

**DRIVING A STAKE THROUGH CORPORATE
CRYPTOCURRENCY INVOLVEMENT: WHY THE PRACTICE
FAILS THE STAKEHOLDER ETHICAL ANALYSIS**

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I. INTRODUCTION

The first cryptocurrency, Bitcoin, was created anonymously in 2009.¹ Bitcoin reached a peak market capitalization of over \$1.2 trillion in 2021.² Today, there are over 5,000 different cryptocurrencies.³ Many businesses have taken notice and either accept cryptocurrency as payment, hold cryptocurrency as an investment, or otherwise promote cryptocurrencies. Fortune 500 companies, such as AT&T, Microsoft, and Starbucks, have

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1. Tal Yellin, Dominic Aratari & Jose Pagliery, *What Is Bitcoin?*, CNN MONEY (Aug. 8, 2018), <https://money.cnn.com/infographic/technology/what-is-bitcoin/index.html> [<https://perma.cc/WNX6-CY9R>].

2. *Bitcoin's Market Capitalization History (2013–2023, \$ Billion)*, GLOBALDATA, <https://www.globaldata.com/data-insights/financial-services/bitcoins-market-capitalization-history/> [<https://perma.cc/UL7N-J3W7>] (last visited June 3, 2023).

3. Kate Ashford & John Schmidt, *What Is Cryptocurrency?*, FORBES (Jan. 25, 2022, 4:15 PM), <https://www.forbes.com/advisor/investing/what-is-cryptocurrency/> [<https://perma.cc/H2P3-JC76>].

accepted Bitcoin payments.⁴ At one point in 2021, there were “[fifty-two] large companies representing \$7 trillion worth of stock” that was “exposed to cryptocurrencies.”⁵ Virgin Galactic accepts Bitcoin payment for space travel.⁶ Sports franchises, such as the Dallas Mavericks and the Miami Dolphins, accept Bitcoin for the purchase of tickets.⁷ In Canada, KFC promoted a “Bitcoin Bucket” that could be purchased with Bitcoin.⁸

These corporate practices receive criticism because of the negative externalities from cryptocurrency use. Some argue that investing in cryptocurrencies is unethical, as doing so diverts financial resources away from traditional investments, such as stocks and bonds, which result in job creation, safer products, and more environmentally friendly products.⁹ And some argue that corporate holding of cryptocurrencies violates established standards of environmental, social, and corporate governance (ESG) investing because the currency results in environmental harm and is used to support illegal activities.¹⁰ This Article argues that corporate investment in cryptocurrencies and the acceptance of cryptocurrencies as payment violates the stakeholder theory of corporate ethics. This is the emphatic conclusion drawn after analyzing the numerous harms and minimal benefits these practices offer to corporate stakeholders. This research has far-reaching implications, as we appear to be at a critical juncture given a convergence of factors, such as environmental sustainability, the application of stakeholder ethics to corporations, ESG investing, and cryptocurrency salience.

This Article’s novel framework for evaluating business decisions regarding the adoption of cryptocurrencies is a valuable tool, not only in the present instance, but for future stakeholder analysis as well. In this

4. Ofir Beigel, *Who Accepts Bitcoin as Payment?*, 99 BITCOINS (Dec. 8, 2022), <https://99bitcoins.com/bitcoin/who-accepts/> [<https://perma.cc/3UTN-NQQV>] (showing Microsoft and AT&T accepting Bitcoin); Andrew Lisa, *14 Major Companies That Accept Bitcoin*, GOBANKINGRATES (Apr. 21, 2022), <https://www.gobankingrates.com/money/business/major-companies-that-accept-bitcoin/> [<https://perma.cc/VSD6-WXBC>] (supporting Starbucks’ Bitcoin acceptance).

5. Carla Mozee, *There Are 52 Companies Representing \$7 Trillion Worth of Stock Exposed to Cryptocurrencies*, MARKETS INSIDER (Oct. 14, 2021, 3:33 PM), <https://markets.businessinsider.com/news/currencies/52-companies-7-trillion-stock-exposed-cryptocurrencies-msci-bitcoin-esg-2021-10> [<https://perma.cc/JVJ6-RWEL>].

6. Beigel, *supra* note 4.

7. Mozee, *supra* note 5.

8. *Id.*

9. Michael Conklin & Ruben Ceballos, *The Ethics of Investing in Cryptocurrencies*, 21 FLA ST. BUS. REV. 69, 78–79 (2022).

10. Michael Conklin & Jason Malone, *Putting Cryptocurrency in Its Place: The Case for Why ESG Funds Should Exclude Cryptocurrency-Exposed Companies*, 20 BERKELEY BUS. L.J. (forthcoming 2023), currently available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4323993 [<https://perma.cc/K8MG-W9M7>].

way, this Article will hopefully serve as a powerful catalyst to ignite future research involving a more robust analysis of the effects of corporate behavior. Part II provides a background of the stakeholder theory of corporate ethics. Part III documents the various harms that come from cryptocurrency use. Examples include large-scale environmental harm, the indirect promotion of illegal transactions, and the diversion away from more societally productive investments. Section IV performs the stakeholder analysis. This begins with a description of the inherent imperfections with such an undertaking. Nevertheless, the clear conclusion that cryptocurrency involvement violates stakeholder ethics is clear. Finally, Section V concludes by contrasting the stakeholder view with the traditional shareholder view and considers future implications of the area of study.

II. STAKEHOLDER THEORY AND CORPORATE ETHICS

The traditional norm for corporate governance and ethics in the United States is shareholder wealth maximization.¹¹ Under this norm, the primary objective and ethical duty of the corporation is to maximize the value of the corporation for the benefit of its shareholders.¹² The ethical justification for this norm is rule-utilitarian logic—that when corporations focus on maximizing shareholder wealth, all of society benefits due to the optimal use of the corporate resources employed.¹³

While shareholder wealth maximization has a beguiling economic logic that has stood the test of time, in recent years the corporate ethics and governance narrative has steadily shifted to a broader approach

11. See Thomas. M. Jones & Will Felps, *Shareholder Wealth Maximization and Social Welfare: A Utilitarian Critique*, 23 BUS. ETHICS Q. 207, 212–13 (2013) (“[T]he classic justification for the economic system we call market capitalism is fundamentally utilitarian, a moral perspective that aims to achieve the greatest social benefit net of social cost or, more colloquially, ‘the greatest good for the greatest number.’ . . . [Shareholder Wealth Maximization (SWM)] is a rule-utilitarian element of a capitalist system that is intended to provide long-term benefits to society.”) (citations omitted).

12. See, e.g., Milton Friedman, *The Social Responsibility of Business Is to Increase Its Profits*, N.Y. TIMES MAG., Sept. 13, 1970, at 17, 36 (“[T]here is one and only one social responsibility of business—to use its resources and engage in activities designed to increase its profits so long as it stays within the rules of the game, which is to say, engages in open and free competition without deception or fraud.”).

13. See Anant K. Sundaram & Andrew C. Inkpen, *The Corporate Objective Revisited*, 15 ORG. SCI. 350, 353 (2004) (listing out various arguments for why SWM leads to better societal outcomes than the alternatives and thus is the preferred corporate goal); see also FRANK H. EASTERBROOK & DANIEL R. FISCHER, *THE ECONOMIC STRUCTURE OF CORPORATE LAW* 38–39 (1991) (discussing how the norm of SWM leads to optimal societal outcomes).

centered on stakeholder theory.¹⁴ In 2019, the Business Roundtable, an association of more than 200 CEOs of large U.S. companies, updated its statement on the purpose of the corporation to embrace stakeholder theory.¹⁵ Additionally, drafters of the proposed *Restatement of the Law, Corporate Governance* actively debated whether or not to include maximizing value for stakeholders as part of the treatise's coverage of the corporate objective.¹⁶ Accordingly, stakeholder theory has become widely adopted as a guiding objective for firm decision-making by large corporations and is an important lens through which to view the ethicality of the use and acceptance of cryptocurrency by corporations.

