



## Copper is king – Zambia stands to win

Copper-rich, Zambia's future prospects appear promising, but only if investors commit to high-impact Environmental, Social and Governance (ESG) performance. This will entail engaging state institutions with a view to strengthening them and adopting a new model in which investors see themselves as development partners rather than mere 'policy takers'.

# Copper is king – Zambia stands to win

## Executive Summary

The copper price is booming. Experts are divided over whether this boom is structural rather than cyclical. It is our considered view, in light of the current evidence, that copper prices will continue to climb due to medium to long-term supply deficits and the comparative inefficiency of copper's potential substitutes. Very few high-grade copper deposits remain. Once they are exploited, lower-grade jurisdictions such as Zambia will become increasingly attractive. Investment opportunities into Zambia are therefore ripe for bold investors. However, the country presents a challenging operating environment. Only if investors are deeply committed to high impact Environmental, Social and Governance (ESG) performance, will sustained, long-run yields flow. The corollary is that investors should commit to building state institutions that serve the interests of Zambia's citizens, and crowd out irresponsible players.

### What Happens Next?

Investors willing to incur some degree of risk are likely to earn sustained, long-run returns through investing in Zambian copper, but only under certain conditions. Copper prices are likely to continue climbing, making currently unattractive jurisdictions more attractive in the medium to longer term.

### Call to Action:

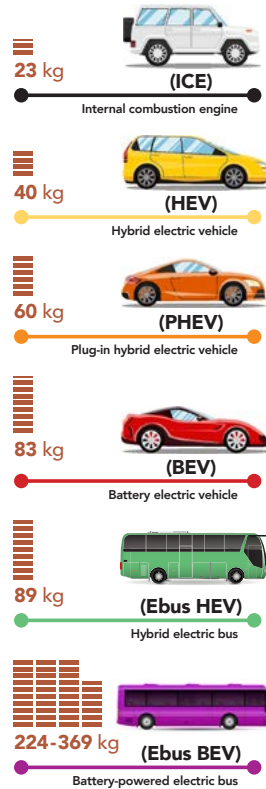
Invest in Zambia in full knowledge of the risks that characterise the operating environment with a view to mitigating those risks by mainstreaming ESG performance into your business strategy<sup>1</sup>.

<sup>1</sup> See International Energy Agency, "Net Zero by 2050: A Roadmap for the Global Energy Sector", available at [https://iea.blob.core.windows.net/assets/20959e2e-7ab8-4f2a-b1c6-4e63387f03a1/NetZeroBy2050-ARoadmapfortheGlobalEnergySector\\_CORR.pdf](https://iea.blob.core.windows.net/assets/20959e2e-7ab8-4f2a-b1c6-4e63387f03a1/NetZeroBy2050-ARoadmapfortheGlobalEnergySector_CORR.pdf), accessed 24 June 2021.

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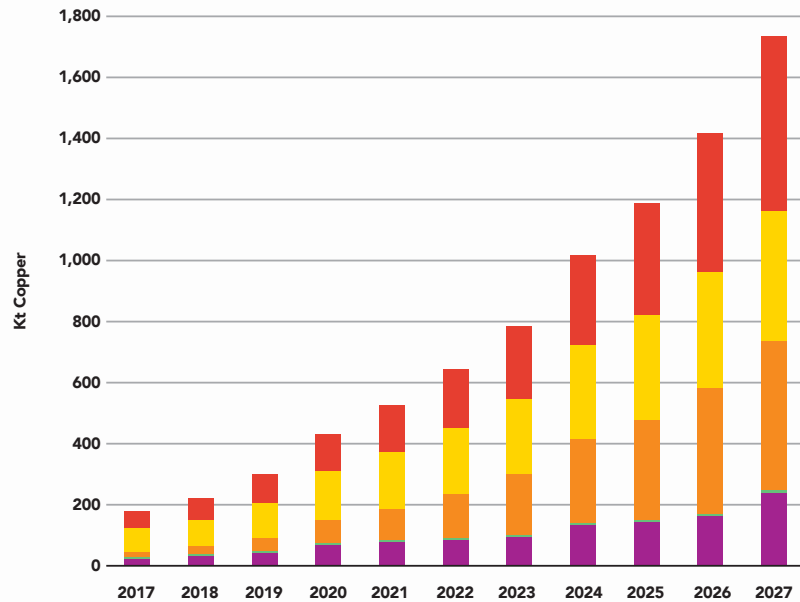
Each type of EV uses considerably more copper than traditional internal combustion engines.

