

# TOWARDS FAIRER AND CLEANER TRADE IN ALUMINIUM

## What we know about distortions in international aluminium markets

Concerns about fair competition in international markets are shared by many governments and business sectors and have been growing for some time, in part because of the need to update the rule book for international trade with respect to domestic subsidies and other market-distorting support. International interest increased dramatically with the emergence of state enterprises and state capitalism in the global marketplace. To date, the lack of concrete information on the nature, scale, and impact of government support in specific sectors has hindered international efforts to ensure free, fair, and open markets for consumers, workers, businesses, and traders.

Distortions in international markets for aluminium have been examined in depth by the OECD. In 2019, this analysis illustrated the importance of non-market forces in contributing to increased and more concentrated production capacity in the aluminium sector. Between 1995 and 2020, China surged from being a relatively minor global player to become the world's largest producer, by a wide margin, of alumina, primary aluminium, and semi-fabricated aluminium products. Today, China accounts for 58% of global output. This output growth continued during periods of global price declines, and even as plants closed elsewhere, expansion continued unabated in China.

OECD analysis highlighted that Chinese government support explained much of this growth. Between 2013-17, seventeen of the largest global firms operating along the aluminium value chain received up to USD 70 billion of government support. Fully 85% of this support went to just five Chinese owned firms. In addition, firms operating in China at different stages of the value chain benefitted from a complex array of border restrictions, VAT rebates, and other forms of preferential treatment.

In 2021 the OECD looked in-depth at government support provided via below-market finance for more than 300 firms in 13 industrial sectors. This analysis included 32 aluminium companies with a combined 70% share of the global market. Over the past decade, governments provided considerable support in the form of below market borrowings, the vast majority of which went to Chinese firms. The report estimated the value of support to have ranged between 4% and 7% of the annual revenue of Chinese firms, whereas other firms analysed received support in the vicinity of 0.2% of their annual revenue.

## Why distortions in international aluminium markets matter, for the economy

Such high levels of support displace production from unsubsidized firms unable to compete with the deep pockets of the state, reduce their profitability in the short-term, discourage new private investment, and threaten their long-term viability.

**Jobs are at risk.** Across the US, Europe, Canada, and Japan the industry directly employs almost 500,000 workers and indirectly supports an additional 1,300,000 jobs and over USD 200 billion of economic output. These are well-paid jobs for skilled workers often in high unemployment and rural areas.

In Europe 600 plants operate across 30 countries, supporting 1,000,000 direct and indirect jobs, while in Japan 84 plants and more than 2,400 companies operate along the aluminium value chain with 99,000 jobs. In the US, 660,000 jobs and wages totaling USD 44.7 billion depend on a regionally integrated aluminium value chain; in Canada nine smelters operate with 8,800 workers and supply 55% of US imports of unwrought aluminium.

**New economic opportunities in strategic sectors are at risk.** The aluminium value chain operates in a growing global market, with demand expected to increase up to 80% by 2050. Beyond its traditional manufacturing base, the industry is poised to be a critical source of essential components for lightweight vehicles, renewable energy systems, intelligent buildings, and protective consumer packaging.

***An illustration of future uses of aluminium...***

Electric powered vehicles need to be lightweight, and by 2030 combustion cars are expected to be no more than 5% of the new vehicle market. Already today, aluminium use in vehicles has reduced average vehicle weight by about 15% and the carbon footprint by 20%. All of Tokyo Metro's rolling stock are made from aluminium today.

Aluminium use in aircraft manufacture allows planes to be more fuel-efficient and to carry more weight, safely. The structure of the Airbus A380 is 61% aluminium. NASA's Orion spacecraft structures are made from an aluminium-lithium alloy, as will be Orion's next generation Multi-Purpose Crew Vehicles (MPCVs).

Aluminium is a key material in a wide range of renewable energy systems, including solar thermal collectors and power plants, wind turbines, and photovoltaic systems, and is a component in LEED-certified green buildings.

More than 70% of aluminium cans are recycled, often re-entering the market within a 60-day cycle from production-filling-distribution-consumption-recycling; thanks to the metal's chemical properties, this high-quality recycling loop can be repeated indefinitely. And the industry is targeting a higher recycling share across a wider range of products.

**A reliable supply of critical materials is increasingly at risk.** Aluminium's base ore, bauxite, is on the critical materials list of the US, EU, Japan, and Canada, and their governments are working to ensure access to a reliable future supply of critical minerals that are key to strategic industries such as defense, aerospace, automotive, and communications.

***New risks are emerging at multiple stages of the aluminium value chain...***

The situation in magnesium markets today provides a striking illustration of the supply chain risk associated with reliance on a single or a predominant producer. Magnesium is on the critical materials list of the US, EU, Japan, and Canada; it is also an essential raw material to produce aluminium alloys.

Over the past two decades China's share of global magnesium production increased from about 12% to 87%, with 45% of its exports destined for Europe. China now supplies 95% of the magnesium needs in Europe, the vast majority of which is used by the aluminium industry. When China's output and exports were recently curtailed drastically the price impacts were huge and immediate. The continued uncertainty of supply, at any price, is now threatening the ability of the European aluminium industry to operate at all.

**Why distortions in international aluminium markets matter, for the environment**

The environmental costs of current state support are also considerable. Over the past twenty years, as China's share of global production grew from 8% to 58%, its share of the industry's total CO2 emissions grew as well – from 12% in 2000 to 71% in 2021.

