

Is Green Policy Actually Promoting the Fossil Fuel Footprint of Banks?

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Received January 23, 2024

Accepted April 10, 2024

Electronic access April 30, 2024

This paper investigates the dual investment strategies of major banks in fossil fuels and renewable energy sources. By examining financial data, environmental policies, and corporate practices, we seek to understand whether these investments represent a commitment to sustainability or a strategic response to market demands and regulatory pressures. This exploration aims to contribute to the discourse on the financial sector's role in addressing climate change. The paper scrutinizes the effectiveness and sincerity of green policies; banks were able to invest \$669 billion in fossil fuels in 2022 alone, and 11 of the largest US banks represented fossil fuel investments as 19.4% of their portfolio (WIRED). This suggests that there might be more marketing strategies than genuine environmental efforts. The paper also includes financial mechanisms these institutions use, such as tax and carbon credits, to ensure profitable fossil fuel investments while supporting renewable projects. The paper also discusses the role of government policies and media in shaping investment trends, where there is a noticeable disproportionate emphasis on green investments compared to the larger scale of fossil fuel financing. Lastly, the paper presents a reevaluation of banking priorities, advocating for a more ethical banking system that balances profitability with the responsibility of addressing climate change.

Introduction

Banks across the globe continue to contribute to investment in fossil fuels and related industries. From 2016-2022, international banks invested an average of \$513 billion annually in fossil fuels and industrial agriculture combined (The Guardian)¹.

This paper introduces a critical examination of the contrasting investment behaviors of banks highlighting the complexity of their roles in both promoting and hindering sustainable energy. While the fact that banks across the world participate in this behavior means that national policies may not be all that is required to solve the problem, national policies in the largest and richest economies can guide market behavior. This paper will primarily focus on the United States, which is the largest single global economy. Understanding this duality requires a multifaceted approach, considering economic, environmental, and social dimensions. As concerns about climate change increasingly grow and the impact of human activities on the environment continues to have a harmful effect, many firms have responded by adopting green policies and initiatives. These harmful effects currently include global warming of 1.5C, which contributes to the scarcity of fresh water, extreme weather change, and frequent wildfires (AGU)². This could be in the form of sustainability financing such as investment in renewable projects or by underwriting green bonds. In addition, some investment managers have been able to raise abundant capital from investors by appealing to an ESG angle. While this trend toward sustainability is encouraging, there is a growing concern that some firms may be using

these efforts as a way to mask their more profitable carbon-intensive investing. One of the reasons why the US carbon footprint is so high is that several banks depend on profits from fossil fuel production. In fact, the 60 largest banks provided \$669 billion in financing for fossil fuels in 2022 (Banking on Climate Chaos Fossil Fuel Finance Report 2023)³. Private equity firms hold roughly 80% of the energy portfolios in fossil fuels according to Private Equity Climate Risks Scorecard 2022. This raises important questions about the effectiveness of green policies, and whether they are being used as a genuine attempt to reduce environmental impact or simply as a marketing strategy. The media provides some coverage of these business practices with the term "greenwashing," but most do not elaborate on how investment firms or banks are able to lean in on green investing while still maintaining more carbon-intensive investments. The government encourages banks and investment firms to promote their initiative set of "net-zero" carbon emissions by 2050, but it is unclear whether regulators in the case of banks are adequately policing these metrics. Private markets (equity and debt that is not publicly traded are growing quickly and are largely exempt from any regulation

Banks and investment firms are for-profit businesses and are primarily motivated by maximizing profits for their shareholders and investors. Fundamentally, it is difficult to please stakeholders who are expecting certain levels of profitability unless investments are sought that produce the greatest amount of return. Green investments can be profitable, however, based on the carbon footprint of banks and investment firms, likely less prof-

itable than fossil fuel investing. This activity was particularly pronounced in 2022, as energy prices accelerated, especially in Europe, as a consequence of the Russia-Ukraine War.

