This Article analyzes the effectiveness of emerging domestic legislation on global supply chain transparency with respect to human rights and labor practices. It draws from a quantitative and qualitative study of the implementation of recent U.S. conflict minerals legislation, section 1502 of the Dodd-Frank Financial Reform Act, which is driving global norms in this area and serving as a guide for comparable domestic legislation abroad. This Article's analysis of section 1502 reveals a due diligence gap among firms, with only about 7% of companies reporting strong due diligence measures in their 2014 Conflict Minerals Reports. This Article also identifies several factors that are inhibiting implementation of section 1502: (i) international norms on supply chain due diligence are still evolving; (ii) the proliferation of certification standards and in-region sourcing initiatives are often competing; and (iii) inadequate local security and weak governance are inhibiting the mapping of the mineral trade and the tracing of minerals in the region. While this Article argues that using domestic law to regulate global supply chains has the potential to significantly shape corporate behavior, the existing due diligence gap suggests that the shift to domestic governance is not going far enough. Given the challenges associated with extra-territorially regulating complex, multi-tiered supply chains, home states need to play a larger role in implementation to facilitate corporate compliance. In addition, companies need to invest in their internal culture to facilitate organizational learning around responsible supply chain management.

INTRODUCTION

Recent tragedies—including the collapse of a garment factory building in Bangladesh killing more than 1,000 people and a string of suicides at an Apple supplier’s manufacturing plant in China—have highlighted the risks of outsourcing production to suppliers with poor working conditions. Until recently, whether a company prevents human rights violations in its supply chain has largely been left to the company itself. While consumer and in-

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vestor pressure has led some companies to prioritize responsible sourcing, the standards in this area have remained mostly voluntary. The lack of mandatory regulation has led to inconsistent practice among firms, standards that are implemented in an *ad hoc* fashion, and weak incentives for changing behavior.³

Governments are now demanding more information on the origins of a company's products. In the United States, for instance, an ever-growing body of federal and state regulations reflects the growing trend toward supply chain transparency. While existing legislation has addressed such issues as anti-corruption (Foreign Corrupt Practices Act) and wildlife protection (Lacey Act), new laws mandate disclosure on human rights–related risks in global supply chains such as the use of conflict minerals (section 1502 of the Dodd-Frank Financial Reform Act) and human trafficking (California Transparency in Supply Chains Act).⁴ Supply chain–related laws represent a shift in international regulation from the prevailing model of "transnational new governance," which is dependent on voluntary standards by private actors and international institutions, toward the use of domestic law.⁵ This shift is particularly notable with regard to the field of business and human rights, which has traditionally operated through international soft law.⁶ Domestic supply chain–related regulation is an avenue by which home states can potentially set environmental and human rights–related norms for third-party suppliers and their host governments via multinational companies. These regulations not only affect companies; they also serve as an alternative to international law for shaping the behavior of host governments. Under pressure from third-party suppliers, developing countries may pass legislation and strengthen their rule of law in order to prevent global companies from shifting their supply chains to other regions.⁷

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⁷ See e.g., Li-Wen Lin, *Legal Transplants Through Private Contracting: Codes of Vendor Conduct in Global Supply Chains*, 57 AM. J. COMP. L. 711, 737–41 (2009).
This Article analyzes the effectiveness of using domestic law to regulate global supply chains with respect to human rights and labor practices. While the financial and strategic benefits of outsourcing are commonly acknowledged, the governance of global supply chains has been understudied in existing literature. Given that transnational corporate activity is now anchored in the activities of third-party suppliers abroad, legal scholars need to focus on this increasingly relevant area. This Article aims to inspire research in this field through an empirical analysis of recent conflict minerals legislation in the United States. The U.S. law is driving global norms in this area and serving as a guide for comparable domestic legislation on supply chain transparency.

Domestic regulations on supply chains pose a unique compliance challenge to companies because these laws operate extraterritorially. Multinational companies are more than just regulated entities; they now also serve as regulators themselves, imposing standards on their third-party suppliers in other countries. Thus, regulation about outsourcing is itself being outsourced to companies, which are responsible for ensuring compliance by the firms within their multi-tiered supply chains. This model of outsourcing stands in contrast to examples in existing literature on the privatization of public law and the development of "public-private governance." Scholars have focused on the outsourcing of regulation to non-governmental organizations (NGOs), auditors, and other third parties that take on standard-setting, implementation, and enforcement functions traditionally occupied by regulatory agencies. Yet supply chain regulation exemplifies a distinct model of outsourcing that dilutes the host state's governing authority.

While outsourcing regulation to companies is a means by which states can indirectly regulate firms in other countries, this practice raises accountability concerns when private actors are performing functions that are fundamentally public. Like other forms of public-private governance, there are risks to public values when private actors perform functions conventionally


10. See infra section II.A.


12. See New Forms of Governance, supra note 11; Public Values in an Era of Privatization, supra note 11; Freeman, supra note 11; Shapiro, supra note 11; Vandenbergh, supra note 11; see also Lesley K. McAllister, Regulation by Third Party Verification, 53 B.C. L. REV. 1 (2012); Dara O'Rourke, Outsourcing Regulation: Analyzing Nongovernmental Systems of Labor Standards and Monitoring, 31 POL'Y STUD. J. 1 (2003).

reserved for government agencies. Supply chain laws pose a greater risk to accountability given that the regulated entities themselves are sometimes ill-equipped to monitor and enforce compliance by third parties. Companies may then outsource compliance to private parties such as consulting firms or suppliers who audit the tiers of suppliers below them. A chain of outsourcing has thus developed, one involving layers of monitoring and enforcement, and often competing systems of incentives.

This Article's analysis of domestic laws regulating global supply chains draws from an empirical study of section 1502 of the Dodd-Frank Act and its early implementation. Section 1502 imposes a new reporting requirement on publicly traded companies that manufacture products using certain conflict minerals. The stated rationale behind the law is that by curbing the illegitimate exploitation of natural resources by state and non-state armed groups, it will indirectly hinder financing of the ongoing conflicts in the eastern Democratic Republic of Congo (DRC). Under section 1502, companies must report to the U.S. Securities and Exchange Commission (SEC) on whether the sourcing of the minerals originated in the DRC and bordering countries. If so, the companies must submit a Conflict Minerals Report on due diligence measures taken to determine whether those conflict minerals directly or indirectly financed or benefited armed groups in the covered countries. The quality of the due diligence must meet nationally or internationally recognized standards, such as the Organization for Economic Cooperation and Development (OECD) Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas. This empirical analysis examines compliance with section 1502 by reviewing corporate disclosures on their due diligence measures. It does not address the legislation's impact on the local population, including whether it is achieving its aim of curbing the violent conflict in the DRC.

14. See New Forms of Governance, supra note 11; Public Values in an Era of Privatization, supra note 11; Freeman, supra note 11; Shapiro, supra note 11; Vandenbergh, supra note 11.

15. Dodd-Frank Act § 1502.

16. Id.


Based on a quantitative and qualitative analysis of section 1502, this Article argues that using domestic law to regulate global supply chains has significant potential to shape corporate behavior. But the existing due diligence gap suggests that the shift to domestic governance is not going far enough. Given the challenges associated with extraterritorially regulating complex, multi-tiered supply chains, home states need to play a larger role in implementation to facilitate corporate compliance.

My study of section 1502 reveals a due diligence gap among firms, with only about 7% of companies reporting strong due diligence measures in their 2014 Conflict Minerals Reports. I present several explanatory variables for this due diligence gap including brand, firm size, and involvement with stakeholder-led responsible sourcing initiatives. I then identify three factors that are inhibiting implementation of section 1502: (i) international norms on supply chain due diligence are in their infancy; (ii) the proliferation of certification standards and in-region sourcing initiatives are still evolving and often competing; and (iii) inadequate local security and weak governance are inhibiting the mapping of the mineral trade and the tracing of minerals in the region. In order to improve corporate compliance, home countries need to play a larger role in implementation by investing in local capacity building, coordinating in-region sourcing initiatives and certification standards, and supporting companies still struggling with compliance. In addition, companies need to invest in a culture of compliance led by an interdisciplinary team of employees from multiple departments and featuring organizational learning around supply chain management. In the process of complying with these laws and conducting due diligence, companies can find possible inefficiencies within their supply chains and thereby improve their supply chain management so as to effectively reduce costs.

This Article's findings are based on an analysis of the first set of Conflict Minerals Reports submitted to the SEC by early June 2014. This quantitative study is the first of its kind in the literature and represents a significant contribution to our understanding of how companies are implementing section 1502. In this study, this Article creates a model for determining which companies have undertaken the most comprehensive supply chain due diligence in line with the OECD Due Diligence Guidance and which companies have inadequately or only minimally complied with the legislation. In order to understand the reasons for under-implementation, this Article relies on ethnographic interviews with 25 people within consultancies, industry groups, non-governmental organizations, and law firms who are working with companies to comply with the legislation. The interviewees were selected from within organizations that have been very active in the

19. Given that only one set of Conflict Minerals Reports was available when I conducted my analysis, a longitudinal study was unfortunately not possible.
early implementation of section 1502, using a “snowball sample” approach to identify potential interviewees. Interviews were unstructured or semi-structured with open-ended questions developed in response to observations and ongoing analysis. In addition, this Article draws from participant observation within a consulting firm based in London that conducts conflict minerals due diligence and auditing and at international conferences on responsible supply chain management (e.g., meetings hosted by the European Parliament and the OECD).

This Article proceeds as follows. Part I reviews the growing body of domestic regulations on global supply chain transparency and the distinct model of outsourcing reflected in these laws. It demonstrates why these regulations are particularly difficult to implement given the multi-tiered and fluid nature of global supply chains. Part II presents empirical evidence based on this Article’s study of section 1502. After analyzing data on due diligence levels, it discusses challenges to implementation that explain differentiation among companies. Given the distinct challenges posed by supply chain regulations, Part III offers recommendations to close the due diligence gap by affording a greater role to home states in implementation. It also demonstrates how companies can improve compliance by investing in their internal culture.

I. The Governance of Global Supply Chains

The growing body of law on supply chain transparency reflects an increased recognition of human rights, labor rights, and environmental violations by third-party suppliers. As multinational companies are becoming more dependent on global outsourcing, there is a need for regulation to ensure responsible supply chains. Calls for regulation are part of a larger movement to hold corporations liable for adverse human rights practices in their operations. U.S. supply chain-related laws are beginning to reflect that priority. While these laws have typically addressed such social concerns as anti-corruption, food and product safety, and wildlife protection, recent legislation addresses the use of forced and child labor, human trafficking, and conflict minerals in global supply chains. However, these laws are particularly difficult to implement given the multi-tiered and fluid nature of supply chains. As we see in the case of section 1502, supply chain regulation has adopted a distinct model of outsourcing to manage this complexity whereby

20. Given that section 1502 only recently passed and survived court challenges, there is a relatively small network of organizations that have been active in its early implementation.