While the basic ideas behind stakeholder theory have existed for some time, the most widely adopted modern view of the theory was that propounded by R. Edward Freeman in his seminal work, *Strategic Management: A Stakeholder Approach*.¹⁷ Freeman argued against the shareholder-centric model of the corporation and instead posited that corporations have multiple entities (stakeholders) with various interests that the firm should take into account and that the role of the manager is to balance these various competing interests.¹⁸ The concept of a stakeholder is a broad one and is most commonly defined as "any group who can affect or is affected by the achievement of the organization's objectives."¹⁹ Thus, contrary to the norm of shareholder wealth maximization, stakeholder theory says that the interest of any one stakeholder, such as the shareholders, should not predominate over the interests of others.

As stakeholder theory has developed in academic literature, it has evolved to encompass more than just the balancing of competing

14. See, e.g., Lisa Fairfax, *Stakeholderism, Corporate Purpose, and Credible Commitment*, 108 VA. L. REV. 1163, 1166 (2022) (discussing adoption of stakeholder rhetoric from large public company CEOs); see also Lucian Bebchuk & Roberta Tallarita, *The Illusory Promise of Stakeholder Governance*, 106 CORNELL L. REV. 91, 95 (2020) (discussing the debate surrounding the inclusion of stakeholder theory in the proposed *Restatement of the Law, Corporate Governance* and advocating for a shareholder-centric view of the firm).

15. *Business Roundtable Redefines the Purpose of a Corporation to Promote 'An Economy That Serves All Americans'*, BUS. ROUNDTABLE (Aug. 19, 2019), <https://www.businessroundtable.org/business-roundtable-redefines-the-purpose-of-a-corporation-to-promote-an-economy-that-serves-all-americans> [https://perma.cc/JXK8-RLGD].

16. See Bebchuk & Tallarita, *supra* note 14, at 95 (discussing the debate surrounding the inclusion of stakeholder theory in the proposed *Restatement of the Law, Corporate Governance*).

17. See R. EDWARD FREEMAN, *STRATEGIC MANAGEMENT: A STAKEHOLDER APPROACH* (1984).

18. *Id.* at 53.

19. *Id.* at 46.

stakeholder interests. Stakeholder theory currently articulates the goal of the firm manager as seeking to create as much value as possible for all stakeholders, as opposed to just the shareholders.²⁰ Rather than focusing on the competing nature of stakeholder interests, the manager should focus on how stakeholders can cooperate to create joint gains that benefit all, or at least multiple, stakeholders.²¹ Only when the options for joint gains have been exhausted should the manager resort to trade-offs between competing stakeholders.²²

Stakeholder theory is not only a theory of firm management but a theory of corporate ethics as well.²³ It is concerned not only about firms being run well but also about how firms should interact ethically with their various stakeholders.²⁴ Stakeholder theory thus asserts that, unlike the norm of shareholder wealth maximization, corporations have an ethical duty to consider the interests of all stakeholders when making decisions and not to prioritize the interests of shareholders over those of other stakeholders.²⁵ Various normative ethical bases have been asserted as underpinning this ethical duty to attend to the interests of all stakeholders.²⁶ One commonly asserted ethical basis for stakeholder theory is the same as that for shareholder wealth maximization—utilitarianism.²⁷ Many stakeholder theorists argue that overall societal welfare, and by extension the greatest number of stakeholders, will be maximized by basing corporate decisions on maximizing stakeholder wealth as opposed to only focusing on shareholders.²⁸ Since utilitarianism is so commonly used in corporate ethics and is used as the basis for the norm of shareholder wealth maximization, this Article will focus on utilitarianism as the ethical basis for stakeholder theory. Thus, in applying

20. R. EDWARD FREEMAN ET AL., *STAKEHOLDER THEORY: THE STATE OF THE ART* 28 (2010).

21. *Id.*

22. *Id.*

23. See Robert Phillips, R. Edward Freeman & Andrew C. Wicks, *What Stakeholder Theory Is Not*, 13 *BUS. ETHICS Q.* 479, 480–81 (2003).

24. *Id.* at 493.

25. *Id.* at 481.

26. See, e.g., Norman E. Bowie, *A Kantian Theory of Capitalism*, 8 *BUS. ETHICS Q.* 37, 47 (1998) (justifying stakeholder theory using Kantian ethics); see also, e.g., Andrew C. Wicks, Daniel R. Gilbert & R. Edward Freeman, *A Feminist Reinterpretation of the Stakeholder Concept*, 4 *BUS. ETHICS Q.* 475, 475 (1994) (justifying stakeholder theory using feminist ethical theories).

27. See, e.g., Thomas M. Jones & Will Felps, *Stakeholder Happiness Enhancement: A Neo-Utilitarian Objective for the Modern Corporation*, 23 *BUS. ETHICS Q.* 349, 360 (2013) (arguing that a form of stakeholder theory that pursues “stakeholder happiness enhancement” as the corporate objective will increase overall societal welfare over the norm of shareholder wealth maximization).

28. *Id.*

stakeholder theory to determine if corporate use of cryptocurrencies is ethical, we will focus on whether or not the use of cryptocurrency in the business environment will serve to maximize the overall social welfare of all of the stakeholders of the firm.

III. CRYPTOCURRENCY HARMS²⁹

Cryptocurrency is generally defined as digital money based on blockchain technology.³⁰ The blockchain is an open-source, distributed ledger that documents all transactions and holdings of a given cryptocurrency.³¹ Therefore, cryptocurrencies rely on a consensus mechanism maintained by the users to verify all transactions and holdings.³² While this design does result in some benefits, the practice of businesses utilizing cryptocurrencies results in far more harm than good. This section focuses on the harm to the environment; the supporting of illegal transactions; the diverting away from more productive, traditional investments; and unique U.S. considerations.

A. Environmental Harm

Despite being a completely virtual currency, the practice of mining cryptocurrencies requires significant energy expenditures, which results in the release of greenhouse gases. Considering only the single cryptocurrency of Bitcoin, mining generates over 60 million tons of CO₂ every year.³³ And because cryptocurrency mining requires the latest, specialized computer hardware to be efficient, hardware is frequently replaced and not easily repurposed.³⁴ This results in 11,500 tons of hazardous electronic waste annually.³⁵

The environmental harm caused by cryptocurrency mining is even more poignant when one considers how easily avoidable it is. To illustrate

29. A comprehensive list of the overlooked harms from cryptocurrency, along with a refutation of many of the alleged benefits, was first published by the lead author in Conklin, *supra* note 9.

30. Ashford & Schmidt, *supra* note 3.

31. *Id.*

32. *Id.*

33. *Bitcoin Energy Consumption Index*, DIGICONOMIST, <https://digiconomist.net/bitcoin-energy-consumption> [<https://perma.cc/W52C-VNF8>] (last visited June 18, 2021).

34. Peter Howson, *Bitcoin Isn't Getting Greener: Four Environmental Myths About Cryptocurrency Debunked*, THE CONVERSATION (Feb. 17, 2021, 11:04 AM), <https://theconversation.com/bitcoin-isnt-getting-greener-four-environmental-myths-about-cryptocurrency-debunked-155329> [<https://perma.cc/9B7A-PTS9>].

35. *Id.*

this point, consider an investment in Exxon stock, which is often regarded as violating the principles of ethical investing.³⁶ While it is certainly true that burning fossil fuels produced by Exxon is bad for the environment, doing so allows for certain beneficial outcomes, such as air travel, life-saving backup generators, and large-scale heating and air conditioning.³⁷ Therefore, while the negative effects of pollution from fossil fuel consumption must be considered, they are to be weighed against the positive effects. But this same tradeoff is not present when considering the environmental harm from Bitcoin mining. Namely, halting the environmental harm from Bitcoin mining would not result in the cessation of air travel, life-saving backup generators, or large-scale heating and air conditioning.

