Billions versus Trillions

By Robert Litterman

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It is easy sometimes to miss the forest for the trees. On climate change, it is time to enlarge our focus.

Some things, like the Inflation Reduction Act, are big and grab our attention. It is by far the largest government expenditure on climate action in our country's history. Subsidies allowed by the law are expected to grow to about $100 billion per year over the next decade.

Some are horrified by that number. Yet, neither supporters nor opponents of these subsidies seem to realize that globally we have gigantic – yet invisible – subsidies for fossil fuels that dwarf this expenditure.

This week, the International Monetary Fund updated its estimates of the annual subsidy to fossil fuels. In the last two years that subsidy has grown globally from $5.9 trillion in 2020 to $7 trillion in 2022. The U.S. portion of that subsidy in 2022: $755 billion.

The International Monetary Fund expects that over the next decade the subsidy from the United States government to fossil fuels will annually be almost 10 times larger than our spending on fighting climate change. Reflect on that imbalance.

Make no mistake; our transition to a net zero carbon emissions economy is blocked by this huge headwind. Time has run out and we are still not making nearly enough progress.

How does this insanity continue? Vested fossil fuel interests do not want to recognize the subsidy. Upton Sinclair said it a long time ago: "It is difficult to get a man to understand something when his salary depends upon his not understanding it."

Why haven't you heard about this subsidy? First of all, most of it is implicit. These subsidies exist when the price to consumers fails to include contributions reflecting adverse effects on society such as the impacts of climate change through greenhouse gas emissions, or local health damages through the release of particulates.

If emissions were priced and people were aware of these costs, the benefits would be enormous. It "would prevent 1.6 million premature deaths annually, raise government revenues by $4.4 trillion and put emissions on track toward reaching global warming targets," according to the IMF report. "It would also redistribute income as fuel subsidies benefit rich households more than poor ones."

There is a pathway to a sustainable future, and we need to start immediately.

Globally we should be investing trillions of dollars more every year in low-carbon solutions.

We need mechanisms to make the cost of carbon clear, rather than a system that hides a subsidy. At the same time, we need to persuade investors that investments in renewable energy will be profitable, far more profitable than energy from fossil fuels because in the future emissions will be priced.

The pathway can be guided by a financial instrument called a carbon-linked bond. Such a bond can be issued by any sovereign borrower -- states such as New York or California -- that want to illuminate the path forward to a sustainable future.

The essential problem blocking rapid transition away from fossil fuels is this enormous government subsidy for oil, gas, and coal, which makes it much harder for low-carbon energy sources to be profitable.

Incentives matter. Money drives behavior.

The key is not taxing carbon today; the key is changing expectations of future policy.

The carbon linked bond provides a friendly structure in which a forward-looking government can provide leadership by creating a credible path for the elimination of fossil fuel subsidies. First it specifies a path for future carbon pricing. Then, in a manner analogous to an inflation protected security, it specifies how coupon and principal payments are tied to whether or not it hits its carbon pricing target. If not, the issuer has to increase the payment to the investor. This helps develop credibility.

For the entrepreneur it sends a signal that the issuing state intends to support lower emissions with real incentives, and by purchasing such a bond the investor can hedge the risk that the state will not hit its target. Best of all, the price of the bond, compared to the price of other bonds from the same issuer, reveals the market expectation of future carbon pricing.

When this forward curve of expected future carbon prices, which can be revealed by the carbon-linked bond, shows a steep upward trend reflecting the path to sustainability, it will indicate investors expect renumeration. Then, and only then, we will finally achieve the required investment in a low-carbon economy.