; Rio Tinto, Glencore and Anglo American. France is no longer represented on the list as a result of the acquisition of Pechiney by Alcan, a mere two months after The Alchemist 1 was published.

The inclusion of other jurisdictions including India, Saudi Arabia, Mexico, and Indonesia highlights the growing importance of developing economies in the natural resources sector.

Table 3 presents a breakdown of the top 20 mining companies by market capitalisation in 2003 and their corresponding positions in 2024.

Notably, aluminium companies were prominent on the list in 2003. The aluminium commodity bull market, which ran from 2003 to 2008, was broken by an influx of Chinese production capacity and supply in mid-2008. Today, in 2024, solely aluminium focused companies no longer appear on the list. Alcan and Alumina were subject to M&A, while Alcoa's split into two separate entities and poor performance has knocked it out of the top 20. The commodity composition of the top 20 is now led by coal, copper and diversified miners as shown in Figure 5.

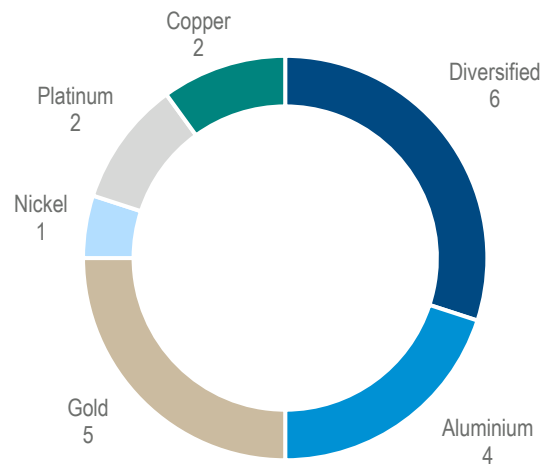


Figure 4. Commodity profile of the top 20 mining companies by market capitalisation in 2003. Source: Bloomberg

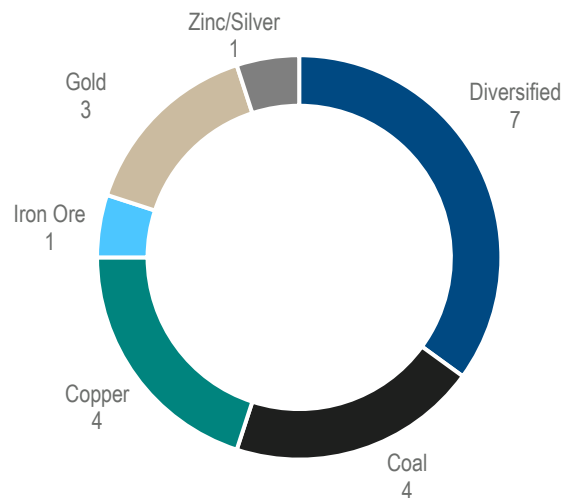


Figure 5. Commodity profile of the top 20 mining companies by market capitalisation in 2024. Source: S&P Global and Refinitiv

Over the past two decades, six (Alcan, Placer Dome, Inco, Pechiney, Phelps Dodge and Alumina) of the top 20 mining companies from 2003 have been acquired, while one, Xstrata, merged with Glencore.

A simple market capitalisation analysis (i.e., not adjusting for inflation) reveals that all but two of the remaining top 20 mining companies have a higher market capitalisation than in 2003. Alcoa's market capitalisation is roughly 30% of its 2003 level (US\$7.5bn vs US\$22.6bn), while Implats' market capitalisation is essentially the same as its 2003 level (US\$5.4bn).

Table 2 shows 2024's top 20 mining companies by market capitalisation, and Table 3 shows the movement in rankings and key developments of the 2003 cohort in the ensuing decades.

In 2024, the rankings of many of the top 20 companies from 2003 have significantly declined. On average, these 20 companies have dropped 46 places in the world mining rankings, reflecting a broad downward shift.

Table 2. 2024's top 20 mining companies ranked by market capitalisation with new entrants to the list (relative to 2003) highlighted. Source: S&P Global and Refinitiv

2024 Ranking	Company	2024 Market Capitalisation (US\$bn)	2024 Ranking	Company	2024 Market Capitalisation (US\$bn)
1	BHP	152.9	11	Grupo México, S.A.B.	49.3
2	Rio Tinto	123.0	12	Newmont	48.4
3	China Shenhua Energy	113.1	13	Ma'aden	47.5
4	SCCO	91.8	14	Anglo American	45.0
5	Glencore	75.9	15	PT Bayan	38.7
6	Freeport-McMoRan	74.0	16	Shaanxi Coal	35.4
7	Zijin Mining	65.9	17	Agnico Eagle Mines	34.1
8	PT Amman	57.1	18	Coal India Limited	36.7
9	Vale S.A.	56.3	19	Hindustan Zinc Limited	36.0
10	Fortescue Ltd	54.5	20	Barrick Gold Corporation	30.3