B. Supporting Illegal Transactions

The anonymous nature of cryptocurrencies renders them ideal mediums for numerous illegal transactions, including human trafficking, murder for hire, illegal drugs, illegal weapons, terrorism, and identity theft.³⁸ On some of these issues, ethicists disagree as to whether such behavior is ethical or not. For example, some argue that the distribution of illegal drugs is ethical.³⁹ It could be argued that it is not unethical for someone who lives under an oppressive regime to use cryptocurrency to engage in watching a movie that has been banned. Utilizing a utilitarian framework to analyze the overall impact of illegal transactions procured through cryptocurrency payments, however, produces a strong argument that such activities are responsible for far more harm than good.⁴⁰ The U.S.

36. See Leo Nelissen, *ESG Cannot Break Exxon*, SEEKING ALPHA (June 13, 2021), <https://seekingalpha.com/article/4434583-esg-cannot-break-exxon> [<https://perma.cc/L8C4-EABY>] (“Exxon Mobil has recently been under attack from ESG-focused investors with support from some of the world’s largest asset managers.”).

37. This statement is based on the current limitations of renewable energy production and utilization. The future may allow for things such as solar-powered commercial air travel.

38. Matthew E. Gladden, *Cryptocurrency with a Conscience: Using Artificial Intelligence to Develop Money That Advances Human Ethical Values*, 18 ETHICS ECON. LIFE 85, 86 (2015).

39. See, e.g., Daniel Denvir, *We’re All Being Used: No, It’s Not Immoral to Use Illegal Drugs—Because It’s the War on Drugs That’s to Blame*, SALON (Sept. 29, 2016, 9:59 AM), <https://www.salon.com/2016/09/29/were-all-being-used-no-it-is-not-immoral-to-use-illegal-drugs-because-it-is-the-war-on-drugs-that-is-to-blame/> [<https://perma.cc/Q949-4P9V>].

40. Note that this conclusion is exclusively from weighing the harms of illegal transactions with any benefits. The separate assessment of whether cryptocurrencies overall provide more harm than benefit is considered elsewhere.

fentanyl crisis, which has resulted in over 8,000 deaths per month,⁴¹ was made possible largely by Bitcoin purchases from Chinese labs.⁴² Ransomware cyberattacks are on the rise, with devastating consequences to U.S. infrastructure.⁴³ This rise is in part due to cryptocurrencies, which help facilitate such transactions.⁴⁴

It is perhaps telling that the first place Bitcoin gained widespread use was on the Silk Road, a website on the dark web that facilitated illegal transactions.⁴⁵ The dark web is an unregulated area of the internet that offers near-anonymity.⁴⁶ Not surprisingly, this contributes to the dark web being most well-known for illegal activity.⁴⁷ Sellers on the dark web sell illegal, fully automatic rifles; stolen credit cards; counterfeit clothing; fake IDs; counterfeit currency; illegal drugs; and child pornography.⁴⁸ Cryptocurrencies play a key role in facilitating these transactions.⁴⁹

Cryptocurrencies do not merely facilitate payment for illegal transactions. Their unregulated nature is also ideal for fraud, theft, and manipulation. There have been violent robbery attempts to acquire cryptocurrency wallet passcodes.⁵⁰ Cryptojacking—a process in which a

41. Jesse C. Baumgartner & David C. Radley, *The Spike in Drug Overdose Deaths During the COVID-19 Pandemic and Policy Options to Move Forward*, COMMONWEALTH FUND: TO POINT (Mar. 25, 2021), <https://www.commonwealthfund.org/blog/2021/spike-drug-overdose-deaths-during-covid-19-pandemic-and-policy-options-move-forward> [<https://perma.cc/8MRL-Y9MU>].

42. Nathaniel Popper, *Opioid Dealers Embrace the Dark Web to Send Deadly Drugs by Mail*, N.Y. TIMES: DEALBOOK (June 10, 2017), <https://www.nytimes.com/2017/06/10/business/dealbook/opioid-dark-web-drug-overdose.html> [<https://perma.cc/ZNE8-LZGF>].

43. Samara Lynn & Catherine Thorbecke, *Why Ransomware Cyberattacks Are on the Rise*, ABC NEWS (June 4, 2021, 5:00 AM), <https://abcnews.go.com/Technology/ransomware-cyberattacks-rise/story?id=77832650> [<https://perma.cc/QZJ6-KUYW>].

44. *Id.*

45. Julia Finch, *From Silk Road to ATMs: The History of Bitcoin*, GUARDIAN (Sept. 14, 2017, 2:21 AM), <https://www.theguardian.com/technology/2017/sep/13/from-silk-road-to-atms-the-history-of-bitcoin> [<https://perma.cc/845Y-8W86>].

46. Louis DeNicola, *What Is the Dark Web?*, EXPERIAN (May 12, 2021), <https://www.experian.com/blogs/ask-experian/what-is-the-dark-web/> [<https://perma.cc/7N2G-XGPV>].

47. *Id.*

48. Jamie McKane, *17 Things You Can Buy on the Dark Web*, MYBROADBAND (Mar. 14, 2021), <https://mybroadband.co.za/news/internet-of-things/342077-17-things-you-can-buy-on-the-dark-web.html> [<https://perma.cc/Q7T9-2KGS>]; *Police Bust Dark Web Child Porn Site Used by More than 400,000 Members*, CBS NEWS (May 3, 2021, 12:20 PM), <https://www.cbsnews.com/news/child-pornography-germany-boystown-removed/> [<https://perma.cc/2B2J-355W>].

49. Fiammetta Piazza, *Bitcoin in the Dark Web: A Shadow over Banking Secrecy and a Call for Global Response*, 26 S. CAL. INTERDISC. L.J. 521, 521 (2016).

50. Cole Petersen, *Bitcoin Traders Beware: Group of Robbers Gruesomely Torture Netherlands-Based Crypto Trader*, NEWSBTC (Feb. 23, 2019), <https://www.newsbtc.com/news/bitcoin/bitcoin-traders-beware-group-of-robbers-gruesomely-torture-netherlands-based-crypto-trader/> [<https://perma.cc/94F4-SJKP>].

hacker unlawfully uses the computers of others to mine for cryptocurrency—is on the rise.⁵¹ The more people who invest in cryptocurrencies, the higher the value of cryptocurrencies will go, and the more lucrative such robberies and cryptojacking will become.

Even law-abiding holders of cryptocurrencies run the risk of being implicated in illegal activities. For example, the cryptocurrency distributed ledger typically requires that the entire transaction history for each node be stored.⁵² This sometimes includes “arbitrary blockchain content” from the computers of past users.⁵³ A 2018 study found that this occasionally includes not only sensitive information but also illegal pornography, now unwittingly stored on others’ computers.⁵⁴ Even worse, this unfortunate feature of the cryptocurrency distributed ledger could be exploited for blackmail purposes.⁵⁵

Cryptocurrency advocates often champion its decentralized and disintermediary nature. But this also results in a very democratic structure that could result in unfortunate outcomes. For example, this allows for a majority attack on the system. If 51% of the computer mining power agreed, they could make any change to the ledger they desired, including taking away millions of dollars’ worth of cryptocurrency from some and giving it to others.⁵⁶ This could also lead to Bitcoin hyperinflation, as a future protocol could be implemented to increase the number of bitcoins to anything past the current 21 million limit.⁵⁷ Existing criminal and tort law is largely inadequate to deal with such an occurrence, further exacerbating these potential problems.⁵⁸

51. Prasad Banerjee, *Cryptojacking Attacks Rise as Hackers Try to Exploit Boom*, MINT (June 5, 2021), <https://www.livemint.com/market/cryptocurrency/cryptojacking-attacks-rise-as-hackers-try-to-exploit-boom-11622892050042.html> [<https://perma.cc/Z92E-6SEQ>].