Subsidies along the aluminium value chain primarily encourage extraction, production, processing, and export in high greenhouse gas (GHG) emitting production systems based largely on fossil fuels. This has significant environmental implications; CO2 emitted per metric tonne of aluminium produced is ten times higher for coal-based systems than for hydro-based systems. By displacing output from low GHG emitting systems, these subsidies contribute to a much higher than otherwise carbon footprint across the sector globally.

The generation of electricity alone accounts for about 60% of current aluminium industry GHG emissions, and analysis in 2021 by the International Aluminium Institute (IAI) highlights electricity decarbonization as essential to industry emissions reduction. The IAI emphasizes that this will only be possible with massive new investments to introduce a range of alternative clean energy sources. Yet existing industrial subsidies incentivize exactly the opposite behavior – a continued reliance on fossil fuel-based systems – by those firms in receipt of subsidies. As European Aluminum indicated in its October 7, 2020 “Preliminary Assessment,” the Carbon Border Adjustment Mechanism (CBAM), as currently being considered by the European Commission, has the potential to accelerate this trend rather than abate it. In addition, reduced returns and growth opportunities in unsubsidized production systems discourage new private investment and innovation, including in cleaner energy sources. In the countries that provide very high levels of support, industrial subsidies divert limited resources that could otherwise be available for alternative uses, including public investment in clean energy and climate innovation.

By lowering upstream costs, subsidies also discourage development of energy-saving and waste-reducing recycling systems. This is particularly important as aluminium is 100% recyclable, and recycling requires just 5% of the energy required to produce the primary metal. IAI analysis also notes that maximizing recovery rates for end-of-life materials across all industry segments would yield major emission reductions, second only to electricity decarbonization.

At the same time, many governments are turning towards more ambitious climate policies to reduce global GHG emissions and realize the promise of the Paris Agreement. This is essential; both governments and the private sector need to do much more to limit global warming. But simply layering new climate policies on top of already distorted international markets risks exacerbating trade tensions without improving climate outcomes. Carbon leakage is happening today, at least in part, because of harmful industrial subsidies; removing them must be one element of a comprehensive policy response “...to deliver a Paris-aligned aluminium industry”.

### **Action is needed now**

Our member companies are committed to ensuring a reliable supply of responsibly produced aluminium. But our industry cannot do this alone. We need a global level playing field, free of non-market policies and practices that favor just a few firms at the expense of all others. We need global markets to be fair and open to competition. We need the freedom to build supply chains that are robust and resilient, in an environment where public policies are transparent, predictable, and non-discriminatory. These conditions are essential to incentivize the enormous private investments that are required to decarbonize our sector, sustain our environment, strengthen the resilience of our industrial ecosystems, and continue to provide good jobs.

But we are not just asking governments to act, we are offering to help, to contribute to creating the modern trade rules that will benefit our sector - and all industrial sectors. This is not an offer founded in altruism, it is based on necessity; if the aluminium industry is to survive, it must grow, it must invest, and it must decarbonize. Doing so is not possible in the face of state capitalism on the scale we are witnessing across the global aluminium value chain.

The aluminium industry supports updated WTO rules to discipline harmful industrial subsidies and the non-market practices of state enterprises as the most effective and the only long-lasting solution. We recognize, however, that a comprehensive multilateral agreement would be a long-term undertaking. Governments across the US, Europe, Canada, and Japan also recognize this reality and have responded with increased use of trade remedy actions and with various bilateral, trilateral, and plurilateral initiatives. These efforts are welcome, they are necessary, but thus far they are also insufficient.

The recent renewal of the *Trilateral Partnership* (US, EU, Japan) “...to address the global challenges posed by non-market policies and practices of third countries that undermine and negatively affect our workers and businesses” is an important step forward. The aluminium industry is already working together to ensure that we have the best available information on the sources and the impacts of international market distortions. And we are prepared to share our insights to support this trilateral cooperation.

We also support the recently announced US and EU *Global Arrangement on Sustainable Steel and Aluminium*, reflecting a joint commitment to address global market distortions that impact steel and aluminium output and climate change. We are prepared to put forward the specific situation of the aluminium industry in a context of excessive state support that distorts production and trade flows and increases global GHG emissions. We note that, “The global arrangement will be open to any interested country that shares our commitment to achieving the goals of restoring market-orientation and reducing trade in carbon intensive steel and aluminium products” and we urge like-minded governments to take up this invitation.

The US and EU *Trade and Technology Council* has stated its intention “...to seek to update the WTO rulebook with more effective disciplines on industrial subsidies, unfair behaviour of state-owned enterprises, and other trade and market distorting practices” and “...to ensure that trade and technology serve our societies and economies, while upholding our common values”. The *Global Trade Challenges Working Group* is expected to play a key role in identifying the prevalence and impact of non-market practices and the options to mitigate negative impacts. Here again we are prepared to contribute our knowledge of the evolving situation across the aluminium value chain in the regions we represent.

These various initiatives confirm clearly that our governments understand the imperative to address the sources of international market distortions. They also demonstrate a desire to do so based on the best available evidence – which policies are in place, where, who benefits, who pays, and with what impact on consumers, workers, businesses, and traders – and to work on a cooperative basis. This of course is the best way forward; evidence-based policy making is as essential internationally as it is nationally and regionally. Policy transparency matters.

Governments should also act, though, when they have the requisite information. Given the considerable data available on government support across the aluminium value chain, thanks in very large part to earlier work by the OECD and supplemented by the industry itself, our sector is ready to move forward with policymakers. As an industry with very specific challenges and value chain design we are poised to act as a ‘pilot case’ to explore concrete actions to systematically identify and to effectively discipline the most egregious forms of non-market policies and practices confronting our industry.

If we act, together, we can ensure a reliable supply of responsibly produced aluminium in-line with future demand.

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