First, one must examine how their stakeholders evaluate banks and investment firms. Revenue for banks and investment firms can be generated through different means, including through interest income. This arises from charging borrowers' interest on loans and credit extension to individuals, businesses, and governments. Moreover, they earn money by generating fees for services such as account maintenance, and wire transfers; in addition to earning commissions from selling financial products (Investopedia). Firms also generate revenue through investing in securities like bonds and stocks which provide them with income from interest payments received on bonds held or dividends earned from shares owned along with any capital appreciation when these investments are sold or paid off. These revenues (and related net income), from all sources are then measured against the capital banks are required to hold in order to calculate a return on equity (ROE). Investors are obviously drawn to large ROEs. Furthermore, investment firms such as private equity, raise capital and charge fees based on the performance of their investments. Fees are typically derived from assets under management with additional incentive fees earned above certain return hurdles. Based on both measurements, it is obvious that investment firms (and therefore banks that wish to serve these clients) will gravitate towards activities that offer the highest rates of return.

Fossil Fuel Investments

One of the most notorious and important ways that banks can generate profits is their investments in fossil fuels. Fossil fuels are extremely productive, as “the global oil and gas industry’s profits in 2022 jumped to some \$4 trillion from an average of \$1.5 trillion in recent years.” (Reuters Feb 14, 2022)⁴. To put that into perspective, the US’ cumulative net worth amounts to 123.8trilliondollars, where 1.5 trillion dollars are being gained every year by fossil fuel investment (Wikipedia)⁵. This is worrying, as the US climate crisis is only getting worse, and banks and corporations rely on fossil fuels to satisfy their balance sheets. Comparatively, the stand-alone risks of renewable energy technologies decrease with their share in the market because of a negative correlation of output and price risk.” (Tietjen et al., 2016, Science Direct)⁶. What this means is that renewable energy poses a greater risk to investment until its market share is high enough to mitigate that risk. Fossil-fuel investments are used to “build pipelines, and fund fracking, oil extraction, and coal mining.” (Seattle Times). These investments are directly causing carbon emissions. As it may be implicit that Climate Change is a huge issue, the reality is that temperatures rising, flooding, droughts, heatwaves, and wildfires are only increasing due to fossil fuels. Even now, many species of animals are con-

sistently moving to new environments and unfamiliar habitats due to climate change making it difficult to live. Our marine ecosystems are at significant risk, and coral reefs are in jeopardy of dying. Pollution is a problem, and “by 2100, the average U.S. temperature is projected to increase by about 3°F to 12°F.” (City of Chicago)⁷.

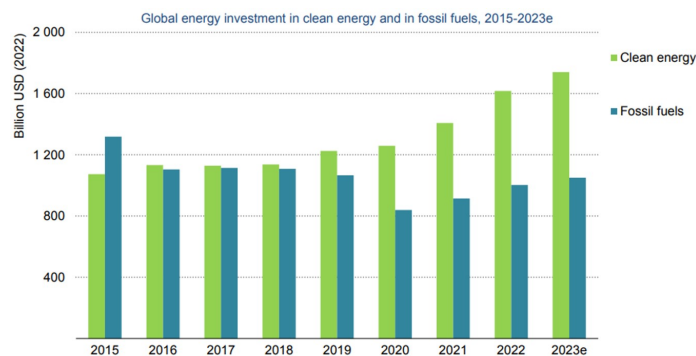


Fig. 1 Courtesy of International Energy Agency

This figure depicts investments in fossil fuels over time. What we can make of these figures is that divestment started to happen in 2015, but after COVID-19, increases in clean energy investment began to coincide with a dip in fossil fuel investments. This could represent increased market confidence in the need for and sustainability of the development of the clean energy sector. The trend may also have been influenced by trends of public social responsibility that evolved during the pandemic as well as concern about fossil-fuel-based energy security after the onset of the war in Ukraine. This is potentially seen in investment in fossil fuels showing a plateau towards the end of 2023. Currently, for every dollar invested in fossil fuels, about \$1.70 is invested into clean energy. Five years ago, this ratio was one-to-one (IEA)⁸. What this means for Clean Energy investment is that it is moving in a bullish direction, however, fossil fuel investments are still considerable.