52. Claus Dierksmeier & Peter Seele, *Blockchain and Business Ethics*, 29 BUS. ETHICS 348, 351 (2020).

53. *Id.*

54. *Id.*

55. For example, someone could intentionally insert illegal images for others to unwittingly download and then attempt to use this to extort money from people. *Id.*

56. James J. Angel & Douglas McCabe, *The Ethics of Payments: Paper, Plastic, or Bitcoin?*, 132 J. BUS. ETHICS 603, 606–07 (2015) (“However, [the majority] are unlikely to do so because they would damage the trustworthiness of the network and thus destroy the value of the bitcoins that they own as well as their own ability to earn mining revenue.”).

57. Tobey Scharding, *National Currency, World Currency, Cryptocurrency: A Fichtean Approach to the Ethics of Bitcoin*, BUS. & SOC’Y REV. 219, 233 (2019). But again, this would likely be against the interest of Bitcoin holders and therefore unlikely.

58. Michael Conklin, Brian Elzweig & Lawrence J. Trautman, *Legal Recourse for Victims of Blockchain and Cyber Breach Attacks*, 23 U.C. DAVIS BUS. L.J. 135, 169–78 (2023).

Cryptocurrency advocates are not without a counterargument on this topic. They could point out that a widespread refusal to invest in cryptocurrency resulting in a 90% reduction in value might do little to diminish illegal activity. As a digital currency, there is no logistical difficulty imposed on the user from inflation as there would be with a physical currency. A hacker can just as easily demand 100 bitcoins as he can ten bitcoins, and someone selling fentanyl can just as easily change his price from one to ten bitcoins. This principle was illustrated in early 2020, when, despite a steadily declining price of Bitcoin, the use of Bitcoin for illegal transactions was at an all-time high.⁵⁹

A cryptocurrency advocate would likely compare cryptocurrencies to U.S. dollars in an attempt to rebut accusations of their unethical nature. Namely, since U.S. dollars are also used for illegal transactions, someone holding cryptocurrencies is no more unethical than someone holding U.S. dollars. This is a clever comparison, but it ultimately fails due to the numerous differences between the two. Cryptocurrencies provide unique advantages not available with U.S. dollars, such as anonymity. While physical U.S. dollars may also have benefits of anonymity, they create logistical problems not present with digital cryptocurrencies. Furthermore, for a criminal, robbing someone of millions in cryptocurrency by physically forcing him to give up his wallet passcode is preferable to attempting to physically force someone to transfer U.S. dollars from one bank to another, a transaction that can be corrected.⁶⁰

These two pro-cryptocurrency arguments, however, are simply not strong enough to overcome the arguments against cryptocurrency investing presented in this section. Furthermore, investing in cryptocurrencies provides the activity an air of legitimacy. Investing in cryptocurrencies also increases their value, which benefits those who already hold the cryptocurrency. Given the large amount of cryptocurrency being used for illegal transactions, this has the effect of disproportionately benefiting criminals who are likely to use this increased value to fund further illegal activities.

59. Nathaniel Popper, *Bitcoin Has Lost Steam. But Criminals Still Love It*, N.Y. TIMES (Jan. 28, 2020), <https://www.nytimes.com/2020/01/28/technology/bitcoin-black-market.html> [https://perma.cc/5N2Z-5N9N].

60. For example, the victim may have to physically go to the bank to complete such a transaction, the account he transferred the money into could be used to identify the criminal, and a successful withdrawal of millions in physical U.S. dollars would result in logistical problems and be difficult to spend due to currency transaction report requirements.

C. Diverts From More Productive Investments

Money invested in a cryptocurrency cannot simultaneously be invested in stocks or bonds. Therefore, one of the effects of increased investing in cryptocurrency is a decrease in other investments, all else being held constant. Consequently, any ethical consideration of cryptocurrency investing must take into account the corresponding decrease in traditional stock and bond investments. Such ethical considerations do not bode well for cryptocurrency investing.

When people invest in stocks and bonds, companies are able to engage in numerous desirable activities. Increased investment could allow a company to hire more workers, which produces many positive effects on society, such as increasing the tax base, decreasing reliance on government aid, improving mental health, and decreasing the likelihood of criminal activity.⁶¹ Increased investment could allow a company to purchase goods and services it needs. This benefits other companies that sell such goods and services. Furthermore, this likely results in more efficient production, allowing for less expensive products. Finally, increased investment could allow a company to increase research and development expenditures. This results in new products that benefit society, such as vaccines, safer cars, less expensive food, and crime-prevention tools. Improvements from increased research and development could also improve environmental conditions. Examples include more efficient vehicles, better home insulation, smart thermostats, product packaging with reduced waste, and communication improvements that allow for virtual meetings, thus reducing the need for travel.

The long list of benefits from investing in stocks and bonds is not present with cryptocurrency investments. Due to its decentralized structure, Bitcoin does not directly hire workers, indirectly create jobs,⁶² or result in the creation of new products.

Ethical investing trends allow people to semi-democratically voice their opinions on how corporations should behave. For example, people may choose to invest in companies that focus on sustainability and worker conditions, while refusing to invest in those that do not. If enough people behave in this way, they will send a strong message to corporations

61. Steven Raphael & Rudolf Winter-Ebmer, *Identifying the Effect of Unemployment on Crime*, 44 J.L. & ECON. 259, 259 (2001).

62. It could be argued that cryptocurrencies do indirectly create some jobs. For example, Bitcoin mining centers would require information technology experts to maintain. However, when compared to the jobs created from a traditional company that is publicly traded, this number would be negligible.

through the mechanism of stock price. The same cannot be said about cryptocurrency investments.

Not only does investing a dollar in a cryptocurrency result in one less dollar that can be invested in the stock market, but by contributing to the performance of cryptocurrencies, stocks become a less attractive investment to other investors by comparison, thus further reducing the societal benefits mentioned in this section.

D. Unique U.S. Consideration

American investors have an additional factor to consider regarding the ethics of cryptocurrency investing. This stems from how the U.S. dollar is the current standard for international transactions.⁶³ This affords America a unique and substantial benefit. For example:

- It functions as a type of seal of approval for U.S. markets, institutions, and policies.⁶⁴
- Large amounts of U.S. currency are held abroad, which effectively functions as interest-free loans to the U.S. government.⁶⁵
- Physical U.S. dollars held by people in other countries may be lost or destroyed, thus functioning as a gain to the United States.⁶⁶
- It slightly reduces the amount of exchange-rate risk U.S. firms face in international transactions.⁶⁷

Supporting Bitcoin will increase its attractiveness as an alternative to the U.S. dollar, thus potentially minimizing these benefits. One could even argue that many non-U.S. citizens should also favor the continued supremacy of the U.S. dollar on the basis that U.S. foreign policy is preferable to that of China and Russia. Of course, along these same lines, one could argue that the current position the U.S. dollar holds as the international standard currency is a net negative if U.S. international policies are considered undesirable.

63. Kimberly Amadeo, *Why the US Dollar Is the Global Currency*, THE BALANCE (July 23, 2020), <https://www.thebalance.com/world-currency-3305931> [<https://perma.cc/BJS4-SZKY>].

64. Ben Bernanke, *The Dollar's International Role: An "Exorbitant Privilege"?*, BROOKINGS (Jan. 7, 2016), <https://www.brookings.edu/blog/ben-bernanke/2016/01/07/the-dollars-international-role-an-exorbitant-privilege-2/> [<https://perma.cc/T7C3-MPYG>].

