The Austrian School and Fossil Fuels: An Intertemporal Theory on Land Use

GEOVANNE GIOCONDO
Independent Scholar

Abstract: In the present article, I propose a counterpoint to environmental economists on the use of fossil fuels for economic purposes. Based on the Austrian school of economics, a theory that seeks to explain the overuse of natural resources through state interventionism is put forth. Its thesis is that the long-term persistence of a land use is improbable to be caused by market conditions, but rather by the exaggerated use of governmental incentives. These incentives tend to exceed the natural economic activities of the market, leading to the overuse of resources. The theory applies to the historical case of the fossil fuel industry.

INTRODUCTION

In recent decades, many political groups that advocate for the environment have been associating the exaggerated use of fossil fuels with the market-based economy. Many environmental economists have sustained this diagnosis with their examination of "externalities". According to this view, with no environmental damage being reflected in the costs of production, the resources of land (including fossil fuels) are used more than is socially preferable.[1]/[2] However, if a detailed analysis is made of the matter, the argument is shown to be incomplete. This article develops an analysis on how the persistence of the fossil fuel industry rests on state interventionism, and how this is unlikely to exist in a free-market economy. Firstly, I ought to formulate a theory about resource utilization that demonstrates this premise. Its inferences rely on the Austrian school of economics. Secondly, I ought to apply the theory to the history of the fossil fuel industry.

THE INTERTEMPORAL THEORY OF THE EXPLOITATION OF LAND

This section intends to include the Austrian school framework into a subject that was never fully applied before. That is, the intertemporal tenacity of the exploitation of resources of nature.

Before I demonstrate this extension, a clarified economic analysis of land is required. On the subject of the factors of production, a common formulation by most economists is a tripartite division: land, labor and capital.

For our purposes, land is the matter of all the material factors of production. "Capital" would be classified as land modified by prior applications of labor. "Land" as referred by most economists, is a primary matter that is not (or is less) modified by labor. This does not imply that there is no difference between the two whatsoever. Instead, it demonstrates that an analysis regarding production has implications on land exploitation.

Given this premises, I can start my formulation: going through the literature of the Austrian school, we can observe the analysis of social cooperation between individuals and their interactions within the market. Friedrich Hayek (1989) discussed the social cooperation in what he called the "extended order." In his analysis, individuals have been improving cooperation by adhering to certain practices that emerged from experimentation and error. These practices came from a decentralized mechanism, where individuals act through consumption, savings, and investments. In the case of consumers, as Ludwig von Mises (1998a) argued, they coordinate the production of certain articles through their needs, meaning that those that do not satisfy their preferences will be left without any monetary expenditure. Thus, investments are only profitable when entrepreneurs allocate the factors of production in accordance with consumer preferences. That is, when they adjust land, capital, and labor to changes occurring in the demand of consumers. Furthermore, savings are also decisive for the subject of cooperation. Because when individuals are saving a certain quantity of money instead of using it for consumption, they indirectly reduce the consumption of factors of production. That means that more resources and labor are available for new investments. The interest rate also naturally lowers as the result of the increase in the supply of funds in banks, leaving money for entrepreneurial activities.

But how does this relate to my argument? Firstly, individual actions in such conditions cannot be constant or always specific. Consumers change preferences; entrepreneurs innovate to contribute for this change, and proportions of consumption and savings suffer modifications according to shifts in how the individual organizes current and future satisfactions. These actions can also differ from one individual to another in this decentralized mechanism. In short, all of this means that the use of land for economic activities may change oftentimes.

Secondly, when the government intervenes, sometimes with specific and delimited political intentions, by granting incentives, it tends to exceed those economic activities and therefore causes excessive exploitation of land. There are three examples that demonstrate this effect for our understanding: subsidies, credit expansion, and legal monopolies.

When it comes to subsidies, the state confiscates money from the decentralized and nonspecific coordination of the market for central planning. This money is transferred from various individuals that could seek different resources to specific and unilateral political decisions in favor of certain uses of land. Additionally, these policies, as Murray Rothbard (2009, p. 942) once noted, "prolong the life of inefficient firms..."[3] since it is an incentive that exceeds market boundaries. And finally, it grants a privilege against rivals, which means that a specific use of land is shielded by governmental expenditure, suppressing possible alternatives.