Copper content per vehicle in kilograms (kg):



By 2027, an estimated **27 million** electric vehicles (including HEV, PHEV, BEV, Ebus HEV and BEV) will be on the road, up from 3 million in 2017.

### Electric Vehicle Copper demand (Kilotonnes)



The increased demand for electric cars and buses is predicted to raise copper demand in the manufacture and running of EVs from 185,000 tonnes in 2017 to **>1.74 million tonnes** in 2027.

Sources: International Copper Association, IDTechEx, Freepik.com

### Projections of copper intensity required in electric vehicles

#### Impact

- Global momentum towards carbon-neutral growth is gaining traction, creating growth opportunities in minerals and metals (such as copper) required for the renewable energy and transport revolutions.<sup>1</sup>
- Some companies continue to engage in greenwashing, a risk highlighted in our previous intelligence report, but the exploitation of fossil fuel assets such as coal and oil will increasingly run the risk of becoming stranded.<sup>2</sup>
- Mainstream commentators are increasingly of the view that the copper price will continue to rise, rendering this a critical opportunity to invest in the exploration for, and exploitation of, copper deposits in jurisdictions such as Zambia.

#### Analysis

While Covid-19 still distorts day-to-day life, the hard reality is that our collective destruction of the environment has rendered climate change events increasingly frequent and severe. Additionally, the International Energy Agency (IEA) has warned that carbon emissions are set to rise to an estimated 1.5 billion tonnes as the global economy undergoes recovery from the Covid-19 recession.<sup>3</sup> However, the imperative to achieve carbon-neutral growth to meet the Paris Agreement targets renders no room for complacency.<sup>4</sup> Even Covid lockdowns have not reduced emissions sufficiently, hence the urgency of pursuing carbon neutral growth paths.

Without copper, this zero-carbon vision will remain merely aspirational. Copper is a non-substitutable, highly efficient electricity conductor. Its current irreplaceability plays a critical role in the renewable energy and transport revolutions underway across the globe, as indicated in the graphics below.<sup>5</sup> For now, copper is king.

2 Hook L and A Raval, 'Energy groups must stop new oil and gas projects to reach net zero by 2050, IEA says', Financial Times, 18 May 2021, <https://www.ft.com/content/2bf04fff-5b2f-4d96-a4ea-ff55e029f18e>, accessed 14 June 2021.  
 3 Harvey, F, 'Carbon emission to soar in 2021 by second highest rate in history', The Guardian, 20 April 2021, <https://www.theguardian.com/environment/2021/apr/20/carbon-emissions-to-soar-in-2021-by-second-highest-rate-in-history>, accessed 20 July 2021  
 4 United Nations Climate Change, 'The Paris Agreement', <https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement>, accessed 14 June 2021.  
 5 Hume N and H Sanderson, 'Copper boom: how clean energy is driving a commodities supercycle', Financial Times, 8 June 2021, <https://www.ft.com/content/40907aa6-354e-42f8-8d51-8cc01f0e9687>, accessed 14 June 2021.

