SOCIAL COST AND MATERIAL LOSS:
THE DAKOTA ACCESS PIPELINE

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The social conflict surrounding the Dakota Access Pipeline showcased for a generation the consequences of failing to account for the social risks of development on and near Indigenous lands, including a failure to respect human rights. The failure stemmed, in part, from a lack of adequate due diligence at the outset of the project. While the bare minimum due diligence mandated within the federal domestic legal and regulatory regime was completed, the scope of the process was too narrow to assess the nature of the social, environmental and cultural impacts of development on and near the Standing Rock Sioux Tribe’s territories. This case study uses a comprehensive cost assessment methodology to assess the material impact of failing to account for those social risks. The findings of this case study show a strong correlation between the social conflict that occurred and the material losses experienced by DAPL’s parent company, the involved financial institutions, the Standing Rock Sioux Tribe and the affected communities. The results of this case study serve as a basis for the assertion that social risk resulting from the absence of adequate human rights protections has significant material impacts.

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## INTRODUCTION

The controversy surrounding the Dakota Access Pipeline (DAPL) showcased for a generation the consequences of failing to account for the total impacts of development on and near Indigenous lands, including a failure to respect human rights.

For three years, the Standing Rock Sioux Tribe communicated their opposition to DAPL, but were frustrated by the lack of meaningful consultation from Energy Transfer Partners (ETP), DAPL’s parent company, and the U.S. Army Corps of Engineers (USACE). In fact, those opportunities for early engagement represent missed opportuni-
ties for ETP, USACE, and other investors to understand the developing social risks that subsequently manifested into intense social conflict and ultimately resulted in material loss.

The types of development impacts that were not accounted for fall within social risks, or the “S” in environmental, social, and governance (ESG) standards. Impact investors, those investors who seek to generate positive social and environmental impacts alongside financial return, have been developing ESG standards for many years to evaluate a corporation’s practices and impact.1 Through environmental criteria, investors “consider how a company performs as a steward” of natural resources by, for example, measuring a potential investment’s impact on the reduction of greenhouse gas emissions or moving toward a low-carbon economy.2 Investors use governance criteria to evaluate “a company’s leadership, executive pay, audits, internal controls, and shareholder rights.”3 Through social criteria, investors examine how a company “manages relationships with employees, suppliers, customers, and the communities where it operates.”4 While environmental and governance standards are well-defined and consistent within the industry, quantification and measurement of social standards remain ambiguous, particularly in relation to the protection and promotion of human rights.5 There are still wide gaps in investors’ ability to properly assess and quantify social risk as to human rights impacts in a standardized manner.6


4. Id.


While investors have been using ESG factors to assess risk for over a decade, there are few studies that quantify the social risks of development, particularly the risks associated with large infrastructure development. This case study analyzes the DAPL project through the lens of social risk to expand that body of research.

Specifically, this case study seeks to test the proposition that the social risks that occurred attendant to DAPL had material financial impacts. To do so, the case study employs a comprehensive cost assessment methodology, using various methods to gather and analyze data. These methods all rely on publicly available data. The first step analyzes ETP’s share price data over time against a timeline of social pressure related to DAPL, to identify instances of possible influence on ETP’s share price. Second, the case study analyzes the results of these statistical event studies to compare ETP’s stock price returns with expected returns, which show the likely stock price had DAPL been completed without controversy. This step provides data regarding share price value as well as share price volatility. Finally, the authors gather and combine data on known financial losses to all entities to understand the total costs associated with social risks. All of these methods provide data to complete a comprehensive cost analysis to highlight the costs that companies, financial institutions and investors faced by failing to respect the human rights of the affected Indigenous Peoples.

The results of this case study serve as a basis for the assertion that social risk resulting from the absence of adequate human rights protections can have material impacts.

For example, the case study demonstrates in part that ETP’s stock price significantly underperformed relative to market expectations during the event study period, and that it experienced a long-term decline in value that persisted after the project was completed. From August 2016 to September 2018, ETP’s stock declined in value by almost twenty percent, while the S&P 500 increased in value by nearly thirty-five percent. This case study does not assert that this underperformance is exclusively attributable to social pressure, as many factors influence a company’s stock price at any given time. However, given the magnitude of media attention generated by the controversy as well as the quantity of financial losses reported by ETP, social pressure likely contributed to the losses.

The findings of the study point to several conclusions. First, investors must conduct due diligence on companies’ human rights policies and practices as part of a thorough risk assessment prior to making investment decisions. To ensure a complete and accurate due
diligence process, investors should consider the extent to which companies operationalize both binding and non-binding international human rights instruments. In particular, a critical component of investors’ due diligence is whether companies implement provisions in the U.N. Declaration on the Rights of Indigenous Peoples (UNDRIP).7

Additionally, this study shows that the materiality of social risks necessitates that companies disclose information to investors about their human rights policies and practices, as well as disclose the degree of local opposition to their business activities. This disclosure should be timely and subject to the same auditing and accuracy standards as any other risk that investors would expect to find in securities filings.

Part I of this case study provides background information on DAPL and the international human rights standards relevant in this case. Part II details the cost assessment approach for the case study. This includes an analysis of the stock price of DAPL’s parent company, ETP, as compared to social events linked to DAPL, as well as use of the event study methodology as applied to DAPL to better measure the “S” in ESG. Part III provides an analysis of the data to show how social risks exerted cumulative pressure on ETP’s stock price, which led to its long-term decline. In Part IV, the case study provides estimates of costs incurred to banks, and Part V estimates the additional operational and other costs of social pressure incurred by entities with an ownership stake in DAPL. Part VI estimates the costs incurred by Standing Rock Sioux communities, other local communities, and taxpayers.

I. BACKGROUND

A. Background on DAPL

Few events did more to bring the social costs of development to investors’ attention than the controversy surrounding DAPL, a 1,172-mile underground pipeline connecting North Dakota’s Bakken and Three Forks production areas to storage facilities near Pakota, Illinois.8 DAPL is currently operated by Energy Transfer, LP. However,

during the time period of this case study, DAPL was operated by Energy Transfer Partners, L.P. (NYSE:ETP), which was a master limited partnership with a diverse portfolio of energy assets in the United States, including more than 71,000 miles of pipeline.9 ETP owned 38.25% of DAPL and the remaining stakes are held by Phillips 66 Partners (25%) and MarEn Bakken Company LLC (36.75%).10 MarEn is owned by MPLX LP (Marathon Petroleum) and Enbridge Energy Partners L.P.11 The financing and organizational structure of DAPL is covered in more depth in Section I.B.

DAPL faced strong opposition from local community stakeholders before, during, and after construction.12 Among the most vocal opponents were the Indian tribes whose lands encompass portions of the pipeline route.13 While the pipeline does not cross any existing reservation boundaries, it does cross many tribes’ ancestral lands, as well as land that was reserved to the Sioux Nation in treaties but subsequently taken by force.14 On September 30, 2014, the Standing Rock Sioux Tribe met with ETP and shared their concerns about the pipeline’s impact on the Tribe’s water supply and sacred sites.15 The Tribe, whose reservation sits directly south of the pipeline route, was particularly concerned about the portion underneath Lake Oahe, as the Missouri River is the Tribe’s primary source of water.16 For the next three years, the Tribe would continue to communicate their opposition


11. Id.


13. Id.


16. See Erin Brodwin, People at the Front Lines of the Battle over the Dakota Access Pipeline Are Calling It a ‘Death Sentence,’ BUS. INSIDER (Nov. 1, 2016, 9:11
to the pipeline to all stakeholders and continue to be frustrated by the lack of meaningful consultation from ETP or USACE.17

Additional environmental justice concerns were raised when the pipeline was rerouted in September 2014.18 One of the proposed routes went ten miles north of Bismarck,19 the capital of North Dakota, which in 2017 had a population that was over ninety percent white.20 In the initial approval phase, USACE eliminated this route for several reasons, including its proximity to wellhead source water protection areas, which created a threat to Bismarck’s water supply.21 USACE did not show similar concern for the Tribe’s water source when they approved the route that went directly under Lake Oahe on the Missouri River,22 which is the Standing Rock Sioux Tribe’s main source of water for drinking, irrigation, and business uses.23


17. Hersher, supra note 12.


21. DRAFT ENVIRONMENTAL ASSESSMENT, supra note 19 (“[C]oncerns with some of the areas crossed by the route immediately removed this route alternative as a feasible option. . . . . [W]ellhead source water protection areas were prevalent due to the proximity of the city.”); see also Dalrymple, supra note 18.

22. See infra Figure 1.

On July 25, 2016, the Standing Rock Sioux Tribe filed a lawsuit accusing USACE of violating federal laws—including the National Environmental Policy Act and the National Historic Preservation Act—when it authorized DAPL.\textsuperscript{25} On September 8, 2016, the Cheyenne River Sioux Tribe and the Yankton Sioux Tribe also sued to stop the project.\textsuperscript{26} Additionally, tribal youth started a prayer camp at the


\textsuperscript{26} Complaint for Declaratory and Injunctive Relief at 1–2, Yankton Sioux Tribe v. U.S. Army Corps of Eng’rs, No. 1:16-cv-1796 (D.D.C. Sept. 8, 2016), ECF No. 1 [hereinafter Yankton Sioux Tribe Complaint]; Intervenor-Plaintiff Cheyenne River Sioux Tribe’s First Amended Complaint for Declaratory and Injunctive Relief at 1–2, Standing Rock Sioux Tribe v. U.S. Army Corps of Eng’rs, 280 F. Supp. 3d 187
north end of the Standing Rock Sioux Tribe’s reservation.27 The camp grew enormously over ten months and drew international attention, attracting as many as 15,000 people at its peak.28 DAPL also faced opposition from non-Native communities along its route.29

On September 9, 2016, in response to issues raised by the tribes in litigation, three federal agencies—the Department of Justice, the Department of the Army and the Department of the Interior—wrote a joint statement announcing that the Army would not authorize further construction on USACE land bordering or underneath Lake Oahe while it reviewed the previous federal authorizations regarding that site.30 The joint statement asked ETP to “voluntarily pause construction activity within 20 miles east or west of Lake Oahe.”31 Following that review, on December 4, 2016, the USACE denied the easement for the portion of DAPL that crossed underneath Lake Oahe and announced plans to prepare an Environmental Impact Statement for alternative routes.32 This decision was ultimately reversed by an executive order signed during the first days of the Trump administration,33 but ETP’s construction schedule was significantly delayed nonetheless.34


29. See Aisch & Lai, supra note 8.


31. Id.

32. See Memorandum from Jo-Ellen Darcy, Assistant Sec’y of the Army (Civil Works) to Commander, U.S. Army Corps of Eng’rs 3 (Dec. 4, 2016), https://api.army.mil/e2/c/downloads/459011.pdf [hereinafter Memorandum from Assistant Sec’y of the Army (Civil Works) to U.S. Army Corps of Eng’rs Commander].


34. See Julia Carrie Wong & Sam Levin, Dakota Pipeline Operator Goes to Court After Government Delays Construction, GUARDIAN (Nov. 15, 2016, 4:52 PM), https://
The camp disbanded in February 2017, but not before galvanizing worldwide support for Indigenous rights. Calls for divestment from the banks that financed the pipeline project garnered global attention and several brands were negatively linked to the failings of the project. As a result, many investors and financial institutions have sought information to better understand and mitigate the financial and reputational risks that rippled out from the wider #NoDAPL movement.

B. Financing Structure

The ownership and financing structure behind the DAPL project have important implications for understanding how the social unrest generated by opposition to DAPL was able to have such an expansive reach.

ETP financed construction of DAPL as a master limited partnership (MLP). MLPs combine the tax advantages of limited partnerships with the easy access to capital provided by publicly traded securities. MLPs have two types of partners: general partners (which manage the company’s operations) and limited partners (which provide capital by purchasing units). MLP units are similar to stocks in that they are bought and sold on a public exchange, and priced according to investors’ collective perception of the company’s value. For the purposes of this Article, the terms “stock price” and “unit price” are used interchangeably.


37. See Chittilapally, supra note 8.

38. See id. The water protectors and allies that participated in the social movement in opposition to DAPL used hashtags such as #NoDAPL, #StandWithStandingRock, and #WaterIsLife. See Sarah Steimer, #NoDAPL Movement Brings Native Voices to the Forefront on Social Media, AM. MKTG. ASS’N (Apr. 1, 2017), https://www.ama.org/publications/MarketingNews/Pages/nodapl-movement-brings-native-voices-to-forefront-on-social-media.aspx.


41. Id. at 2.

42. Id.
ETP financed the construction of DAPL by assembling a consortium of seventeen banks to provide a $2.5 billion loan. Additional banks have had financing relationships with ETP through the provision of revolving debt and general corporate loans. As lenders, these banks would not be impacted by the behavior of ETP’s stock price. The financial costs incurred to banks are discussed in more depth in Part IV. It is reasonable to suggest that the degree of public criticism directed towards banks—relative to the size of the transaction—was greater than expected and was underestimated during the banks’ own review of the project’s viability.

C. Gaps Within Social Risks and Human Rights Due Diligence

While conducting due diligence focusing specifically on social risks is a relatively new exercise, there are existing human rights instruments available to anchor and to guide the process, many of which are becoming operationalized via the wider ESG investing movement. The U.N. Guiding Principles on Business and Human Rights (Guiding Principles) urge businesses and states to carry out human rights due diligence to identify, prevent, mitigate, and account for how they address adverse human rights impacts in development projects. The Guiding Principles list the following core internationally recognized human rights instruments as the primary benchmarks for assessing the human rights impacts of business enterprises: the U.N. Declaration on Human Rights; the International Covenant on Civil and Political Rights; the International Covenant on Economic, Social and...
Cultural Rights; and the eight International Labour Organization (ILO) core conventions. The Guiding Principles also state, “[d]epending on circumstances, business enterprises may need to consider additional standards. For instance, enterprises should respect the human rights of individuals belonging to specific groups or populations that require particular attention.”

Indigenous Peoples are among the groups that require particular attention, as they have explicit human rights protections beyond those articulated in those core human rights instruments. The UNDRIP and ILO 169 Concerning Indigenous and Tribal Peoples (ILO 169) contain provisions pertaining to business activities on or near Indigenous land. Most notably, the concept of free, prior, and informed consent (FPIC) is articulated multiple times. For example, Article 32 of the UNDRIP asserts:

[S]tates shall consult and cooperate in good faith with the indigenous peoples concerned through their own representative institutions in order to obtain their free and informed consent prior to the approval of any project affecting their lands or territories and other resources, particularly in connection with the development, utilization or exploitation of mineral, water or other resources.

The Guiding Principles also note that while states have primary responsibility to protect human rights under international law, the responsibility of businesses “exists independently of States’ abilities [or] willingness to fulfill their own human rights obligations.” In the case of DAPL, the lawsuit filed by impacted tribes asserted that the minimum domestic standards for consultation were not fulfilled. At the conclusion of her official mission to the United States, the U.N. Spec-
Social Rapporteur on the Rights of Indigenous Peoples also highlighted inconsistencies between international human rights standards and the U.S. government’s approval of DAPL without tribal consent. Unfortunately, the companies and financiers behind DAPL presumed that compliance with national laws, rather than abiding by international human rights standards, was sufficient for the project to move forward on Sioux territory. Their lack of attention ultimately resulted in material loss.

While the controversy surrounding DAPL was unique due to its high media profile, it was not the first corporate project to experience significant losses due to the absence of community consent. John Ruggie, who led the development of the Guiding Principles, told *Business Ethics* that “for a world-class mining operation . . . there’s a cost somewhere between $20 million to $30 million a week for operational disruptions by communities,” and that the time it takes to bring oil and gas projects online has “doubled over the course of the previous decade, creating substantial cost inflation.” Additionally, “[a]nalysis by Environmental Resources Management of delays associated with a sample of 190 of the world’s largest oil and gas projects (as ranked by Goldman Sachs) found that 73 percent of project delays were due to ‘above-ground’ or non-technical risk, including stakeholder resistance . . . .” These costs are incurred in part by investors in the form of


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Reduced profits, volatile stock prices, and reputational damage for being financially linked to controversial activities.59

Frameworks and tools to help investors mitigate exposure to these types of risks have developed alongside the advent of ESG investing. As a prominent example, the Equator Principles (EPs) is an environmental and social risk management framework60 which, as of the time of the case study (2018), was used by 94 financial institutions in 377 countries.61 Principle 5 of the EPs states, in part, that “[p]rojects with adverse impacts on indigenous people will require their Free, Prior and Informed Consent (FPIC).”62 Banks can become signatories to the EPs, which signals that their brand as a financial entity privileges responsible development in Indigenous communities, among others.63 However, the fact that signatory banks greenlighted DAPL despite staunch opposition from the Standing Rock Sioux Tribe and other communities along its route indicates the continuing need for awareness and education regarding the social impacts of investment and development occurring on Indigenous Peoples’ lands.64

A growing number of companies are starting to report ESG information in response to investor pressures and regulatory changes.65 However, corporate reporting on ESG issues is an evolving practice, and there is not yet an industry consensus on issues that fall under the


62. EQUATOR PRINCIPLES, supra note 60, at 8.

63. See id. at 2 (“We will not provide Project Finance or Project-Related Corporate Loans to Projects where the client will not, or is unable to, comply with the Equator Principles.”).