Tax Credits

One of the ways to neutralize the effect of more profitable fossil fuel investing is through tax policy. In August 2022, the government passed the “Inflation Reduction Act,” an incentive plan for the US to go fully “net-zero” carbon emissions by 2050. According to Blackstone, 100 trillion of clean energy investments will be required to achieve net zero. As a result, the government has offered several incentives, in the form of tax credits and carbon credits. One of the mechanisms to encourage clean energy investment is through Tax Equity. Tax Equity is a form of financing that relies on federally issued tax credits in return for investing in a renewable project. The process is summarized as,

a construction company reaches out to a bank to invest in their project. Instead of giving out a loan with interest rates to make profits, the bank would instead invest in tax credits so the banks inherently achieve a return on their investment and offset taxes earned through any source. Depending on the project that is invested, the bank can choose between two types of tax credits, a production tax credit, or PTC, or an investment tax credit, or ITC. Once the money is invested, the tax credits are available. Tax credits are helpful to project developers and investment managers as they reduce the amount of investment needed by the tax equity born by the banks.

On March 26th, 2024, Eversource and Ørsted North America were approved by the Biden-Harris administration to build a \$400 million dollar off-shore wind farm that would power 600,000 homes and grant 800 direct jobs (DOI)⁹. This project was eligible for a “tax credit bonus in the President’s Inflation Reduction Act”, and most of the cost was likely negated by either an investment tax credit or a production tax credit (DOI)⁹. Many other wind projects are bought by either large investment firms or energy companies to not only negate some of their taxes but contribute to renewable transition.

An investment tax credit involves the receipt of a one-time tax credit equal to 30% of the project cost. These could be used for example in the construction of solar panels or wind farms. If banks were to invest in a solar panel, they would generally take out an ITC because solar panels carry more risk, and cannot be relied on for their power, because they do not produce nearly as much power as a wind turbine. A Production Tax Credit is a tax credit that a bank would receive every year for 10 years, based on the power produced in the project that is sold off, where the banks would receive a royalty in a one-year tax credit. For a wind turbine that produces a lot of power, you would most likely invest in a PTC because the wind turbine carries less risk because the wind is more predictable and the turbines are much more sturdy.

What this means for banks is that these investments can count towards sustainability goals and also help avoid taxes. In 2017, Wells Fargo paid a total of \$9.57 billion, JPMorgan Chase - \$9.64 billion, Bank of America - \$7.11 billion, and Citigroup - \$6.44 billion (Motley Fool). On the other hand, “There’s a wide possible range for the total annual newly minted tax credit equity market—about 60 billion to 90 billion,” where these billions of dollars are being used to offset their taxes (Novoco)¹⁰. These exact investments can help banks to offset taxes and maintain their activities in fossil fuels.

Carbon Credits

Additionally, one of the largest ways that banks maintain their investments in fossil fuels is through the purchase of carbon credits. Carbon credits were introduced as “a mechanism to reduce greenhouse gas emissions.” (Investopedia)¹¹. Companies

are each given a finite amount of carbon credits, however, “the company may sell any unneeded credits to another company that needs them.” (Investopedia)¹¹. There are two primary types of carbon credits, “permits to pollute” and “reduction credits”¹². Banks would be able to continue engagement in fossil fuels with a cost, where banks could purchase credits to offset other carbon-intensive activities. The limited competitive offer of carbon credits has been a concern, though increased interest serves to mitigate this concern (Grey and Metcalf 2017, National Tax Journal)¹³. In terms of risk, contemporary studies suggest that carbon credits can outperform energy futures in terms of hedging and diversification (Demiralay et al., 2022, Energy Economics)¹³.