21. See Patrick Biernacki & Dan Waldorf, Snowball Sampling: Problems and Techniques of Chain Referral Sampling, 10 Soc. METHODS & RES. 141, 141 (1981) ("Snowball...sampling is a method that...yields a study sample through referrals made among people who share or know of others who possess some characteristics that are of research interest.")

22. The questions were designed to seek respondents' interpretations of the legislation and allow them to describe problems, policy solutions, and their rationales in their own words.
regulation is outsourced to the regulated parties themselves. This practice creates a new role for companies as regulators of their suppliers and has significant implications for public accountability.

A. The Need for Regulation

Global outsourcing—the practice of sub-contracting business to third parties in other countries—has become a trillion-dollar industry, with an annual growth rate between 12% and 26% across functions. According to Peter Drucker, whom many consider the father of modern management theory, outsourcing is "one of the greatest organizational and industry structure shifts of the century." Princeton economist Alan Blinder has even suggested that it could comprise a "third industrial revolution." The governance of global supply chains is therefore a ripe area of study for legal scholars.

The need to regulate outsourcing is most evident when investigating human rights abuses by multinational corporations. Such violations frequently occur within global supply chains, where host countries have weak legal institutions and home states are unable to extraterritorially regulate third party suppliers. These abuses range from corporate complicity in labor rights violations to indirect support of corrupt or oppressive regimes. They can occur at any level of a supply chain, from the first tier of direct suppliers to layers of sub-contractors to the firms providing raw material inputs. While outsourcing has transformed the way that companies mitigate costs and make profits, it has also increased the legal responsibility of firms to track compliance by their suppliers and highlighted the importance of ensuring responsible and transparent supply chains.

There is a critical need to regulate corporate management of third-party suppliers, particularly with respect to their human rights and labor prac-


Regulations addressing responsible supply chains do not only affect multinational companies and firms to which they outsource; they also serve as an alternative to international law for shaping the behavior of host governments. Under pressure from third-party suppliers, developing countries may pass legislation and strengthen their rule of law in order to prevent global companies from shifting their supply chains to other countries. While development agencies lend money directly to governments in an effort to curb poverty, multinational companies can arguably have a more immediate effect on the local region through their supply chains. Thus, supply chain regulation is an avenue by which home states can transmit human rights norms to third-party suppliers and their host governments via multinational companies.

The corporate responsibility to respect human rights has been endorsed by scholars and policymakers, most notably John Ruggie, the former UN Special Representative on Business and Human Rights. The UN Guiding Principles on Business and Human Rights, which Ruggie developed, state that companies are expected to "seek to prevent or mitigate adverse human rights impacts that are directly linked to their operations, products or services by their business relationships, even if they have not contributed to those impacts." Business relationships are understood to include relationships with "entities in [a company's] value chain." While the UN Human Rights Council unanimously endorsed the Guiding Principles, they are still considered soft law and have yet to translate into mandatory regulation. Other existing voluntary standards (e.g., OECD Guidelines for Multinational Enterprises, ILO's Tripartite Declaration of Principles concerning Multinational Enterprises and Social Policy, and UN Global Compact) and self-regulation (e.g., codes of conduct) have been largely ineffective in shap-
ing corporate behavior as they lack independent monitoring and enforce-
ment mechanisms and are thus subject to critiques of greenwashing. Yet
domestic law is emerging as a promising avenue to regulate human rights
practices within global supply chains.

B. The Emergence of Domestic Supply Chain-Related Laws

A growing body of domestic law affects corporate supply chains on such
issues as wildlife protection, food and product safety, anti-corruption,
human trafficking, and conflict minerals. This section focuses on U.S. laws
that address social and safety concerns with regard to promoting responsible
and transparent supply chains. Until recently, supply chains have not been
the direct target of regulation, but they are nonetheless implicated in a
number of existing regulations. These laws serve as a model for future sup-
ply chain regulations that can be passed on the domestic level. They include
"restrictions of certain imports or sales to the government; certification, in-
spection and monitoring requirements; and/or requirements to publicly dis-
close compliance with the above on company websites or financial
statements."36

In the area of anti-corruption, the Foreign Corrupt Practices Act (FCPA)
has transformed corporate compliance systems, including with respect to
global supply chains.37 The FCPA extends the jurisdiction of U.S. courts to
enforce bribery charges extraterritorially. Most notably, it attaches liability
to a company through its supply chain vendors. According to a resource
guide released by the U.S. Department of Justice in 2012, liability under
the FCPA only requires that a company is aware of "a high probability" of
misconduct even if it does not possess actual knowledge of the offense.38 The
guide recommends that companies perform risk-based due diligence of third
parties, "including agents, consultants, and distributors," who may directly
or indirectly seek to bribe foreign public officials.39 Because of the high
penalties attached to violations under the FCPA, this law has spurred com-
panies to develop compliance policies and enforce contractual provisions on
their third-party suppliers.40

35. See William S. Laufer, Social Accountability and Corporate Greenwashing, 43 J. BUS. ETHICS 253
(2003); Penelope Simons, Corporate Voluntarism and Human Rights: The Adequacy and Effectiveness of Volun-

36. Paul C. Rosenthal & Benjamin Blase Caryl, Socially Responsible Supply Chain Compliance, 20.5 MET-
ROPOLITAN CORP. COUNS. (Metropolitan Corp. Counsel, Mountainside, NJ), May 2012, at 10.

Enforcement, Informal Legislation: The Unruly Expansion of the Foreign Corrupt Practices Act, 45 GA. L. REV.
489, 495, 574–77 (2010-2011).

38. U.S. DEPT. OP JUSTICE, A RESOURCE GUIDE TO THE U.S. FOREIGN CORRUPT PRACTICES ACT 22
guide.pdf.

39. Id. at 60.

Companies also face regulatory requirements affecting their supply chains with regard to wildlife protection and food and product safety. Enacted in 1900, the Lacey Act makes it unlawful to import, export, sell, acquire, or purchase protected wildlife, fish, and plants.\(^4\) Congress amended the act in 2008 to include more plants and plant products, including illegally logged timber.\(^42\) The Act places the burden on American manufacturers to ensure that wood imports are legal.\(^43\) In order to minimize the risk of illegal wood entering supply chains, firms must implement due diligence systems on their suppliers.\(^44\) Similarly, food companies are evaluating their supply chain in response to the Food Safety Modernization Act of 2010, which requires importers to complete a risk-based foreign supplier verification to confirm that the food products that they bring into the United States are safe.\(^45\)

Other supply chain-related regulations include the Consumer Product Safety Improvement Act, under which all parties in the supply chain of children’s products must provide a certificate of conformity to show compliance with safety and testing rules, as well as product labeling laws, such as the Fur Products Labeling Act, the Textile Fiber Products Identification Act, and the Wool Products Labeling Act.\(^46\) These laws require all fur, textile, and wool products sold in the United States to have a label disclosing the fiber/fur content, country of origin, and the manufacturer, importer, distributor, or seller.\(^47\)

U.S. lawmakers have also been quite active in regulating the use of forced labor, child labor, and human trafficking in global supply chains. As early as 1930, Congress prohibited importation of products made with forced labor or convict labor, under section 307 of the Smoot-Hawley Tariff Act.\(^48\) Former President Clinton reinforced and expanded the law in 1999 through Executive Order 13126, which prohibits federal agencies from buying products made by child labor.\(^49\) Since then, the body of law targeting forced/child labor and human trafficking in supply chains has grown tremendously. Certain laws focus specifically on human rights violations in Burma. For instance, the Tom Lantos Block Burmese JADE (Junta’s Anti-Democratic Efforts) Act outlaws the importation of Burmese-origin rubies and jade into the United States and requires a verifiable system of supply chain over-

\(^{43}\) Id. at 2054.
\(^{44}\) Id.
\(^{47}\) Id.
\(^{48}\) The Smoot-Hawley Tariff Act of 1930, Pub. L. No. 71-361, 46 Stat. 590 (1930). Note that the act includes broad exceptions, such as allowing the importation of goods produced with forced labor if there is greater consumer demand for that product than the existing quantity in the United States.
In 2013, the U.S. State Department adopted the Burma Responsible Investment Reporting Requirements, which require any U.S. persons whose aggregate investment in Burma exceeds $500,000 to submit an annual report on their investment. \(^{51}\) Reports must include due diligence policies and procedures that address impacts on human rights, worker rights, and the environment. \(^{52}\)

Recent anti-human trafficking laws that target the corporate supply chain impose significant regulatory requirements on firms. Under the Trafficking Victims Protection Act of 2000, U.S. government contractors, subcontractors, and their employees are prohibited from engaging in trafficking in persons or using forced labor in the performance of a U.S. government contract or subcontract. \(^{53}\) President Obama’s Executive Order 13627, Strengthening Protections Against Trafficking in Persons in Federal Contracts, reinforces and adds to this legislation. \(^{54}\) The 2012 order prohibits federal contractors and subcontractors from engaging in trafficking-related activities and requires that they contractually agree to allow for anti-trafficking compliance audits and investigations. \(^{55}\) President Obama also signed the National Defense Authorization Act for Fiscal Year 2013, which contained Title XVII, entitled Ending Trafficking in Government Contracting. \(^{56}\) Title XVII and Executive Order 13627 led to a proposed rule in the Federal Acquisition Regulation, which implements and expands on the anti-trafficking policies for federal contracts. \(^{57}\) The rule proposes a new policy applying to contracts where the portion to be performed outside the United States exceeds $500,000. \(^{58}\) In those cases, companies must maintain a compliance plan and certification that includes procedures to prevent agents and contractors at any tier from engaging in human trafficking, and to monitor, detect, and terminate those that have engaged in such practices. \(^{59}\)

Another landmark anti-human trafficking legislation is the 2010 California Transparency in Supply Chains Act (CTSCA), which took effect January 1, 2012. It applies to retail sellers and manufacturers doing business in California that have annual gross receipts exceeding one hundred million dol-

52. Id. at 3.
55. Id.
58. Id. at 59318.
59. Id. at 59318–19.
The CTSCA requires applicable companies to disclose their efforts to ensure that their supply chains are free from slavery and human trafficking. It outlines activities that companies must report on their websites, including supply chain verifications, audits, and training. Unlike section 1502, described below, the CTSCA only requires disclosure on a company's website.