64. Cf. Ten Equator Banks Demand Decisive Action on Indigenous Peoples Following DAPL Debacle, BANKTRACK (June 16, 2017), https://www.banktrack.org/news/ten_equator_banks_demand_decisive_action_on_indigenous_peoples_following_dapl_debacle (detailing a letter sent by ten member banks calling on all members “to remove the assumption that projects in high-income countries such as the United States need less scrutiny because environmental and human rights are already adequately protected by local law, and to ensure banks have more powers to address breaches in the standards when they arise”).

“S” in ESG; therefore, disclosures often lack sufficient information on issues such as community relations and human rights.66 When companies do not report sufficient information on human rights, investors need to conduct their own human rights due diligence prior to making investment decisions.67 Human rights due diligence should be based on the Guiding Principles and the core internationally recognized human rights instruments.68 When Indigenous Peoples are impacted, human rights due diligence should also be based on the UNDRIP and should include questions to determine whether the company has obtained FPIC for its business operations. Doing so requires a nuanced understanding of FPIC, as well as the complex dynamics behind corporate and community decisionmaking.69

For additional guidance on human rights due diligence and reporting on social risk, investors can turn to the Sustainable Development Goals (SDGs), a set of seventeen Global Goals measured by progress against 169 targets covering a broad range of social issues.70 The vast majority of these targets—which range from poverty eradication to food security to climate change—are relevant to Indigenous Peoples, and some mention Indigenous Peoples specifically in their benchmarks.71 In order for these targets to be realized, Indigenous Peoples must be able to exercise control over their communities, lands, and development goals, which can be achieved through the operationalization of their rights enshrined in the UNDRIP and ILO 169, among other human rights instruments.72 In this way, investors can use the SDGs as another global benchmark by which to mea-

66. See O’CONNOR & LABOWITZ, supra note 5, at 8, 11–15.
68. See id. at 925–26.
69. To learn more about how investors can better communicate with companies about FPIC, see generally FIRST PEOPLES WORLDWIDE, UNIV. OF COLO. BOULDER, FREE, PRIOR AND INFORMED CONSENT DUE DILIGENCE QUESTIONNAIRE, https://www.colorado.edu/program/fpw/sites/default/files/attached-files/fpic_due_diligence_questionnaire-2.pdf (last visited Jan. 7, 2020).
70. G.A. Res. 70/1, Transforming Our World: The 2030 Agenda for Sustainable Development (Sept. 25, 2015).
71. See, e.g., id. at 15.
sure—and to advocate for—company alignment with beneficial social and environmental impact.

All of these instruments and standards are useful to qualitatively express the needs of local Indigenous communities, as well as the obligations and responsibilities of states, financial institutions, and companies. They provide the backdrop required to create a quantitative assessment of the operationalization of those responsibilities, which is necessary so that investors have a comprehensive understanding of the risks and rewards of operating on and near Indigenous lands.

II. CASE STUDY APPROACH

The following case study provides a comprehensive cost assessment attendant to social risks implicated in the DAPL controversy, and uses several methods to gather and analyze data to that end. Each of these methods provide information that inform the final calculation and conclusions of the case study.

The first step is to compile the study timeline, provided in Appendix A. The timeline starts when ETP announced plans to build DAPL on June 25, 2014 and goes through July 24, 2018, when ETP’s lawsuit against BankTrack was dismissed. The timeline comprises more than ninety points including, but not limited to, legal and regulatory decisions made in response to the Standing Rock Sioux Tribe’s efforts to block construction; high-profile media coverage of incidents at the camp; conflicts with non-Native landowners and activist groups not affiliated with the Standing Rock Sioux Tribe; and public statements from ETP. These dates were chosen because they include the majority of the social events that encompassed the #NoDAPL movement as well as the moments at which social risk could have been adequately assessed prior to construction. For each date on the timeline, we record ETP’s stock price on that date, as well as the corresponding value for two stock indices that serve as benchmarks: the S&P 500 Index, and the S&P North American Natural Resources Sector Index.

As part of this first step, we make a number of observations regarding the highs and lows of ETP’s share price as compared to specific instances of social conflict. For example, we noted where the stock price fluctuated after a widely reported protest took place or where a legal decision affecting construction was announced. We also

use this data to generate information regarding long-term changes of ETP’s share price during the time period of social conflict. Second, we run event studies to analyze the impact of discrete events on ETP’s stock price. In short, we test seven events on the timeline that coincided with noticeable variance between the change in ETP’s stock price and the change in the value of the benchmark indices. We run both single factor and two-factor tests, using the benchmark indices listed above as well as the Russell FTSE4Good Global 100 Index and the Alerian MLP Infrastructure Index.

Finally, as detailed separately in Parts IV through VI, we gather data on the raw costs to all entities affected by the wider social movement surrounding the pipeline—ETP and firms with an ownership stake in DAPL, financial entities, the Standing Rock Sioux Tribe, water protectors, local taxpayers and local communities.

Our objective at the outset of this project was to see whether the social events and the lack of human rights due diligence that occurred as to this project had a material impact on ETP and associated entities. The findings bear out this proposition, showing that the lack of social risk analysis translates into long-term financial losses.

A. Event Study Methodology

In part, this case study employs an event study methodology to more precisely test the proposition that social risks can have material impacts on a company’s stock price. As a statistical methodology, an event study measures the movement of stock prices in response to specific events. The methodology is useful because it can differentiate between price fluctuations that reflect the typical range of variation due to usual trading, and price fluctuations that are highly unusual and have no other cause than the studied event. Thus, it is used to quantitatively value the impact of a particular event.

There are four steps to conducting an event study: (1) defining the time period associated with the event (also called the event window); (2) measuring the stock’s returns during that period; (3) estima-

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74. ETP is not listed as a constituent of the S&P North American Natural Resources Sector Index, nor for the S&P 500. It is not listed as a top ten constituent for the Russell FTSE4Good Global 100 Index. ETP is historically and currently one of the top ten constituents of the Alerian MLP Infrastructure Index.


77. See Bhagat & Romano, Part I, supra note 75, at 142–43.
ing the expected returns during the window assuming the event had not taken place; and (4) computing the abnormal return and measuring its statistical and economic significance.\(^78\)

Defining the event window is a nontrivial step because with this step, the researcher makes assumptions about when the information relevant to the event hit the market.\(^79\) Defining the event window depends on the type of event under study, for example an announcement of a CEO’s resignation is measured differently than watching a bill move through Congress, where there are several important milestones over time.\(^80\) Event study methodology recognizes that there may be other events that could affect market prices and accounts for the effect of market noise, or other confounding events, as an assumption contained within the statistical analysis.\(^81\)

Abnormal return is the difference between the actual stock returns and the expected returns, where the expected returns are those that might have resulted had there not been an event.\(^82\) Thus, abnormal returns are found by subtracting the expected returns from the actual returns.\(^83\) Statistical significance is tested to ensure the reliability of the alternative hypothesis (that the event had an impact on firm value) against the null hypothesis (that the event had no impact on firm value).\(^84\) Economic significance is whether the numbers are economically meaningful in that they provide pertinent information that produces an economic effect.\(^85\)

Because of their rigor, event studies provide a standard method for determining value from which to anchor policy and legal decisions.\(^86\) Corporate finance expert Sanjai Bhagat and corporate law expert Roberta Romano have noted the natural fit between the event study methodology and the corporate and securities fields of law: “[T]he benchmark for evaluating the benefit of corporate and securities laws is whether they improve investor welfare, and this can be

\(^{78}\) Id. at 143–44.

\(^{79}\) See id. at 144.

\(^{80}\) Id. at 145 (“[W]hen a bill is introduced, when a committee holds hearings on the bill, when one legislative chamber votes on the bill, when a conference committee approves a final bill, and when the executive signs the bill . . . . the researcher can adapt the methodology to permit each event date to be identified separately.”).

\(^{81}\) See generally id.

\(^{82}\) Id. at 144.

\(^{83}\) Id. at 146.

\(^{84}\) Id. at 148.

\(^{85}\) See id.

\(^{86}\) Id. at 141.
ascertained by what event studies measure, whether stock prices have been positively affected.\textsuperscript{87}

The event study methodology is based upon the efficient market hypothesis, which states that publicly available information is immediately incorporated into the price of a security.\textsuperscript{88} Similarly, two landmark securities cases from the Supreme Court are based on the assumption of an efficient market.\textsuperscript{89} In \textit{Basic Inc. v. Levinson}, the Court endorsed the presumption that trading occurs in a well-defined and impersonal market, that the market reflects all available public information and that, for those reasons, investors can rely on the integrity of the stock price.\textsuperscript{90} In securities litigation, lawyers must show whether the stock price was impacted by an alleged misrepresentation or omission of fact in order to proceed with a class of plaintiffs.\textsuperscript{91} The Court endorsed event study results for use as evidence to determine whether share price was impacted by information in \textit{Halliburton Co. v. Erica P. John Fund, Inc.} \textsuperscript{92} Because of its endorsement by the Supreme Court, event study methodology has been applied to a broad range of events including takeovers, equity offerings, changes in state of incorporation, adoption of antitakeover provisions, filing of lawsuits against corporations, deaths of corporate executives, and product recalls.\textsuperscript{93}

Thus, this case study uses the same event study methodology but to reach conclusions regarding the impact of social risks rather than securities fraud.\textsuperscript{94} Note that the use of event study at the class certifi-
cation stage in a situation like DAPL would likely not be successful, as the information regarding social risks was undoubtedly available to the market via national media coverage and would thus be incorporated into stock price via the efficient market presumption.

B. Event Study and the “S” in ESG

This case study builds on an emerging field of research that applies event study analysis to ESG events. Existing papers have used event study to assess the financial performance of firms that divested from South Africa during the apartheid era. More recently, event study was applied to a sample of over 50,000 media-reported interactions between 19 gold mining companies and various stakeholders over a timespan of 18 years.

Event study analysis offers a valuable tool to help investors better understand how ESG events impact stock prices and therefore deduce which types of risks warrant disclosure. With the advent of ESG investing, investors are increasingly seeking better reporting on ESG information from companies, but there is still debate around which ESG information is material. The Supreme Court defines material information as information that has a substantial likelihood to be “viewed by the reasonable investor as having significantly altered the ‘total mix’ of information made available,” but there is limited regulatory guidance on how this definition applies within the context of ESG specifically. In April 2016, the Securities and Exchange Commission sought public comments on the possibility of issuing guidance on


95. See Koehler & Hespenheide, supra note 59.


ESG reporting, but has not taken further action. In the European Union, legislation has been passed requiring ESG reporting from European companies. Additionally, voluntary ESG reporting has been adopted by many companies. However, these voluntary reports are inconsistent across companies and not subject to the same accuracy and audibility standards as financial reporting.

Consequently, social risks are often unknown to investors until they become social costs. In this case, ETP’s reporting concerning the project was silent or exclusively positive until the publication of its third quarterly report on November 9, 2016, in which the company acknowledged that “protests and legal actions against [DAPL] have caused construction delays and may further delay the completion of the pipeline project.” By this time, social pressure had been mounting for months and there is evidence that the company knew of these risks long before they were disclosed to investors. The event study methodology is used herein to quantify the material impact of ESG events to understand whether or where proper due diligence and disclosure might have allowed investors to better understand the social risks associated with DAPL.

C. Application of Event Study to Social Events

There are several key differences between the types of events to which event study has traditionally been applied and social events, such as this application to the DAPL controversy. First, event studies are based on information made available to investors, which tends to appear primarily in the financial media. News about corporate mergers or the release of new products seldom makes mainstream media headlines; when it does, the attention is unlikely to last for more than a few days. By contrast, DAPL and similar social movements remained in


104. Energy Transfer Partners, L.P., Quarterly Report (Form 10-Q) 55 (Nov. 9, 2016).
the media spotlight for months and coverage appeared in mainstream media, financial media, alternative media, and on social media.105

The integrity of event studies can be jeopardized by market noise—for example, speculative information about the release of new products that may or may not be true. The integrity of the study is not an issue here because most media attention in this case focused on efforts by the Standing Rock Sioux Tribe and others to challenge the company’s ability to complete the project in a timely manner, and thus had a likely impact on the company and was therefore relevant to investors.106 Thus, in the case of DAPL, nearly all of this media attention was relevant.

The second important difference between a traditional application and application to social events concerns timing. In order to accurately detect the abnormal return attributed to a particular event, analysts typically prefer to use short time windows.107 Therefore, it is common for events under study to be confined to a single day or a short timespan within a few days.108 However, social movements are chaotic by nature and news and information hits the market asymmetrically over time.109 Events traditionally measured via event study, such as filing a lawsuit or a press release announcing a CEO’s resignation, occur in a defined moment from which the impact on the market can be measured. Different approaches must be used to identify measurable time periods that capture the impacts of social conflict and their resulting impacts on a company. In this case, the DAPL controversy lasted months, beginning with initial protest activities on April 1, 2016 and

106. See infra Appendix A.
107. See Bhagat & Romano, Part I, supra note 75, at 164.
108. Id.; Andrew C. Baker, Single-Firm Event Studies, Securities Fraud, and Financial Crisis: Problems of Inference, 68 STAN. L. REV. 1207, 1227–28 (May 2016). But see Bhagat & Romano, Part I, supra note 75, at 164 (“Inability to . . . narrow the event interval does not indicate that the methodology cannot or should not be used; rather, it means that interpretation of results, such as a finding of insignificance, should be undertaken with care.”).
109. For the proposition that social movements occur in sequences where multiple protests are scheduled to make a broad impact, but where every action is not always equally effective to make institutional change, nor is every action covered in the media, see generally Braden G. King & Sarah A. Soule, Social Movements as Extra-Institutional Entrepreneurs: The Effect of Protests on Stock Price Returns, 52 ADMIN. SCI. Q. 413 (2007).
ending when the pipeline was placed into service on June 1, 2017.\textsuperscript{110} The timeline could potentially be extended even further, beginning when ETP announced the project on June 25, 2014 and ending after the project was placed into service, when subsequent legal decisions were likely to have affected investors’ perceptions. Our application of the event study methodology follows below, wherein we systematically select event windows to place under study, given this Article’s novel application of event study methodology to measuring impacts created by social conflict.

We recognize the potential limits in instrumenting a modified methodology: further research on applicability of event studies to the “S” in ESG is necessary to reveal the best methods for defining event windows, for analyzing and contextualizing abnormal return numbers, and for examining ten-day Cumulative Abnormal Return (CAR) outputs and cumulative effects to the company and markets in question.

\textbf{D. Event Study Methodology as Applied to DAPL}

This Section evaluates whether there is a significant association between the social conflict event surrounding DAPL and ETP’s share price. We make the following modifications to ensure a rigorous application of event study methodology to this case. While the event window is traditionally defined first, we begin by compiling a full event timeline and inputting historical data on ETP’s stock returns for the corresponding event dates. This timeline is provided in Appendix A. In order to define the window for event testing, we review the longer timeline that was inclusive of ETP’s stock returns and identify where ETP’s returns moved sharply on a given day coincident with an event related to DAPL. We also look at how the returns behaved based on whether a given piece of information would hit the market quickly or not. For example, longer legal decisions could take more time to create a market reaction.

Based on this review, we choose seven discrete dates to test based on social events that correlated with significant drops in the stock returns. We then test our hypothesis to see whether there is statistical validity to the correlation between a social conflict event and the observed drop in share price. The event window for each study is one day, but we repeat the event study methodology around each chosen date to create data for ten days prior to the event date and ten days

after. We do this to take into account the possibility that the social event may have had an immediate impact the day it occurred, or it may have been either anticipated or delayed. We assume that only some of the information would be of interest or create any market reaction at all, and we do not know at the outset which instances of social pressure would create a noticeable reaction.

Next, we calculate the expected returns for ETP’s stock. First, we use the S&P 500 (SPX) as the reference index for each of the seven dates. The expected returns are calculated based on 120 days of previous firm and index performance. Second, we repeat the event studies for ETP by using the RussellFTSE4Good Global 100 as the reference index. Finally, we calculate the abnormal return and test for statistical significance for each date, including the eleven-day period surrounding the chosen data. The event study methodology here mirrors traditional single-day event studies, except that we conduct individual single-day event studies for the eleven-day period surrounding the chosen date. We do this because of our assumption that information regarding social pressure may not enter the market in a single and punctuated way, but rather could trickle into the market.