According to Reuters, “Global carbon market value surged to record \$851 billion,” which shows that parties are actively trading these credits⁴. By participating in the carbon credit and tax equity markets, banks can continue to maintain their profitable fossil fuel investments, as can investment management firms. It is often suggested that the mainstream media may focus on the level of green investing in the market because this is a “feel good” story. Using a simple Google search when prompted “banks green investments,” there were 372,000 results under the “News” page. An additional search, “banks fossil fuel investments” under the “News” page, produced 1,200 results. Although this method may be flawed, it is interesting to note that there are 300 times the amount of green to fossil fuel references, even though fossil fuel activity currently dwarfs green investing. According to CNN, “banks provided \$673 billion to finance the fossil fuel industry last year,” as opposed to the \$495 billion on renewable energy per Bloomberg¹⁴. The current widespread public concern with climate change notwithstanding, it must be noted that banks and investment firms have a vested interest in limiting or drowning discussion of any benefits they may gain from ‘green’ investment purportedly aimed at combating climate change.

In summary, carbon credits can provide a potential route for banks to reduce their fossil-fuel footprint, but the availability is limited and there is also the possibility that credits can be used to simply offset ongoing fossil-fuel investment rather than provide any genuine decrease, similar to the use of Tax Credits.

Regulatory and Environmental Challenges

Current government policies often struggle to effectively alter banks’ unethical practices in investing in fossil fuels for several reasons. The fossil fuel industry is extremely profitable, “rocketing above \$50 billion” in 2023 (NRDC)¹⁵. Banks often prioritize short-term profits over long-term sustainability, and if a bank has a history of reliance on fossil fuels, it would be hard to refrain from them. Governments can implement stringent regulations, imposing penalties for these investments, but how far can that go when banks are a pillar to the well-being of the

US? In the US, most regulations are held up to the state level, as already, 9 states have banned sales of gas-powered vehicles starting in 2035 (CNET)¹⁶. Globally, the Paris Agreement of 2015 strives to limit global warming to under 2°C. However, most of these regulations are more of an encouragement rather than a force, where limited consequences will not be faced if agreements are not followed. What needs to be promoted is environmental activism, highlighting clearly how climate change is a desperate problem. A collaborative effort between regulators, environmental organizations, and financial institutions is needed to establish clear standards for ethical investments. In the US' upcoming election, candidates have the ability to pose this problem, and how we can create a multifaceted approach that combines regulatory measures, stakeholder collaboration, and public engagement, to drive meaningful change in promoting ethical investments. While the absence of a globally accepted taxonomy on what constitutes sustainable activities, as well as a lack of regulatory clarity and high-quality data allowing for comparisons across industries and regions, together with practical and behavioral complexities, present significant challenges to developing collaborative frameworks of this kind (Martini, 2021, Energy, Development and Sustainability)¹⁶, attempts to provide an integrated approach are ongoing, such as within the European Union's global sustainability framework, as well as more theoretical scholarly approaches (Mubarok et al., 2022, Journal of Economics, Finance and Management Studies).¹⁷

Regulatory changes are potentially an effective way to reduce the fossil-fuel footprint of bank investment, and at least discourage further investment, but the lack of an agreed global approach and the short-term attitudes favored by large financial institutions again threaten to limit their impact.

Conclusion

The debate surrounding banks' priorities has revolved around whether they should continue to prioritize profit and heavily invest in fossil fuels or adopt a more ethical approach by investing in clean energy sources. Supporters of the for-profit model may argue that it maximizes returns for shareholders and that banks should invest their finite capital in the transactions that yield the greatest return. On the other hand, advocates of the clean energy approach emphasize the importance of a sustainable and responsible banking system. Environmentalists believe that through investments in clean energy projects, banks can help address climate change issues by reducing greenhouse gas emissions while stimulating innovation within renewable energy sectors. They believe that these activities can be profitable in and of themselves. However, those supporting this perspective also must recognize that it could come at the cost of alienating important carbon-emitting clients and reducing the bottom line. Until clean energy investments produce attractive returns, or banks are measured accurately and consistently as to their

carbon emissions, the fossil fuel industry will likely continue to prosper.

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