Table 3. 2003's top 20 mining companies ranked by market capitalisation and their 2024 rankings. Source: Bloomberg, S&P Global and Refinitiv

2003 Ranking	Company	2003 Market Capitalisation (US\$bn)	2024 Market Capitalisation (US\$bn)	2024 Ranking	Notes
1	BHP Billiton	43.2	152.9	1	Now known as BHP Petroleum assets divested to Woodside in 2022 for US\$19.0bn Acquired Oz Mineral in 2022 for US\$7.4bn Acquired WMC Resources in 2005 for US\$7.3bn
2	Rio Tinto	34.0	123.0	2	Acquired Alcan in 2007 for US\$38.1bn
3	Anglo American	26.8	45.0	14	Sold 49.9% of the entity holding the Los Bronces mine and other assets in 2011/12 for ~US\$7.0bn Acquired remaining 40% of De Beers in 2011 for US\$5.1bn
4	Alcoa	22.6	7.5	72	Separated in 2016 into two entities, Alcoa and Arconic with initial market capitalisations of US\$4.2bn and US\$8.3bn respectively Acquired Alumina in 2024 for US\$2.2bn
5	Newmont	15.9	48.4	11	Acquired Newcrest Mining in 2023, valuing it at US\$17.4bn Merged/acquired Goldcorp in 2019, valuing it at US\$10.0bn
6	CVRD	14.6	56.3	8	Now known as Vale S.A. Acquired Inco in 2006, valuing it at US\$19.0bn
7	Alcan	12.3	-	-	Acquired by Rio Tinto in 2007 for US\$38.1bn
8	Norilsk	10.3	-	-	LSE suspended trading of Norilsk Nickel in 2022. Primary listing is now the Moscow Stock exchange
9	Barrick	10.1	30.3	19	Merged/acquired Randgold in 2018, valuing it at US\$6.1bn Acquired Equinox gold in 2011, valuing it at US\$7.0bn Acquired Placer Dome in 2006, valuing it at US\$9.8bn
10	AngloGold	8.4	10.3	49	Acquired Ashanti Goldfields in 2004, valuing it at US\$1.4bn
11	Anglo Platts	7.7	10.4	47	
12	Gold Fields	6.8	14.6	38	Sibanye Gold (now Sibanye Stillwater Ltd) spun out of Gold Fields in 2013 valuing the entity at US\$0.6bn Acquired Yamana in 2022, valuing it at US\$6.7bn
13	Placer	5.4	-	-	Acquired by Barrick Gold Corp in 2006 for US\$9.8bn
14	Implats	5.4	5.4	90	Acquired Royal Bafokeng Platinum in 2021, valuing it at ~US\$2.7bn Acquired North American Palladium in 2019, valuing it at US\$0.7bn
15	Inco	5.0	-	-	Acquired by Vale in 2006 for US\$19bn
16	Xstrata	5.0	-	-	Merged with Glencore in 2012 in a deal valuing Xstrata at US\$39bn
17	Freeport McMoRan	4.7	74.0	5	Acquired Phelps Dodge in 2007 for US\$25.9bn
18	Pechiney	4.5	-	-	Acquired by Alcan in 2003 for US\$3.9bn
19	Phelps Dodge	4.2	-	-	Acquired by Freeport-McMoRan in 2007 for US\$25.9bn
20	Alumina	3.8	-	-	Acquired by Alcoa in 2024 for US\$2.2bn

The Magnificent Seven and The Secret Seven

One of the key thematic changes in global stock markets since 2003, (and in fact a relatively recent trend), is the emergence of the "Magnificent Seven" tech stocks. The term refers to the NASDAQ-listed companies Microsoft, Apple, NVIDIA, Alphabet, Amazon, Meta and Tesla. These seven companies, with a current combined market capitalisation of ~\$14.6tn, dominate major stock market indices, as represented by their 30% weighting by market capitalisation in the S&P 500.

Contrast this with the Secret Seven (BHP, Rio Tinto, China Shenhua, Southern Copper, Freeport-McMoRan, Glencore and Zijin) which have a combined market capitalisation of ~\$700bn, a mere 4.8% of the Magnificent Seven.

Furthermore, the market capitalisation of the entire mining industry as represented by our analysis is less than 20% of that of the Magnificent Seven, as shown in Figure 6.

Mining Large Caps – Inflation Adjusted Performance

It's clear from a review of Tables 2 and 3 that the market caps of the large mining companies have increased, but we were curious to see whether they had increased in line with inflation or if they had kept pace with broader market returns too.