Because social movements occur chaotically and information is released unevenly to the market, we also calculate the Cumulative Abnormal Return (CAR) to see how ETP’s stock price behaved in the ten days after the date tested. We use the ten-day CAR to understand whether ETP rebounded, as measured through the abnormal return, in the ten days following the event date or whether there was a more prolonged effect emanating from the event date. It would be enough to have the single-day abnormal return, but the CAR assists us in understanding the full effect of the social event. Additionally, we create data for abnormal returns across the timeline, as well as incorporating the ten-day CAR into our method to allow us to better understand how and where social pressure had a cumulative impact, given the uneven entry of information from social movements into the market over time.

We calculate the returns of the firm’s stock and the returns of the reference index with the estimation period defined as the firm and index returns for 120 days prior to the event. A twenty-one day estimation window, with ten days preceding and following each event, is used. To determine expected returns for the firm for each event, we run the regression

111. See supra notes 88, 107–09 and accompanying text.
112. Statistical significance is based on $\alpha = .05$, where the p-value is used to decide whether or not to reject the null hypothesis. A full description of the methodology is available in Appendix B.
where $e$ indicates the event under consideration, $t$ indicates the day under study, $X_{t,e}$ represents the performance of the reference index on day $t$ relative to event $e$, and $Y_{t,e}$ represents the expected returns of the firm’s stock on day $t$ relative to event $e$. The protocol applied to each event study, including the calculation of $b_{0,e}$ and $b_{1,e}$, are described in detail in Appendix B.  

We also run two two-factor event studies to compare ETP with the S&P 500 and an industry index. We run two of these tests, once with the S&P North America Natural Resource Index (SPGSSINR) and once with the Alerian MLP Infrastructure Index (AMZI). The benefit of the two-factor test is that it pulls the regression analysis comparing to the market and industry index so the test controls for the movement of the industry as a whole as compared to the market. The studies are summarized in the below table:

<table>
<thead>
<tr>
<th>Single Factor</th>
<th>Single Factor</th>
<th>Two-Factor</th>
<th>Two-Factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETP v. SPX</td>
<td>ETP v. Russell FTSE4Good</td>
<td>ETP v. SPX/SPGSSINR</td>
<td>ETP v. SPX/AMZI</td>
</tr>
</tbody>
</table>

In a two-factor event study, the firm, market, and industry returns are compared against each other. The least squares method is used to calculate the estimated line intercept as well as slopes ($\beta_1$), standard errors ($\sigma$) and r-squares for the industry and market indices. These values are then used to calculate the abnormal return for each date in a five-day event window.

Finally, we calculate the abnormal return for the length of the timeline to better understand the influence of social pressure which, as stated above, occurs unevenly over time and has a cumulative effect rather than a punctuated effect in the market. Our strategy to find the abnormal return along the timeline essentially repeats the event study methodology for the single factor indices. Abnormal return for the two-factor studies is the same as described with a one-day event window; however, tests are run in five-day increments down the length of

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113. There might be problems of non-stationarity or potential non-(log) linear time trends in using a linear regression model for this analysis, but the econometric techniques needed to address such potential problems are beyond the scope of this Article.
the timeline April 1, 2016 to October 23, 2017. The abnormal return is then tested for significance.\textsuperscript{114}

Where findings of statistical significance diminish with a smaller sample size or an increased event window, these studies remain similar to traditional single-firm, single-day event studies because the event study windows are confined to single-day periods. The difference in this study is the number of days on which we ran event studies to more accurately view how and when DAPL influenced ETP’s stock price in the markets via abnormal return data.

As with the underlying assumptions of the risk of market noise in any event study, there are other events that could have influenced ETP’s share price during the event study windows. These variables are discussed at length in Sections III.C, III.E and V.A and are summarized here. In short, on November 21, 2016, ETP announced that it entered a merger agreement with Sunoco Logistics Partners and between January 6 and February 8, 2017, seven shareholders filed lawsuits challenging the merger on behalf of ETP’s shareholders.

We account for these events as part of the potential “noise” within the tested windows in part by testing the significance of each of the single-day event studies within the ten-day window around each discrete date. We are thus able to identify trends related to the significance of the information on that day within the ten-day period for context. All of the estimated returns are analyzed against the original event timeline to note whether additional events may have influenced the share prices. Further, the fluctuation of oil prices during the larger time period is considered as part of the two-factor tests that control for market and industry movement.

As described in the next Part, tests of the single-day event study periods for each event study date, in addition to the analysis against a ten-day window, the two-factor tests, and the ten-day CAR, show a correlation between ETP’s stock price and the DAPL controversy. The modifications to the typical methodology not only allow us to measure the influence of social events, but provide additional means for analysis to understand that influence. More research on this area will advance the adaptation of event study to social risks. Further research on applying event study to social risks might explore the differentiation between non-social and social risk information that enters the market and the best means by which to account for only one variable’s influ-

\textsuperscript{114} We test for significance by dividing the AR by the r-square of the market. This gives the t-statistic. If the absolute value of the t-statistic is greater than 1.96 then we conclude that, based on a 95% confidence interval, the abnormal return is significant.
ence on share price. In this case, the results of our event study analysis, which are then added to a comprehensive cost analysis, are highly informative to understand the total costs of failing to account for social risks, such as those that occurred as a result of DAPL.

III. CASE STUDY ANALYSIS AND RESULTS

The following section is the case study analysis to show the influence of “S” factors on ETP’s stock price, via timeline and stock price analysis and the event studies. This case study does not assert that the behavior of ETP’s stock price is exclusively due to social pressure and is conducted under the assumption that the market is influenced by many factors. However, the analysis of the event studies reveals many points of wide variability in the abnormal return as tested against benchmark indices. This, along with the steady decline of ETP’s stock price, strongly indicates that ETP’s stock price fluctuations are attributable to social pressure.

A. The DAPL Timeline and ETP’s Value over Time

The data gives a comprehensive look at the events that unfolded during the DAPL controversy as well as historical data on ETP’s stock price. The Abbreviated Timeline below and the descriptions in the following Section highlight a set of particular dates that stand out as compared to ETP’s stock price and demonstrate the growing social conflict generated by opposition to DAPL as shown next to ETP’s stock price. Some prices are shown without corresponding events because the impact to the market was delayed. This data is also incorporated into the detailed analysis of ETP’s stock price in Section III.D. All data described below and used for our analysis are accessible in electronic format through our database.115

115. Carla F. Fredericks, Mark Meaney, Nicholas Pelosi & Kate R. Finn, SCML Spreadsheet Data, https://www.dropbox.com/sh/zg54gh3fhh7x82dq/AADlkYvEglg8NqOg4o-Ks-Oc2a?dl=0&preview=SCML_Spreadsheet_Data.pdf (last updated Nov. 2018) [hereinafter Fredericks, Meaney, Pelosi & Finn, Database].
### TABLE 2. ABBREVIATED TIMELINE

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
<th>ETP Stock Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>4/1/16</td>
<td>Initial protest activities begin at the construction site.</td>
<td>$23.75</td>
</tr>
<tr>
<td>8/2/16</td>
<td>ETP announces project-level financing for DAPL.</td>
<td>$27.79</td>
</tr>
<tr>
<td>8/3/16</td>
<td>North Dakota Governor declares state of emergency.</td>
<td>$30.15</td>
</tr>
<tr>
<td>8/19/16</td>
<td>Protesters stop construction for six hours.</td>
<td>$30.86</td>
</tr>
<tr>
<td>8/31/16</td>
<td>The Tribe files an affidavit stating they found 82 stone features and 27 burials on land on the DAPL route.</td>
<td>$29.60</td>
</tr>
<tr>
<td>9/2/16</td>
<td>ETP bulldozes that same area of the pipeline corridor filled with sacred sites. Demonstrators are pepper sprayed and attacked by guard dogs.</td>
<td>$29.74</td>
</tr>
<tr>
<td>9/3/16</td>
<td>Three federal agencies ask ETP to voluntary halt construction at the Lake Oahe crossing.</td>
<td>$30.32</td>
</tr>
<tr>
<td>9/13/16</td>
<td>ETP provides an update on DAPL to investors that all four states that DAPL is crossing (ND, SD, IL, IA) have issued all approvals – and project is now 60% done.</td>
<td>$27.84</td>
</tr>
<tr>
<td>9/16/16</td>
<td>The court issues an administrative injunction to halt construction while considering the SRST’s request for an injunction pending appeal.</td>
<td>$27.80</td>
</tr>
<tr>
<td>9/26/16</td>
<td>Obama mentions Standing Rock at the White House tribal leaders meeting.</td>
<td>$29.16</td>
</tr>
<tr>
<td>11/8/16</td>
<td>President Trump elected.</td>
<td>$24.26</td>
</tr>
<tr>
<td>11/9/16</td>
<td>ETP publishes its third quarterly report with first mention of social pressure in SEC filings.</td>
<td>$26.10</td>
</tr>
<tr>
<td>11/14/16</td>
<td>USACE delays the decision on the easement.</td>
<td>$27.46</td>
</tr>
<tr>
<td>12/5/16</td>
<td>USACE denies the Lake Oahe crossing easement to ETP. (Market closed on 12/4/16, significance tested for 12/5/16).</td>
<td>$22.75</td>
</tr>
<tr>
<td>1/24/17</td>
<td>President Trump takes executive action towards approving the Lake Oahe crossing easement.</td>
<td>$24.87</td>
</tr>
<tr>
<td>1/27/17</td>
<td>Spike after executive action announcement.</td>
<td>$26.07</td>
</tr>
<tr>
<td>6/1/17</td>
<td>DAPL placed into service.</td>
<td>$21.95</td>
</tr>
<tr>
<td>6/14/17</td>
<td>Judge Boasberg rules that the USACE “did not adequately consider the impacts of an oil spill on fishing rights, hunting rights, or environmental justice.”</td>
<td>$19.76</td>
</tr>
<tr>
<td>9/28/18</td>
<td>End date for this case study.</td>
<td>$22.26</td>
</tr>
</tbody>
</table>

The chart below is another visual representation of ETP’s stock price over time and is also drawn from the data.

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116. See id.
FIGURE 2. ETP STOCK PRICE (MARCH 1, 2016–OCTOBER 23, 2017)

The chart demonstrates visually that ETP’s stock price reached its peak in September 2016 and trended downward from that point. Even the spikes following President Trump’s election on November 8, 2016 and his signing of the executive action to approve the Lake Oahe easement on January 24, 2017 were not enough to return ETP’s stock to its previous levels.

The raw data on ETP and SPX returns also shows volatility of ETP as against the markets.

FIGURE 3. ETP V. SPX RETURNS (SEPTEMBER 1, 2016–NOVEMBER 7, 2016)

The raw data demonstrates two important points. First, ETP’s stock price returns decreased over time, and its share price did not return to the peak near $31 on September 8, 2016 through the close of the study on September 28, 2018. Second, the stock price experienced incredible volatility in general, and as against the market. Both of these findings coincide with the intense social conflict opposing DAPL that spanned from August 2016 to February 2017. The social
conflict, stemming from social risks, may have translated into material losses in terms of decreased returns and unexpected volatility.

Further, the raw data on ETP's stock price as well as raw data on the value of the S&P 500 provides useful information regarding ETP's market capitalization and share price value over time. From August 2, 2016 to September 28, 2018, the S&P 500 gained in value by almost thirty-five percent where ETP's price declined in value by nearly twenty percent. Even from August 2, 2016 to when the pipeline went into service on June 1, 2017, ETP's stocks had lost in value by twenty-one percent whereas the S&P had increased by nearly thirteen percent.

<table>
<thead>
<tr>
<th>Table 3. Percentage Change in Value over Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETP % Change</td>
</tr>
<tr>
<td>S&amp;P 500 % Change</td>
</tr>
</tbody>
</table>

These percentages translate into billions of dollars of losses for ETP. From August 2, 2016 to June 14, 2017, the change in ETP’s stock price amounted to a $1.6 billion loss in market capitalization.

As of September 28, 2018, the end date for this study, investors were still dealing with the fact that ETP’s stock price had not yet returned to its August 2016 levels. Furthermore, investors that bought ETP’s stock during the month that followed the announcement of project-level financing, August through September 2016, had not yet had the opportunity to sell without taking a loss at the time of the conclusion of the case study. Finally, the materiality of these losses indicates the need for corporate officers to more fully examine social risks during early project planning stages to adequately fulfill their fiduciary duties to the company to maximize returns and minimize stock volatility.

B. Event Study Analysis and Results

As noted in the methodology in Section II.C, the event studies are run against the S&P 500, the North American Natural Resources Index, the Alerian MLP Index and the Russell FTSE4Good Index. The two-factor studies serve to corroborate whether the abnormal return seen as against ETP and the S&P 500 also occurred within the industry. The abnormal return data provides additional data on the difference between ETP and the benchmark indices. The studies demonstrate the strong correlation between dates when social conflict...
occurred and when ETP’s stock price dropped such that, at a minimum, the totality of social pressure that ultimately caused extensive operational delays—boycotts, protests, media, and divestment campaigns in support of critical concerns voiced by the Standing Rock Sioux Tribe and others—constituted social risks material enough to warrant disclosure to investors at a much earlier date.

As shown in the graph of ETP’s stock price over time in Figure 2, ETP’s stock price reached a tipping point in September 2016, from which it trended downward. Significantly, this tipping point occurred after a swell of nationally covered opposition to DAPL that also peaked in September 2016. The abnormal return analysis shows a picture of considerable volatility, and there are several dates where the negative abnormal return correlates with moments of intense social pressure. This Section pulls data from the simple analysis of ETP’s stock price, as well as from each of the single-factor and two-factor method event studies to show evidence of the relationship between the social conflict opposing DAPL and ETP’s stock price.

The results of the single-factor event studies against the S&P 500 are shown below. For the last six dates tested, the ten-day CAR is negative, demonstrating that ETP’s stock price did not rebound after the event date and trended downward after the event date. The narrative following Table 4 discusses the results in more depth.
TABLE 4: ETP V. SPX EVENT STUDY RESULTS

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
<th>Statistical Significance</th>
<th>Abnormal Return on Event Date</th>
<th>10-Day CAR</th>
</tr>
</thead>
<tbody>
<tr>
<td>4/1/16</td>
<td>Initial protest activities begin at the construction site.\footnote{117}</td>
<td>Significant</td>
<td>-6.62%</td>
<td>1.86%</td>
</tr>
<tr>
<td>8/19/16</td>
<td>North Dakota Governor declares state of emergency.\footnote{118}</td>
<td>Not significant</td>
<td>0.91%</td>
<td>-2.06%</td>
</tr>
<tr>
<td>9/9/16</td>
<td>The SRST’s request for a preliminary injunction is denied.\footnote{119}</td>
<td>Significant</td>
<td>-4.6%</td>
<td>-5.78%</td>
</tr>
<tr>
<td>9/26/16</td>
<td>Obama mentions Standing Rock and commits to “redouble our efforts to make sure that every federal agency truly consults and listens and works with you, sovereign to sovereign” during the White House Tribal Nations Conference.\footnote{121}</td>
<td>Not significant</td>
<td>3.08%</td>
<td>-1.13%</td>
</tr>
</tbody>
</table>

\footnote{117. About, SACRED STONE CAMP, https://wayback.archive-it.org/7994/20161230183340/http://sacredstonecamp.org/about (last visited June 20, 2020).}
\footnote{120. Press Release, U.S. Dep’t of Justice, Office of Pub. Affairs, supra note 30.}
On April 1, 2016, the first date tested with the event study methodology, initial protest activities began at the camp.\textsuperscript{126} On this date, ETP’s stock against the S&P 500 had a significantly negative abnormal return at -6.6\%.\textsuperscript{127} The fact that the abnormal return decreased 6.6 percentage points suggests that the stock returns performed less well than would have been expected had there not been an intervening event, per the event study methodology described herein. While ETP’s

\begin{table}[h]
\centering
\begin{tabular}{|l|l|l|l|l|}
\hline
Date & Event & Statistical Significance & Abnormal Return on Event Date & 10-Day CAR \\
\hline
11/14/16 & USACE delays decision on the easement.\textsuperscript{122} & Significant & 7.47\% & -1.86\% \\
\hline
12/5/16 (Market closed, significance tested for 12/5) & USACE denies the Lake Oahe crossing easement to ETP and announces plans to conduct an Environmental Impact Statement on 12/4/16.\textsuperscript{123} At least 2,000 veterans come to the camp to show support for water protectors.\textsuperscript{124} & Significant & 3.93\% & -0.70\% \\
\hline
6/14/17 & Judge Boasberg rules that USACE “did not adequately consider the impacts of an oil spill on fishing rights, hunting rights, or environmental justice, or the degree to which the pipeline’s effects are likely to be highly controversial.”\textsuperscript{125} & Not significant & 0.36\% & -6.46\% \\
\hline
\end{tabular}
\end{table}


\textsuperscript{123} Memorandum from Assistant Sec’y of the Army (Civil Works) to U.S. Army Corps of Eng’rs Commander, supra note 32.