65. *Id.*

66. For example, if someone in another country were to accidentally have 10,000 physical U.S. dollars destroyed, this would reduce the supply of U.S. dollars, which therefore increases the value of remaining dollars, disproportionately held by Americans.

67. Bernanke, *supra* note 64.

E. Ineffectiveness as Currency

Any ethical analysis of cryptocurrency investment must consider the ability to function as a currency. This is because many of the purported benefits that cryptocurrency has to offer come from its ability to serve as a currency. There are four generally recognized conditions for an effective international currency:

1. It must have a stable, long-term value.⁶⁸
2. There must be sufficient volume to meet international demand.⁶⁹
3. There must be high liquidity with low transaction costs.⁷⁰
4. There must be a stable issuer who guarantees the currency.⁷¹

Cryptocurrencies arguably fail all four of these conditions. Using Bitcoin as an example, it is highly volatile, is limited to 21 million units, and is limited in its ability to scale.⁷² While Visa and Mastercard can process over 5,000 transactions a second, Bitcoin takes 10 minutes to finalize a single transaction.⁷³ In May 2021, Bitcoin lost almost 50% of its value.⁷⁴

It could even be argued that cryptocurrencies' replacement of the current system, which is based in part on trust with a system of exchange based on computer-based verification, could result in negative externalities.⁷⁵ This is because it could have the unintended consequence of eroding trust and reliability in society.⁷⁶ A potential tradeoff of cultural capacity for commercial efficiency could do more harm than good, as societal trust is relevant to a well-functioning society.⁷⁷

However, the value of cryptocurrency does not rely solely on its ability to be used as currency. Because cryptocurrencies have a low correlation with traditional investments, such as stocks, they can play a valuable role

68. Roger Svensson, *Bitcoin Lacks a Solid Foundation as an International Currency*, FIN. TIMES (June 7, 2021), <https://www.ft.com/content/ace87c1d-b00f-4c22-ab97-97bb2b042342> [<https://perma.cc/J4Q6-84KD>].

69. *Id.*

70. *Id.*

71. *Id.*

72. *Id.*

73. Ryan Vlastelica, *Why Bitcoin Won't Displace Visa or Mastercard Soon*, MARKETWATCH (Dec. 18, 2017, 8:24 AM), <https://www.marketwatch.com/story/why-bitcoin-wont-displace-visa-or-mastercard-soon-2017-12-15> [<https://perma.cc/SGN2-SUZZ>].

74. Charles Bovaird, *Bitcoin Price Volatility Reached Its Highest in a Year During May*, FORBES (June 2, 2021), <https://www.forbes.com/sites/cbovaird/2021/06/02/bitcoin-price-volatility-reached-its-highest-in-a-year-during-may/?sh=67960fac39e7> [<https://perma.cc/M24P-EJ8D>].

75. Dierksmeier & Seele, *supra* note 52, at 353.

76. *Id.*

77. *Id.*

in diversifying investment portfolios.⁷⁸ This improved diversification may result in less overall volatility in investment portfolios—thus reducing the likelihood of a catastrophic result—which could be viewed as a more ethical result.

IV. APPLICATION OF STAKEHOLDER THEORY TO CRYPTOCURRENCY

Applying the stakeholder theory of corporate ethics to a business decision is far from an exact science.⁷⁹ Basic questions remain contested, such as who qualifies as a stakeholder group and exactly what rights they have.⁸⁰ Some advocate for a narrow interpretation under which only “legitimate” or “salient” interest groups should be considered as stakeholders.⁸¹ Others advocate for a more expansive interpretation under which the interests of virtually anyone affected by the business’s decisions

78. Emmanouil Platanakis & Andrew Urquhart, *Should Investors Include Bitcoin in Their Portfolios? A Portfolio Theory Approach*, 52 BRIT. ACCT. REV. 1, 2 (2020).

79. See, e.g., Michael E. Johnson-Cramer et al., *What We Talk About When We Talk About Stakeholders*, 61 BUS. & SOC’Y 1083, 1084 (2022) (“Even the most committed stakeholder theorists have observed the field lacks coherence and have wondered aloud about the possibility that we talk past each other due to tensions inherent in a multidisciplinary field.”) (citations omitted); Robert A. Phillips et al., *Stakeholder Theory*, in THE CAMBRIDGE HANDBOOK OF STAKEHOLDER THEORY 3, 4 (Jeffrey S. Harrison et al. eds., 2019) (“It is a well-recognized difficulty for stakeholder theory that standard metrics of success are inadequate to capture total value created by the organization.”) (citations omitted).

80. Justin Blount & Michael Conklin, *Non-Human Stakeholders: Testing the Boundaries of Stakeholder Theory*, OKLA L. REV. (forthcoming 2023), currently available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4402429 at page 2 [<https://perma.cc/ES73-LGGV>].

81. See, e.g., Ronald K. Mitchell, Bradley R. Agle & Donna J. Wood, *Toward a Theory of Stakeholder Identification and Salience: Defining the Principle of Who and What Really Counts*, 22 ACAD. MGMT. REV. 853 (1997); see also Adele Santana, *Three Elements of Stakeholder Legitimacy*, 105 J. BUS. ETHICS 257, 257 (2012) (arguing that for a stakeholder to be legitimate, it must be a legitimate entity, have a legitimate claim, and display legitimate behavior).

should be considered.⁸² Some have even argued for the inclusion of non-human animals⁸³ and the environment itself as stakeholders.⁸⁴

Even if a universally agreed upon standard for who—or what—should be considered a shareholder were developed, an even bigger problem remains: there is no agreed upon, objective measure for how to weight the effects of a decision on stakeholder groups, which is necessary to arrive at an ultimate decision.⁸⁵ Stakeholder theory includes economic and non-economic outcomes.⁸⁶ Non-economic outcomes such as reducing employees' health care, donating food to a local foodbank, and offering a four-day workweek are difficult to quantify. One could choose to use theoretical units of happiness to weigh the non-economic benefits and costs, but this is also problematic. First, it is nearly impossible to obtain an accurate estimate as to exactly how a corporate decision will affect stakeholder happiness. This is because different people within each stakeholder group will be affected to varying degrees. For example, relocating workers to a different city may greatly increase the happiness of some workers who prefer to live in that city while greatly decreasing the happiness of other workers who would have to sell their home, relocate their immediate family, and say goodbye to extended family. The effects on stakeholders' happiness could potentially be estimated by a psychological questionnaire,⁸⁷ but this would incur the problem of incentivizing stakeholders to exaggerate the actual effects of a decision on

82. See, e.g., Cathy Driscoll & Mark Starik, *The Primordial Stakeholder: Advancing the Conceptual Consideration of Stakeholder Status for the Natural Environment*, 49 J. BUS. ETHICS 55, 56 (2004) (noting broad conceptions of what a stakeholder is and arguing that the natural environment is the “primordial stakeholder” of the firm); see also Mark Starik, *Should Trees Have Managerial Standing? Toward Stakeholder Status for Non-Human Nature*, 14 J. BUS. ETHICS 207, 209–13 (1995) (advancing several arguments for why the natural environment should be considered a stakeholder).

83. Linda Tallberg, José-Carlos García-Rosell & Minni Haanpää, *Human-Animal Relations in Business and Society: Advancing the Feminist Interpretation of Stakeholder Theory*, 180 J. BUS. ETHICS 1, 3 (2021).

84. See Driscoll & Starik *supra* note 82; see also Starik, *supra* note 82. Including the environment as a stakeholder—apart from simply how the environment may affect human stakeholders—introduces even greater ambiguity regarding how to conduct stakeholder analysis as the environment's non-sentient nature makes it impossible to communicate a preference for one course of action over another.

