

Energy Price Stability: The Peril of Fossil Fuels and The Promise Of Renewables

Overview

Skyrocketing gasoline and energy prices are contributing to a 40-year high in inflation, demonstrating the persistent challenge that fossil fuel volatility poses for price stability, economic growth, and macroeconomic health. As of April 2022, annual inflation was at 8.3 percent, with 2.1 percent of that coming from the weighted contribution of energy prices.

Gas tax holidays, strategic reserve releases, and other stopgap measures fail to address the structural deficiency at the heart of our economy: fossil fuel dependency. For the federal government to meet its commitment to long-term price stability, it must facilitate a rapid transition away from fossil fuels and toward the renewable sector. As Lauren Melodia and Kristina Karlsson argue in <u>"Energy Price Stability: The Peril of Fossil Fuels and the Promise of Renewables"</u>:

- 1. Fossil fuel prices are inherently volatile;
- 2. This volatility presents a persistent threat to the stability of our economy; and
- 3. Transitioning to renewable energy will foster price stability and drive inclusive growth.

Fossil Fuels Are Inherently Volatile and Present a Persistent Threat to The Stability of Our Economy

Among energy sources, fossil fuel prices are particularly vulnerable to geopolitics and speculation. Effectively managing energy prices while retaining a fossil fuel-based economy is nearly impossible, especially as energy commodity markets are getting more, not less, volatile. This volatility presents an ongoing threat to our economic health in myriad ways:

• *Energy inflation, driven by fossil fuel volatility, is a major factor in overall inflation.* Energy is the fourth largest category of expenses for the average US household, comprising roughly 11 percent of expenditures. Further, utility and gasoline expenditures' relatively large weight in household consumption means that changes in fossil fuel prices contribute substantially to changes in overall inflation.



Fossil fuel price shocks hit businesses and consumers, dragging down economic activity and often triggering recessions. Energy consumption is relatively inelastic, meaning consumers and businesses have no choice but to pay higher energy prices and lower their spending in other sectors. This reduced spending depresses aggregate output in the economy and can be the tipping point toward a recession. On the supply side, many business operations rely on gasoline and energy as factors in the production and distribution of goods and services, meaning increased fuel costs across the economy reduce business revenue and profits that could otherwise be reinvested in wages and productive capacity. Of the past 12 economic recessions that have taken place in the postwar United States, 10 were preceded by large oil price increases. All but three postwar oil price shocks have been followed by an economic recession.

Transitioning To Electrified, Renewable Energy Will Significantly Increase Price Stability

Renewable energy sources also have qualities that make them a more stable source of energy than petroleum and natural gas, which can in turn have a stabilizing effect on prices and the wider economy.

- **Consistent and infinite:** While petroleum must constantly be discovered and extracted, renewable energy is, by definition, naturally replenishing—the sun shines and the wind blows every day. This prevents the type of major disruptions that plague the fossil fuel industry and provide price uncertainty.
- Affordable: The cost of producing renewable energy is rapidly declining due to technological advances and increases in economies of scale. Estimates indicate the costs for solar and wind technologies will fall to 60 percent and 70 percent, respectively, below the long-run marginal cost for natural gas by 2030.
- No fuel costs: Once capital is invested in the infrastructure to capture renewable energy and convert it to electricity or heat, there are no fuel costs—that is, no specific volume of gasoline manufactured elsewhere that must be input to generate power. Without fuel costs, the most volatile component of fossil fuel prices, renewable energy production can have long-term, fixed-price contracts—something that is not possible in fossil fuel production.
- Universal: Each country has access to some renewable energy sources and, with equitable distribution of these necessary components for the upfront costs of renewable energy technology, production can be relatively free of the geopolitical dynamics that cause much of the volatility of fossil fuels.
- **Slowing climate change:** A rapid transition to renewable energy will slow and minimize further warming of the climate, translating to fewer energy system disruptions that result in price volatility due to a mismatch between supply and demand or speculation.



A Stronger, More Stable, and More Inclusive Economy

The events of the past year demonstrate how brittle our fossil fuel dependence has made our economy and how imperative a clean energy transition is for facilitating long-term, sustainable growth. Robust, sustained public investment in renewable energy will:

Provide lower, more stable prices: A rapid transition to wind and solar energy production today, followed by more technological advancements in subsequent years, will save consumers
\$26 trillion in energy costs in the coming decades. Avoiding consistent price shocks will also prevent persistent economic contractions and support long-term sustainable investments.

Drive stronger, more equitable growth: In addition to <u>creating millions of jobs</u> in research, development, and deployment of renewables, a green transition will yield savings in energy prices that will flow to other sectors and drive inclusive growth across the economy. These savings are particularly crucial for low- and middle-income households, as energy prices typically comprise larger shares of their household budgets. Further, providing long-term price stability in a key sector of the economy opens up expanded potential for true full employment with reduced fear of inflationary pressures and subsequent austerity and backlash.

Remediate Energy and Economic Inequities: Energy inflation can be the tipping point into energy insecurity for many low-income, Black, and Latinx households who face a higher energy burden and have limited disposable income. Electrifying the grid and transitioning to renewable energy sources will deliver more stable and affordable energy prices in the long term, reducing the energy burden for all households in addition to decreasing the disproportionate impact and minimizing their risk of energy insecurity.

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