\textsuperscript{126} About, supra note 117.

\textsuperscript{127} See Fredericks, Meaney, Pelosi & Finn, Database, supra note 115.
stock price recovered quickly over the next ten days, the dip suggests that the social unrest registered at some level in the market.

On August 2, 2016, ETP announced the successful completion of project-level financing for DAPL. The press release stated that DAPL was “expected to be ready for service by the end of 2016.” Following this announcement, ETP’s stock price rose by 8.15% and closed at $30.15 on August 3, 2016. The Standing Rock Sioux Tribe had already filed a lawsuit on July 27, 2016 and shared their concerns about the pipeline and surrounding negotiations widely. All of this information was available to investors through media reports and other publicly-available sources, but none of it was disclosed in ETP’s securities filings until November 9, 2016.

Court documents from this time period do indicate, however, that ETP was aware that a delay could have serious financial consequences. On August 18, 2016, the company filed a memorandum in opposition to the Standing Rock Sioux Tribe’s motion for a preliminary injunction stating that “[t]he cost of even a temporary project delay is $430 million. Demobilization costs alone are $200 million. . . . The cost of an injunction during the first year would approach $1.4 billion and would exceed that amount each successive year, with none of the loss being compensable.” This information did not initially appear in ETP’s securities filings.

By August 19, 2016, the situation at Standing Rock was being covered by multiple nation-wide media outlets as the protests grew in intensity and the camp attracted hundreds of supporters. The Standing Rock Sioux Tribe also filed a lawsuit to request a temporary halt to

129. Id.
130. See Fredericks, Meaney, Pelosi & Finn, Database, supra note 115.
132. Energy Transfer Partners, L.P., Quarterly Report (Form 10-Q) 55 (Nov. 9, 2016).
134. ETP did not mention the opposition to DAPL in any of its SEC filings until November 9, 2016. See Energy Transfer Partners, L.P., Quarterly Report (Form 10-Q) 55 (Nov. 9, 2016). For reference, there is no mention of the growing public opposition or lawsuit filed by the Standing Rock Sioux Tribe in the quarterly report filed August 5, 2016. See Energy Transfer Equity, L.P., Quarterly Report (Form 10-Q) (Aug. 5, 2016).
construction, and all of these events prompted North Dakota Governor Jack Dalrymple to declare a state of emergency.\textsuperscript{135} The positive abnormal return on ETP’s stock on that day was not statistically significant at only .91%; however, in the next ten days ETP’s stock continued down.\textsuperscript{136} During the month following the announcement of project-level financing, from August 2, 2016 to September 2, 2016, ETP’s stock sold at an average price of $30.01.\textsuperscript{137}

At this point, several significant social actions occurred and precipitated ETP’s long-term downward trend. On September 2, the Standing Rock Sioux Tribe filed an affidavit in court identifying eighty-two stone features, twenty-seven burial sites, and archeological sites including cairns and stone rings along the pipeline corridor.\textsuperscript{138} On September 3, 2016, ETP bulldozed that same area and demonstrators were pepper sprayed and attacked by guard dogs.\textsuperscript{139} On September 8, 2016, the Governor mobilized the National Guard to assist Dakota Access, LLC with security.\textsuperscript{140} On Friday, September 9, 2016, tensions were already high and media reports were streaming out of the camp when the three federal agencies asked ETP to voluntarily halt construction at the Lake Oahe crossing so that they could review the issues being raised by the Standing Rock Sioux Tribe.\textsuperscript{141}

ETP’s stock price dipped only slightly between August and September 8, 2016, but the cumulative effects of social pressure were beginning to show and ETP’s stock price reached its tipping point. On Thursday, September 8, 2016, ETP’s stock price peaked at $31.04. Closely following the announcement asking ETP to voluntarily halt construction on September 9, 2016, ETP’s stock price fell by 3.01%.

\begin{footnotesize}

\textsuperscript{136} See Fredericks, Meaney, Pelosi & Finn, Database, supra note 115.

\textsuperscript{137} See id.

\textsuperscript{138} Supplemental Declaration of Tim Mentz, Sr. in Support of Motion for Preliminary Injunction at 3, Standing Rock Sioux Tribe, 280 F. Supp. 3d 187 (No. 1:16-cv-01534-JEB), ECF No. 29-1.


\end{footnotesize}
and closed at $29.42 the following Monday, September 12, 2016.\footnote{See Fredericks, Meaney, Pelosi & Finn, Database, \textit{supra} note 115.} On that date, the abnormal return against the S&P 500 was -5.02%. From this point forward, ETP’s stock price trended downward as social pressure continued to build.

On September 12, the Standing Rock Sioux Tribe appealed the court’s decision and requested a preliminary injunction, but on September 13, 2016, ETP issued a statement to Partnership Employees indicating construction would continue.\footnote{Memorandum from Kelcy Warren, Chairman & Chief Exec. Officer, Energy Transfer, to All P’ship Emps. (Sept. 13, 2016), http://media.graytvinc.com/documents/ETP+Internal+Memo+9+13+16+final+to+employees.pdf [hereinafter Warren Memo].} Three days later, on September 16, 2016, the D.C. Circuit issued an administrative injunction to halt construction while it considered the Standing Rock Sioux Tribe’s request.\footnote{Standing Rock Sioux Tribe v. U.S. Army Corps of Eng’rs, No. 1:16-cv-01534-JEB (D.C. Cir. Sept. 16, 2016) (amended order granting administrative injunction).}

On September 26, 2016, President Obama addressed the Standing Rock Sioux Tribe at the White House Tribal Nations conference, committing to “redouble our efforts to make sure that every federal agency truly consults and listens and works with you, sovereign to sovereign.”\footnote{President Obama Remarks at Tribal Nations Conference, \textit{supra} note 121.} The follow day, ETP’s abnormal return against the S&P 500 was -6.69%. The drop also occurred as against all other indices tested, confirming that ETP’s performance was abnormal as against the markets and within the industry.

The event studies for this time period (September 9, 2016; September 26, 2016; and November 14, 2016) coincide with the peak of social conflict, and ETP’s returns jumped between positive and negative abnormal return within the ten-day range of testing for each date. The range in the abnormal return as compared against the S&P 500 shows the considerable volatility of ETP’s stock price during this moment in time despite their assurances to investors.

ETP’s stock price spiked after the election of President Trump on November 8, 2016 and there was positive significant abnormal return, but ETP’s price remained only $26.01.\footnote{See Fredericks, Meaney, Pelosi & Finn, Database, \textit{supra} note 115.} On November 9, 2016, ETP published its third quarterly report stating that “protests and legal actions against DAPL have caused construction delays and may further delay the completion of the pipeline project.”\footnote{Energy Transfer Partners, L.P., Quarterly Report (Form 10-Q) 55 (Nov. 9, 2016).} The report does not
include the specific dollar amounts that were stated in the court documents, but it nonetheless constitutes the first time that social risks related to DAPL are mentioned in ETP’s securities filings.

Social pressure continued to build through November. On November 20 and 21, water protectors were met with water cannons, rubber bullets and tear gas and over 160 people were injured.148 By this time more than 400 people had been arrested.149 The Standing Rock Sioux Tribe also called on the federal government to deny the easement necessary for the Lake Oahe crossing.150 On this day, the abnormal return for ETP was significantly negative across all indices tested.

The abnormal return from this point until the end of the year shows incredible volatility, with significant shifts following timeline points. On November 25, 2016, the federal government closed access to the camp and on Monday, November 28, 2016, the Water Protectors Legal Collective filed a lawsuit against the Morton County Sheriff’s office alleging excessive force towards peaceful protesters.151 On Thursday, November 30, 2016, the abnormal return for ETP was positive for both single-factor studies, but the next day, on Friday, December 1, 2016 the abnormal return was significantly negative for three of the four tests.

On December 4, 2016, the USACE denied the Lake Oahe easement to ETP and announced plans to conduct an Environmental Impact Statement.152 At least 2,000 veterans went to the camp that day to

149. Id.
152. Memorandum from Assistant Sec’y of the Army (Civil Works) to U.S. Army Corps of Eng’rs Commander, supra note 32.
show support for the water protectors. On December 5, 2016, ETP filed a motion for summary judgment in the legal proceedings and made claims as to financial damage. Then, on December 6, 2016, within the ten day range of our event tested date of December 5, the abnormal return was significantly negative at -5.29%. ETP’s price was $22.75 on that day. A table summarizing the abnormal return values through December 1, 2016 is below.

**TABLE 5: SIGNIFICANT ABNORMAL RETURN VALUES**

<table>
<thead>
<tr>
<th>Dates</th>
<th>ETP v. SPX</th>
<th>ETP v. Russell</th>
<th>ETP v. SPX/FTSE4Good</th>
<th>ETP v. SPX/SPGSSINR</th>
<th>ETP v. SPX/AMZI</th>
</tr>
</thead>
<tbody>
<tr>
<td>9/27/16</td>
<td>-6.69%</td>
<td>-6.32%</td>
<td>-4.59%</td>
<td>-4.01%</td>
<td></td>
</tr>
<tr>
<td>11/21/16</td>
<td>-7.67%</td>
<td>-7.42%</td>
<td>-9.13%</td>
<td>-7.77%</td>
<td></td>
</tr>
<tr>
<td>11/30/16</td>
<td>4.99%</td>
<td>4.95%</td>
<td>--</td>
<td>--</td>
<td></td>
</tr>
<tr>
<td>12/1/16</td>
<td>-4.45%</td>
<td>-4.70%</td>
<td>-4.92%</td>
<td>--</td>
<td></td>
</tr>
</tbody>
</table>

On December 30, 2016, when the pipeline was supposed to be ready for service, operation was delayed as approvals were stuck in regulatory limbo. ETP’s stock price closed at $24.02 on this date and averaged $24.68 during the following month. ETP’s stock price spiked after President Trump’s executive action ordered the USACE to fast track approval of DAPL in January 2017. However, this spike was still not enough to bring ETP’s stock price to its peak levels in August or September 2016.

DAPL was finally placed into service five months later than originally projected on June 1, 2017, and ETP’s stock price closed at $21.95 on this date, averaging only $20.20 during the following month.

The final date tested with event study was June 14, 2017, when Judge Boasberg ruled that the USACE did not adequately consider the impacts of the project on fishing rights, hunting rights or the impacts

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153. Finley, supra note 124; Hayden, Thorbecke & Simon, supra note 124.
155. See Fredericks, Meaney, Pelosi & Finn, Database, supra note 115.
156. See id.
157. Id.
158. Id.
159. Id.
160. Id.
as to broader environmental justice concerns. Following that decision, ETP’s price dropped and had a statistically significant negative abnormal return on two of the following ten days in the single-factor test against the S&P 500. That there is one date with a significant positive abnormal return shows the continued volatility of the stock even after the peak of social unrest had subsided. At this point the stock price ranged between $18.46 and only $21.95.

C. Oil Price Fluctuation

Oil prices were another factor that influenced ETP’s stock price. Oil prices experienced some volatility during the event study period, but their overall trend was an upward climb. They averaged $44.88 per barrel in August 2016. They climbed slowly over the course of the DAPL controversy and continued to climb after construction was completed. Not once did they fall below $44.88, and eventually reached $73.43 on May 31, 2018. The fluctuation of oil prices was accounted for in the event study analysis by using two-factor tests that controlled for market and industry impact, as discussed in Section II.D. However, while oil prices have recovered from the downturn commodity era between December 2015 to March 2016, ETP’s stock price has not.

D. Timeline and Event Study Findings

The following graph shows ETP’s returns against the S&P 500 for the period August 1, 2016 through November 7, 2016.

162. See Fredericks, Meaney, Pelosi & Finn, Database, supra note 115.
163. See id.
164. Id.
165. Id.
167. See Fredericks, Meaney, Pelosi & Finn, Database, supra note 115.
Several conclusions can be drawn from the timeline in Appendix A and the event study analysis. First, ETP’s poor management of social risks, combined with its lack of disclosure during its initial announcement of DAPL, created a much more volatile and therefore much riskier investment than originally projected. As noted in Part I, there are many different resources available to companies to better understand the impacts of operating on and near Indigenous lands, many of which work to operationalize FPIC and integrate human rights standards into their calculus. The timeline shows that ETP made few good faith efforts to understand and integrate the Standing Rock Sioux Tribe’s concerns about the environmental, social, and cultural risks into their operations, and that ETP did not disclose known risks to investors until later in DAPL’s development. As a result, investors were not aware of the potential for delays, and it is possible that this resulted in the overvaluation of ETP’s stock price.

Second, investors must conduct additional due diligence on social risks related to human rights, due to those risks’ potentially material impact. In this case, investors who conducted due diligence on social risks—using sources independent from those provided by the company or the USACE—might have been able to reach a more accurate assessment of DAPL’s viability. The change in the oil market was not entirely foreseeable, but the project delays pushed operations into an unknown future, which reduced share price enormously for investors. The lessons learned here are clear. If each of the parties—firms and investors—conduct due diligence and make good faith disclosure, then the social risks that materially increase the total risk in a project will be known and can be mitigated from the earliest stages of project design. Similarly, as this case study asserts, these processes can be
quantified and integrated so that corporate officers are able fulfill their fiduciary duties to the company to account for all material risks.

E. Other Significant Events

The social unrest and legal challenges coincided with other significant events that affected ETP’s unitholders.

Though outside of the scope of the timeline for this case study, on February 8, 2016, Energy Transfer Equity’s CFO resigned suddenly and was replaced by ETP’s CFO. At that point ETP’s share price dipped significantly. Of note, the dates coincide with lows reflecting investor concern over a deal to buy another company, as well as lows in the oil and gas sectors. One article noted that Energy Transfer, and an affiliate of the company they were buying, led to a decrease in the Alerian MLP Index and other media reports suggested avoiding Energy Transfer Partners in favor of other MLPs.

On November 21, 2016, ETP announced in a press release that it had entered a merger agreement with Sunoco Logistics Partners (SXL). Under the agreement, “ETP unitholders [received] 1.5 common units of SXL for each common unit of ETP [that] they own[ed].” The press release stated that the merger would “have increased scale and diversification across multiple producing basins” and “strengthen the balance sheet of the combined organization by utilizing cash distribution savings to reduce debt and to fund a portion of the growth capital expenditure programs of the two partnerships.” While there is no explicit connection between the merger and DAPL’s construction delays, the timing of the merger—which faced initial consideration in October 2016 and was finalized in April

169. Id.
171. Id.; see also Adam Galas, 3 Reasons to Avoid Energy Transfer Partners and Buy These 2 High-Yield MLPs Instead, MOTLEY FOOL (Feb. 10, 2016, 2:15 PM), https://www.fool.com/investing/general/2016/02/10/3-reasons-to-avoid-energy-transfer-partners-and-bu.aspx.
173. Id.
174. Id.
2017—coincided with the peak of social pressure challenges facing the project.175

Between January 6 and February 8, 2017, seven shareholders filed class action lawsuits challenging the merger against ETP on behalf of the company’s unitholders.176 The complaints pointed to investor unrest as the cause of low share prices.177 The lawsuits alleged that conflicts of interest in the merger negotiations resulted in a flawed sales process.178 The merger agreement contained a “no solicitation” provision that restricted ETP from considering alternative acquisition proposals.179 The plaintiffs claimed that the single-bidder process with no market check undervalued ETP to the detriment of the company’s unitholders, and cited a Bloomberg article from November 2016 that reported that ETP’s unitholders would “see their quarterly payout drop from $1.06 to 77 cents—a cut of 27 percent.”180 The lawsuits also accused ETP of failing to disclose or disclosing materially misleading misstatements regarding the merger and management’s financial projections in the days leading up to the merger,181 but the consolidated case was voluntarily dismissed without providing further information on November 21, 2017.182

IV.

ESTIMATED COST TO BANKS

This Part assesses the costs incurred by the banks financing DAPL, which accrued in several ways. First, banks were adversely affected by direct account closures on the part of individuals and local

176. Energy Transfer, LP, Quarterly Report (Form 10-Q) 20 (May 4, 2017).
178. See, e.g., id. at 7.
179. See, e.g., id. at 8.
governments who wished to stand in solidarity with those opposing DAPL via a divestment strategy. Second, several banks sold their shares in the project-level loan to show support for the Standing Rock Sioux Tribe’s efforts to halt the pipeline. Finally, as a result of these events, several banks and the Equator Principles Association have renewed dialogue as to the best ways to quantify social risks when considering financing of projects on and near Indigenous Peoples’ lands.