The CTSCA has served as a model for the proposed Business Supply Chain Transparency on Trafficking and Slavery Act of 2014. If passed, this bill would apply to all companies (not just retailers and manufacturers doing business in California) with annual worldwide gross receipts exceeding one hundred million dollars. These companies would be required to disclose their efforts to identify and address specific human rights risks in their supply chains, including forced labor, slavery, human trafficking, and the worst forms of child labor. Unlike the California act, however, the proposed bill would require companies to file annual reports with the SEC as is currently required under the conflict minerals provision in section 1502 of the Dodd-Frank Act.

As compared to the legislation described above, section 1502 is the first regulation to create binding rules on human rights-related due diligence with regard to a company's supply chain. It aims to curtail ethnic violence in the DRC by shrinking the market for conflict minerals from mines controlled by armed groups. As this Article will discuss in more detail in Part II, this regulation requires public companies that manufacture or contract to manufacture certain conflict minerals to disclose whether those minerals originated in the DRC and surrounding countries. If so, they must exercise due diligence on the source and chain of custody of the minerals and file a report with the SEC. Putting aside the question of whether the legislation is reducing ethnic violence, it can increase supply chain transparency and potentially shape corporate behavior.

For a discussion of whether securities regulation is the appropriate mechanism to hold companies accountable for human rights-related abuses, see Galit A. Sarfaty, Human Rights Meets Securities Regulation, 54 VA. J. INT'L L. 97 (2013).
effectively implement due diligence requirements given the multi-tiered and fluid nature of supply chains as well as the power dynamics between buyers and suppliers.

C. Why Supply Chain Regulation is Difficult to Implement

While a growing body of domestic regulation addresses social, environmental, and human rights risks in supply chains, the complexity of supply chains complicates the implementation of these laws. Many of the above laws recommend (or in the case of section 1502, require) that companies exercise due diligence on their third-party suppliers. Due diligence typically involves a company identifying actual or potential risks associated with its activities and relationships, and taking steps to mitigate those risks. While firms already conduct this process on various business activities, applying it to supply chains presents unique challenges.

Global supply chains frequently include multiple layers of suppliers, which may be difficult to trace and therefore regulate. Since companies often rely on first-tier suppliers to identify and audit those in the second-tier, who in turn identify and audit the next tier and so on, comprehensive monitoring by the company may not be possible. Usually, companies can locate first-tier suppliers, but those suppliers in the lower tiers are not so visible. Chains can comprise many tiers—when tracing the source of conflict minerals, for example, “there are often seven or eight layers in the supply chain between the original artisanal mine and the final packaged good in the consumer sector.” In fact, an employee of technology company Philips remarked that, “for electronic components, the supply chain can easily be 50 tiers deep, many of which may provide us with limited or no information.” With so many layers, it can be difficult to identify all suppliers, let alone conduct due diligence on them. For example, it took one company

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72. **See** Dodd-Frank Act § 1502; Foreign Corrupt Practices Act § 78dd-l(a); Lacey Act § 3372(a)(2)(A); U.S. Dep't of State, Burma Responsible Investment Reporting Requirements, *supra* note 41.

73. According to the OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas, companies should follow five steps when conducting due diligence: (1) establish strong management systems, (2) identify and assess risk through supply chain mapping, (3) design and implement a strategy to respond to identified risks, (4) conduct an independent audit of supply chain due diligence, and (5) report annually on supply chain due diligence. *See* OECD Due Diligence Guidance, *supra* note 17.


75. *Id.*

76. CHEUVREUX CREDIT AGRICOLE GROUP, CONFLICT MINERALS 22 (ESG Thematic, Oct. 2012).

more than a year to map its supply chain. Consequently, consultants have advised companies required to comply with section 1502 to focus only on their first tier of suppliers for the first two years of conflict mineral reporting (or four years for small companies), during which time the SEC has relaxed its requirements. The transition period itself reflects the agency’s acknowledgment of the time it takes firms to map their supply chains and the different amounts of leverage that large versus small companies have over their suppliers. As the SEC acknowledged, reporting companies average 160 to 10,000 first-tier suppliers each, and the number of potentially affected suppliers is estimated to be 278,000.

In fact, the power relationship between buyers and the first few tiers of suppliers represents another complicating factor in the implementation of supply chain regulation. When a company has a high degree of control over its direct suppliers and the power to switch among suppliers, it can more easily monitor and influence their behavior. It can also more effectively pressure suppliers down the chain because of a multiplier effect whereby "the influence of buyers on suppliers can force sub-suppliers to act in a responsible manner." Lead firms are thus better able to drive coordination, enforce agreements, transmit environmental and human rights norms, and conduct due diligence along their supply chains. In fact, they are "increasingly adopting corporate sustainability programs as a means to establish rules, oversight, and closer relationships with their suppliers: to work with them directly to keep production costs down through eco-efficiencies while also helping to ensure high-quality, reliable output."


79. See Frank Monte, Managing Dir. of KPMG US, Remarks at the KPMG Conflict Minerals Seminar in London (June 10, 2013) (on file with author). The SEC’s rule implementing section 1502 provides a transition period of two years for large companies and four years for small companies. During this time, companies can report their products as “DRC conflict undeterminable” and do not need to obtain an audit of their Conflict Minerals Report. Conflict Minerals, 77 Fed. Reg. 56281.

80. See U.S. GOV’T ACCOUNTABILITY OFFICE, supra note 74.

81. See Vandenbergh, supra note 11. Big brand retailers such as Walmart have used this leverage to push suppliers to cut costs. See Peter Dauvergne & Jane Lister, Big Brand Sustainability: Governance Projects and Environmental Limits, 22 GLOBAL ENV’T L. CHANGE 56, 40 (2012).

82. Stefan Ulstrup Hoejmose et al., Socially Responsible Supply Chains: Power Asymmetries and Joint Dependence, 18 SUPPLY CHAIN MGMT. 277, 277 (2013). However, Hoejmose also notes that the multiplier effect depends on suppliers having power over their suppliers down the chain. Where such power is absent, the buyer will likely need to exert influence directly on sub-suppliers. See also Luz Preuss, In Dirty Chains? Purchasing and Greener Manufacturing, 34 J. BUS. ETHICS 345 (2001); Omri Ben-Shahar & James J. White, Boilerplate and Economic Power in Auto Manufacturing Contracts, 104 MICH. L. REV. 953, 969-70 (2006).


84. Dauvergne & Lister, supra note 81, at 40.
Alternatively, if lead firms face high switching costs with respect to their suppliers, lack the purchasing power to hold suppliers captive, and/or cannot transmit tailored incentives that motivate cooperation, they have less influence and more difficulty exercising due diligence. This "lock-in situation" may result in the lead firm tolerating non-compliant and opportunistic behavior by members of its supply chain. Opportunistic behavior tends to increase as the geographic distance between buyers and sellers increases. In these situations, suppliers may be "reluctant to disclose information about their own supply chains, either for commercial reasons, or in a deliberate attempt to circumvent the standards and requirements of buyers." Therefore, regulatory efforts are most effective when buyers have a high degree of control over their suppliers.

A further challenge to implementation of supply chain laws is that supply chains can be quite fluid and unpredictable even within the same industry. According to one study:

Value chain governance patterns are not static or strictly associated with particular industries. They depend on the details of how interactions between value chain actors are managed, and how technologies are applied to design, production and the governance of the value chain itself. Nor are value chain governance patterns monolithic. Even in a particular industry in a particular place and time, governance patterns may vary from one stage of the chain to another.

The volatility of supply chains can stem from such evolving factors as political instability, technological changes, and legal developments. Their dynamic nature not only makes it challenging for a company to maintain an updated list of suppliers and sub-suppliers, but it also complicates regulatory efforts as there may be a temptation for firms to shift their supply chains away from the regulated regions.

Because of power asymmetries between buyers and sellers, the difficulty of mapping a company's entire supply chain, and its constant fluidity, the UN Guiding Principles on Business and Human Rights recommend a pragmatic approach whereby companies prioritize which areas of the supply chain to map, which business relationships to engage in, and which adverse

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85. See Parella, supra note 9, at 787-91 (describing how buyers can transmit effective incentives to provoke coordination by suppliers).
86. See Bello & Zhu, supra note 83, at 458; see also Kenneth H. Wathne & Jan B. Heide, Opportunism in Interfirm Relationships: Forms, Outcomes, and Solutions, 64 J. of Marketing 36 (2000).
88. THE SHIFT PROJECT, supra note 78, at 4.
89. See Gereffi, supra note 83, at 96.
90. In the case of section 1502, some critics claimed that the legislation led to an initial embargo of the DRC region. See, e.g., Johnson, supra note 18; Tsui, supra note 18.
human rights impacts to mitigate. The commentary to Guiding Principle 17 recognizes that:

Where business enterprises have large numbers of entities in their value chains it may be unreasonably difficult to conduct due diligence for adverse human rights impacts across them all. If so, business enterprises should identify general areas where the risk of adverse human rights impacts is most significant, whether due to certain suppliers' or clients' operating contexts, the particular operations, products or services involved, or other relevant considerations.91

The UN Guiding Principles further identify factors that shape how a business enterprise responds to potential adverse human rights impacts by one of its partners. These factors include "the enterprise's leverage over the entity concerned, how crucial the relationship is to the enterprise, the severity of the abuse, and whether terminating the relationship with the entity itself would have adverse human rights consequences."92 If a business lacks sufficient leverage over its suppliers, the Guiding Principles recommend ways for it to increase its influence so as to prevent or mitigate negative human rights impacts.93 The limited leverage that firms have on remote tiers of their supply chains is further acknowledged by the OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas.94 Given the multiple challenges involved in conducting supply chain due diligence, there is not a one-size-fits-all approach for companies. As a result, regulation in this area is particularly complex and may involve multiple tiers of outsourcing.

D. Regulating Outsourcing by Outsourcing Regulation

In response to complex, multi-tiered supply chains, we see complex, multi-tiered regulation. Because of the nature of supply chains described above, regulation of outsourcing is being outsourced to the regulated parties themselves, who must secure compliance by their suppliers. This model stands in contrast to accounts in existing literature, which have focused on the outsourcing of regulation to NGOs, auditors, and other third parties.95 As this Article elaborates below, the outsourcing of regulation to regulated parties themselves raises significant accountability concerns given that private actors are performing functions that are fundamentally public.