Conversely, credit expansion, although sometimes seeking general effects on the economy, can cause the overexploitation of land. When the interest rate is artificially lowered, entrepreneurs invest in the additional and unsustainable production of goods. The new funds might show an increase in savings as in an unhampered market, reducing the consumption of factors of production as mentioned. This would leave the additional capital goods and labor to be allocated in higher-order investments—that is, an expansion in the structure of production—and the people would have saved enough to purchase it. But under the government intervention in the credit they are already being urgently demanded, and the entrepreneurs engage in malinvestments, since the proportions of consumption and savings remain unchanged and consumers did not save enough to sustain the newly expanded structures of production. This indicates that upon the revelation of the unviable investments, resources of land are shown to be wasted and therefore overused.[4]

Finally, when it comes to the analysis of monopolies, we can observe a different situation. A monopolist can restrict the quantity he puts for sale to maximize profits. Mises (1998b, p. 356) has also discussed the implications of such decisions:

> Monopoly prices are only prices at which it is more advantageous for the monopolist to restrict the total amount to be sold than to expand his sales to the limit which a competitive market would allow.[5]

In an unhampered market, these above-normal profits would attract other entrepreneurs who are interested in such gains and therefore would remove the power of the monopolist. With legal barriers, however, the monopolist is protected from losing his position. With that being said, even though he sells a lower quantity to obtain monopoly prices, it causes the overexploitation of land in the long run because these profits can prolong firms as well as direct subsidies. A certain use of land is privileged and prolonged for an indefinite period.

In conclusion, those policies show that all kinds of government incentives can lead to excessive exploitation. Regardless of whether it's an incentive on production or not, or if it seeks specific or unspecific effects. In addition to this, we can also logically assume that an exaggerated use of this kind of policies can maximize overexploitation. That is, a persistent use of resources of nature. Moreover, this persistence is incompatible with the market economy, where resource utilization tends to change as mentioned previously.

THE HISTORICAL CASE FOR THE PETROLEUM INDUSTRY AND FOSSIL FUELS IN GENERAL

Regarding the theory, we can observe a historical example: the case of the fossil fuels. This section serves two purposes: to demonstrate a theoretical illustration and, subsequently, to offer a counterpoint to the belief that the industry maintains its position because of market conditions. Dominick T. Armentano (1981) has made an extensive study on the petroleum industry, and this will contribute to a better understanding.

Armentano (1981, pp. 76-77) noted that before 1911 the petroleum industry had moderate laissez-faire (no intervention in the economy), but increasingly thereafter, the conditions started to change, and the government decided to intervene more extensively. In World War I, the industry started to cooperate with the state and then a cartel was formed. This cartel maximized profits for several businessmen and after the war was finished many advocated for its continuation:

> When the war ended, a strong sentiment existed among leading oil-industry leaders for continuing the War Services Committee's policy of cooperation and "supervised competition" toward the petroleum industry. For example, most influential oil spokesmen heartily approved of President Coolidge's Federal Oil Conservation Board, created in 1924, and most endorsed that board's early recommendations for compulsory withholding of resources (...) (Armentano 1981, p. 78).

As we observed on monopoly prices, this practice helped to sustain the operations of these oil firms. The endorsement was the manifestation of their desire to maintain their privileges.

In addition to this, in 1926 the program of Oil Depletion Allowance was adopted as part of the Revenue Act of 1926 (United States 1926). This policy was an extraordinary subsidy for petroleum because of the depletion of resources. Moreover, the Great Depression of 1929 had begun, and the prior inflationary expansion of the credit caused the exaggerated waste of resources of the petroleum industry. Subsequently, oil businessmen decided to seek legal cartelization in the 1930s (Armentano 1981, p. 79).

Notwithstanding, during World War II, cooperation between government and industry had begun analogous to the prior conditions of the first World War. In accordance with the war effort, the oil industry was indirectly and directly subsidized. After the war was ended, part of the Marshall Plan aid for European countries had been indirectly used to subsidize American oil companies. Because, as Armentano

(1981, p. 80) says, "The oil was sold profitably at prices based on the higher Texas crude-oil rates, and not on local market conditions."

Along with the government, the American petroleum industry controlled foreign oil to ensure its hegemony. In the late 1960s, however, this unilateral power had decreased, and OPEC (Organization of the Petroleum Exporting Countries) created a cartel shortly thereafter. In parallel with this, the industry suffered difficulties prior to environmental regulations, representing an exception in contrast to governmental incentives (Armentano 1981, p. 81). But this did not last for long: in the 1970s, several independent refiners began to complain because of the challenges in competing with large corporations. Thus, the state granted subsidies such as entitlements programs. In response, larger refiners endorsed ERDA (Energy Research and Development Administration) subsidies (Armentano 1981, pp. 83-85).