85. Robert Miller, *How Would Directors Make Business Decisions Under a Stakeholder Model*, 77 BUS. LAW. 773 (2022) (describing the logical decision-making problems of stakeholder theory that remain unaddressed in the business literature).

86. See Jeffrey S. Harrison & Andrew C. Wicks, *Stakeholder Theory, Value, & Firm Performance*, 23 BUS. ETHICS Q. 97, 98 (2013) (“Rather than focusing primarily on economic measures of performance, a stakeholder-based performance measure challenges managers to examine more broadly the value their firms are creating from the perspective of the stakeholders who are involved in creating it.”).

87. See, e.g., *id.* at 113–14.

their happiness in order to artificially skew the results of the poll and obtain the outcome they prefer.⁸⁸

Another problem with attempting to measure non-economic interests to conduct stakeholder analysis is that it frequently requires cross-interest weighting. One stakeholder group may benefit from a course of action, while another is harmed. For example, the implementation of productivity monitoring devices may benefit stockholders economically, may benefit managers by making their job easier, and may harm workers from the increased psychological stress of being surveilled.⁸⁹ How many dollars of increased profits and increased manager free time does it take to outweigh the psychological harm to the employees?

Further problems emerge with the stakeholder theory of ethics when one considers the probabilistic and temporal nature of the practice. Some outcomes from corporate decisions are reasonably definite, such as the effects on employees from giving all workers a pay raise.⁹⁰ But other outcomes involve predictions of probabilistic outcomes. For example, the decision to outsource manufacturing overseas inherently involves a prediction as to how the decision will affect profits. While doing so would certainly bring harm to most of the laid off workers, there is no guaranty of any benefits. Furthermore, there is no agreed upon time horizon from which to evaluate decisions. This is problematic even in the most rudimentary example of shareholder wealth, as some shareholders prefer a more short-term focus on return on investment, while others prefer a more long-term focus.

Some stakeholder advocates try to circumvent all of the problems with weighing stakeholder interests by simply asserting that the effects should only be considered in a binary nature in which if the majority of the people in a group benefit from a business decision, then that satisfies stakeholder

88. For example, if one surveyed all employees regarding how relocating their jobs would affect their happiness, an employee who somewhat did not want to relocate would be incentivized to claim that the relocating would be devastating to him, because doing so would make the move less likely than if he honestly reported that the relocation would be a mild inconvenience for him.

89. E.g., Sarah Dawood, *Amazon's Worker Surveillance "Leads to Extreme Stress and Anxiety,"* NEW STATESMAN (Feb. 13, 2023), <https://www.newstatesman.com/spotlight/cybersecurity/2023/02/amazon-workers-staff-surveillance-extreme-stress-anxiety> [<https://perma.cc/Y69M-S9A2>]; Henry Kurkowsi, *Monitoring Remote Workers: The Good, The Bad and the Ugly,* FORBES (Dec. 8, 2021, 7:15 AM), <https://www.forbes.com/sites/forbesagencycouncil/2021/12/08/monitoring-remote-workers-the-good-the-bad-and-the-ugly/?sh=538cfba51da8> [<https://perma.cc/ZRV2-Y27R>].

90. However, this generously ignores the fact that such an across-the-board pay raise will in fact affect workers differently as some may desperately need the money for essential expenses while others do not.

theory.⁹¹ This overly simplistic approach is highly problematic, as it ignores the common instance of how a given business decision could offer slight benefits to a majority of people and devastating harms to a minority. For example, suppose a firm is considering cancelling its on-site daycare and giving all workers a 1% raise as a result of these cost savings. Such a decision would result in a slight increase in happiness to the 80% of workers who do not use the daycare but a dramatic decrease in happiness to the 20% of workers who do use the daycare. Such a decision deserves more consideration than simply identifying that more people will benefit than be harmed.

Fortunately, in performing stakeholder analysis regarding business involvement in cryptocurrencies, the outcome is so one-sided that even all of the previously mentioned problems with stakeholder analysis nevertheless produce the clear conclusion that utilizing cryptocurrencies in business violates stakeholder theory. To conduct as broad an analysis as possible, this Article uses the following definition of “stakeholder value”: “the subjective judgment of a stakeholder, occurring at the individual level, of the total monetary and non-monetary utility experienced as a result of some decision or action by an organization.”⁹²

There are numerous ways that a firm might be involved with cryptocurrency. It could accept cryptocurrency as payment. It could maintain cryptocurrency holdings as part of its investment portfolio. A firm could even compensate its employees using cryptocurrency.⁹³ The ethical question under stakeholder theory—as it has been defined for purposes of this Article—is whether or not such uses of cryptocurrency would maximize the social welfare of the various stakeholders of the firm. Said differently, would the firm’s use of cryptocurrency make the firm’s stakeholders as a whole better off? Given the negative aspects of cryptocurrency previously discussed, we argue that the answer to this question is an emphatic “No.”

The consideration of a seemingly simple corporate decision helps illustrate both the complex nature of stakeholder analysis in the context of cryptocurrencies and nevertheless the clear conclusion that cryptocurrencies fail to be justified under such an analysis. Consider the practice of a firm accepting cryptocurrency as payment. Many corporations have done just that.⁹⁴ Stakeholder theory must consider the

91. Harrison & Wicks, *supra* note 86, at 113–14.

92. Leena Lankoski, N. Craig Smith & Luk Van Wassenhove, *Stakeholder Judgments of Value*, 26 BUS. ETHICS Q. 227, 233 (2016).

93. See, e.g., *Pay Your Employees in Crypto*, VIA, <https://via.work/cryptocurrency-payroll/> [<https://perma.cc/A9RM-NGWG>] (last visited May 26, 2023).

94. Beigel, *supra* note 4.

resulting various costs and benefits to the firm's stakeholders. Some customers who hold cryptocurrency may choose to use these funds instead of dollars to make purchases from the firm and therefore benefit from this arrangement. The firm and its shareholders would consequently benefit from the increased sales and increased customer goodwill. Other stakeholders would likewise benefit from this arrangement because the potential increased profitability from accepting cryptocurrency would benefit stakeholders whose interests are aligned with the success of the firm. Employees would be less likely to be laid off, be more likely to receive raises, and experience more potential for career advancement. Suppliers would be less likely to be defaulted upon, less likely to be paid late, and more likely to increase their sales to the firm. The local community would benefit from the potential for new jobs, which brings with them the benefits of an increased tax base and decreased crime.⁹⁵

This practice of a firm accepting cryptocurrency as payment would also incur numerous costs. These mostly stem from indirect, negative externalities of cryptocurrency.⁹⁶ By accepting cryptocurrency, the firm contributes to the utility of the currency and promotes and normalizes its use. This would naturally lead to more use of cryptocurrencies, which would increase the harm they produce, as explained above.⁹⁷ The environment would be harmed through increased electronic waste and increased greenhouse gas emissions, which would in turn harm all stakeholders.⁹⁸ Cryptocurrency's role in facilitating illegal transactions has the potential to directly harm stakeholders who may be victimized and indirectly harmed through the higher consumer prices that result from corporate extortion and increased government resources to address the problems.⁹⁹ The firm, its stockholders, and various other stakeholders mentioned in the preceding paragraph could all be harmed due to how the increased adoption of cryptocurrency investments would function to divert funds away from more traditional investments such as stocks and bonds in the firm that are needed to raise the capital that support the business functions that employees, suppliers, and the community indirectly benefit from.

95. Ming-Jen Lin, *Does Unemployment Increase Crime?*, 43 J. HUM. RES. 413, 413 (2008) (explaining the findings of a 1.8% increase in property crime for every one-percentage-point increase in unemployment).