92. Id. at Principle 19 cmt.
93. Id.
94. OECD Due Diligence Guidance, supra note 17, at 15, 33. The OECD Guidance also encourages companies to work together and share information about suppliers, for example through industry initiatives. Id. at 39, 42.
95. See Freeman, supra note 11; Shapiro, supra note 11; Vandenbergh, supra note 11.
Legal scholarship in the area of “new governance” has analyzed the increasing privatization of public law and the development of public-private governance. New governance regulatory mechanisms stand in contrast to traditional command and control methods that are state-focused and rely on specific, inflexible mandates to change behavior. The new governance model is considered to be more flexible, participatory, and cost-efficient, and may promote more innovation and tailoring to local circumstances. As part of the trend toward public-private governance, there has been an outsourcing of regulatory functions to third parties. Private actors can be involved in public governance through a variety of ways, whether they are establishing, implementing, or enforcing regulatory standards. In public-private arrangements, there typically is an outsourcing of regulation to non-governmental organizations, international agencies, experts, and firms. For example, governments may hire private sector auditors to assess corporate compliance with health and safety standards. Or they may require companies to hire accredited independent third parties to verify compliance data. Firms can also implement self-regulatory standards through, for example, voluntary codes of conduct.

Yet supply chain regulation represents a distinct model of regulatory outsourcing. Under section 1502, the U.S. government is outsourcing to regulated entities themselves, but not just for the purpose of self-regulation. The state is deploying multinational companies to regulate themselves and indirectly regulate other firms in their supply chain. Compliance by companies is thus linked to compliance by their suppliers. As a result, companies listed in the United States are responsible for implementing and enforcing regulatory standards on firms abroad, on behalf of the state. These firms (usually in developing countries) would typically be beyond the reach of the state but for the extraterritorial reach of domestic supply chain regulation. After the state outsources to companies, those companies may further outsource the regulation of suppliers to third parties, such as private consultants, industry.

96. Id.
98. Lobel, supra note 97; Minow, supra note 97.
99. See Government By Contract: Outsourcing and American Democracy (Jody Freeman & Martha Minow eds., 2009); Jody Freeman, Collaborative Governance in the Administrative State, 45 UCLA L. REV. 1 (1997); Jody Freeman, Public Values in an Era of Privatization: Extending Public Law Norms Through Privatization, 116 HARV. L. REV. 1285 (2003); Freeman, supra note 11; Shapiro, supra note 11; Vandenbergh, supra note 11.
100. See Vandenbergh, supra note 11, at 117.
104. See O’Rourke, supra note 101.
groups, or other suppliers. While companies may regulate their direct suppliers, those suppliers may regulate other firms down the chain. Therefore, a chain of outsourcing emerges that involves layers of monitoring and enforcement, and often competing systems of incentives.\footnote{105. Id. at 6.}

This chain of outsourcing regulation presents a number of implications for companies and the state. It creates a new role for companies as not just regulated entities but regulators themselves. Companies are setting standards for their suppliers and developing procedures for suspending or terminating firms that do not comply with their sourcing policies. While corporate codes of conduct have been on the rise for the past decade, supply chain regulations raise the bar for the level of due diligence that companies require in their codes.\footnote{106. See Sean D. Murphy, Taking Multinational Corporate Codes of Conduct to the Next Level, 43 COLUM. J. TRANSNAT'L L. 389 (2005).} The outsourcing of regulation to companies requires that firms locate and regulate their suppliers, which they may currently lack the resources and expertise to do effectively.

While the outsourcing of supply chain regulations may create opportunities for states to govern firms abroad typically outside their reach, this practice raises accountability concerns. Supply chain laws transfer authority from regulators to private actors who are responsible for implementation and who may then further outsource to private consultants. Assigning private parties the role of implementing regulation is concerning given the lack of government oversight and transparency to the public. This outsourcing is further problematic because companies are responsible for conducting due diligence themselves (as per the OECD Due Diligence Guidance), although they are encouraged to participate in industry-wide initiatives that foster collaboration among firms that share suppliers.\footnote{107. See OECD Due Diligence Guidance, supra note 17.} Having a third party filter this knowledge is not the goal and may not lead to the same organizational learning or behavioral change in firms.

Scholars of public-private governance have recognized that with increased efficiency and innovation come costs such as lack of transparency, limited oversight, and weak accountability.\footnote{108. See Freeman, supra note 11, at 574–75; Vandenbergh, supra note 11, at 141–45.} The accountability costs are particularly prevalent in supply chain regulation, which becomes further removed from the state as it gets outsourced first to companies and then to other suppliers and private consultants, thus creating second-order regulation, third-order regulation, and so on.\footnote{109. See Vandenbergh, supra note 11, at 141–45.} Interestingly, some anthropologists have theorized supply chain management as an “ethic of detachment,” where companies “are constantly engaged in establishing limits and endpoints to relationships in their supply chain, ensuring that contracts are time-bound and spatially defined, resisting proximity and intimacy, and
framing relationships around difference and distance."\textsuperscript{110} As part of this ethic of detachment, there are "multiple nodes of authority" that complicate efforts to determine which actor was responsible for a particular decision or action, as responsibility is redistributed across a network of actors.\textsuperscript{111} The limited accountability along the supply chain is especially disconcerting given that the purpose of these regulations is to enhance corporate accountability to the public and hold companies responsible for human rights violations in which they are complicit, whether wittingly or unwittingly.

II. EMPIRICAL EVIDENCE FROM U.S. CONFLICT MINERALS LEGISLATION

In order to analyze the effectiveness of supply chain-related regulations and their implications on state legitimacy and corporate accountability, this Article presents a quantitative and qualitative study of the early implementation of section 1502 of the Dodd-Frank Act on conflict minerals. The quantitative component is based on a statistical analysis of the first set of nearly 1,000 Conflict Minerals Reports that companies submitted to the SEC in mid-2014. The aim is to understand the level of due diligence measures that companies have reported in their disclosures, which this Article uses as a measure of the legislation's potential to shape corporate behavior with regard to responsible supply chain management. Through a close analysis of the disclosures and their conformity with the OECD Due Diligence Guidance, this Article quantifies levels of weak, moderate, and strong due diligence as well as correlations of due diligence levels with possible explanatory variables. This data analysis determines whether supply chain-related regulation such as section 1502 has disparate effects on corporations, and by doing so, develops a more nuanced theory of the emerging chain of outsourcing regulation. The focus is on the effects of section 1502 on corporate behavior toward supply chain transparency, not on measuring the law's impact on local populations or whether it is curbing the conflict in the DRC. Next, this Article discusses the challenges to implementation that explain the high level of weak and moderate due diligence and the differentiation among companies. It relies on ethnographic interviews with 25 people within consultancies, industry groups, non-governmental organizations, and law firms that are working with companies to comply with the legislation. It also draws on participant observations from both international conferences and within a consulting firm based in London that conducts conflict minerals due diligence and auditing.

\textsuperscript{110} Jamie Cross, \textit{Detachment as a Corporate Ethic: Materializing CSR in the Diamond Supply Chain}, 60 FOCAAL: J. GLOBAL & HIST. ANTHROPOLOGY 34, 36 (2011). Cross identifies technologies of detachment in the supply chain, including audits and codes of conduct that depersonalize, abstract, and "economize" the supply chain, producing "decontextualized" relationships and knowledge.

\textsuperscript{111} McAllister, \textit{supra} note 103, at 32.
A. Section 1502

Within the growing body of domestic supply chain-related regulations, section 1502 stands apart for its broad applicability to all publicly-traded companies (including foreign issuers), the possibility of penalties attached to non-compliance, and the requirement imposed on certain firms to exercise supply chain due diligence. While section 1502 was passed in 2010 as part of the Dodd-Frank Act, the SEC issued a final rule in 2012 following a long public comment period. This provision requires public companies that manufacture or contract to manufacture certain conflict minerals to disclose whether their minerals originate from the DRC or any one of nine adjoining countries. The rule requires disclosure on a new form to be filed with the SEC (Form SD for specialized disclosure) as well as on company websites. If, after conducting a “reasonable country of origin inquiry,” issuers find that the minerals originate in the covered countries and have reason to believe they may not have come from recycled or scrap sources, they must exercise due diligence on the source and chain of custody of their conflict minerals and file a Conflict Minerals Report as an exhibit to Form SD. Companies must also obtain an independent private sector audit of the Conflict Minerals Report. What is particularly notable about the rule is that it encourages the use of an emerging international standard for supply chain due diligence—the OECD Due Diligence Guidance.

Acknowledging the initial difficulty of locating suppliers and determining the origin of a firm’s conflict minerals, the SEC relaxed some of its requirements for two years for large companies and four years for small companies. During this time, issuers can report their products as “DRC conflict undeterminable” and do not need to obtain an audit of their Conflict


113. See, e.g., Dodd-Frank Act § 1502. The provision defines “conflict minerals” as cassiterite (tin ore), columbite-tantalite (tantalum ore), wolframite (tungsten ore) and gold, and the nine adjoining countries include Rwanda, Burundi, Uganda, South Sudan, Central African Republic, Congo Brazzaville, Angola, Zambia, and Tanzania. § 1502(e)(4). An issuer must determine whether any of its manufactured products contain these minerals and whether such minerals are necessary to the functionality or production of the manufactured product.

114. Conflict Minerals, 77 Fed. Reg. at 56334. According to the rule, the reasonable country of origin inquiry “does not require an issuer to determine to a certainty that all its conflict minerals did not originate in the Covered Countries because the standard required is a reasonable inquiry, and requiring a certainty in this setting would not be reasonable and may impose undue costs.” Id. at 56312–13.

115. Id. at 56276. Auditing is currently not a priority for companies because the SEC relaxed the auditing requirements for the first two years for large companies and four years for smaller companies. Id. at 56281. There were only three companies that obtained audits for their Conflict Minerals Reports submitted in 2014: Intel, Kemet Corporation, and Signet Jewelers, Ltd.

116. See OECD Due Diligence Guidance, supra note 17.

117. The SEC has a variety of criteria for defining a smaller reporting company, chief among them being that it is one with less than $75 million in outstanding shares owned by the public. “Smaller reporting company” is defined in Rule 12b-2 [17 CFR 240.12b-2] under the Exchange Act.
Minerals Report. However, they still must exercise due diligence, including taking steps to mitigate the risk that their conflict minerals benefit armed groups. In addition, companies whose minerals originated from recycled or scrap materials are required to file a Form SD but are exempted from the due diligence requirement.