King that it is, copper is increasingly costly and difficult to both discover and profitably exploit. While a small number of high-grade copper deposits have either been recently discovered or are already being exploited, the global supply pipeline is limited. Capital expenditure on the copper sector is expected to fall over the next five years even while production levels remain steady. Therefore, beyond 2026, as the supply deficit manifests, prices are likely to climb steeply.<sup>6</sup>

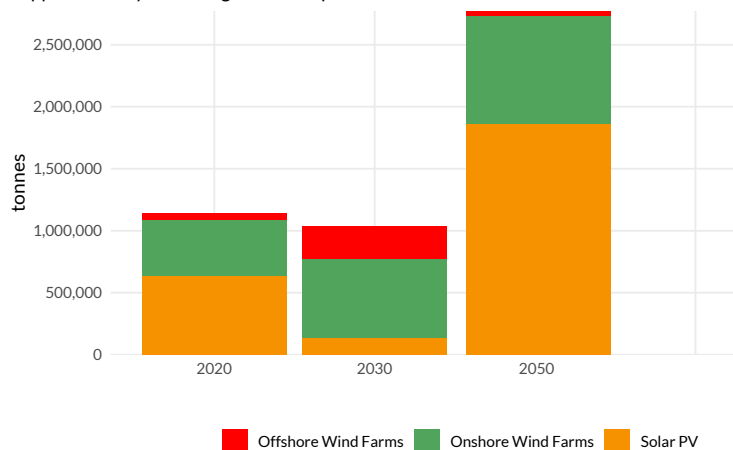
These deposits, even if optimally exploited, will prove insufficient to meet growing demand, especially as exploration investment has been shrinking.

We therefore contend, along with several major global investment banks, that the current copper price boom is structural rather than cyclical.<sup>7</sup> In other words, copper's irreplaceability imbues it with the prospect of high and sustained returns.

The contrarian view is that supply constraints are incentivising investment into more easily available alternatives. Some of these efforts are promising but appear unlikely to rival copper in the next two decades.<sup>8</sup>

### Projections of copper intensity required for renewable energy

By 2050, renewable energy technologies could require more than 3 million tonnes of copper annually - 15% of global mine production in 2020.



Data: Copper Alliance 2021  
Graphic: Monique Bennett



If our hypothesis holds, investment opportunities in copper-rich jurisdictions abound. Zambia is a case in point. Fitch Ratings recently upgraded Zambia's long-term local currency debt rating but kept its foreign-denominated debt rating stable.<sup>9</sup> Zambia's copper grades are poor (running to below 1%) when compared to the rich seams (up to 5%) with which its northern neighbour (the DRC)<sup>10</sup> and other global counterparts are endowed. At the right scale of exploitation, though, they will become increasingly valuable, especially as its higher-grade peers start to wind down production.

## MINING COMPANIES HELD ACCOUNTABLE FOR LEGACY ESG ISSUES

### THE ANGLO AMERICAN CASE

In October 2020, a class action lawsuit was filed against Anglo American (Anglo), a London-listed multinational company, over allegations of lead poisoning at a lead mine in Kabwe that the group once had an interest in.<sup>11</sup> The lawsuit was filed in the Gauteng Division of the South African High Court by Mbuyisa Moleele Attorneys and UK-based law firm Leigh Day. The allegations were made by a medical doctor who worked at Kabwe during the late 1970s, who was concerned about the number of deaths amongst children in the residential township where employees lived. While the child mortality rates in the area were high due to malnutrition, measles and malaria, the death rates were even higher among children living in the mining community.

The lawsuit alleges that generations of children have been poisoned by widespread lead contamination in the soil, dust and water of the area. While Anglo maintains that the mine operator was Zambia Broken Hill Development and therefore it was not responsible for the operation and the lead contamination. Anglo has reportedly requested a second extension before filing its reply because it has been unable to access critical documentation. However, it has stated that it will defend itself against the allegation.