A. Direct Account Closures

ETP received financing for DAPL from a consortium of seventeen banks resulting in a $2.5 billion project-level loan to the company. Additional banks were tied to DAPL because of their provision of financing to ETP at the corporate level.

TABLE 6. AMOUNT INVESTED IN DAPL PER BANK

<table>
<thead>
<tr>
<th>Bank Name</th>
<th>Amount Invested in DAPL</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Bank of Tokyo-Mitsubishi (UFJ)</td>
<td>$235 million</td>
</tr>
<tr>
<td>BayernLB</td>
<td>$120 million</td>
</tr>
<tr>
<td>BBVA Spain</td>
<td>$120 million</td>
</tr>
<tr>
<td>BNP Paribas</td>
<td>$120 million</td>
</tr>
<tr>
<td>Citigroup</td>
<td>$235 million</td>
</tr>
<tr>
<td>Credit Agricole</td>
<td>$120 million</td>
</tr>
<tr>
<td>DNB</td>
<td>$331 million</td>
</tr>
<tr>
<td>ICBC</td>
<td>$120 million</td>
</tr>
<tr>
<td>Intesa SanPaolo</td>
<td>$120 million</td>
</tr>
<tr>
<td>ING</td>
<td>$120 million</td>
</tr>
<tr>
<td>Mizuho Bank</td>
<td>$235 million</td>
</tr>
<tr>
<td>Natixis</td>
<td>$120 million</td>
</tr>
<tr>
<td>Société Générale</td>
<td>$120 million</td>
</tr>
<tr>
<td>Sumitomo Mitsui Banking Corporation</td>
<td>$120 million</td>
</tr>
<tr>
<td>SunTrust Bank</td>
<td>$120 million</td>
</tr>
<tr>
<td>TD Bank Financial Group</td>
<td>$235 million</td>
</tr>
<tr>
<td>Wells Fargo</td>
<td>$120 million</td>
</tr>
</tbody>
</table>


As lenders, these banks would not be materially impacted by the behavior of ETP’s stock price, but they faced financial impacts in other ways. First, many individual and institutional consumers closed their checking and savings accounts as a means of protesting their banks’ financial support for DAPL. A coalition of water protectors created a “Defund DAPL” campaign and website where consumers uploaded data on how much money they withdrew from their banks. The resulting data indicates that personal account closures alone accounted for a loss of $86.2 million.

Several city governments also took up divestment as a strategy to stand in solidarity with those at Standing Rock. This move ultimately cost banks over $4.3 billion in closed municipal accounts. In fact, over ninety percent of the $4.4 billion lost via municipal account closures were suffered by Wells Fargo alone. Seattle, Santa Monica, and Davis all ended their established relationships with Wells Fargo, withdrawing $3 billion, $1 billion, and $124 million respectively. Divestment campaigns also took place in San Francisco, Los Angeles, New York, Bellingham, Raleigh, and Albuquerque, among other cities. The financial impacts of these divestments are compounded by damages to reputation, brand, and customer goodwill that banks suffered as a result of DAPL.


186. See Defund: Personal Finances, DEFUNDDAPL, http://www.defunddapl.org/defund (last visited May 2018) (on file with authors). The website and data uploaded to the website are no longer available online as of the date this Article went to press. We have internal notes that verify the amounts detailed in this Section.

187. See Mark Fogarty, DAPL Fallout Continues: Defund Movement Passes $5 Billion, INDIAN COUNTRY TODAY (Apr. 5, 2017), https://newsmaven.io/indiancountrytoday/archive/dapl-fallout-continues-defund-movement-passes-5-billion-ndtarF2pi5C4oiH5juqQ/; Defund: Personal Finances, supra note 186. Note that the data is crowdsourced and cannot be fully verified as individual consumers entered their account information.

188. Home, supra note 185.


190. Id.
Overall, the Defund DAPL website reported total account closures valued at $4.4 billion. This figure includes personal account closures valued at $86.2 million and municipal divestment valued at $4.3 billion. The numbers, though crowdsourced, serve as important indicators of the strength and reach of the divestment campaigns. For example, protests at Wells Fargo branches occurred across the country and the availability of internet banking made personal account closure an easy way for consumers nationwide to participate in the Defund DAPL movement.

TABLE 7. DIVESTMENT FROM DAPL AFFILIATED BANKS

<table>
<thead>
<tr>
<th>Account Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal Account Closures</td>
<td>$86,202,675.25</td>
</tr>
<tr>
<td>City Divestment</td>
<td>$4,324,000,000.00</td>
</tr>
<tr>
<td>Total Account Closures</td>
<td>$4,410,202,675.25</td>
</tr>
</tbody>
</table>

B. SELLING SHARES IN THE PROJECT-LEVEL LOAN

Second, banks cut ties with DAPL by selling shares in the original loan. Three of the seventeen banks that partook in the original project level loan sold their shares in the loan: BNP Paribas, DNB, and ING. Each bank issued a public statement in support of the Standing Rock Sioux Tribe. While the terms of the sales are not public, it is likely that each of the banks took a loss. None of these sales deprived ETP of valuable capital, but these actions underscored...
and amplified the tribe’s concerns to investors and financial institutions worldwide at the same time as they demonstrated the reputational burden that the DAPL controversy placed on its investors.

Finally, while not demonstrated in this case study, it is important to note that additional costs could easily accrue to banks from delayed loan repayments.

C. Subsequent Actions

Once again, disclosure and due diligence surface as key themes to guard against future losses. Information is not available at the time of this writing as to whether ETP disclosed information on social risks during negotiations with financial institutions for the project loan. However, if ETP’s disclosures to banks mirrored its disclosure to shareholders during this timeframe, information about social risks was likely sparse.

Conversely, the lack of proper risk disclosures by companies does not automatically relieve banks of the need to adequately factor social risks into their own due diligence prior to committing financing. In fact, the Equator Principles (EPs) were specifically created as an environmental and social risk management framework for this purpose and signatories have access to information and standards through the Equator Principles Association to focus their risk assessment.196

Notably, in this case, thirteen of the seventeen banks that committed funding were signatories to the EPs, and their support for DAPL directly contradicted their commitments to FPIC under the EPs.197 Furthermore, their willingness to forgo enhanced due diligence, as promised, elicited extensive dialogue among banks, Indigenous Peoples, and others about how effectively the EPs were being implemented.198 Those losses to banks, whether through direct account closures, through selling their shares of loans, or by tarnishing their reputation as responsible community lenders, may have been avoided had a more thorough social risk assessment been conducted. In the reverse, banks that insist that projects be conducted with the highest degree of integrity as to solicitation of FPIC and to under-

196. See Equator Principles, supra note 60, at 4.
standing the complex impacts of projects on Indigenous lands will mark themselves as responsible and more financially viable for having accounted for the risks and costs of operating therein.

In November 2017, the Equator Principles Association announced plans to start a process of updating the EPs in order to “reflect ongoing learning and emerging good practice.” The goal of the process is a targeted update that gives particular attention to scope of applicability, human rights (inclusive of the rights of Indigenous Peoples), climate change, and other issues. The Equator Principles Association’s desire to glean information and understanding from the DAPL controversy will hopefully give financial institutions a more focused understanding of how to apply due diligence as to Indigenous communities and ensure that there is no reason for financial institutions not to apply these frameworks during all stages of project consideration and financing.

V. ESTIMATED COSTS TO FIRMS

The Sections in this Part quantify the costs that accrued to ETP and other firms with an ownership stake on DAPL. These costs are assessed using publicly available data. The project was slated to cost $3.78 billion. But the total cost of DAPL is likely closer to $7.5 billion, as calculated in Section V.D. As noted before, this case study suggests that the delay is directly correlated with the cumulative social pressure opposing DAPL that began in April of 2016. The next Section details each of the components of the total estimated costs to firms: the additional operating costs including what is known about the costs of lost revenue; the costs associated with protests; and costs that are substantiated but not quantified.

While this Part estimates costs to firms with ownership stake in DAPL, it does not seek to assess how these costs were allocated across the firms. As stated above, ETP owned DAPL jointly with Enbridge, Phillips 66, and Marathon Petroleum. As the largest stakeholder and operator of the project, it is reasonable to suggest that the largest share of these costs was incurred by ETP.

200. See id.
A. Additional Operating Costs

At the outset of the project DAPL was slated to cost $3.8 billion overall, but this total quickly escalated as social pressure mounted and construction was delayed. ETP reported information on estimated additional costs resulting from the delay in a court filing made on August 18, 2016 in opposition to the Standing Rock Sioux Tribe’s motion for a preliminary injunction to halt construction. The filing stated,

[if the Court grants an injunction and Dakota Access ultimately prevails in this action, or it otherwise is determined that Dakota Access has been wrongfully enjoined or restrained, the damages to Dakota Access will be substantial. The damages Dakota Access will sustain as a result of the requested injunction, even for a temporary shutdown, would total approximately $1.4 billion in the first year.]

ETP breaks down this $1.4 billion figure as follows:

**Table 8. Additional Operational Costs**

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Renew Easements</td>
<td>$70,000,000.00</td>
</tr>
<tr>
<td>Remobilization Costs</td>
<td>$200,000,000.00</td>
</tr>
<tr>
<td>Maintenance of Work Sites</td>
<td>$18,000,000.00</td>
</tr>
<tr>
<td>Capital Expense</td>
<td>$36,000,000.00</td>
</tr>
<tr>
<td>Loan Renewal Fees</td>
<td>$15,500,000.00</td>
</tr>
<tr>
<td>Dakota Access’ 2017 Lost Revenue</td>
<td>$913,000,000.00</td>
</tr>
<tr>
<td>Specialty Seed Payment</td>
<td>$4,500,000.00</td>
</tr>
<tr>
<td>Duck Lease Payment</td>
<td>$3,000,000.00</td>
</tr>
<tr>
<td>“Completed-by” breach payments</td>
<td>$4,300,000.00</td>
</tr>
<tr>
<td>Deviations from construction schedule</td>
<td>$100,000,000.00</td>
</tr>
<tr>
<td><strong>Total Additional Operational Costs</strong></td>
<td><strong>$1,364,300,000.00</strong></td>
</tr>
</tbody>
</table>

ETP provided the $1.4 billion estimate of additional costs in August of 2016, and the pipeline was placed into service on June 1, 2017. Thus, this case study assumes that most, if not all, of these

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202. *See id.* ("The current law enforcement effort has reportedly cost $15 million so far.").
203. Dakota Access, LLC’s Opposition to Plaintiff’s Motion for Preliminary Injunction, *supra* note 133, at 30.
204. *Id.* at 42.
205. *Id.*
206. *Id.* at 30; Press Release, Energy Transfer, *supra* note 10.
SOCIAL COST AND MATERIAL LOSS

estimated expenses were incurred over the ten-month intervening
time-period given security costs, legal fees and other costs associated
with the delay. In the same court document, ETP also stated:

Halting DAPL construction, even if temporary, would result in sub-
stantial job losses and other local benefits, and will additionally
cause [Dakota Access, LLC] to lose profits that are unlikely to be
recoverable. Specifically, DAPL expects to lose (and not just delay
the receipt of) $900 million dollars every month the pipeline con-
struction is delayed.207

A minimum estimate for construction delays alone would be for
about two months, beginning on December 4, 2016 when the USACE
denied the easement to cross Lake Oahe and ending on February 8,
2017, when the easement was granted.208 This represents a minimum
because there were several other delays that spanned multi-day peri-
ods but likely do not add up to a month in aggregate. And, to the best
of our knowledge, this number does not include the final costs of con-
struction from February 9, 2017 to June 1, 2017, nor does it include
fees for maintenance, remobilization, or loan renewal. A delay of even
two months could cost as high as $1.8 billion for construction alone.
This estimate is far higher than the $1.4 billion estimate that includes
such costs over the year. Therefore, we used $1.8 billion to estimate a
maximum bound.

There is a paucity of publicly available information that shows
exactly how much of these anticipated costs were actually incurred.
ETP did state, however, on November 15, 2016, that “the delay has
already cost Dakota Access more than $450 million dollars. Further
delay will cost Dakota Access tens of millions of dollars per month
thereafter, none of which can be recovered.”209 This number (“tens of
millions”) appears to be less than the $900 million given in the docu-
ment above, but captures the drain of millions of dollars due to delays.

There is little public information as to whether the estimate above
accounts for changes in the company’s contracts with shippers, which
resulted from the delay. According to ETP’s statements to the courts,

207. Dakota Access, LLC’s Opposition to Plaintiff’s Motion for Preliminary Injunc-
tion, supra note 133, at 32.
208. Press Release, U.S. Army Corps of Eng’rs Omaha Dist., Corps Grants Ease-
ment to Dakota Access, LLC (Feb. 8, 2017), http://www.nwo.usace.army.mil/Media/
News-Releases/Article/1077134/corps-grantseasement-to-dakota-access-llc/ [https://
perma.cc/84VY-XSN9].
209. Dakota Access, LLC’s Answer to Intervenor-Plaintiff Cheyenne River Sioux
Tribe’s First Amended Complaint for Declaratory and Injunctive Relief, and Cross-
Claim Against Defendant U.S. Army Corps of Engineers at 54, Standing Rock Tribe
JEB), ECF No. 57 [hereinafter Dakota Access, LLC’s Answer and Cross-Claim].
“in connection with its long-term transportation contracts with 9 committed shippers, Dakota Access has committed to complete, test and have DAPL in service by January 1, 2017. The long-term transportation contracts give shippers a right to terminate their commitments if DAPL is not in full service per the contract deadline.”

Given that DAPL was not in service by January 1, 2017, shippers were likely given the right to terminate their contracts, or at least to renegotiate them.

If shippers did not outright terminate their contracts with the company, they may have had the option of seeking concessions on contracted volumes, prices, or contract duration. To the extent that it figured into price negotiations, the price of oil changed dramatically between the time the pipeline was proposed in 2014 to 2017. When DAPL was first proposed in 2014, oil prices averaged $96 per barrel. Production in the Bakken and Three Forks areas had reached record highs at that time, with the U.S. Energy Information Administration predicting continued growth through 2025. Then the market crashed. Oil prices between January 2015 and September 2016 averaged only $45 per barrel. Production in the Bakken and Three Forks consequently declined, and the region found itself faced with a glut of energy transportation infrastructure, with sixty percent of its capacity underutilized. Thus, if ETP had to renegotiate its contracts with shippers, it did so at a time when both oil prices and need for Bakken energy infrastructure were significantly lower than when DAPL was first proposed.

Given these changes in oil prices and the delay in placing DAPL online, it is possible that lost revenue from renegotiations or changed shipping fees is significant, especially since the tariffs charged by ETP to shippers likely represent a large portion of their revenue from the pipeline. While not included in the calculations for this study, Enbridge stated in an affidavit to the court that for each day of delay to the in-service date of the Bakken Pipeline System, Enbridge would

211. Average Crude Oil Spot Price, YCHARTS, https://ycharts.com/indicators/average_crude_oil_spot_price (last visited June 20, 2020) [https://perma.cc/W2ZLQHDF].
213. Average Crude Oil Spot Price, supra note 211.
214. KUNKEL & WILLIAMS-DERRY, supra note 210, at 9.
suffer losses of $600,000 per day in 2017. This was based on Enbridge’s "27.6% interest in the tariff revenues generated by the pipeline companies." Similar costs would be distributed to each of DAPL’s owners with interest in the tariff revenues, and the additional costs of renegotiations would be accrued by ETP.

This case study estimates maximum and minimum additional costs based on the different statements made by ETP regarding its own estimate of costs due to delay. In the same document ETP stated that the cost could be $1.4 billion over one year, and that ETP could lose $900 million per month of delayed construction time. While there are different time periods associated with each statement, the additional costs are significant by any measure.

### TABLE 9. ADDITIONAL OPERATING COSTS TO FIRMS

| A | Cost of delays up to November 15, 2016 | $450,000,000.00 |
| B | Cost of construction delays (2 months) | $1,800,000,000.00 |
| C | Additional Operating Costs (full year 2017) | $1,400,000,000.00 |
| **TOTAL (A+C)** | **$1,850,000,000.00** |
| **TOTAL (A+B)** | **$2,250,000,000.00** |

It is likely that DAPL cost ETP and other associated firms far more than these estimates. While some of the costs to ETP were made public through court documents, there was little disclosure to investors otherwise, and most of it was reactive to the social pressure. Had any of the firms associated with DAPL completed an independent due diligence process rooted in human rights and Indigenous rights policies at any point prior to the announcement of project-level financing on August 2, 2016, it is likely they would have found many of the indicators of social unrest that ultimately cost the project in time and money.

#### B. Costs of Protest

The costs of protest differ from lost revenue and operating costs in that the latter were caused by government actions that delayed ap-

215. Dakota Access, LLC’s Opposition to Plaintiff’s Motion for Preliminary Injunction, supra note 133, at 31.

provals needed to finish construction, while the former were caused by
the presence of the camp itself and the social actions generated
therein.