Multiple legal and non-legal measures incentivize compliance with section 1502. Unlike similar legislation such as the California Transparency in Supply Chains Act, section 1502 imposes penalties on companies for not reporting or complying in good faith. Form SD is deemed filed under the Securities Exchange Act of 1934 and subject to section 18 of the Exchange Act, which attaches liability for any false or misleading statements. In addition, the public disclosure component of section 1502 facilitates third-party rankings and the leveraging of consumer, NGO, and investor pressure on companies to become conflict-free. Some firms—most notably, Intel—have preemptively decided to only use conflict-free materials, a step that is not required under section 1502 but was likely motivated by the increased attention to conflict minerals issues (as represented by the legislation). Section 1502 not only directly affects nearly 1,000 companies, but it also indirectly affects thousands of suppliers to these companies. Moreover, California and Maryland have passed laws to incentivize compliance with section 1502. These regulations prohibit companies in violation of the disclosure requirements from contracting with California and Maryland state agencies.

The promotion of supply chain transparency is not confined to the United States. In February 2012, the Democratic Republic of Congo passed a law requiring all mining and mineral trading companies operating in the country to undertake due diligence on all levels of their supply chain according to the OECD Due Diligence Guidance. In Canada, a conflict minerals act

119. Id.
120. Id.
122. Id.
was introduced in the House of Commons in 2013 that would require Canadian companies to exercise due diligence in sourcing minerals from the Great Lakes Region of Africa, also in accordance with the OECD Due Diligence Guidance.\(^{127}\) Finally, in late May 2015, the European Parliament endorsed a mandatory regulation on the responsible sourcing of minerals from conflict-affected and high-risk areas.\(^{128}\) The proposed law, which is estimated to affect over 800,000 European companies, includes a mandatory certification program involving independent third-party audits for smelters and refiners.\(^{129}\) As compared to section 1502, the European regulation would have a broader geographic scope, as it would apply to conflict minerals sourced in all conflict-affected areas (not just in the DRC region). The European Parliament will next engage in negotiations with European member states on the text of the proposed regulation, which will need final approval from the European Council to become law.

Section 1502 was highly contested at its adoption and remains controversial. According to the stated rationale behind the law, curbing the illegitimate exploitation of natural resources by state and non-state armed groups will indirectly hinder financing of the ongoing conflicts in the eastern DRC. Yet observers worry about high compliance costs,\(^{130}\) whether the law properly falls under the mandate of the SEC, and whether it has improved the local human rights situation or hindered the economic development of the region.\(^{131}\) In addition, protracted litigation threatens the rule; in August 2012, the U.S. Chamber of Commerce, Business Roundtable, and industry groups filed petitions in U.S. courts to modify or nullify the rule.\(^{132}\) The

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\(^{130}\) The SEC estimates the initial cost of compliance to be between $3 billion and $4 billion, with annual costs thereafter of between $207 million and $609 million. See Conflict Minerals, 77 Fed. Reg. at 56334.  
most recent development was a ruling by the U.S. Court of Appeals for the D.C. Circuit that largely upheld the law, rejecting the plaintiffs' claim that the rule is arbitrary and capricious under the Administrative Procedure Act. However, the court found the law's requirement that issuers describe their products as "not been found to be DRC conflict-free," amounts to "compelled speech" in violation of the First Amendment. While companies are no longer required to report whether their products are "DRC conflict-free," the SEC announced that the court decision did not affect issuers' obligation to file their reports by the June 2, 2014 deadline. Putting aside the court challenges and the local effect of the law on ethnic violence in the DRC, this Article focuses on whether section 1502 can increase corporate supply chain transparency.

B. A Due Diligence Gap Among Companies

The mid-2014 submission of the first set of Conflict Minerals Reports (CMRs) to the SEC provides an opportunity to analyze the early implementation of section 1502 as well as factors that could explain a due diligence gap among companies. This analysis covers 967 reports, which are publicly available on the SEC's website. These reports are all CMRs filed between April 1, 2014 and June 30, 2014 that could be matched with fiscal year 2012 financial data from Compustat. Below I describe the methodology used to determine due diligence levels and the results from ordinary least squares (OLS) regressions with a number of explanatory variables.

The first step was to determine the level of due diligence among the companies that submitted a CMR. Because these companies were required to conduct due diligence on their supply chain based on the OECD Due Diligence Guidance, I selected the following five factors from the OECD Guidance to analyze due diligence levels. These factors represent the first four steps of the OECD's five-step framework for risk-based due diligence. The fifth OECD step is simply a requirement for companies to publicly
report on their supply chain policies and practices, which all of the companies have fulfilled based on their submission of a CMR to the SEC. I selected two factors to represent OECD step one because this step ("Establish strong company management systems") covers a number of important corporate policies that are essential to an effective due diligence process. I also selected factors that companies did not universally adopt so as to differentiate firms. For example, almost all companies state that they have a supply chain policy, so that factor would not have been a useful one to use. For each of the five factors, companies were coded with a 1 if their CMR indicated that the factor was present, and a 0 if their CMR did not indicate that the factor was present.

1. **Company maintains a system of long-term record-keeping on its supply chain.**

This factor is a component of step one of the OECD due diligence framework ("Establish strong company management systems"). It is listed as a recommendation for downstream companies (which comprise almost all of the issuers) as part of the requirement to "establish a system of controls and transparency over the mineral supply chain."

2. **Company incorporates its supply chain policy and due diligence process into present/future contracts or ancillary agreements with suppliers.**

This factor is another component of step one of the OECD due diligence framework. It is listed as part of the requirement to "strengthen company engagement with suppliers." The factor allows for incorporation into future contracts because contracts may not have been able to be renegotiated during the previous fiscal year. There must be an expressly stated intention to incorporate conflict minerals provisions into contracts or agreements.

3. **Company surveyed all of its suppliers of conflict minerals and followed up with non-responsive suppliers or incomplete surveys.**

This factor is a component of step two of the OECD due diligence framework ("Identify and assess risk in the supply chain"). The requirement that companies follow up with non-responsive suppliers or incomplete

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138. See OECD Due Diligence Guidance, supra note 17, at 52–53.
139. Id. at 36–40.
140. Id.
141. Id. at 39. "Downstream companies" refers to firms whose supply chains move from smelters/refiners to retailers. These companies include metal traders and exchanges, component manufacturers, product manufacturers, original equipment manufacturers, and retailers. Id. at 33.
142. See id. at 17.
143. If the company stated that it incorporates conflict mineral requirements into its supplier code of conduct, it would only be coded as a 1 under this factor if compliance with its code of conduct was mandated through supplier contracts or agreements.
144. See OECD Due Diligence Guidance, supra note 17, at 17.
surveys is one of the expectations for conflict minerals reporting cited by prominent NGOs, The Enough Project and Responsible Sourcing Network (Incomplete or uncompleted surveys are treated as "red flags.").

For an issuer to be coded as a 1, it must have received responses from 100% of suppliers surveyed or have followed up with non-responsive suppliers. The relevant suppliers here are all "in-scope" suppliers, defined as any supplier that could have reasonably supplied products that include conflict minerals. If a company excluded non-major suppliers or suppliers that were not certain to be providing products that could include conflict minerals, it received a 0.

4. **Company has a stated policy of working with suppliers to mitigate risk in its supply chain, including the possibility of terminating its relationship with suppliers.**

This factor is a component of step three of the OECD due diligence framework ("Design and implement a strategy to respond to identified risks"). It is listed as part of the requirement to "devise and adopt a risk management plan." If the CMR stated that termination was a possible consequence of non-compliance, even if no terminations occurred for this reason during the previous year, the issuer was coded as a 1.

5. **Company has a policy of directly encouraging smelters/refiners to become certified.**

This factor is a component of both step three of the OECD due diligence framework ("Design and implement a strategy to respond to identified risks") and step four ("Carry out independent third-party audit of smelter/refiner's due diligence practices"). Since suppliers typically rely on third-party certification schemes to audit smelters/refiners, encouraging certification is a part of the risk management requirement under step three. It is also necessary in order to facilitate the step four requirement to audit smelters and refiners. According to expectations published by The Enough Project and Responsible Sourcing Network, "an issuer should support smelters in becoming verified as conflict free, [which] can be accomplished by encouraging smelters to be audited through the CFS Program or its equivalent." Coding issuers with a 1 under this factor required direct encouragement of smelters/refiners. For example, if a CMR referenced a policy

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146. Id.

147. See OECD Due Diligence Guidance, *supra* note 17, at 44.

148. *Id.* at 17.

149. *Id.* at 44, 47.

150. *Id.* at 44-46.

of indirect encouragement (i.e., the issuer encourages its suppliers to encourage their suppliers to encourage the smelters to become certified), the company was coded as 0.

The above five factors were used to code the 967 CMRs. Each company was then assigned a total score of 0-5 by adding the scores for each factor. I name this total score \( \text{OECDComply} \). Thus, if a company had all five factors present, it received a 5, while a company with none of the factors present received a 0. The table below summarizes the frequency and percentage of companies with scores 0-5:

**Table 1: Frequency Table of OECDComply**

<table>
<thead>
<tr>
<th>Total Score Given to CMR: OECDComply</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>159</td>
<td>16.44</td>
</tr>
<tr>
<td>1</td>
<td>305</td>
<td>31.54</td>
</tr>
<tr>
<td>2</td>
<td>267</td>
<td>27.61</td>
</tr>
<tr>
<td>3</td>
<td>165</td>
<td>17.06</td>
</tr>
<tr>
<td>4</td>
<td>63</td>
<td>6.51</td>
</tr>
<tr>
<td>5</td>
<td>8</td>
<td>0.83</td>
</tr>
</tbody>
</table>

I interpret only those companies with scores of 4 and 5 as exhibiting strong due diligence, meaning that they are conducting comprehensive supply chain due diligence according to the OECD framework and best practices outlined by The Enough Project and Responsible Sourcing Network. The companies with scores of 0 through 3 feature weak or moderate due diligence. Therefore, based on the 2014 CMRs, only 7.34% of companies disclosed strong due diligence measures.

**Table 2: Due Diligence Rate for Companies Filing CMRs**

<table>
<thead>
<tr>
<th>Due Diligence Level</th>
<th>OECDComply</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weak Due Diligence</td>
<td>0-1</td>
<td>464</td>
<td>47.98</td>
</tr>
<tr>
<td>Moderate Due Diligence</td>
<td>2-3</td>
<td>432</td>
<td>44.67</td>
</tr>
<tr>
<td>Strong Due Diligence</td>
<td>4-5</td>
<td>71</td>
<td>7.34</td>
</tr>
</tbody>
</table>

To further understand which characteristics of companies are associated with stronger due diligence, I conduct an OLS regression of total score (\( \text{OECDComply} \)) against a series of explanatory variables—see the Appendix for detailed definitions of each variable used in the regression. While such an analysis cannot be considered a causal explanation for the due diligence gap, the conditional correlations can be considered as a baseline assessment. This empirical analysis presents an invitation for dialogue among researchers.
and practitioners to develop more robust reporting requirements and assess which factors influence companies' compliance.