In the case of Zambia, there is limited regulatory requirement geared towards investors to consider ESG factors when making investment decisions. However, the most applicable reporting and disclosure framework relating to ESG is found in the Lusaka Securities Exchange Listing Rules

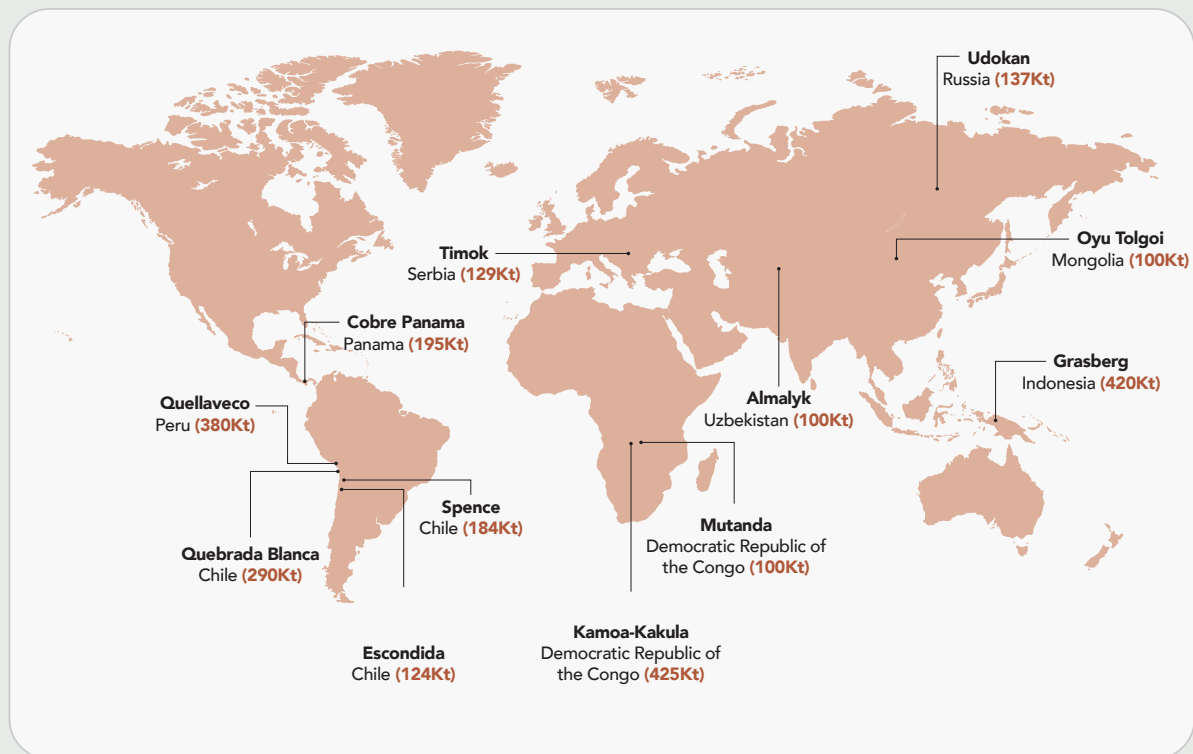
under the compliance obligations. The Listing Rules require listed companies to disclose in their annual reports how they have complied with Corporate Governance Guidelines. These guidelines contain a segment on integrated sustainability reporting. While the guidelines are not legally binding, companies are required to submit annual reports on steps taken to comply with them.

With the heightened shareholder awareness of ESG issues and growing regulatory scrutiny, historical environmental pollution and human rights violations by mining companies has led to increased litigation risks, as seen in the case above. Increasingly, multinational mining companies ought to be knowledgeable and responsible for the conditions in which their international operations are under.