The 2003 market capitalisations of select mining companies were adjusted for US inflation and S&P 500 index returns, and then compared to each company's 2024 market capitalisation. The analysis did not account for company spin outs such as BHP's divestment of

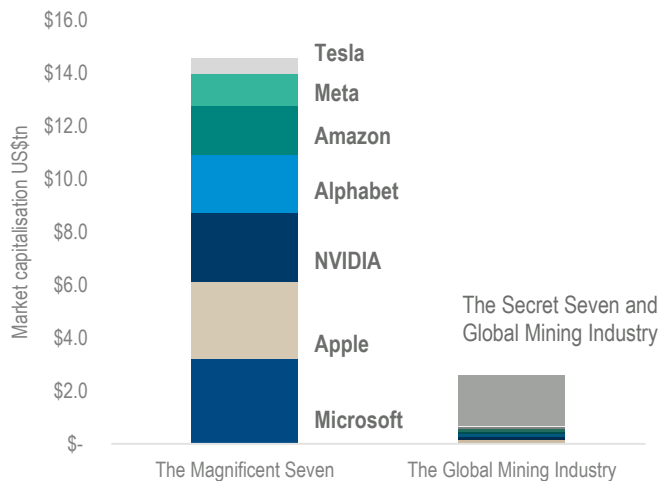


Figure 6. The market caps of the Magnificent Seven vs the Secret Seven and the global mining industry. Source: S&P Global and Refinitiv

South 32. Among the companies analysed, BHP, Rio Tinto, Vale, and Newmont have moved broadly in line with the S&P 500.

However, Anglo American and Anglo Platts' growth in market capitalisations has only kept pace with inflation. This is particularly interesting given BHP's attempts to acquire Anglo American, which involved distributing select parts of Anglo American's business to its shareholders and the issue of new BHP shares.

Based on our high-level analysis, Anglo American shareholders were to potentially receive significantly less as a proportion of BHP than they would have if the transaction had occurred in 2003.

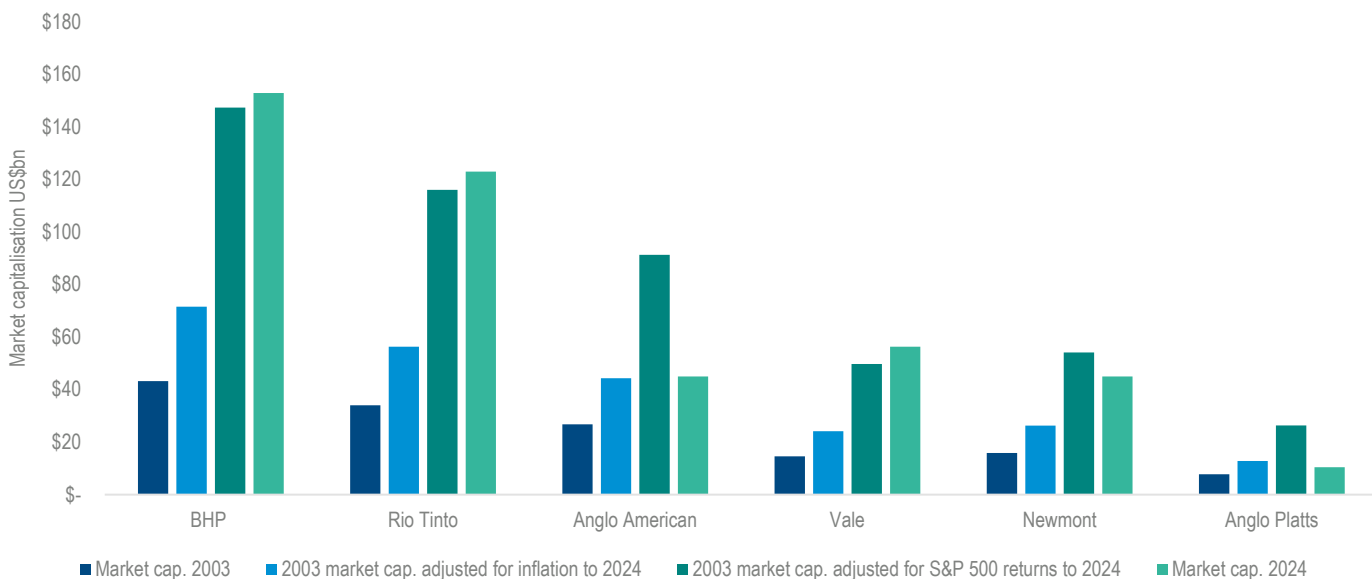


Figure 7. 2003 market capitalisations of select large cap mining companies adjusted in line with US inflation and the S&P 500, against actual 2024 market capitalisations. Source: Bloomberg, S&P Global and Refinitiv

Revisiting the Three Musketeers

The Alchemist 1 assessed the market capitalisation of the mining industry against the “Three Musketeers” – Microsoft, General Electric and Exxon Mobil – at the time the three largest listed companies globally.