Incentives have continued ever since. In recent years, the International Monetary Fund has estimated approximately 7 trillion dollars for indirect or direct subsidies for fossil fuels globally (IMF 2023). Demonstrating the persistent governmental mechanism of benefits for certain uses of land. Furthermore, persistent historical examples of such incentives are not limited to the petroleum industry; Jeff Johnson (2011) also provided another historical framework on fossil fuel subsidies, including natural gas and coal. This reveals how state interventionism has exceeded the activities of the industry: it was, and still is, likely prolonged, privileged and encouraged to function.

CONCLUSION

The purpose of this article is to provide an Austrian response to environmental economists on the subject of fossil fuels. Based on the relationship between their application of ecological science and the fossil fuel industry, the core cause for the excessive use (in this case relying on their terminology) is better understood as an institutional and governmental failure, challenging their critique towards the "unregulated market."

ENDNOTES

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REFERENCES

Arimura, Toshi H., and Akira Hibiki. 2024. *Introduction to Environmental Economics and Policy in Japan.* Gateway East, Singapore: Springer Nature Singapore.

Armentano, Dominick T. 1981. "The Petroleum Industry: A Historical Study in Power". *Cato Journal* 1(1):53-85.

Black, Simon, Antung Liu, Ian Parry and Nate Vernon. 2023. *IMF Fossil Fuel Subsidies Data: 2023 Update.* Working Paper No. 23/169, International Monetary Fund, Washington, DC, August.

Hayek, F. A. 1989. *The Fatal Conceit: The Errors of Socialism*. Chicago: University of Chicago Press.

Johnson, Jeff. 2011. "Long History Of U.S. Energy Subsidies." *Chemical & Engineering News.* Accessed January 26, 2026. https://cen.acs.org/articles/89/i51/Long-History-US-Energy-Subsidies.html.

Mera, Xavier. 2015. "A Note on the Limits to Monopoly Pricing". In: *The Next Generation of Austrian Economics: Essays in Honor of Joseph T. Salerno*, eds. Per Bylund and David Howden. Auburn: Mises Institute.

Mises, Ludwig von. 1998a. *Interventionism: An Economic Analysis.* Tr. Thomas Francis McManus and Heinrich Bund. Irvington-on-Hudson: The Foundation for Economic Education.

______. 1998b. *Human Action: A Treatise on Economics.* Scholar's ed. Auburn: Ludwig von Mises Institute.

Pigou, A. C. 1920. *The Economics of Welfare*. London: Macmillan and Co.

Rothbard, Murray N. 2009. *Man, Economy, and State: A Treatise on Economic Principles.* 2nd ed. Auburn: Mises Institute.

______. 2024. *What Has Government Done to Our Money?* 6th ed. Auburn: Mises Institute.

United States. *Revenue Act of 1926*. Public Law 69-27. 44 Stat. 9. 1926.

NOTES

1 For this contemporary application of the analysis of externalities on fossil fuels, see Arimura and Hibiki (2024). For a better understanding of the main classical view, see A. C. Pigou (1920).

2 While contemporary discussions on fossil fuel overuse have relied on ecological science, this paper does not extend into that field. Instead, it gives an explanation on how some uses of land for economic activities are persistent. The terminology used hereby to describe "overuse" therefore differs from the environmental economists approach, it rests only in the maintenance of a certain activity through time. If based on their approach relying on ecological observations, there is an "excessive use" whatsoever, the analysis of this paper should help to understand the core causes by explaining the persistence of the industry. (And if these causes are mistaken by common interpretations.)

3 We can also observe other perspectives such as Mises (1998a, p. 57), where he demonstrates how subsidies can render undertakings profitable that would be inviable in an unhampered market. Applying to my argument, certain uses of land may be sustained in locations that would have been regarded as unfavorable in different conditions.

4 For a detailed explanation, see Mises (1998a, p. 40). See also Murray N. Rothbard (2024, p. 75) for further applications.

5 Mises believed in the existence of natural monopolies in the free-market economy. In contrast to this view, Rothbard (2009) argues that monopolies would only be permanent with a governmental privilege. See also Xavier Méra (2015) for further discussion. When integrated with my argument, the impossibility of a permanent monopoly in a free market helps us to understand how overexploitation is unlikely to exist in such conditions. Moreover, with the demonstration of Méra that the inelasticity of demand (how much the consumers are not willing to abandon the firm) is not a decisive factor for the formulation of a monopoly price, we conclude that there is more room for the prolongation of firms.