96. See *infra* notes 98–99.

97. See discussion *infra* Part III.

98. See *supra* notes 33–35 and accompanying text.

99. See, e.g., *Ransomware: Paying Cyber Extortion Demands in Cryptocurrency*, MARSH, <https://www.marsh.com/us/services/cyber-risk/insights/ransomware-paying-cyber-extortion-demands-in-cryptocurrency.html> [https://perma.cc/D2VG-VLZM] (last visited June 3, 2023).

Stakeholder analysis requires that costs be weighed against the benefits, but it is also a broad concept that encompasses more than just financial costs and benefits.¹⁰⁰ Even subjective notions, such as stakeholder happiness, should be measured.¹⁰¹ Not only does the lack of any objective scale for measuring things like happiness cause difficulty, but this is further complicated by how corporate decisions affect the members of a given stakeholder group to varying degrees. For example, the decision to lay off workers may devastate a worker who is the sole provider for his family while simultaneously benefiting another laid-off worker who acquired a better job. And to make matters even more complicated, many of the benefits and costs involved are probabilistic in nature. The probabilities are largely educated guesses, and again, there is no objective measure for weighing probabilistic costs and benefits. For example, is it more ethical to impose a 40% probability of laying off ten warehouse workers or a 70% probability of laying off four salespeople?

Problems such as these are present in performing the stakeholder analysis to our hypothetical firm's decision to accept cryptocurrency payments. First, before performing the cost-benefit analysis, it is necessary to consider counterarguments against the supposed benefits must be considered. Customers receive minimal benefits from making purchases with cryptocurrency, as cryptocurrency is relatively liquid and therefore easily converted to cash.¹⁰² This reality results in the understanding that the benefits to the firm, its shareholders, and other stakeholders receive from increased sales is likely minimal. Additionally, accepting cryptocurrency would result in the firm holding cryptocurrency that introduces great risk due to the highly volatile nature of cryptocurrencies¹⁰³ and additional accounting and tax implications that cause further complications.¹⁰⁴

With the negligible nature of the benefits properly understood, it becomes clear that the benefits are far outweighed by the costs of

100. See Harrison & Wicks, *supra* note 86, at 98 (“Rather than focusing primarily on economic measures of performance, a stakeholder-based performance measure challenges managers to examine more broadly the value their firms are creating from the perspective of the stakeholders who are involved in creating it.”).

101. *Id.* at 113.

102. Brian Nibley, *Bitcoin Liquidity: How Liquid is Bitcoin?*, SOFI LEARN (Nov. 7, 2022), <https://www.sofi.com/learn/content/bitcoin-liquidity/>.

103. Nicole Lapin, *Explaining Crypto's Volatility*, FORBES (Dec. 23, 2021, 6:00 AM), <https://www.forbes.com/sites/nicolelapin/2021/12/23/explaining-cryptos-volatility/?sh=50d821617b54> [<https://perma.cc/UP7M-LEX5>].

104. Esther Mallowah, *Digital Assets: What Are the Accounting Issues?*, THE INST. OF CHARTERED ACCTS. IN ENG. & WALES (Aug. 23, 2022), <https://www.icaew.com/insights/viewpoints-on-the-news/2022/aug-2022/digital-assets-what-are-the-accounting-issues> [<https://perma.cc/HE46-BNHP>].

environmental harm, the facilitation of illegal transactions, and the diversion of funds away from traditional investments. Therefore, the application of a stakeholder ethical framework results in the clear guidance that businesses should not accept cryptocurrencies as payment.

Another behavior a firm might consider engaging in is purchasing cryptocurrencies and holding them as an investment. For example, Tesla, Inc., purchased \$1.5 billion in Bitcoin in early 2021.¹⁰⁵ A firm could purchase cryptocurrencies to diversify an investment portfolio and therefore mitigate risk,¹⁰⁶ maximize returns on investment, or even to avoid paying foreign transaction fees.¹⁰⁷ Performing a stakeholder ethical analysis of such a practice produces similar results to the prior one. As with accepting cryptocurrencies as payment, investing in cryptocurrencies incurs various harms to stakeholders, and the benefits are not as significant as they may initially appear.¹⁰⁸ For example, cryptocurrencies are not an effective investment diversification measure. While cryptocurrencies do have a low correlation to traditional investments such as stocks,¹⁰⁹ ideal diversification is achieved by adding investments with a *negative* correlation to an existing portfolio.¹¹⁰ Taking corporate funds to Las Vegas every weekend to play roulette would produce results with a low correlation to traditional investments; this would not be a wise diversification strategy. Additionally, the reason cryptocurrencies have a low correlation with traditional investments is that cryptocurrencies are so wildly volatile.¹¹¹ For this reason, they are not an ideal investment for most firms who need stable investment performance to be able to plan for the future and may need to liquidate their investments to increase cash on hand on short notice. Investing in highly volatile cryptocurrencies runs counter to this interest. Additionally, expanding an investment portfolio to include cryptocurrencies incurs additional costs in research, employee expertise, and potentially in new security measures.¹¹²

105. Steve Kovach, *Tesla Buys \$1.5 Billion in Bitcoin, Plans to Accept It as Payment*, CNBC (Feb. 8, 2021, 1:43 PM), <https://www.cnbc.com/2021/02/08/tesla-buys-1point5-billion-in-bitcoin.html> [<https://perma.cc/N54Z-JK5P>].

106. See Platanakis & Urquhart, *supra* note 78, at 2.

107. Conklin & Malone, *supra* note 10, at 31–32.

108. See discussion *infra* notes 108–111.

109. See Platanakis & Urquhart, *supra* note 78, at 2.

110. Samantha Silberstein, *How Are Negative Correlations Used in Risk Management?*, INVESTOPEDIA (Sept. 19, 2022), <https://www.investopedia.com/ask/answers/041315/how-are-negative-correlations-used-risk-management.asp> [<https://perma.cc/3KBQ-W9BE>].

111. Lapin, *supra* note 103.

112. To illustrate, imagine a firm with an existing \$10 million portfolio spread out among fifty stocks and bonds. If this firm has an additional \$10 million to invest, it can simply proportionately invest in the same fifty stocks and bonds with no additional costs

The harms to stakeholders from a firm's investment in cryptocurrencies are numerous. Because of the high volatility, it would likely not maximize firm profits and would therefore directly harm the firm and its stockholders. As discussed in the previous analysis, this would in turn indirectly harm other stakeholders, such as employees, suppliers, and the local community. Promoting the use of cryptocurrency also harms the environment, facilitates illegal transactions, and diverts funds away from traditional investments—outcomes that would harm all stakeholders. Again, stakeholder ethical analysis requires a consideration of the costs and benefits of this practice. As it pertains to firms investing in cryptocurrencies, the very minimal—if any—stakeholder benefits from the practice are clearly outweighed by the harms to the stakeholders.

Because the benefits of accepting cryptocurrencies and investing in cryptocurrencies are so negligible, the harm from greenhouse gas emissions alone is enough to conclude that the practice fails the stakeholder ethical analysis, as the stakeholder approach to ethics is greatly concerned with the environmental impact of corporate decisions.¹¹³ The 60 million tons of CO₂ produced from cryptocurrency mining of Bitcoin alone would require the transition of 16 million gasoline vehicles to fully electric vehicles to negate.¹¹⁴ These fossil fuel emissions have more direct effects on stakeholders than just the harms that stem from climate change. It is estimated that more than 8 million people worldwide die from fossil fuel pollution every year.¹¹⁵ Air pollution also negatively

incurred. However, if this firm decides to invest this new \$10 million in cryptocurrencies, it would need to research the cryptocurrency market, potentially hire an investment expert in the unique field, track this new asset group, research potential unique tax implications and accounting/reporting requirements, and ensure that its cryptocurrency password—without which its entire \$10 million investment is gone—is kept secured. None of these additional costs and risks are incurred if the \$10 million was proportionately invested in the existing stocks and bonds.