On August 22, 2017, ETP filed a lawsuit against several environ-
mental organizations that were involved with the protests against
DAPL, including Greenpeace, BankTrack and Earth First!, among
others (herein referred to as “environmental organizations”).217 The
lawsuit alleged that these organizations participated in “campaigns of
misinformation to target legitimate companies and industries with
fabricated environmental claims and other purported misconduct, in-
flicting billions of dollar in damage.”218 The company sought financial
damages as compensation for the following:

[I]mpaired access to the capital markets and increased cost of capi-
tal; decreased market capitalization; lost profits; lost relationships
with investors, lending partners, and other contractual relationships;
business disruption losses and expenses; substantial damages to
Plaintiffs’ property, brand, goodwill, business reputation, and
standing in the global marketplaces, communities, and government
agencies critical to Plaintiffs’ business; and the expenditure of sub-
stantial resources and management time to mitigate the damage
caused by the [environmental organizations’] illegal campaign, in-
cluding legal fees.219

The complaint further stated that “[e]stimates of increased cost as
a result of the [environmental organization’s] conduct are not less than
$300 million, with the full extent of damage that Energy Transfer has
suffered can only be determined at trial.”220

On July 24, 2018, ETP’s claims against BankTrack were dis-
missed by a federal judge, who stated that the company’s attempts to
connect public criticism to remote criminal activities represented an
attempt to “curtail almost any disagreeable, arguably protected speech.”221 While not legally substantiated, the damages outlined in
ETP’s claim provide additional insight into the financial impacts of
failing to maintain positive relationships with Indigenous Peoples.
However, like the other costs that ETP claims to have suffered in

217. Complaint at 1, Energy Transfer Equity, L.P. v. Greenpeace Int’l, No. 1:17-cv-
218. Id.
219. Id. at 169.
220. Id. at 149.
221. Press Release, EarthRights Int’l, Court Dismisses Frivolous and “Dangerously
Broad” Lawsuit Against NGO BankTrack for Opposing Dakota Access Pipeline (July
frivolous-and-dangerously-broad-lawsuit-against-ngo-banktrack [https://perma.cc/
B2EY-SVFZ].
court, none of these costs appeared in the company’s disclosures to investors at any time. This case study assumes ETP’s stated cost of protests at $300 million.

C. Costs that Are Substantiated but Not Quantified

Finally, there are other significant costs that can be reasonably inferred but are not quantifiable using publicly available data. For example, ETP was somewhat insulated from any boycott efforts because it is primarily involved in the distribution rather than the sale of energy. However, DAPL affiliate companies Enbridge, Phillips 66, Marathon Petroleum, and Sunoco sell gasoline on the retail level and some efforts to boycott these companies were made, though these efforts were not as well-organized or as well-recorded as the efforts to boycott banks. 222

D. Total Costs to Firms

The minimum and maximum values for the total costs to firms are computed by summing the different additional operating costs numbers covered in Section V.A, and then adding the total to the other figures described in Part V.

Additionally, the total cost of losses to firms includes ETP’s loss in market capitalization as discussed in Section III.A. From August 2, 2016 to June 14, 2017, the time period with the most intense social pressure, the change in ETP’s market capitalization amounted to a loss of $1.6 billion. 223

This loss of market capitalization is included in the total costs as it is indicative of all losses that ETP experienced. Because of the merger with Sunoco Logistics Partners, L.P., completed on May 1, 2017, the number does not capture volatility due to social pressure alone. However, it does quantify the losses that ETP carried as it placed the pipeline into service.


223. The analysis of market capitalization assumes that historical data sourced from stockrow.com was accurate at all dates pulled. See Fredericks, Meaney, Pelosi & Finn, Database, supra note 115.
TABLE 10. TOTAL COST OF PROJECT TO FIRMS

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>A</td>
<td>Projected Total Costs</td>
<td>$3,780,000,000.00</td>
</tr>
<tr>
<td>B</td>
<td>Additional Operating Costs min.</td>
<td>$1,850,000,000.00</td>
</tr>
<tr>
<td>C</td>
<td>Additional Operating Costs max.</td>
<td>$2,250,000,000.00</td>
</tr>
<tr>
<td>D</td>
<td>Costs of Protests</td>
<td>$300,000,000.00</td>
</tr>
<tr>
<td>E</td>
<td>Loss of Market Cap (ETP)</td>
<td>$1,600,000,000.00</td>
</tr>
<tr>
<td>TOTAL (A+B+D+E)</td>
<td></td>
<td>$7,920,000,000.00</td>
</tr>
<tr>
<td>TOTAL (A+C+D+E)</td>
<td></td>
<td>$7,520,000,000.00</td>
</tr>
</tbody>
</table>

The costs of protests speak for themselves. The delay in placing the pipeline into operation can be directly attributed to the protests, social unrest, and legal challenges. This delay may have precipitated renegotiations with shippers at oil prices that were far less favorable. These estimates represent minimums and still, the total cost of DAPL was likely much greater than $7.5 billion.

VI. COSTS TO LOCAL COMMUNITY STAKEHOLDERS

The primary focus of this study is assessing costs that companies face when they do not respect the human rights of Indigenous Peoples. However, a full assessment of the costs of DAPL also requires examining costs to local community stakeholders. Below is a summary of these costs. Additional analysis and quantification are the subject of ongoing research by First Peoples Worldwide FPIEP.

A. Costs of Unwanted Development

All development comes with benefits and costs, but they are not always evenly distributed.224 The benefits of DAPL—which primarily took the form of jobs and corporate profits225—did not flow to communities along the pipeline route. The Standing Rock Sioux Tribe also incurred significant costs to manage the activities related to construction of the pipeline, separate from the costs associated with the influx of people to the camp, by documenting the environmental and cultural impacts of the pipeline in the absence of comprehensive reports by another entity.226

224. See IMPACTS OF AN OIL SPILL, supra note 23, at 75–82.
226. IMPACTS OF AN OIL SPILL, supra note 23, at 85.
SOCIAL COST AND MATERIAL LOSS

The most glaring cost to the local community as a result of DAPL would occur in the event of an oil spill.227 At first, ETP and USACE did not disclose detailed data surrounding the impacts of an oil spill from DAPL, which prevented the Standing Rock Sioux Tribe from fully understanding the risks and bolstering their opposition.228 Further, no mitigation plan was proactively put forward to the tribes directly impacted.229 On December 4, 2017, Judge Boasberg ordered USACE and Dakota Access, LLC to work with the listed tribes to complete oil spill response plans.230 On August 31, 2018, USACE submitted a Memorandum for Record stating that their review of the potential impacts of an incident did not reveal any significant impacts to hunting and fishing resources.231 This document stands in direct contrast to information compiled by the Standing Rock Sioux Tribe.232

In February of 2018, the Standing Rock Sioux Tribe issued a report, *Impacts of an Oil Spill from the Dakota Access Pipeline on the Standing Rock Sioux Tribe.*233 The report has several findings, notably that an Environmental Impact Statement is necessary to properly understand and evaluate the impacts of an oil spill from DAPL on the fish and wildlife on the Standing Rock Sioux Indian Reservation as well as on the local communities.234 The report refers extensively to a 2017 report prepared by the Standing Rock Sioux Tribe Department of Game and Fish that documents what the impacts of an oil spill would be from DAPL on wildlife and sensitive wetlands.235 The 2017 report measures the specific effects of Bakken crude oil, the rates of spillage and leak detection in underground pipelines such as DAPL, and the timelines for emergency response procedures, among other factors.236 Among other findings, the reports note that the USACE’s findings are based on unrealistic assumptions about the environmental impacts of an oil spill and that the effects of a worst case oil discharge would be

227. *Id.*
228. *Id.* at 2.
229. *Id.* at 3.
232. See generally *Impacts of an Oil Spill,* supra note 23.
233. *Id.*
234. *Id.* at 5.
235. *Id.* at 1.
236. *Id.* at 29–64.
far worse than currently documented by the USACE and Dakota Access, LLC.\textsuperscript{237}

The significant cultural and spiritual uses of the land would further compound the economic and environmental losses due to an oil spill along the pipeline route.\textsuperscript{238} As the Standing Rock Sioux Tribe 2018 report details, “subsistence hunting and fishing are integral to the Lakota and Dakota way of life” and flow into cultural and spiritual practices held sacred by many.\textsuperscript{239} An oil spill would jeopardize the wetlands and habitat that link these communities to their cultural heritage.\textsuperscript{240} The costs of an oil spill on the cultural and spiritual uses of the lands are difficult to quantify because they are mathematically somewhat intangible, but still need to be considered when assessing benefits and costs of the project.\textsuperscript{241}

Finally, the costs of pipeline placement and management must be carried forward, as there are risks attendant to an oil spill or pipeline failure far into the future.\textsuperscript{242} This fact underscores the need for further research to quantify for current use the future costs associated with environmental and cultural values as impacted by an oil spill.\textsuperscript{243}

B. Costs of Protest

The presence of the camp delivered clear benefits to Indigenous Peoples around the world by heightening global attention to their fight against unwanted development.\textsuperscript{244} At the same time, the Standing Rock Sioux Tribe itself incurred significant costs. The Standing Rock Sioux Tribe has a little over 8,000 members living on the reservation.\textsuperscript{245} Yet during the protests, the total amount of people on Standing Rock increased to 15,000.\textsuperscript{246} The tribal government thus spent valua-

\begin{itemize}
  \item \textsuperscript{237} Id.
  \item \textsuperscript{238} Id. at 1.
  \item \textsuperscript{239} Id.
  \item \textsuperscript{240} Id. at 6–13.
  \item \textsuperscript{241} Id. at 29–64.
  \item \textsuperscript{242} Id. at 87.
  \item \textsuperscript{243} See id. at 85 (referring to future research to quantify the discount rates of reduced revenue of future profits). This same idea can be applied more broadly to ensure that all costs of an oil spill, or of an event associated with social risks, can be accurately quantified and incorporated into a risk management calculus.
  \item \textsuperscript{246} See supra note 28 and accompanying text.
\end{itemize}
ble time and energy to manage the large influx of people and other activities directly related to construction of the pipeline.\textsuperscript{247}

The demands and responsibilities imposed on tribal officials and staff extended well beyond the normal range. In the words of Dave Archambault II, the Chairman of the Standing Rock Sioux Tribe during the protests, “[t]he tribal government takes great honor and pride from the support received by all nations. The Tribe did its best to welcome and thank everyone. As a host, the tribal government assured[d] basic waste management needs and clean up costs were covered . . . .”\textsuperscript{248} To do so, the Tribe spent around $60,000 per month for organic waste management and $12,000 per month for roll-off dumpsters.\textsuperscript{249} This detracted from the tribal government’s ability to provide usual services to tribal citizens in a community that is already under-resourced and experiences higher than average levels of poverty, unemployment, and attendant social issues.\textsuperscript{250}

The camp was closed on February 22, 2017. At that point, the Standing Rock Sioux Tribe, as well as the state and the federal government via USACE, coordinated clean-up at the site of the camp, including hauling away garbage and basic remediation.\textsuperscript{251} The Tribe estimated their share of expenses for basic clean-up to be between $200,000 and $500,000.\textsuperscript{252} While the exact amount that all entities spent to clean-up the camp is not available, USACE reportedly spent $1.1 million.\textsuperscript{253}

Residents of the Standing Rock reservation were among those that participated in frontline activities, and some were arrested at the

\textsuperscript{247} IMPACTS OF AN OIL SPILL, supra note 23, at 84–85.
\textsuperscript{248} Statement by Dave Archambault II to Carla F. Fredericks, Mark Meaney, Nicholas Pelosi & Kate R. Finn (Aug. 31, 2018) (on file with authors).
\textsuperscript{249} Id.
\textsuperscript{250} IMPACTS OF AN OIL SPILL, supra note 23, at 85.
\textsuperscript{252} Sara Berlinger, Standing Rock Sioux Tribe Says Donations Will Pay for DAPL Protest Camp Cleanup Costs, KFYRTV (Feb. 7, 2017), https://www.kfyrtv.com/content/news/standing-rock-sioux-tribe-says-donations-will-pay-for-dapl-protest-camp-cleanup-costs-413093813.html [https://perma.cc/JJE7-946A]. Numbers are also sourced from informal interviews with the authors.
\textsuperscript{253} Richardson, supra note 251.
camp. Any person detained, even for a short period of time, is likely to incur some costs whether they be legal fees, time spent away from work and other responsibilities, emotional trauma, or physical injuries.

Additional costs resulted from the closure of Highway 1806, which is the main thoroughway between the reservation and larger cities such as Mandan and Bismarck. From October 2016 to March 2017, authorities shut down the road due to public safety concerns. Others expressed the view that authorities were attempting to limit the mobility of persons participating in protest activities. Either way, the closure caused hardship to residents of the Standing Rock Sioux reservation that commute to Bismarck for work, medical appointments, and other purposes, as well as to residents of Bismarck who work on the reservation. The closure required drivers to travel an additional twenty miles each way, adding fuel costs and extending the travel time between the reservation and Bismarck from forty to sixty minutes. The Standing Rock Sioux Tribe’s report on oil impacts also noted the stress associated with those closures, namely the psychological impact of having a main artery closed in the event of a medical emergency, as a tangible cost suffered by the community.

The closure had long-term negative effects on the tribal economy by cutting off access to recreational sites on or near the reservation, most notably the Prairie Knights Casino, which sources most of its customers from Bismarck. The estimates for the casino’s loss of revenue are between $6 million and $10 million. The Impacts of an Oil Spill Report states that revenues were reduced by two thirds as a

255. IMPACTS OF AN OIL SPILL, supra note 23, at 84.
257. IMPACTS OF AN OIL SPILL, supra note 23, at 84.
258. Id.
259. Id.
260. Id. at 85.
261. Caroline Grueskin & Jessica Holdman, Struggling Casino Aims to Revive Business, BISMARCK TRIB. (Feb. 18, 2017), https://bismarcktribune.com/business/local/struggling-casino-aims-to-revive-business/article_d629e2fe-3795-55b9-94f3-aedd9de57e0.html [https://perma.cc/GAT8-9GSH]. Informal interviews with the authors suggest that the number is much higher than the “nearly $6 million” loss cited by Grueskin and Holdman, as much as $10 million in revenue loss.
result of the road closures, which hindered the tribal government’s ability to provide critical social services to tribal citizens. As of February 2018, the revenues to the casino had not recovered.

C. Costs to Water Protectors

Water protectors, as protesters at the camp were known, came from all over the United States and around the world to express their support. Indigenous Peoples worldwide supported the movement and the Standing Rock Sioux Tribe. Each of these individuals incurred costs including, but not limited to, travel expenses, food and supplies, time spent away from work, and other responsibilities. Those who participated in frontline activities and/or were arrested would have incurred additional legal costs (see Section V.B), not to mention travel costs associated with their legal cases. In total, 761 people, residents and visitors, were arrested during the protests.

The costs to the individuals at the camp, whether from outside or within the Standing Rock Sioux community, underscore a number of themes. First, the costs themselves accumulate when considering the sheer number of people who attended the camp, which then culminated in increased marches as well as increased social media attention and catalyzed global divestment campaigns. Second, the number of individuals willing to assume these costs also demonstrates the resonance of the issues for Indigenous Peoples globally who are increasingly subjected to development impacts for which they were not consulted. In short, the water protectors assumed great cost to participate, and their willingness, and the willingness of supporters globally, must therefore be addressed through engagement conducted with the highest degree of respect, integrity, and transparency.

D. Costs to Taxpayers

Taxpayers incurred a major expense due to the heavy presence of law enforcement at the camp. The Morton County Sheriff’s Depart-

262. Id.; IMPACTS OF AN OIL SPILL, supra note 23, at 85.
263. IMPACTS OF AN OIL SPILL, supra note 23, at 85.
265. Id.
ment deployed significant resources and received assistance from 1,300 personnel spanning 24 counties, 16 cities, and 9 states.\textsuperscript{267} In March 2017, the State of North Dakota reported that it had spent $38 million on associated law enforcement.\textsuperscript{268} ETP wired the state $15 million to defray these costs, and the state also received assistance from the U.S. Department of Justice; however, the impact of the costs remains.\textsuperscript{269} For example, it remains unclear whether the $38 million for law enforcement includes the costs of prosecution of the over 700 people arrested.\textsuperscript{270} As of July 2018, North Dakota’s Attorney General was requesting further reimbursement from the federal government, on the grounds that USACE was to blame for letting protesters camp without permits and failing to maintain law and order.\textsuperscript{271} North Dakota’s Attorney General has stated the possibility of suing USACE if their request is not granted or settled within six months.\textsuperscript{272} If these claims were paid, the associated legal costs would be passed on to taxpayers. The costs came as a direct result of the county’s and state’s responses to protests at the camp. In this way, taxpayers bore the financial burden of a long history of missed opportunities for dialogue, consultation, and resolution on the part of the involved corporations, financial institutions, and government entities alike.