The ensuing two decades has seen numerous advances in technology, including more recently AI-led developments, which have dramatically reshaped the makeup of the largest US stock market participants.

The top three listed companies now consists of Microsoft, Apple and NVIDIA, with the order interchangeable on a seemingly daily basis. As shown in Figure 8, all three are either essentially equivalent to or larger in market capitalisation than the entire global mining industry.

Although Exxon Mobil has lost its position as the third largest company, it remains among the top 20 largest global companies by market capitalisation in 2024, with a market capitalisation just larger than the combined top three mining companies.

General Electric, once considered the gold standard in old-school conglomerates, has faced two decades of underperformance, culminating in its 2022 division into GE Aerospace, GE HealthCare, and GE Vernova.

With their combined market capitalisation in 2024 being \$257 billion (\$284 billion in 2003), these three entities together now trail the combined value of BHP and Rio Tinto, which stands at \$263 billion.

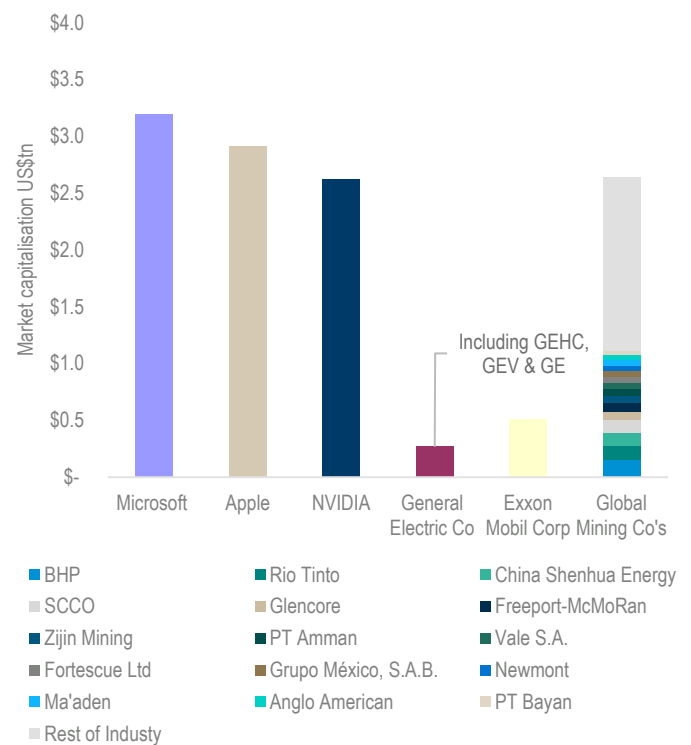


Figure 8. The global mining industry versus 2003's and 2024's three largest global companies by market capitalisation. Source: S&P Global and Refinitiv

The more things change, the more they stay the same...

We decided to revisit The Alchemist Issue 1 to see what's changed since October 2003, and what we've discovered is that while there have been some relatively significant developments in the ensuing years, fundamentally the picture remains quite similar.

The global mining industry's market capitalisation is still miniscule in a relative sense, accounting for just 3.7% of the total market capitalisation as represented by the indices we have used in our analysis. A relatively minor reallocation of global capital into the mining industry could therefore have a substantial positive impact on the industry as a whole.

There has been a major shift in the listing locations of the top 20 mining companies since 2003, as a result of the diversification of the global industry and the growth to prominence of some developing jurisdictions. South Africa's prominence has drastically declined (a corollary of which is the decline in precious metals-dominant companies on the list) and the primary listing locations of the largest mining companies now includes developing economies such as China, Indonesia, India, Saudi Arabia, and Mexico.

One of the more interesting developments since 2003 concerns aluminium. Once a mainstay of the large cap universe, aluminium-dominant listed companies have disappeared from the global top 20 altogether, to be replaced by coal companies – quite a startling result in today's ESG conscious world. As noted prior, the aluminium bull market was broken in mid-2008 by a wave of Chinese supply.

When adjusted for US inflation and S&P 500 index returns, BHP, Rio Tinto, Vale, and Newmont have grown in line with the S&P 500. Conversely, Anglo American and Anglo Platts have shown more limited growth, in line with inflation.

Comparing the total market capitalisations of the Magnificent Seven (Microsoft, Apple, NVIDIA, Alphabet, Meta, and Tesla) with the Secret Seven (BHP, Rio Tinto, China Shenhua, Southern Copper, Freeport-McMoRan, Glencore and Zijin), wherein the latter group accounts for only 4.8% of the total market capitalisation of the former, underscores the dominance of technology companies in today's global stock markets.

The past two decades have brought significant changes to the global mining industry. From shifts in geographical dominance to the impact of technology and M&A activities, the industry has evolved in response to a dynamic global market. As the industry looks forward, these trends will likely continue to shape the future of mining and the manner of capital flows within it.

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