The global coal industry continues to expand with new coal-fired power plants planned or being built throughout the developing world, especially in Asia where coal remains the preferred low-cost fuel option for power generation. Building up coal mining operations, constructing new coal-fired power plants and developing infrastructure requires billions of dollars in initial investments. Where countries do not have the financial wherewithal to provide energy access to their populations, global private banks and/or international financial institutions come to the rescue. Nowadays, this occurs despite persistent calls by the international community, for example, by the OECD on its member states to implement and adhere to socially responsible "green" investment standards, which would effectively strip companies of export credits for coal-related infrastructure and technology investments overseas. While the current US administration is a staunch supporter of such measures in the name of climate protection, Japan and its companies continue to enjoy billions of dollars in annual revenues from superior

coal technology exported to developing countries. Climate advocates point to coal's significant contribution

to the accumulation of harmful carbon dioxide emissions in the atmosphere and other adverse impacts.

However, a persuasive argument can be made that exports of the developed world's coal technologyactually help lower global CO2 emissions because such technology tends to be much more efficient and in environmental terms 'less harmful' than indigenous plants constructed using older, less efficient designs. Air pollution in India is deemed worse than in China. "Of the world's top 20 polluted cities, 13 are in India compared to just three in China," the Hindustan Times reports.

Thus, both juxtaposed arguments are valid and it simply depends on whether you live in the developed or developing world. Telling developing countries to completely stop burning coal because a majority of developed world governments decided to demonize all fossil fuels – coal in particular – while living off the progress and prosperity accumulated with the help of those same fossil fuels will only trigger one peculiar reaction.

As reported by Bloomberg, Donald Kaberuka, president of the African Development Bank, defended his decision to continue financing power plants that use coal: The German Heinrich Böll Foundation – The Green Political Foundation – and Friends of the Earth Germany (BUND) just published the so-called "Coal Atlas 2015" with informative domestic and international statistics and facts around the 'world of coal'. Obviously, coming from Germany where after the scheduled nuclear power phase-out by 2022, a coal phase-out is also under discussion, the report may be regarded as a not-so-subtle attempt at helping policymakers craft a convincing case for pushing coal out of the energy mix. Note, it will be interesting to learn what a 'coal phase-out' actually means in terms of impact on domestic German lignite mining operations and the shutdown of coal-fired power plants. If all domestic mining operations are discontinued but some modern and critical coal-fired power plants are kept online as capacity reserve, coal imports will necessarily have to satisfy any ensuing demand. So far, the report has been only released in German but a translation into English is in the works.

Interestingly, the following graphic entitled 'Lots of Credit Financing with Little Future' shows that the biggest underwriters of the global coal industry are the biggest global private financial institutions. Moreover, the graphic shows what a critical role private international banks play in financing high-risk (in a carbon constrained world) as well as high-cost coal mining, transportation or power plant construction projects around the globe.

Importantly, the report notes that financing coal-related projects is considered to be a safe business endeavor for banks as long as political support is there. The above figures and the banks' involvement clearly bear this out: 'Pecunia non olet ('Money does not stink'!)! However, times are changing and, above all, reputational risk has risen tremendously for banks being publicly perceived as almost aiding and abetting the 'destruction of the planet' in an age of climate change.

At least since 2010, the political climate has been in flux – to say the least – and the number of new coal-related projects having been financed by the big banking conglomerates has rapidly decreased and occurs in the shadows. Nevertheless, to proclaim that coal is 'dead' is far from reality. What is true is that it absolutely makes sense to integrate more renewable energy sources into the global energy mix. This is sound policy if inefficient and old capacity is replaced – especially where technology upgrades to older facilities make no financial sense. Consider the continued importance of coal even in the US as depicted in the following chart. Note, the current trend in Europe and the US is that more coal-fired power plants are cancelled and/or decommissioned than built.

This is not an act of altruism but instead is driven by the desire to make a country's companies – technology leaders in the respective space – internationally more competitive, generate revenue and shareholder value. Unsurprisingly, first movers and innovators in the renewable energy space in the developed world – i.e. US, Germany, or Scandinavian countries – intend to follow the same strategy by pushing a global

The most rational explanation why US investment banks are moving visibly towards more investments into renewable energy sources, is simply that they are 'seeking alpha'. They see better growth prospects in that space from a currently still disproportionately low base while facing minimal headwinds from public opinion. As illustrated above, coal-related projects globally will still find the necessary financing. However, only select projects will forge ahead preferably obscured from the public. Indeed, it may not be common knowledge that big US investment banks backed coal-related projects in no small measure between 2005 and 2014.

Renewables do not produce 'smelly' and harmful side products (emissions) like fossil fuels and with the political intervention on behalf of renewables – i.e. via subsidies, feed-in tariffs and other incentives to spur growth – for many countries around the globe the risk for private financial institutions to get involved seems significantly lower. Moreover, the upfront cost and amortization periods tend to be significantly lower vis-à-vis an LNG import terminal or a modern coal-fired power plant. The latter

may face additional political risk in an age of climate change and the world may get some clarity regarding the extent of that risk after the global climate negotiations in Paris this December.

The irony here – and this may actually become a huge impediment to a successful global transition to a low-carbon economy – is that given the aforementioned circumstances, renewables may find more private as well as generous public financing for projects in the developed world. Meanwhile, the developing world may continue finding major renwable energy projects too expensive and not adequate fixes for their energy access issues, while coal-related or other fossil fuel projects continue to be seen as economically viable ways to reliably electrify large swaths of their low-income populations with less financial risk for private investors. This would constitute an unpleasant dichotomy and would not bode well for the global climate. Therefore, policymakers around the globe will have to come up with proper solutions to spur more private-bank financing of large-scale renewable energy projects in developing countries to ideally replace inefficient and highly polluting old fossil fuel power plants (in China and India) with clean energy sources or build up totally new capacity in other places in the developing world in order to really make a dent on the climate front. Remember, coal-related financing and investments in the developing world are alive and well and will continue into the foreseeable future.