As noted above, ongoing qualitative and quantitative research is needed to properly assess the costs to community stakeholders, however this case study demonstrates three pressing and transferable themes regarding community costs. First, community costs generally occur in response to and after a break-down in consultation, negotiation, and dialogue between high-level stakeholders like governments


\textsuperscript{270}. \textit{Cf.} id. (“North Dakota on Friday demanded US$38-million from the federal government to reimburse the state for costs associated with policing large-scale and prolonged protests against the Dakota Access oil pipeline.” (emphasis added)).

\textsuperscript{271}. Id.

\textsuperscript{272}. Id.
and companies. Second, local community members, who are often those with the fewest resources and who receive the fewest long-term benefits from development projects like pipelines, incur a significant financial loss that can be unknown for years as, for example, business recovers, or as the state incurs and assesses legal or contract fees. Finally, this case study demonstrates that Indigenous Peoples and supporters are eager to voice their support with their time and money and, therefore, social risks must be integrated into a comprehensive risk analysis to better understand needs at a local level and then to partner with local communities to build a sustainable development infrastructure.

CONCLUSION

The correlation between ETP’s stock price and the timeline of events surrounding the #NoDAPL movement are clear. ETP’s stock price started at $30.15 on August 3, 2016 after announcing project-level financing, but was trading around $19 in August 2017.273 And, ETP’s stock prices have never returned to their original value despite the return of oil and gas prices to their previous levels. In fact, the value of the S&P 500 increased by nearly thirty-five percent from August 2, 2016 to September 28, 2018, but ETP’s value sunk by almost twenty percent over that same period of time.274 While there are many pressures that factor into ETP’s stock price, the losses coincide with major events in the DAPL timeline, shedding light on the materiality of social risks. ETP did not produce high returns for investors via DAPL, in large part due to the social risks they failed to analyze and disclose; that failure is now having a long-term negative impact on their stock returns and their reputation.

In fact, a full and rigorous analysis of human rights and social risks falls immediately within a corporate officer’s fiduciary duties because of those risks’ potential material impact on project success and, therefore, on the company’s bottom line. This case study asserts in part that those social risks can be quantified, and gives investors a starting point to quantitatively and qualitatively, through the due diligence questionnaire and use of international human rights instruments, integrate the “S” in ESG into a full due diligence and disclosure process.

274. See id.
Though stock price volatility alone triggers a fiduciary obligation to create due diligence specific to social risks, this was just one aspect of a much larger material impact of social pressure exerted against DAPL. The cost for the entire project for ETP and other firms with an ownership stake was not less than $7.5 billion, and the banks that financed DAPL incurred an additional $4.4 billion in costs. Further, at least $38 million accrued to taxpayers and other local stakeholders. These estimates do not include the long-term financial impacts that are still being experienced, such as the fact that the Prairie Knights Casino, a critical source of revenue for the Standing Rock Sioux Tribe, had not recovered the volume of business it averaged prior to the DAPL controversy. These costs came after a series of missed opportunities for ETP, the government, and investors to understand, to consult, and to address the social risks of DAPL that became apparent as early as September 2014.

Conversely, the #NoDAPL movement galvanized worldwide support from Indigenous Peoples and advocates alike because of the resonance of its issues—the lack of consultation, minimal adherence to government policies as to consent from Indigenous Peoples, and the lack of due diligence by companies as to the social and cultural impacts of development on and near Indigenous territories. Indigenous governments will continue to push for true partnership, and community advocates will keep voicing the need to respect rights with strategies drawn from the wider movement.

As of the time of writing, Indigenous Peoples are continuing to mobilize against development that is not conducted in line with their rights to free, prior, and informed consent. First, on November 8, 2018 a federal judge blocked construction of the controversial Keystone XL pipeline for failure to adequately consider all of the risks attendant to construction.275 Second, Enbridge Energy’s Line 3 has been subject to protests and, on August 8, 2018, two environmental groups and four tribes filed appeals to challenge the approvals given by the Minnesota Public Utilities Commission on the grounds that the Environmental Impact Statement prepared for the pipeline did not adequately consider the tribes’ concerns for their lands and territories.276

276. Brooks Johnson & Jimmy Lovrien, State Approves Enbridge Line 3 Replacement Pipeline, DULUTH NEWS TRIB. (June 28, 2018, 7:00 PM), https://www.duluth
This case study draws out the clear need for due diligence and disclosure as to human rights and social risk to assist all entities at every phase of project planning, construction, operation, closure and mitigation. Financial entities that adhere to the standards enumerated in the Equator Principles and take independent steps to assess social risks are more able to finance projects that not only do no harm, but create true partnerships with Indigenous communities and local communities globally. Companies that create due diligence steps beyond the bare government standards and proactively consult with Indigenous Peoples can diminish negative impacts and create a template for long-term economic stability for their company and for the community. Companies can then use that due diligence to disclose a more accurate risk analysis to their investors that better protects their financial returns. As investors integrate human rights into their analysis, they are better positioned to influence markets to do good and to create strong local economies in partnership with Indigenous Peoples.

At the very least, the controversy surrounding DAPL made one thing clear: investors must proactively recognize that the “S” in ESG is material and that failing to integrate human and Indigenous rights into a comprehensive social risk analysis may create unduly high levels of risk, ultimately resulting in material loss.

### LEGISLATION AND PUBLIC POLICY

#### APPENDIX A

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>June 25, 2014</td>
<td>Energy Transfer Partners (ETP) announces plans to build the Dakota Access Pipeline (DAPL) and expects to have the project completed and placed into service by the end of 2016.277</td>
</tr>
<tr>
<td>Sept. 30, 2014</td>
<td>The Standing Rock Sioux Tribe (SRST) meets with ETP representatives to relay their opposition to DAPL crossing their treaty territory.278</td>
</tr>
<tr>
<td>Dec. 22, 2014</td>
<td>ETP submits an application to the North Dakota Public Service Commission to build DAPL.279</td>
</tr>
<tr>
<td>Feb. 17, 2015</td>
<td>U.S. Army Corps of Engineers (USACE) sends a letter to the SRST Tribal Historic Preservation Officer (SRST THPO) seeking to begin consultations under Section 106 of the National Preservation Historic Act regarding DAPL’s crossing at Lake Oahe.280</td>
</tr>
<tr>
<td>Feb. 25, 2015</td>
<td>SRST THPO sends a response letter to USACE, outlining the Tribe’s concerns and seeking to establish a full government-to-government consultation on DAPL’s impacts on natural and cultural resources.281</td>
</tr>
<tr>
<td>Aug. 19, 2015</td>
<td>SRST sends a letter to USACE seeking a government-to-government consultation to discuss their concerns about the pipeline’s impacts.282</td>
</tr>
<tr>
<td>Aug. 21, 2015</td>
<td>SRST THPO sends a letter to USACE, again outlining the Tribe’s concerns and requesting consultation.283</td>
</tr>
</tbody>
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282. *Id.* at 18.

283. *Id.*
## SOCIAL COST AND MATERIAL LOSS

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
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</table>
284
| Sept. 28, 2015 | SRST sends USACE another letter requesting consultations and outlining their concerns.  
285
| Nov. 2015     | USACE approves a Draft Environmental Assessment (EA) that was prepared by the company.  
286 The EA references the 2014 meeting with the Standing Rock Sioux Tribe and inaccurately states that “[a]t this meeting the SRST THPO indicated that the Lake Oahe HDD appeared to avoid impacts to known sites of tribal significance.”  
287
| Dec. 8, 2015  | SRST sends another letter to USACE expressing their concern about DAPL and their interest in beginning the government-to-government consultations required by the National Historic Preservation Act.  
288
| Jan. 8, 2016  | The U.S. Environmental Protection Agency (EPA) provides comments to USACE, stating that the EA “lacks sufficient analysis of direct and indirect impacts to water resources,” “lacks information on the measures that will be required to assure that impacts from construction and operation of the pipeline are not significant,” and needs to consider the effects of the entire pipeline rather than the “small portions” requiring approval.  
289
| Jan. 20, 2016 | The North Dakota Public Utilities Commission grants ETP’s application for DAPL.  
290
| Jan. 25, 2016 | Construction in North Dakota starts on six oil terminals for DAPL.  
291

284. Id.
285. Id. at 19.
287. DRAFT ENVIRONMENTAL ASSESSMENT, supra note 19, at 59.
290. Forum News Serv., supra note 279.
291. Id.
<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feb. 25, 2016</td>
<td>The SRST THPO sends USACE a “letter outlining nine unevaled cultural sites near the pipeline’s proposed crossing at Lake Oahe.” The letter “requests tribal participation in the archeological surveys taking place along the pipeline route.”</td>
</tr>
<tr>
<td>Mar. 11, 2016</td>
<td>EPA sends an additional comment to USACE recommending “that the Draft EA be revised to assess potential impacts to drinking water and the Standing Rock Sioux Tribe.”</td>
</tr>
<tr>
<td>Apr. 1, 2016</td>
<td>Initial protest activities begin at the construction site.</td>
</tr>
<tr>
<td>Apr. 22, 2016</td>
<td>“Using archeological surveys conducted without the presence of a tribal historian or representative, [USACE] issues a finding that ‘no historic properties’ in North Dakota are affected by the authorization of the Dakota Access Pipeline.”</td>
</tr>
<tr>
<td>Apr. 24, 2016</td>
<td>A group of youth leave the Sacred Stone Camp to run to Omaha, Nebraska, to deliver a letter to USACE asking them to deny DAPL the permission to cross under Lake Oahe.</td>
</tr>
<tr>
<td>Apr. 27–29, 2016</td>
<td>USACE “holds three community meetings on the Standing Rock Sioux reservation. They are met with near unanimous opposition to the pipeline. As a result of these meetings, the Sacred Stone Camp near the Cannonball and Missouri rivers is established in opposition of the pipeline.”</td>
</tr>
<tr>
<td>May 3, 2016</td>
<td>The youth arrive in Omaha.</td>
</tr>
</tbody>
</table>

292. IACHR Petition, supra note 56, at 4.
293. Id.
295. About, supra note 117.
297. Elbein, The Youth Group, supra note 27.
298. IACHR Petition, supra note 56, at 4.
299. Elbein, The Youth Group, supra note 27.
## SOCIAL COST AND MATERIAL LOSS

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</tr>
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<tr>
<td>May 18, 2016</td>
<td>“The Standing Rock Sioux Tribe and the Advisory Council on Historic Preservation send letters to the Army Corps of Engineers, objecting to the Corps’ earlier finding that ‘no historic properties’ in North Dakota are affected by the Dakota Access Pipeline.”[^300]</td>
</tr>
<tr>
<td>July 9, 2016</td>
<td>A group of protestors announce on YouTube that they will be running 2,000 miles from the Sacred Stone camp to Washington, D.C.[^301]</td>
</tr>
<tr>
<td>July 15, 2016</td>
<td>The runners leave the Sacred Stone camp.[^302]</td>
</tr>
<tr>
<td>July 25, 2016</td>
<td>USACE finalizes the Environmental Assessment and approves permits to DAPL. Lake Oahe crossing easement still needed.[^303]</td>
</tr>
<tr>
<td>July 27, 2016</td>
<td>The SRST files lawsuit against USACE to challenge permits.[^304]</td>
</tr>
<tr>
<td>Aug. 2, 2016</td>
<td>ETP announces the successful completion of project-level financing for DAPL.[^305]</td>
</tr>
<tr>
<td>Aug. 4, 2016</td>
<td>The SRST requests a preliminary injunction to halt construction.[^306]</td>
</tr>
<tr>
<td>Aug. 5, 2016</td>
<td>ETP publishes its second 2016 quarterly report.[^307] The report announces the successful completion of project-level financing for DAPL and states that the “$2.50 billion facility is anticipated to provide substantially all of the remaining capital necessary to complete the projects.”[^308]</td>
</tr>
</tbody>
</table>

[^300]: IACHR Petition, *supra* note 56, at 5.

[^301]: Elbein, *The Youth Group*, *supra* note 27.

[^302]: Id.


[^304]: Complaint, *supra* note 5.


[^308]: Id. at 31.
### LEGISLATION AND PUBLIC POLICY

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aug. 10, 2016</td>
<td>First arrests are made at the camp.309</td>
</tr>
<tr>
<td>Aug. 12, 2016</td>
<td>SRST Chairman Dave Archambault is arrested at the camp.310</td>
</tr>
<tr>
<td>Aug. 17, 2016</td>
<td>ETP launches a Binding Supplemental Open Season to solicit shipper commitments.311</td>
</tr>
<tr>
<td>Aug. 18, 2016</td>
<td>ETP files memorandum in opposition to the SRST’s motion for preliminary injunction.312 The document states that “[t]he cost of an injunction during the first year would approach $1.4 billion and would exceed that amount each successive year, with none of the loss being compensable,” and “the cost of even a temporary project delay is $430 million.”313 In addition, “[d]emobilization costs alone are $200 million.”314</td>
</tr>
<tr>
<td>Aug. 19, 2016</td>
<td>North Dakota Governor declares a state of emergency.315</td>
</tr>
<tr>
<td>Aug. 24, 2016</td>
<td>Judge Boasberg holds a hearing on the SRST’s motion for a preliminary injunction.316 Over 500 people participate in an action outside the courthouse in support of the tribe.317 SRST Chairman Archambault’s op-ed appears in the New York Times.318</td>
</tr>
</tbody>
</table>


312. Dakota Access, LLC’s Opposition to Plaintiff’s Motion for Preliminary Injunction, *supra* note 133.

313. *Id.* at 30.

314. *Id.*


317. *Id.*

<table>
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<tr>
<th>Date</th>
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</table>
| Aug. 25, 2016 | MSNBC political commentator Lawrence O’Donnell discusses DAPL on his show, The Last Word.  
| Sept. 2, 2016 | The Tribe files an affidavit stating they found eighty-two stone features, “five sites of very great cultural and historic significance,” and twenty-seven burials on land adjacent to the DAPL route.  
| Sept. 3–4, 2016 | ETP bulldozes an area of the pipeline corridor filled with sacred sites and burial grounds that the tribe had identified to the court. Demonstrators trying to prevent the destruction are pepper sprayed and attacked by guard dogs.  
| Sept. 6, 2016 | Judge Boasberg issues a temporary restraining order to halt construction while considering the SRST’s request for a preliminary injunction.  