I examined a number of firm-specific factors to explain why certain companies had a higher score as compared to other companies. Is a company's level of due diligence correlated with its brand strength (as measured by the ratio of advertising expenditure to sales), size (as measured by the natural logarithm of total balance sheet assets), profitability (as measured by the ratio of net income to total assets), or liquidity (the ratio of cash to assets)?

These factors test two hypotheses: The first is that companies with strong brands are more subject to consumer pressure and concerned about their reputation, thus making these companies more likely to exhibit strong due diligence as well. The second hypothesis is that larger companies (proxied by assets), as well as those with more resources (proxied by profitability and liquidity) are more capable of investing in due diligence programs and are more likely to exhibit strong due diligence under section 1502. To better isolate these firm-specific factors, I included industry control variables at the two-digit SIC level.

I also included several external factors that may correlate with a company's due diligence score: (i) whether a company referenced global and in-region responsible sourcing initiatives, which would suggest the role of these initiatives in helping firms conduct their due diligence; and (ii) whether a company complied with the California Transparency in Supply Chains Act of 2010, which requires firms to disclose human rights risks in their supply chain. These hypotheses are tested by including the dummy variables \( CFSI, OtherRef_1, OtherRef_2plus, \) and \( CalTSCA \) in the estimating equation.
### Table 3: Regression Results of Total Score (OECDComply)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Standard Error</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ad_Sales</td>
<td>4.13**</td>
<td>(1.77)</td>
</tr>
<tr>
<td>Log_Assets</td>
<td>.057***</td>
<td>(.021)</td>
</tr>
<tr>
<td>ROA</td>
<td>.055***</td>
<td>(.019)</td>
</tr>
<tr>
<td>Liquidity</td>
<td>-.395</td>
<td>(.265)</td>
</tr>
<tr>
<td>CFSI</td>
<td>.302***</td>
<td>(.079)</td>
</tr>
<tr>
<td>OtherRef_1</td>
<td>.343**</td>
<td>(.146)</td>
</tr>
<tr>
<td>OtherRef_2plus</td>
<td>.418**</td>
<td>(.193)</td>
</tr>
<tr>
<td>CalTSCA</td>
<td>.201*</td>
<td>(.112)</td>
</tr>
<tr>
<td>Constant</td>
<td>.481</td>
<td>(.370)</td>
</tr>
<tr>
<td>Number of Observations</td>
<td>967</td>
<td></td>
</tr>
<tr>
<td>R-squared</td>
<td>.084</td>
<td></td>
</tr>
</tbody>
</table>

The dependent variable in this OLS Regression is OECDComply. Two-digit SIC industry controls are included (but not shown). Robust standard errors in parentheses.

* Significant at the 10% level
** Significant at the 5% level
*** Significant at the 1% level

There is a statistically and practically significant relationship between OECDComply and the following variables: Ad_Sales, a measure of brand (the ratio of advertising expenditure to sales) and Log_Assets, a proxy for firm size (the natural logarithm of total balance sheet assets). There is also a significant relationship of OECDComply to variables based on references from the Conflict Mineral Reports: CFSI, which measures reference to the Conflict-Free Sourcing Initiative (CFSI) or the Conflict-Free Smelter Program (CFSP); and OtherRef_1 and OtherRef_2plus, which are dummy variables that measure reference to stakeholder initiatives other than CFSI/CFSP (either referencing exactly 1 initiative, or 2 or more initiatives). The variable CalTSCA, which measures compliance with the California Transparency in Supply Chains Act, while weakly significant (at the 10% level), is practically significant.

The variable ROA, a measure of profitability (the ratio of net income to total assets), while statistically significant, is of little practical significance.
in the model. The variable liquidity (the ratio of cash to assets) is not statistically significant. Industry dummy variables are included as controls, none of which are individually significant either.

Brand strength, which is proxied by the ratio of advertising expenditures to net sales, has a practically significant effect only for firms with an advertising-to-sales ratio in the top 5% of the sample. Companies with strong brands are concerned about their reputation and are more likely than other firms to respond to pressure by consumers, NGOs, and socially responsible investors. Hence, these firms are more likely to report comprehensive supply chain due diligence in their CMRs.

Reference to the Conflict-Free Sourcing Initiative is another strong explanatory variable for total score. This result highlights the importance of this initiative, which certifies smelters as conflict-free based on an independent third-party audit. Developed by members of the Electronic Industry Citizenship Coalition and the Global e-Sustainability Program, this program is widely used by companies in various industries because smelters and refiners are considered the "choke point" of the supply chain. Companies that can trace their minerals to a CFSI-certified smelter can claim that the minerals in their products are conflict-free.

My analysis also measured reference to the following global and in-region responsible sourcing initiatives (aside from CFSI): (1) The Responsible Jewelry Council Chain-of-Custody Certification Program; (2) the International Tin Supply Chain Initiative; (3) the London Bullion Market Association Responsible Gold Program; (4) Solutions for Hope; (5) the Public-Private Alliance for Responsible Minerals Trade; (6) the Tungsten Conflict Mineral Council; and (7) the Conflict-Free Tin Initiative. These stakeholder initiatives may facilitate compliance with section 1502, an observation made by the U.S. Government Accountability Office and confirmed by the data.

The model predicts that a CMR that references one of the previously enumerated initiatives would be expected to have an increase in OECDComply of .34, all else being equal. At the same time, a CMR that references two or more initiatives is expected to have an increase of .42 to OECDComply, which is only slightly higher than a CMR that only references a single initi-

152. Even when comparing firms at the extreme ends of the ROA distribution, the predicted effect on OECDComply is not practically large. The first percentile of ROA in the sample is -.721, whereas the 99th percentile is .283. Thus, the difference in the predicted score of OECDComply between a firm in the 99th ROA percentile and a firm at the first ROA percentile is only .283*.055 - (-.721*.055) = .06.

153. Many firms do not report advertising expenditures in Compustat, as it is not a material expense for them. I assume the dollar value of advertising for these firms is 0. As a result, the median value of Ad_Sales is 0, and the average value is .008. The 95th percentile of Ad_Sales in the sample is .044. Therefore, the predicted effect on OECDComply for a firm with an Ad_Sales value at the 95th percentile is 4.11*.044 = .181.


155. See U.S. GOV'T ACCOUNTABILITY OFFICE, supra note 74, at 16 n.29.

156. See id. at 12-17.
ative. As this Article will describe in more detail in the following section, the initiatives sometimes compete or overlap with each other so there may not be as much value added when a company is involved in more than one initiative (aside from CFSI).

In addition, there is a statistically significant relationship between $\text{Log}\_\text{Assets}$ and total score, which suggests that larger firms are more likely to have a higher total score.\textsuperscript{157} This observation reflects the fact that conducting supply chain due diligence requires significant resources, which larger firms are more able to invest.

Finally, the explanatory variable $\text{CalTSCA}$ is statistically significant as well. This variable measured whether companies complied with the California Transparency in Supply Chains Act of 2010, as reflected in the KnowTheChain dataset that checks whether applicable companies posted statements that addressed at least three of the five statutory requirements.\textsuperscript{158} An issuer that had received a checkmark from KnowTheChain would be expected to receive a higher total score than otherwise. This result suggests that the California Act and section 1502 of the Dodd-Frank Act are complementary pieces of legislation. Companies required to comply with the California act had to gather information on their supply chain which facilitated their compliance with section 1502.

**C. Challenges to Implementation**

Aside from the above explanatory variables, what other factors may explain the due diligence gap in the data? Ethnographic interviews and participant observation provide context to the data analysis above and reveal a number of other challenges to implementation that companies currently face or will face once the transition period ends in two to four years. Below, this Article identifies three factors that are hindering compliance: (1) international norms on supply chain due diligence are in their infancy; (2) there is a proliferation of certification standards and in-region sourcing initiatives that are still evolving and sometimes competing; and (3) inadequate local security and weak governance are inhibiting the mapping of the mineral trade and the tracing of minerals in the region.

A first obstacle that companies face is the dearth of guidance as to how to interpret and implement evolving international norms on supply chain due diligence. The UN Guiding Principles on Business and Human Rights,

\textsuperscript{157} This effect is practically significant when comparing the largest and smallest firms in the sample. The 10th percentile of $\text{Log}\_\text{Assets}$ is 4.15, whereas the 90th percentile is 9.75. Thus, the difference in the predicted score of $\text{OECDComply}$ between a firm in the 90th percentile of size and a firm in the 10th percentile of size is $9.75 \times 0.057 - 4.15 \times 0.057 = .32$.

\textsuperscript{158} Using this data set, I found that out of the companies that submitted CMRs, 201 firms were also required to comply with the California Act. Out of those 201 companies, 158 received a checkmark from KnowTheChain that indicated compliance. These 158 firms have a value of 1 for $\text{CalTSCA}$, while all other firms in the sample have a value of 0. See About Us, KNOWTHECHAIN, https://www.knowthechain.org/about-us/ (last visited on Mar. 28, 2015).
which outline due diligence as a key step for companies to undertake, were only endorsed by the U.N. Human Rights Council in 2011. At that time, the Human Rights Council created a five-member expert working group to help implement and disseminate the Guiding Principles over the next three years. Similarly, the OECD Due Diligence Guidance was approved in 2011 by the body’s Investment Committee and Development Assistance Committee. Since 2011, the OECD has been working with the U.N. Group of Experts on the DRC and the International Conference on the Great Lakes Region (ICGLR) to develop implementation tools and best practices. Part of the implementation phase has included translation of the OECD Due Diligence Guidance, training and outreach activities in mineral producing regions, and the development of industry/sector guides. Yet questions remain as to how to interpret the norms articulated in the OECD Guidance. For example, it is unclear the extent to which companies are allowed to rely on outside initiatives to conduct due diligence on their behalf. Companies that must comply with section 1502 are therefore struggling with how to apply these recently developed norms on supply chain due diligence, especially in the face of little initial guidance from the SEC and the complexities associated with locating and auditing third-party suppliers.

