

The Coming Carbon Asset Bubble

Fossil-fuel investments are destined to lose their economic value. Investors need to adjust now.

By Al Gore
 And David Blood

After the credit crisis and Great Recession, it seemed ridiculous to have thought that investing in subprime mortgages was a good idea. As with most market “bubbles,” the risk of giving 7.5 million mortgages to people who couldn’t possibly pay them off was somehow invisible to many investors at the time.

One reason such bubbles form is the tendency by many investors to confuse “risk” with “uncertainty.” As the economist Frank Knight established, there is a subtle but crucial distinction between the two: Uncertainty is what good investors usually fear the most, because it cannot be measured or priced as risk can be. But when investors mislabel risk as uncertainty, they become vulnerable to the assumption that since it cannot be measured, they might as well ignore it.

That is exactly what is happening with the subprime carbon asset bubble: It is still growing because most market participants are mistakenly treating carbon risk as an uncertainty, and are thus failing to incorporate it in investment analyses. By overlooking a known material-risk factor, investors are exposing their portfolios to an externality that should be integrated into the capital allocation process.

Here is the relevance of carbon to investing: There is consensus within the scientific community that increasing the global temperature by more than 2°C will likely cause devastating and irreversible damage to the planet. Reliable measurements make it clear that we will easily cross this threshold in the near term at our current rate of CO2 emissions. So in an effort to avoid it, the International Energy Agency has calculated a global “Carbon Budget” that accommo-

dates the burning of merely one-third of existing fossil fuel reserves by 2050. Put differently, at least two-thirds of fossil fuel reserves will not be monetized if we are to stay below 2°C of warming—creating “stranded carbon assets.”

A stranded asset is one that loses economic value well ahead of its anticipated useful life. Stranded carbon assets include fossil fuels, as well as those assets which, given their dependence on fossil fuels, are also CO2-emissions intensive. Not all carbon-intensive assets are created equal, and it is reasonable to assume that in carbon-constrained scenarios the projects with the highest break-even costs and emissions profile (e.g., tar sands and coal) will be stranded first.

Many investors cite what we believe is a misinformed view that carbon assets will not be vulnerable to stranding until a meaningful carbon price is enforced by a global accord. While a global price on carbon certainly would be important, we believe that investors are mistaken to assume that is the only path to stranding carbon assets. We believe that any such strategy is unwise and increasingly reckless—because of three broad risks:

First is regulation that could strand assets in several ways: direct regulation on carbon led by authorities at the local, national, regional, or global level; indirect regulation through increased pollution controls, constraints on water usage, or policies targeting health concerns; and mandates on renewable energy adoption and efficiency standards. Even the threat of impending regulation

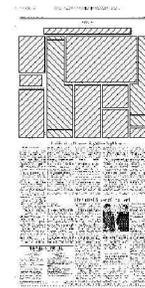
creates uncertainty for long-lived carbon-intensive assets.

Second, stranding may occur as a result of market forces. Renewable technologies are already economically competitive with fossil fuels in a number of countries without subsidies. This cost competitiveness, combined with the ability to secure stable long-term prices for power, and an increase in distributed electricity models, could continue to shift capital allocation way from fossil fuels.

Third, sociopolitical pressures (e.g., fossil-fuel divestment campaigns, environmental advocacy, grass-roots protests and changing public opinion) could create an environment in which carbon-intensive businesses could lose their “license to operate,” thereby stranding assets.

Delaying action to mitigate climate change will not delay climate change itself. As such, investors can strand fossil-fuel energy assets today, or absorb the cost of inaction by causing a much larger stranding across industries and asset classes in the future. The case to incorporate carbon risk into both equity and debt valuations now is one of short- and long-term prudent risk management. There are four principal ways investors can do this:

First, identify carbon asset risks across portfolios. At a minimum, investors should determine the extent to which carbon risk is embedded in current and future investments. This can be achieved by, for example, considering the key drivers of a company’s current and future asset base in the context of carbon risks and developing tools that quantify risks for valuations. Note that passive, index tracking funds should also identify their exposure to carbon risks since they too are vulnerable to stranding as fossil fuel-dependent assets make up roughly 10%-30% of most major exchanges.



Second, engage corporate boards and executives on plans to mitigate and disclose carbon risks. Investors should ask questions like: Do companies have a shadow price on carbon (if not, why not?) and how does it impact their cash position? What is the amount of carbon they plan to burn and how does it relate to their long-term strategic plan? Investors should pressure executive teams to divert cash flow away from capital expenditures on developing fossil fuels and toward more productive uses in the context of a transition to a low carbon economy.

Third, diversify investments into opportunities positioned to succeed in a low-carbon economy. Investors should tilt portfolios away from assets with embedded carbon risks and toward assets with low or no carbon emissions. Investors have the opportunity to capitalize on emerging solutions such as: energy generation (e.g., solar, wind, geothermal); buildings (e.g., insulating materials, lighting, metering); and transport (e.g., engines, electric vehicles, fleet logistics). This hedging strategy will buffer the impact an extreme carbon risk event might have on a portfolio while potentially capturing the upside of the transition away from fossil fuel assets.

Fourth, divest fossil fuel assets. This is certainly the surest way to reduce carbon risk, though we fully recognize that divesting can be complicated and may be difficult for many asset owners. Such a transition could be phased in over several years, and there are gradations; early and easy progress can be made by at least divesting from the most emissions-intensive forms of energy—especially since they are likely to face stranding well ahead of less carbon-intensive fossil fuels.

In the words of President John F. Kennedy, “There are risks and costs to a program of action. But they are far less than the long-range risks and costs of comfortable inaction.” The

transition to a low carbon future will revolutionize the global economy and present significant opportunities for superior investment returns. However, investors must also acknowledge that carbon risk is real and growing. Inaction is no longer prudent.

Mr. Gore is a former vice president of the United States and is now chairman of Generation Investment Management. Mr. Blood is senior partner of Generation Investment Management.