320. IACHR Petition, supra note 56, at 5.  
322. Supplemental Declaration of Tim Mentz, Sr. in Support of Motion for Preliminary Injunction, supra note 138, at 6–7.  
323. Emergency Motion for Temporary Restraining Order, supra note 139, at 4; see also Taylor, supra note 139.  
324. Taylor, supra note 139.  
LEGISLATION AND PUBLIC POLICY

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<tr>
<th>Date</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Sept. 8, 2016</td>
<td>North Dakota governor mobilizes the National Guard. The Yankton Sioux Tribe and the Cheyenne River Sioux Tribe separately file suit against USACE. Their claims state that a potential spill would threaten tribal drinking water and the pipeline threatens sacred sites.</td>
</tr>
<tr>
<td>Sept. 9, 2016</td>
<td>The district court denies the SRST’s request for a preliminary injunction. That same day, three federal agencies ask ETP to voluntarily halt construction at the Lake Oahe crossing.</td>
</tr>
<tr>
<td>Sept. 12, 2016</td>
<td>The SRST appeals the court’s decision and requests an injunction pending appeal.</td>
</tr>
<tr>
<td>Sept. 13, 2016</td>
<td>ETP provides an update on DAPL to investors that all four states that DAPL is crossing (ND, SD, IL, IA) have issued all approvals—and the project is sixty percent done. The statement notes that misinformation dominates the news cycle.</td>
</tr>
<tr>
<td>Sept. 16, 2016</td>
<td>ETP tells the court, “[t]his company has lost $5 billion in market value in the last two weeks, because the market, the public, were waiting to see what Your Honor would do with respect to the motion for preliminary injunction.” The court issues an administrative injunction to halt construction while considering the SRST’s request for an injunction pending appeal.</td>
</tr>
</tbody>
</table>

326. Gov. Dalrymple Calls on ND National Guard to Assist with Dakota Access Pipeline Protest Security, supra note 140.
327. Yankton Sioux Tribe Complaint, supra note 26; Cheyenne River Sioux Tribe Complaint, supra note 26.
328. Yankton Sioux Tribe Complaint, supra note 26, at 3, 7, 29; Cheyenne River Sioux Tribe Complaint, supra note 26, at 2, 20, 28.
332. Warren Memo, supra note 143.
333. Id.
<table>
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<tr>
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</table>
336. IACHR Petition, supra note 56, at 6.                                                                                                                   |
| Sept. 22, 2016 | “The United Nations Special Rapporteur on the Rights of indigenous peoples issues an urgent appeal to the United States to halt the construction of the Dakota Access Pipeline ‘as it poses a significant risk to the drinking water of the Standing Rock Sioux Tribe and threatens to destroy their burial grounds and sacred sites.’”  
337. Id.                                                                                                                                                           |
| Sept. 26, 2016 | President Obama mentions Standing Rock and commits to “redouble our efforts to make sure that every federal agency truly consults and listens and works with you, sovereign to sovereign” during the White House Tribal Nations Conference.  
| Oct. 5, 2016   | Oral arguments are held for the SRST’s request for an injunction pending appeal.  
339. After the hearing, SRST Chairman Archambault reports that there have been 135 arrests so far.  
| Oct. 9, 2016   | The court denies the SRST’s request for an injunction pending appeal.  
341. The U.S. Court of Appeals for the D.C. Circuit issues a ruling denying the Standing Rock Sioux Tribe’s request for an injunction pending appeal while emphasizing that it hoped the “spirit of Section 106 [of the National Historic Preservation Act] may yet prevail” as USACE still has decisions still needing to be made at the permit crossing at Lake Oahe.  
342. Both the appeal and the district court litigation will proceed, but the injunction covering work in the pipeline corridor has ceased.  
341. Id. at 2.                                                                                                                                                                                                                                                                 |

336. IACHR Petition, supra note 56, at 6.  
337. Id.  
340. Id.  
342. Id. at 2.
<table>
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<tbody>
<tr>
<td>Oct. 10, 2016</td>
<td>Three federal agencies issue a statement that they will continue to review issues raised by the SRST, and repeat their request that ETP voluntarily halt construction. ETP rejects the request and continues building.</td>
</tr>
<tr>
<td>Oct. 16, 2016</td>
<td>The FBI investigates a series of fires near DAPL in Iowa. The fires damaged $1 million in equipment and were believed to be caused by arson.</td>
</tr>
<tr>
<td>Oct. 20, 2016</td>
<td>USACE conducts a site visit to the area allegedly bulldozed by ETP to determine whether federal law has been violated. No determination is made.</td>
</tr>
<tr>
<td>Oct. 23, 2016</td>
<td>Actors Shailene Woodley, Mark Ruffalo, and Susan Sarandon join over 800 protestors at a rally in Los Angeles.</td>
</tr>
<tr>
<td>Oct. 24, 2016</td>
<td>SRST Chairman Archambault asks the U.S. Department of Justice to investigate heavy handed police tactics and violations of civil rights.</td>
</tr>
<tr>
<td>Oct. 26, 2016</td>
<td>Reverend Jesse Jackson visits the camp.</td>
</tr>
</tbody>
</table>

344. The Standing Rock Sioux Tribe’s Litigation on the Dakota Access Pipeline, supra note 316.
346. Id.
347. The Standing Rock Sioux Tribe’s Litigation on the Dakota Access Pipeline, supra note 316.
348. Id.
### SOCIAL COST AND MATERIAL LOSS

<table>
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<tr>
<th>Date</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Oct. 27–28, 2016</td>
<td>Heavily armed law enforcement officials use pepper spray and rubber bullets on protestors; 141 water protectors are arrested.(^{352})</td>
</tr>
<tr>
<td>Oct. 28, 2016</td>
<td>Independent expert hired by the SRST finds DAPL’s environmental assessment to be inadequate.(^{353})</td>
</tr>
<tr>
<td>Oct. 30, 2016</td>
<td>Officials investigate fire near the camp.(^{354})</td>
</tr>
<tr>
<td>Oct. 31, 2016</td>
<td>Facebook users begin checking in at the camp in order to confuse police following reports that police were using Facebook to target protesters.(^{355}) Police respond by saying they do not track Facebook check-ins.(^{356})</td>
</tr>
<tr>
<td>Nov. 1, 2016</td>
<td>President Obama gives interview about DAPL and announces the prospect of alternative routes.(^{357})</td>
</tr>
<tr>
<td>Nov. 2, 2016</td>
<td>SRST Chairman Archambault calls on USACE to issue a stop work order.(^{358})</td>
</tr>
</tbody>
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**LEGISLATION AND PUBLIC POLICY**

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nov. 4, 2016</td>
<td>4,000 Norwegians sign petition protesting DNB’s involvement in DAPL.359</td>
</tr>
<tr>
<td>Nov. 3, 2016</td>
<td>500 clergy and lay people from 20 different religions joined in prayer at the camp.360</td>
</tr>
<tr>
<td>Nov. 8, 2016</td>
<td>Donald Trump is elected President of the United States.361</td>
</tr>
<tr>
<td>Nov. 9, 2016</td>
<td>ETP publishes its third 2016 quarterly report with its first mention of social pressure in SEC filings: “Protests and legal actions against our Dakota Access pipeline project have caused construction delays and may further delay the completion of the pipeline project.”362</td>
</tr>
<tr>
<td>Nov. 10, 2016</td>
<td>The “Department of Justice announce[s] in federal court that it will be announcing the next steps on a ‘path forward’ for the Dakota Access Pipeline crossing at Lake Oahe.”363</td>
</tr>
<tr>
<td>Nov. 14, 2016</td>
<td>USACE announces it is delaying the decision on the easement until it conducts further environmental and cultural assessments.364</td>
</tr>
</tbody>
</table>


362. Energy Transfer Partners, L.P., Quarterly Report (Form 10-Q) 55 (Nov. 9, 2016).


### SOCIAL COST AND MATERIAL LOSS

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</tr>
</thead>
<tbody>
<tr>
<td>Nov. 15, 2016</td>
<td>ETP files lawsuit against USACE over the delay. Legal documents state that “[t]he delay has already cost Dakota Access more than $450 million dollars. Further delay will cost Dakota Access tens of millions of dollars per month thereafter, none of which can be recovered.” Demonstrations take place across the United States as part of the #NoDAPLDayofAction.</td>
</tr>
<tr>
<td>Nov. 18, 2016</td>
<td>ETP asserts that there will be no reroute.</td>
</tr>
<tr>
<td>Nov. 20–21, 2016</td>
<td>Water protectors met with water cannons, rubber bullets, and tear gas, injuring over 160 people and sending many to the hospital.</td>
</tr>
<tr>
<td>Nov. 21, 2016</td>
<td>The SRST issues a statement calling on the federal government to deny the Lake Oahe crossing easement to ETP.</td>
</tr>
<tr>
<td>Nov. 25, 2016</td>
<td>The federal government announces that access to the camp will be closed due to public safety concerns, effective Dec. 5, 2016.</td>
</tr>
<tr>
<td>Nov. 28, 2016</td>
<td>The Water Protectors Legal Collective files lawsuit against the Morton County Sheriff’s Department alleging excessive force towards peaceful protesters. North Dakota’s Governor issues a mandatory evacuation order of the camp.</td>
</tr>
</tbody>
</table>

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365. Dakota Access, LLC’s Answer and Cross-claim, supra note 209, at 49.
366. Id. at 54.
369. Wong, supra note 148.
371. Letter from John Henderson to Dave Archambault II, supra note 151.
<table>
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<tr>
<th>Date</th>
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</thead>
<tbody>
<tr>
<td>Dec. 2,</td>
<td>The SRST asks the IACHR to stop violence against water protectors.374</td>
</tr>
<tr>
<td>2016</td>
<td></td>
</tr>
<tr>
<td>Dec. 4,</td>
<td>USACE denies the Lake Oahe crossing easement to ETP and announces plans to conduct an Environmental Impact Statement.375 At least 2,000 veterans come to camp to show support for water protectors.376</td>
</tr>
<tr>
<td>2016</td>
<td></td>
</tr>
<tr>
<td>Dec. 5,</td>
<td>ETP files motion for summary judgment.377 The memorandum filed in support of the motion for summary judgment repeats claims of financial damages made in its motion in opposition to the SRST’s request for a preliminary injunction, filed on Aug. 18.378</td>
</tr>
<tr>
<td>2016</td>
<td></td>
</tr>
<tr>
<td>Dec. 9,</td>
<td>The SRST testifies at an IACHR hearing on extractive industries and indigenous peoples.379</td>
</tr>
<tr>
<td>2016</td>
<td></td>
</tr>
<tr>
<td>Jan. 2017</td>
<td>A group of landowners in Morton County, North Dakota file a lawsuit accusing Dakota Access LLC of misrepresentation and fraud in easement negotiations.380</td>
</tr>
<tr>
<td>Jan. 6,</td>
<td>The SRST files a motion asking for ETP’s lawsuit against the USACE to be thrown out.381 The USACE files a similar motion.382</td>
</tr>
<tr>
<td>2017</td>
<td></td>
</tr>
</tbody>
</table>

374. IACHR Petition, supra note 16.
375. Memorandum from Assistant Sec’y of the Army (Civil Works) to U.S. Army Corps of Eng’rs Commander, supra note 32.
376. Finley, supra note 124.
## SOCIAL COST AND MATERIAL LOSS

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<tr>
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<tbody>
<tr>
<td>Jan. 9, 2017</td>
<td>ETP publishes “protest costs by the numbers” in which it claims that $22.3 million has been incurred by taxpayers.</td>
</tr>
<tr>
<td>Jan. 16, 2017</td>
<td>ETP files motion to prevent the Environmental Impact Statement process. The document repeats claims of financial damages made in its memorandum in opposition to the SRST’s request for a preliminary injunction, filed on Aug. 18.</td>
</tr>
<tr>
<td>Jan. 18, 2017</td>
<td>A notice soliciting public comments to the Environmental Impact Statement is published in the Federal Register.</td>
</tr>
<tr>
<td>Jan. 24, 2017</td>
<td>President Trump takes executive action towards approving the Lake Oahe crossing easement.</td>
</tr>
<tr>
<td>Feb. 1, 2017</td>
<td>Three Senators send a letter to the White House expressing concern about the executive action and that the easement will be issued “without appropriate consultation with the [SRST] and due process.”</td>
</tr>
</tbody>
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385. *Id.*
<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Feb. 7, 2017</td>
<td>The Seattle City Council votes to notify Wells Fargo of plans to end its banking relationship. SRST Chairman Archambault tells supporters to “please respect our people and do not come to Standing Rock and instead exercise your First Amendment rights and take this fight to your respective state capitols, to your members of Congress, and to Washington, D.C.”</td>
</tr>
<tr>
<td>Feb. 8, 2017</td>
<td>The USACE issues the Lake Oahe crossing easement.</td>
</tr>
<tr>
<td>Feb. 14, 2017</td>
<td>The SRST files motion for summary judgment asking the court to overturn USACE’s termination of the Environmental Impact Statement.</td>
</tr>
<tr>
<td>Feb. 15, 2017</td>
<td>North Dakota Governor issues emergency evacuation order of the camp.</td>
</tr>
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### SOCIAL COST AND MATERIAL LOSS

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<tr>
<td>Feb. 17, 2017</td>
<td>Over 130 investors representing $685 billion in assets under management issues statement encouraging banks financing DAPL to address or support the SRST’s request to re-route the project and reach a peaceful resolution of the conflict.(^{394}) USACE terminates the Environmental Impact Statement process per a Notice published in the Federal Register.(^{395}) Note that USACE notified Congress on February 7,(^{396}) however the Notice was not published until February 17.</td>
</tr>
<tr>
<td>Feb. 22, 2017</td>
<td>The camp closes.(^{397})</td>
</tr>
<tr>
<td>Feb. 23, 2017</td>
<td>The SRST publishes Setting the Record Straight.(^{398})</td>
</tr>
<tr>
<td>Feb. 24, 2017</td>
<td>ETP publishes its 2016 annual report with more information about delays and protests.(^{399}) “At this time, we cannot determine how long the protest will continue or how the legal action will be resolved. Construction work on the pipeline is ongoing, and, barring legal delays, we expect the final portion of the pipeline to be completed in March or April 2017.”(^{400})</td>
</tr>
</tbody>
</table>


\(^{397}\) Levin, supra note 35.


\(^{399}\) Energy Transfer Partners, L.P., Annual Report (Form 10-K) 53 (Feb. 24, 2017).

\(^{400}\) Id. at 53.
Date | Event
--- | ---
Mar. 1, 2017 | Storebrand, Norway’s largest manager of life insurance and pensions, divests $34.8 million worth of shares from companies tied to DAPL.\(^{401}\)
Mar. 13, 2017 | $1.1 million cleanup of the camp completed.\(^{402}\)
Mar. 21, 2017 | ING sells its $120 million stake in the DAPL loan following meetings with the SRST.\(^{403}\) Authorities “investigate two separate incidents of vandalism” in South Dakota and Iowa.\(^{404}\)
Mar. 26, 2017 | DNB divests from DAPL following meetings with the SRST.\(^{405}\)
Apr. 5, 2017 | BNP Paribas sell its $120 million stake in the DAPL loan following meetings with the SRST.\(^{406}\)
Apr. 30, 2017 | Suspected arson damages pipeline equipment near Newell.\(^{407}\)
May 10, 2017 | DAPL leaks eighty-four gallons of oil in South Dakota.\(^{408}\)
June 1, 2017 | DAPL placed into service.\(^{409}\)

## SOCIAL COST AND MATERIAL LOSS

### Event

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<tr>
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<tbody>
<tr>
<td>June 14, 2017</td>
<td>Judge Boasberg rules that USACE “did not adequately consider the impacts of an oil spill on fishing rights, hunting rights, or environmental justice, or the degree to which the pipeline’s effects are likely to be highly controversial.”</td>
</tr>
<tr>
<td>Aug. 22, 2017</td>
<td>ETP sues Bank Track, Greenpeace and other environmental organizations seeking $300 million in damages caused by protest activities.</td>
</tr>
<tr>
<td>Oct. 11, 2017</td>
<td>Judge Boasberg rules that DAPL may remain in operation while USACE conducts further environmental review.</td>
</tr>
<tr>
<td>Nov. 16, 2017</td>
<td>The Keystone XL Pipeline leaks 210,000 gallons of oil in South Dakota.</td>
</tr>
<tr>
<td>Dec. 4, 2017</td>
<td>Judge Boasberg imposes several interim measures on DAPL. First, the district court ordered the Corps and DAPL to work with the Tribes to complete oil spill response plans at Lake Oahe. Second, the court ordered an independent audit of DAPL’s compliance with the permit conditions and standards. The Tribe has to be involved in the selection of an auditor. Finally, DAPL must file regular reports on any incidents or repairs on the pipeline. All three measures were opposed by ETP.</td>
</tr>
<tr>
<td>July 24, 2018</td>
<td>ETP’s lawsuit against Bank Track was dismissed. The judge did not rule immediately on charges against Greenpeace or other named defendants.</td>
</tr>
</tbody>
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416. See id.
Numbered items represent generic steps. Letters represent the event studies in this case study.

1. Calculate the time-consistent, one-day log returns for the firm’s stock and the reference index.

2. Define the estimation period.
   a. 120 days prior to event studied.

3. For each event, identify the sequences of returns to be included in the estimation window.
   a. Calculate the expected and abnormal returns for each day \( t \), specifically the ten days before and after the event the event inclusive of the event itself thereby creating a twenty-one-day estimation window.

4. Estimate the expected returns for the firm through a linear regression analysis applied across the estimation period,
   \[
   Y_{t,e} = \beta_{0,e} + \beta_{1,e} X_{t,e}.
   \]
   a. Recall, \( e \) indicates the event under consideration, \( t \) indicates the day under study, \( X_{t,e} \) represents the performance of the reference index on day \( t \) relative to event \( e \), and \( Y_{t,e} \) represents the expected returns of the firm’s stock on day \( t \) relative to event \( e \).
   b. These returns represent the hypothetical returns one would expect had the event not taken place.

5. Determine the presence of a statistically significant difference between the actual returns of the firm’s stock and the calculated expected returns by applying a single-tailed, Student’s t-test (\( \alpha = 0.05 \)).
   a. For each event we test the following hypothesis.
      i. \( H_0 \): The abnormal return is equal to zero because there is no difference between the expected return and the actual return \( (AR = 0) \).
      ii. \( H_1 \): The abnormal return is less than zero because the actual return is less than the return that was expected \( (AR < 0) \).
   b. t-values for each date are calculated as the ratio of the difference between these returns and the standard error of the estimated returns for each performance of the reference index over the estimation period.
c. The corresponding p-values inform decisions regarding the rejection or acceptance of the null hypothesis, thus identifying the occurrence of a statistically-significant negative abnormal return.

i. For instances where \( p < \alpha \), we reject the null hypothesis that there is no difference between the expected return and the actual return \((AR = 0)\) and conclude that a significant negative difference does exist between ETP’s expected return and actual return for that date \((AR < 0)\).