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How is coal faring in the "War on Coal"?

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It is unclear who coined the phrase "War on Coal." It has become a rallying cry for the defenders of coal usage, who use the term to denote their being unfairly under attack, singled out among all the other generation fuels, despite the economic benefits of coal-fired power generation. Opponents of coal sometimes also use the phrase, evoking their desperation to reduce coal consumption, primarily to fight against global warming. And the term War on Coal has achieved broad usage in the press. However, it is a polarizing term that allows no middle ground between being for coal or against it, and it implies that the preservation or reduction of coal consumption is an end unto itself. The reality is that coal lies within a competitive energy landscape globally. Pollution regulations form part of that energy landscape, and where there are active efforts to reduce coal burn, minimization of pollution is typically the driver. But countries globally weigh the cost of pollution reduction against the benefits of cheap coal-fired power. So, rather than asking how coal is faring in the War on Coal, better to simply examine the direction we see coal going across the globe.

In North America coal is in decline. Rising mining and generation costs, often with regulatory causes, have weakened the competitive position of coal over the past decade. At the same time, the United States has seen the cost of natural gas tumble. This has caused some loss of coal's market share in the US generating fleet. However, the loss of market share since the 2008 coal generation peak is actually small, since most existing coal-fired generation is more economic than natural gas–fired generation. So why is coal in decline in the longer term then? That's due to the more important comparison: the cost of building and running a new plant. Natural gas easily wins that comparison. Layer in new carbon regulations that will make coal even less competitive from 2020, and the result is ongoing retirements, with few if any new coal units. Coal export growth will not offset these losses—we see exports growing only slightly in the coming decades. So in the United States and Canada coal is losing ground. But it's not accurate to attribute that decline to the regulatory environment alone, since much of the downturn is due to low-cost gas. Indeed, low-cost gas allows the United States and Canada to reduce coal-fired generation without increasing power prices and hindering industrial competitiveness. This level of price competition is unique to North America and depends on natural gas prices remaining moderate in the long term.

Europe's situation is similar to that of the United States—ongoing decline—except that there the decline is entirely due to regulatory efforts that have an impact on coal consumption. Although coal is one of the cheapest fuels for power generation, its consumption is expected to decline owing to regulatory-driven costs—primarily associated with carbon. Europeans have made the decision to pay for a more environmentally friendly generation mix. And it's a costly payment: higher power prices have an impact on European industrial competitiveness, which affects jobs, and which affects standard of living. Will Europeans tolerate the high cost of their generation portfolio forever, or will their position change? Australia—a major coal-producing country—is an example of a country that has recently reversed its position on carbon, with costs being a key driver behind the recent overturn of carbon regulations.

In Asia, coal continues to dominate both existing generation and new plants. The economic growth of China and India over the past decades has been primarily fueled by coal-fired power. But China has started to make substantial moves toward a more environmentally friendly generation portfolio. Coal units are now only around 50% of new power

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plants. Coal plants near the biggest cities are being closed in efforts to reduce particulate pollution. China has the wealth to actively change its generation mix, but even so, its coal fleet remains massive and growing, and is fueled by vast Chinese coal reserves. Indian coal demand will continue to grow quickly, with increasing reliance on imported coal. In Japan, nuclear uncertainty aids coal burn, and South Korea, Indonesia, Vietnam, Pakistan, and Malaysia have growing fleets of coal-fired power plants. For many smaller countries, coal remains the only option for affordable power, and reducing or avoiding coal use for environmental reasons is an unaffordable luxury. Ironically, in what is known as the "pollution paradox," growing an economy to the level where it can afford to deal with such things as coal-derived pollution typically requires that that economy grow via coal-fired generation.

What can change? If clean coal or carbon offset technologies were to become commercially viable— likely far out in the future, if at all— they would help coal usage in the longer term. However, in North America gas would likely still outcompete even clean coal-fired generation on a total cost basis. And technological advancements in energy efficiency, distributed generation, and cheaper renewables stand to reduce coal use in the longer term.

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