Companies are also facing a proliferation of sometimes-competing certification standards and sourcing initiatives developed by industry groups, governmental bodies, and consulting firms, which are trying to capitalize on the growing business for implementation services. The global and in-region sourcing initiatives assist companies in conducting supply chain due diligence and responsibly sourcing conflict minerals. While the data analysis above shows a correlation between CMRs that reference exactly one initiative (other than CFSI) and OECDComply, there was only a slight increase in total score when a company referenced two or more initiatives. In other words, the programs may be competing or redundant in some respects and

163. Id.
164. Interview with Hannah Koep, Channel Research (July 2, 2012).
165. See infra Section III.A.
166. A notable exception is the Conflict-Free Sourcing Initiative, whose significance is evident in the correlation between CMRs that reference CFSI and those with a high total score that reflects comprehensive due diligence. See infra Section II.B.
not necessarily providing a value-added as companies are involved in more initiatives. This theory is bolstered by this Article’s qualitative research.

For instance, one of the newly created initiatives is the Better Sourcing Program (BSP), launched in 2014 by Resource Consulting Services, Ltd. BSP, which is under public consultation and currently being piloted in the DRC, is aimed at companies complying with section 1502 and the proposed EU Regulation on Conflict Minerals. It assists firms with their due diligence on the upstream (mine to smelter) part of the mineral supply chain. Yet BSP is trying to differentiate itself in a crowded market of already existing standards. Here is its attempt to do so, according to its consultation draft:

The Better Sourcing Program recognizes the complexities and associated communication challenges arising from the multitude of initiatives designed to assess supply chain due diligence practices. Therefore, the Better Sourcing Standard has been designed to mirror existing standards from the ICGLR Regional Certification Mechanism, while fully operationalizing principles and recommendations from the Organization for Economic Co-operation and Development (OECD) Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas (OECD Guidance), and aligning with requirements from the Conflict-Free Smelter Program (CFSP) audit protocols. The Better Sourcing Program further recognizes the RJC [Responsible Jewelry Council] Code of Practices (CoP) as a leading Standard applicable to mineral supply chains and draws on the RJC CoP.168

The BSP statement above refers to the ICGLR Regional Certification Mechanism, which is currently under development and expected to be eventually integrated into the national law of its member states in the Great Lakes Region. This mechanism is one of several in-region sourcing initiatives that are concurrently trying to track and monitor minerals from mine to smelter. Other such initiatives include the International Tin Research Institute’s Tin Supply Chain Initiative (iTSCI) and the Certified Trading Chains of the German Federal Institute for Geosciences and Natural Resources (BGR).169

The Responsible Jewelry Council has also developed a chain-of-custody certification program for the tracking of conflict-free gold.170 Other standards

168. Id. at 2.
for tracking gold that claim to be compatible and mutually supportive are the World Gold Council's Conflict-Free Gold Standard and the London Bullion Market Association's Responsible Gold Guidance, the first of which is aimed at upstream companies and the second for downstream companies.171

Clearly, industry groups and consulting firms are attempting to carve out niche assurance services for companies that are unfamiliar with how to conduct due diligence or unwilling to do it themselves. Yet one wonders how much coordination or rather competition is actually occurring among the plethora of standards, initiatives, and certification providers. According to Hannah Koep, who formerly worked at Channel Research, a consultancy that has been helping design audit standards and governance assessment tools relating to conflict minerals due diligence since 2011:

It is surprising to see how difficult it is to harmonize, and how difficult it is to get different standards to work together. And to see how much money gets pumped into different initiatives, instead of actually harmonizing and bringing them together. . . . At an earlier stage when all of the schemes were in their infancy, it would have been easier to join resources and join efforts. By now, everyone has run in slightly different directions and has slightly different implementation standards. And I think that it is more difficult to backpedal now and see how to bring them all together.172

Patricia Jurewicz of the Responsible Sourcing Network agrees and adds: "Why is everybody funding these parallel projects simultaneously when nobody has enough money to do it all?"173 In addition to possible fragmentation, many of the initiatives and standards also suffer from a lack of transparency—an irony given that their aim is to promote supply chain transparency. For instance, iTSCi (a traceability and due diligence program that creates auditable chains of custody) does not release data or incident reports to the public and charges a steep fee for membership.174 Control over data may be a way for initiatives such as iTSCi to create a monopoly for their services in the upstream assurance market and crowd out competing pro-


172. Interview with Hannah Koep, Channel Research (July 2, 2013).

173. Interview with Patricia Jurewicz, Director, Responsible Sourcing Network (Aug. 21, 2013).

174. Interview with Joanne Lebert, Director, Great Lakes Program, Partnership Africa Canada (July 31, 2013).
grams. Yet promoting transparency in corporate supply chains could create a culture of transparency among the organizations supporting this aim.

While there is overlap and a lack of harmonization among some of the initiatives, there are certain areas where in-region sourcing is still in nascent stages. For example, most initiatives have focused on tin, tantalum, and tungsten, while a gold traceability scheme is still in its pilot phase. There are currently no chain-of-custody technologies for gold production (iTSCi only works on the other three conflict minerals) and no tracking system for gold in the Great Lakes Region. While the Conflict-Free Sourcing Initiative has recently certified smelters for all four conflict minerals (with almost one-fourth of the smelters used by electronic companies already certified), there are still many uncertified smelters, particularly for tungsten, tin, and gold. According to the Government Accountability Office, as of April 2014, there are 110 smelters and refiners that have been certified or working toward certification, out of a total of approximately 500 worldwide.

The under-development of certain sourcing initiatives is in part a result of inadequate local security and weak governance in the region. These factors inhibit mapping and traceability particularly for minerals that are artisanally mined in the DRC region. The area suffers from a lack of local governance institutions, with “almost 20,000 UN troops provid[ing] the only infrastructure support in certain [areas].” Moreover, inadequate infrastructure, including inconsistent power supply, hinders the ability of initiatives to operate in the region. Illegal armed groups pose another challenge to efforts to map the region and continuously monitor mines, thus compromising attempts to export conflict-free minerals from those areas. Given the unstable political environment and prevalence of corruption, government forces themselves are sometimes responsible for perpetrating violence and hindering the mapping of mining sources. Local governments lack the capacity to curb violence, cross-border smuggling, and corruption, thus leaving artisanal mines (small-scale mines by independent miners not employed by a mining company) largely unregulated and suffering from precarious work conditions. A mining engineer, who is trying to set up

176. See U.S. Gov’t Accountability Office, supra note 74, at 15.
178. Id.
179. See U.S. Gov’t Accountability Office, REP. No. GAO-14-575, REPORT TO CONGRESSIONAL COMMITTEES, CONFLICT MINERALS: STAKEHOLDER OPTIONS FOR RESPONSIBLE SOURCING ARE EXPANDING, BUT MORE INFORMATION ON SMELTERS IS NEEDED 23 (2014).
181. See Cheuvreux Credit Agricole Group, supra note 76, at 19.
182. See U.S. Gov’t Accountability Office, supra note 179, at 29.
183. Id. at 17–18.
184. See Cheuvreux Credit Agricole Group, supra note 76, at 19.
185. Id. at 21.
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fair trade gold certification in Uganda, notes the smuggling among some of the tantalum producers in Rwanda:

They're selling to Rwandan buyers, and not particularly legally. Although it is a certified site in Rwanda, based on their economic calculations, it makes more sense for them to produce less at their mine in Rwanda, and buy the ore at a lower price from Ugandan producers, smuggle it back into Rwanda, and register it as certified production from their mine.\textsuperscript{186}

The engineer further remarks that not only are there not enough mine agents to inspect mines and mitigate corruption, but existing government agents are tempted by bribes to let minerals pass through uninspected.\textsuperscript{187}

Given the security situation and weak local infrastructure, there is disagreement and a lack of clarity over how to map the region. While the U.S. State Department developed a conflict minerals map in accordance with section 1502 to show trade routes, mineral-rich zones, and areas under the control of armed groups in the DRC, it acknowledges such limitations as the lack of verifiable data, the constantly changing situation on the ground, and the inaccessibility of many of the mine sites.\textsuperscript{188} Moreover, it is unclear how accurate such a map can be given the difficulty defining who is an armed group, whether state armed groups should be counted, and what definition of conflict should be used.\textsuperscript{189} The various standards and sourcing initiatives are themselves at odds over the definition of precluded armed groups. For instance, the Conflict-Free Sourcing Initiative does not allow any armed groups to be present at mine sites including state armed groups, while iTSCI (in line with the OECD Due Diligence Guidance) allows the presence of public and private security forces (including state armed groups) at a mine site on the condition that they are not violating human rights.\textsuperscript{190} Going forward, it will be important to harmonize initiatives as to which armed groups should be included and gather more reliable data to determine the conflict zones in the DRC.

III. How to Implement Supply Chain Regulations Effectively

With the growing movement toward domestic supply chain laws, it is critical to mind the due diligence gap that exists in the case of section 1502,

\textsuperscript{186} Interview with Jennifer Hinton, independent consultant and Uganda-based mining engineer (Aug. 3, 2013).
\textsuperscript{187} Id.
\textsuperscript{189} See GISA ROESEN & ESTELLE LEVIN, CONFORMANCE AND COMPATIBILITY ANALYSIS: CFS, iTSCI, AND THE OECD DUE DILIGENCE GUIDANCE iii, 32–33 (2011).
\textsuperscript{190} See id.
as well as to address the accountability concerns involved in outsourcing regulation. This Article argues that home states (the United States, in this instance) need to provide guidance and more support toward implementing supply chain laws. This is particularly challenging because of supply chain laws’ extraterritorial nature and the difficulties of regulating complex, multi-tiered supply chains. The obstacles to implementation mentioned above—the weak governance and security situation that inhibit traceability and mapping in regulated regions, the evolving nature of sometimes competing certification standards and in-region sourcing initiatives, and the nascent stage of international norms on supply chain due diligence—highlight the need for local capacity-building, development and centralized coordination of sourcing initiatives and standards, and support to companies still struggling with compliance. In addition to an enhanced role for home states, companies need to invest in a culture of compliance led by an interdisciplinary team of employees from multiple departments and featuring organizational learning around supply chain management.

A. A Greater Role for the State

Enhancing the role of home states in the implementation of supply chain regulations can minimize potential accountability costs and improve compliance rates. Supply chain laws feature a distinct model of outsourcing whereby the government outsources to regulated entities themselves, which further outsource to private parties (e.g., industry groups and consulting firms) as well as suppliers who are regulating the tiers below them. This chain of outsourcing leaves the state several layers removed from decision-making and the regulatory process. As a result, the private parties responsible for implementing regulation lack direct government oversight and their activities are less transparent to the public. In addition, firms may lack the resources and expertise to locate and regulate their suppliers. Therefore, home states need to become more involved in efforts to promote supply chain transparency.