113. See, e.g., Cathy Driscoll & Mark Starik, *The Primordial Stakeholder: Advancing the Conceptual Consideration of Stakeholder Status for the Natural Environment*, 55 J. BUS. ETHICS 55, 56 (2004) (arguing that the natural environment in and of itself is a stakeholder of the firm).

114. On average, operating a gasoline vehicle produces 11,435 pounds of CO₂ annually, while operating an electric vehicle produces only 3,932 pounds. This is a 7,503-pound difference, multiplied by 16 million to arrive at 60 million tons. Andrew Moseman, *Are Electric Vehicles Definitely Better for the Climate than Gas-Powered Cars?*, CLIMATE PORTAL (Oct. 13, 2022), <https://climate.mit.edu/ask-mit/are-electric-vehicles-definitely-better-climate-gas-powered-cars> [<https://perma.cc/9Z59-VCHY>].

115. Leah Burrows, *Deaths from Fossil Fuel Emissions Higher than Previously Thought*, HARV. JOHN A. PAULSON SCH. ENG'G & APPLIED SCIS. (Feb. 9, 2021), <https://seas.harvard.edu/news/2021/02/deaths-fossil-fuel-emissions-higher-previously-thought> [<https://perma.cc/K8RU-QMHV>].

impacts asthma and allergy sufferers.¹¹⁶ And this is to say nothing of the environmental harm from producing 11,500 tons of hazardous electronic waste every year from cryptocurrency mining.¹¹⁷

The overwhelming conclusion that investing in cryptocurrency and accepting cryptocurrency as payment does not survive a stakeholder analysis when compared to other corporate ethics decisions. For example, in 2014, CVS Health, the pharmaceutical chain, announced that it would cease selling tobacco products.¹¹⁸ The decision came at a great cost, as the products produced \$2 billion in revenue annually.¹¹⁹ CVS based this decision on ethical concerns that align with stakeholder theory—that as a health company, it could not justify selling a product with such a negative impact on its stakeholders.¹²⁰ The potential profits derived were not ethically justifiable considering the product being sold has little to no societal utility other than personal enjoyment. A decision to not participate in cryptocurrencies is even more clear-cut than this decision, as CVS was giving up a significant revenue stream. Conversely, the benefits to firms for accepting cryptocurrency are minimal, and the benefits of investing in cryptocurrency are practically nonexistent.

V. CONCLUSION

This article illustrates the stark difference between shareholder ethics and stakeholder ethics. Under a shareholder-ethics framework, the analysis would have stopped after considering the costs and benefits to the goal of maximizing shareholder wealth.¹²¹ While the shareholder theory does provide the benefit of being much easier to quantify because it is largely focused on maximizing shareholder wealth, this is also a downside, as it ignores negative impacts to numerous other stakeholders. Under a stakeholder analysis, it is unclear if the harms of cryptocurrency

116. For how air pollution negatively impacts asthma sufferers see, Angelica I. Tiotiu et al., *Impact of Air Pollution on Asthma Outcomes*, 17 INT'L J. ENV'T RSCH. & PUB. HEALTH 6212, 6212 (2020); for how air pollution negatively impacts allergy sufferers, see Hajime Takizawa, *Impact of Air Pollution on Allergic Diseases*, 26 KOREAN J. INTERNAL MED. 262, 262 (2011).

117. Howson, *supra* note 34.

118. Lirong Liu et al., *Corporate Social Responsibility and Strategic Company Behavior: CVS Health's Discontinuation of Tobacco Products*, 25 CORP. SOC. RESP. ENV'T. MGMT. 1293, 1293 (2018).

119. *Id.*

120. *Id.*

121. See, e.g., Bernard S. Sharfman, *Shareholder Wealth Maximization and Its Implementation Under Corporate Law*, 66 FLA. L. REV. 389, 394–98 (2014) (discussing the norm of shareholder wealth maximization [shareholder theory] embedded in the economic logic of corporate law).

involvement would outweigh the benefits. The shareholder theory largely ignores the environmental harm and promotion of illegal transactions; it only considers victimization of shareholders themselves.¹²² Furthermore, the shareholder framework largely ignores the effect of cryptocurrency investing of diverting funds from more productive investments. It is only under the more holistic stakeholder theory that the full costs of cryptocurrency come into the equation and the unethical nature of the practice becomes blatantly apparent. And even this conclusion is based on the more limited—and generous to cryptocurrency—analysis that does not consider non-human animals and the environment as independent stakeholders. Including them in the analysis would produce an even more lopsided conclusion against this corporate practice.

This Article comes at a critical point in time. Increased focus on environmental harm has led to the proposal of a cryptocurrency mining tax.¹²³ There is an increased focus on ESG investing, especially among younger investors.¹²⁴ Rapid advances in technology, such as artificial intelligence, mean that novel ethical issues will become more frequent.¹²⁵ Additionally, there has been a call from some scholars for stakeholder theory to be integrated into corporate law.¹²⁶ The analysis conducted in this Article provides a valuable framework that can be applied to various future applications. For example, what about companies creating their own cryptocurrencies?¹²⁷ And what about new, allegedly more environmentally

122. Under the shareholder theory, however, this would be of minimal importance, as only the marginal implications of this one business's actions are taken under consideration. Therefore, the harm shareholders may experience from environmental harm and illegal activity brought about by cryptocurrency use in general is not to be considered; rather, it is only the increased risk of these effects brought about by this one business's use that is to be considered.

123. See Caitlin Ostroff, *Bitcoin Miner Bit Digital Adds Machines in Iceland Before Possible U.S. Tax Crackdown*, WALL ST. J. (May 18, 2023), <https://www.wsj.com/articles/bitcoin-miner-bit-digital-adds-machines-in-iceland-before-possible-u-s-tax-crackdown-9e645b31?page=1> [<https://perma.cc/6LR9-NRPJ>].

124. Joan Michelson, *ESG Investing Is 'Soaring.' What Does It Mean?*, FORBES (Nov. 18, 2022, 5:01 PM), <https://www.forbes.com/sites/joanmichelson2/2022/11/18/esg-investing-is-soaring-what-does-it-mean/?sh=262b5aa51bcd> [<https://perma.cc/Y3LE-KJR9>].

125. See, e.g., Reid Blackman & Beena Ammanath, *Ethics and AI: 3 Conversations Companies Need to Have*, HARV. BUS. REV. (Mar. 21, 2022), <https://hbr.org/2022/03/ethics-and-ai-3-conversations-companies-need-to-be-having> [<https://perma.cc/M8VG-DD7N>].

126. See, e.g., Amy K. Lehr, *Fiduciary Duties for a Globalized World: Stakeholder Theory Reconceived*, 27 GEO. MASON L. REV. 81, 131–39 (proposing a “New Stakeholder Theory” and discussing how it can be integrated into law).

127. See, e.g., CDLCONLINE 24, *Top 6 Companies That Have Their Own Cryptocurrency*, MEDIUM: CAPITAL (Nov. 5, 2019), <https://medium.com/the-capital/top-6-companies-that-have-their-own-cryptocurrency-7f90b253d491> [<https://perma.cc/G95H-63BD>].

friendly coin offerings, such as FairCoin and SolarCoin?¹²⁸ Regardless of what the future may bring, one thing is clear: accepting cryptocurrency for payment and holding cryptocurrency as an investment clearly violates the stakeholder theory of corporate ethics.

128. Keith Parkins, *What is SolarCoin?*, MEDIUM (Dec. 4, 2015), <https://medium.com/dark-mountain/what-is-solarcoin-7d01b9bdad43> [<https://perma.cc/MD84-7LUG>]; *The Eco-Friendly Coin for a Fair Economy*, FAIRCOIN, <https://fair-coin.org/> [<https://perma.cc/P4JX-3AUS>] (last accessed June 3, 2023).