6. Wood Mackenzie, 'Global copper long-term outlook Q1 2021', <https://www.woodmac.com/reports/metals-global-copper-long-term-outlook-q1-2021-477826>, accessed 14 June 2021.  
7. See 'A very different kind of supercycle' by the Editorial Board of the Financial Times, 10 May 2021, <https://www.ft.com/content/81779b56-3823-4205-9ed2-65e967898519>, accessed 14 June 2021. See also Hume N, 'Copper hits 7-year high as Goldman calls bull market', Financial Times, 1 December 2020, <https://www.ft.com/content/36fe5230-e24f-4fbf-8690-fd211f655347>, accessed 14 June 2021.  
8. Bulbulia T, 'Tirupati develops new graphene-aluminium composite', Mining Weekly, 4 May 2021, <https://www.miningweekly.com/article/tirupati-develops-new-graphene-aluminium-composite-2021-05-04>, accessed 14 June 2021.  
9. Fitch Ratings, 'Fitch Upgrades Zambia's LC IDR to 'CCC'; Affirms FC IDR at 'RD', Fitch Ratings, 12 April 2021, <https://www.fitchratings.com/research/sovereigns/fitch-upgrades-zambia-lc-idr-to-ccc-affirms-fc-idr-at-rd-12-04-2021>, accessed 21 June 2021.  
10. Sanderson H, 'Robert Friedland, China and the rush for copper in the DRC', Financial Times, 29 October 2019, <https://www.ft.com/content/2f170b48-eb44-11e9-a240-3b065ef5fc55>, accessed 14 June 2021.  
11. Stoddard, E, 'Lead poisoning lawsuit: Anglo knew of toxic risks at Zambian mine, says medical witness', Business Maverick, 5 July 2021, <https://www.dailymaverick.co.za/article/2021-07-05-lead-poisoning-lawsuit-anglo-knew-of-toxic-risks-at-zambian-mine-says-medical-witness/>, accessed 22 June 2021.



## The 12 top producing copper mines in the world



Low-grade copper ore bodies become economically feasible to exploit through economies of scale. Large ore bodies must first be discovered and then mined efficiently. This requires substantial upfront capital investment, the availability of which is increasingly scarce. Nonetheless, large mines such as Sentinel, owned by First Quantum in Kalumbila (North-Western Province, Zambia), prove the point that low-grade copper deposits can be profitably mined.<sup>12</sup> And the future of copper mining is predominantly going to be in the low-grade category.

Zambia will only derive long-run benefits, however, if it attracts investors committed to authentic ESG performance. The country has had a tumultuous relationship with its substantial copper endowment. It is among the world's primary exhibits of the 'resource curse', in which abundant mineral resources are associated with under-development instead of broad-based, sustainable growth. Mineral rents have occupied a disproportionately large portion of Gross Domestic Product (GDP) and sustained patronage networks at the expense of economic dynamism. However, if strong political institutions can be built and citizens' power to hold the ruling elite to account improved, its investment prospects will improve considerably.

Nonetheless, our view is that investment into Zambian

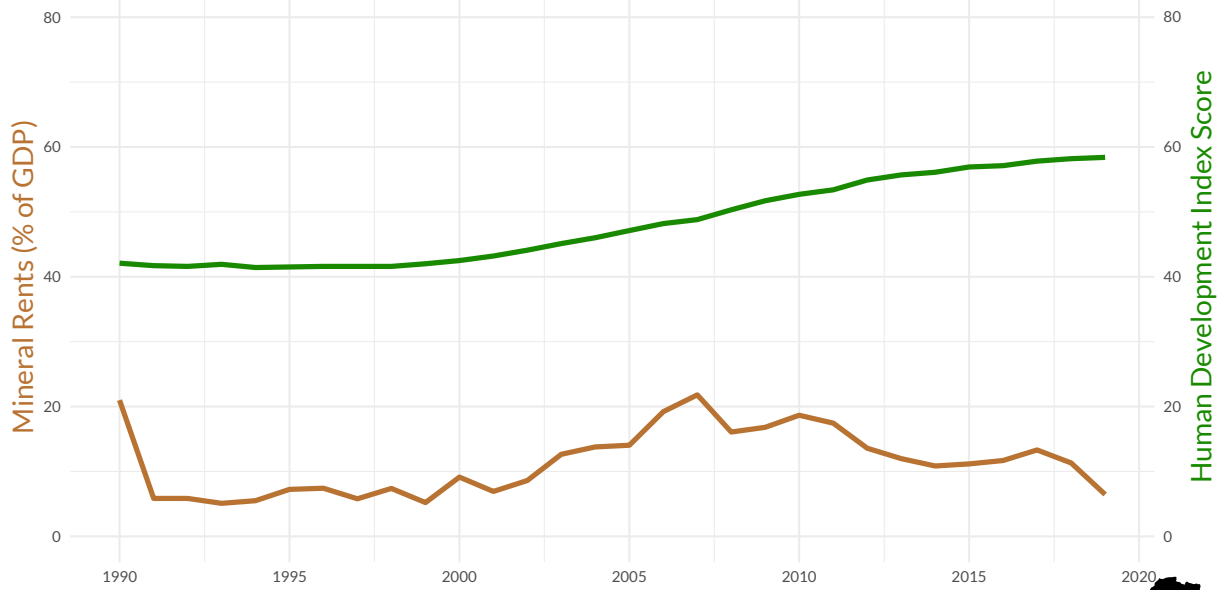
copper extraction will yield high returns over time, but only under the following conditions:

1. Private sector investors (mining companies and their financiers) see themselves as development partners that not only obtain a physical licence to operate, but also contribute to the development of state institutions that limit corruption, exercise fiscal discipline, and encourage investments into industries connected to mining that will live beyond the life of any given set of mines.
2. Investors exercise collective action and engage the government with one voice through well-coordinated business chambers. Major problems arise when investors, to attain higher rents and advantages over their competitors, cut opaque deals that further entrench corruption and increase the long-run operating risk for all players.
3. Investors present mutually beneficial options for more optimal tax arrangements that will ensure a fair share of mining revenue to the Zambian government and prevent the hitherto prevalent problem of a constantly shifting tax regime.

12. Bulbulia T, 'Sentinel deliver higher output despite heavy rains', Mining Weekly, 3 May 2021, <https://www.miningweekly.com/article/sentinel-delivers-higher-output-despite-heavy-rains-2021-05-03>, accessed 14 June 2021.  
 13. Obisie-Orlu V, 'Sustainable investing in Africa must place priority on the social aspect', Business Day, 2 June 2021, <https://www.businesslive.co.za/bd/opinion/2021-06-02-sustainable-investing-in-africa-must-place-priority-on-the-social-aspect/>, accessed 14 June 2021.

## Zambia: Total natural resource rents and Human Development Index scores since 1990

Natural resources rents are estimated as the difference between the price of a commodity and the average cost of producing it. Total natural resources rents are the sum of oil rents, natural gas rents, coal rents, mineral rents, and forest rents.



Source: World Bank, Human Development Index, 22 June 2021.  
Graphic: Monique Bennett



Essentially, investment into Zambian copper is likely to produce broad-based benefit if investors are committed to high-impact ESG investing. We have previously argued for an expansion of the Social and Governance conceptions of the ESG ambit.<sup>13</sup> Investors that put the citizens of the host countries first and commit to becoming real development partners instead of merely returning short-term dividends to shareholders will yield sustained returns through the long run.<sup>14</sup>

### Conclusion

Zambia presents myriad investment opportunities. The immediate attraction is copper, as we are of the view that the copper price boom is likely to be structural and sustained rather than merely cyclical. However, for copper assets to be secured into the future, investors need to be committed to high-impact ESG investing. If copper production takes off, other investment opportunities into upstream and side stream industries are likely to appear, provided the appropriate governance context materialises.<sup>15</sup> Zambia is ripe for investment. Those deeply committed to ESG performance should move first and fast to crowd out irresponsible players.

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<b>Date:</b>	27 July 2021
<b>QR code:</b>	 CM_ED_20200103_360

<sup>14</sup>. Creamer M, 'Mining firms with higher ESG ratings outperform market – PwC', Mining Weekly, <https://www.miningweekly.com/article/mining-firms-with-higher-esg-ratings-outperform-market-pwc-2021-06-08>, accessed 24 June 2021.

<sup>15</sup>. Harvey R, 'Can Zambia's Copper Become a Flywheel for Industrialisation', <https://media.africaportal.org/documents/Occasional-Paper-300-harvey.pdf>, accessed 24 June 2021.

For more bespoke advisory services on ESG-related matters, contact our Good Governance Africa advisory services team.

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