In the case of section 1502, state agencies—the SEC, U.S. State Department, U.S. Agency for International Development (USAID), and U.S. Department of Commerce—are taking on an active role on some issues but need more involvement on many others. Below, this Article analyzes the activities currently undertaken by agencies and the areas where they need to take on more responsibility. While the SEC was initially slow to finalize the rule implementing section 1502, in 2013 and 2014 it issued limited interpretive guidance in the form of twenty-one frequently asked questions.191 The slow trickle of guidance from the SEC is understandable given the

heavy rule-making workload following passage of the Dodd-Frank Act, the rigorous economic analysis and public consultation involved in drafting the rule, and the years of litigation over its adoption. Yet it has left companies in a bind over how to comply with the new costly requirements. This will be a pressing issue once the grace period ends in two to four years, leaving companies unable to waive certain requirements.

The State Department and USAID have actively supported the responsible sourcing of conflict minerals, but more work still needs to be done. Section 1502 requires the two agencies to develop a strategy to "address the linkages between human rights abuses, armed groups, mining of conflict minerals and commercial products." It mandates that the State Department develop a map of mineral-rich areas under control of armed groups in the DRC. The Dodd-Frank Act further requires that the map be updated every 180 days. USAID and the State Department have complied with these two provisions, having submitted a strategy in 2011 and several updated maps (most recently in February 2014). The strategy lists five objectives that the agencies aimed to fulfill over the coming years: "(1) promote an appropriate role of security forces, (2) enhance civilian regulation of minerals trade in the DRC, (3) protect artisanal miners and local communities, (4) strengthen regional and international efforts, and (5) promote due diligence and responsible trade through public outreach."

The two agencies have made praiseworthy efforts toward achieving these goals, devoting over $25 million as of 2013 and engaging in various stakeholder partnerships and outreach. Notable activities by USAID include partnership with the International Organization for Migration to undertake infrastructure improvements and institutional reforms to help enhance civilian control of the DRC’s mineral trade. The agency is also providing technical assistance to the International Conference on the Great Lakes Region (ICGLR), particularly in support of mineral audit mechanisms. The State Department has facilitated outreach efforts for industry associations such as CFSI and has reached out to foreign governments and companies to support the aim of the legislation. In addition, the U.S. Special Envoy for the Great Lakes Region has worked with multilateral and bilateral partners to strengthen international coordination mechanisms on the crisis in the region.

192. See supra section II.A.
193. See Dodd-Frank Act § 1502(c)(1)(A).
194. Id. at § 1502(c)(2)(A).
195. Id. at § 1502(c)(2)(C).
196. See U.S. GOV’T ACCOUNTABILITY OFFICE, supra note 179, at 13, 14.
197. Id. at 14.
198. Id. at 19.
199. Id.
200. Id. at 21.
201. Id. at 20.
202. Id.
Yet these activities are just the tip of the iceberg of what the State Department and USAID should be supporting. It is critical to devote more substantial resources to governments and local capacity-building initiatives, particularly the ICGLR, which is responsible for implementing the OECD Due Diligence Guidance in the region. Further support is needed to ensure that the ICGLR's regional certification system is robust and that member states incorporate the OECD Guidance into their respective legislative frameworks. Local governments support the ICGLR mechanism because it is locally governed while also responding to international or U.S.-based legal requirements. Yet according to a consultant to the ICGLR, implementation by regional governments is currently weak because of minimal coordination between the ICGLR and national coordinators and the difficulties of translating and interpreting legal texts to agents on the ground. The State Department and USAID need to invest in the capacity of local government agents to implement the certification system mechanism. Such an investment is mandated under section 1502 of the Dodd-Frank Act, which requires the agencies to support local government efforts to "develop stronger governance and economic institutions that can facilitate and improve transparency in the cross-border trade involving the natural resources of the Democratic Republic of the Congo to reduce exploitation by armed groups and promote local and regional development.”

In addition to providing extra funding to the ICGLR, U.S. agencies should help develop in-region sourcing initiatives and coordinate certification standards, offer support for companies in mapping their supply chains, and promote international convergence of regulatory standards on supply chain transparency. The State Department and USAID currently coordinate with other stakeholders through the Public-Private Alliance for Responsible Minerals Trade (PPA), which consists of participants from foreign governments, industry, and civil society. In 2011, the agencies pledged to invest approximately $3.2 million in the PPA to fund organizations working on responsible sourcing efforts. Agencies should increase funding to PPA and coordinate the many initiatives that are at times competing in the region.

203. Established in 2006, the ICGLR is a relatively new organization with an aim to create the conditions for security, stability, and development between its eleven member states. With the introduction of conflict minerals legislation in the United States and the adoption of the OECD Due Diligence Guidance, the organization began working with Partnership Africa Canada in 2010 to develop its Regional Certification Mechanism. See Partnership Africa Canada, ICGLR Regional Certification Mechanism for Conflict Minerals, available at http://www.pacweb.org/en/regional-certification.

204. Interview with Joanne Lebert, Director, Great Lakes Programme, Partnership Africa Canada (July 31, 2013).

205. Interview with Markus Weilenmann, Consultant to the International Conference of the Great Lakes Region (July 15, 2013).

206. Dodd-Frank Act § 1502(c)(1)(B).


The United States also needs to exert its leverage to call for harmonization of existing certification standards given its central role in passing the first conflict minerals legislation.

While the Conflict-Free Sourcing Initiative has proven effective in certifying about one-fifth of smelters and refiners, only CFSI members have access to information about the SEC-required "reasonable country of origin" data for conflict minerals. It is important that companies that cannot afford membership have access to this valuable information, which would assist their compliance with due diligence requirements. Therefore, U.S. agencies, perhaps through PPA, should sponsor collection and publication of the information to all companies. In addition, companies are in need of a comprehensive list of smelters worldwide. According to the U.S. Government Accountability Office, the Commerce Department failed to meet its mandate to report a list of all known conflict minerals processing facilities to appropriate congressional committees annually starting in January 2013. This list, which was finally submitted to Congress on September 5, 2014, facilitates in-region sourcing initiatives as well as companies seeking to identify smelters for their supply chain due diligence.

Finally, in order to facilitate responsible trade in minerals worldwide, the SEC and State Department need to promote convergence of regulatory standards for transparent supply chains. Following the recent global financial crisis, there have been calls to facilitate cross-border cooperation through the setting of common rules and standards, information sharing, and collaboration on supervision. While international convergence may not be appropriate for all regulations, it is essential for those that require global coordination—such as laws seeking to prevent human rights violations in corporate supply chains. It is also important in order to prevent companies from moving their business to unregulated regions. Since section 1502 only applies to companies listed in the United States and only concerns conflict minerals in the DRC region, there is a fear that it may create a de-facto embargo in Africa. According to Terry Heymann of the World Gold Council:

'The requirement to identify whether [gold] comes from central Africa, and the fact that if the metal does not come from central

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210. See U.S. GOV'T ACCOUNTABILITY OFFICE, supra note 179, at 18.
211. Id. at 16-17.
Africa, it minimizes reporting requirements, certainly has caused us to be concerned that it could lead to a stigmatization of gold from the African Great Lakes Region, or indeed, gold from anywhere in Africa.\textsuperscript{214}

International convergence would relieve company concerns over a potential loss of competitive advantage from doing business in regulated regions.

\textbf{B. Improving Corporate Compliance}

While home states must take greater responsibility for implementation of supply chain regulations, companies must recognize that they face a major compliance challenge that requires new tools and sustained investment in their internal culture. Given that global supply chains frequently include multiple layers of suppliers that are difficult to trace and audit, companies face “one of the most complex compliance projects we’ve ever seen,” according to a partner and leader of sustainability services at Ernst & Young.\textsuperscript{215} Compliance will become especially challenging once an independent private sector audit is required, which for most companies will commence with the 2015 compliance period. Over the next two years, it will be essential for firms to create a culture of compliance featuring cooperation among multiple departments. As part of this culture, they must enforce new relations with suppliers that will foster organizational learning around supply chain management.

The low due diligence rate for section 1502 described earlier in this Article reveals the need for firms to invest in their corporate culture. Companies should not treat responsible supply chain management as exclusively a legal compliance issue, which would be expected given the “organizational internalization of law” within firms.\textsuperscript{216} Rather, compliance teams around such issues as conflict minerals should include a range of expertise from multiple areas, including legal, finance, procurement, engineering, internal audit, and information technology. In addition, investor relations and communications should be involved given that sustainable supply chain management is relevant to many institutional and socially responsible investors and can pose a reputational risk if handled inadequately. In the words of Michael Littenberg, a leading legal expert on conflict minerals, the need for cooperation by various departments “makes it different than most other compliance projects at most companies because you have so many more different people that have to touch this and have to be involved in it for it to work—more so

\textsuperscript{214} Interview with Terry Heymann, Managing Director, Gold for Development and Market Intelligence, World Gold Council (July 24, 2013).


\textsuperscript{216} See Lauren B. Edelman & Mark C. Suchman, When the Haves Hold Court: Speculations of the Organizational Internalization of Law, 33 LAW & SOC'Y REV. 941 (1999).
than with a lot of other compliance work." 217 Multi-disciplinary teams also need to be empowered with resources and decision-making authority, and receive buy-in from senior levels of management. Finally, changing corporate culture will involve enforcing supply chain policies, providing training to employees, and designing appropriate incentives for them to cooperate, which is particularly important given that employees are responsible for interacting with suppliers and flagging any wrongdoing.

The management of suppliers is a crucial component of creating a culture of compliance around responsible supply chain regulation. Due diligence requires a number of steps that companies must undertake, including adopting a robust policy for suppliers; revising standard form contracts to require compliance with supply chain policies, supplier disclosure obligations, and a company's right to conduct inspections of the supplier's operations; and developing procedures for suspending or terminating suppliers that do not comply with a firm's sourcing policies. 218 Technology can be used to collect data on suppliers, identify red flags in their activities, and restrict procurement to suppliers that comply with corporate supply chain policies. Ideally, companies would not outsource due diligence steps to consulting firms. Rather, companies should undergo the process themselves and thereby facilitate organizational learning. For example, Intel developed its own system for bagging, tagging, and verifying minerals—a process that took nearly five years given the complexity and expanse of the company's supply chain. 219 What differentiates companies such as Intel that exhibit strong due diligence under section 1502 from those that disclose weak due diligence is the sustained relationship they have with their suppliers. 220 These companies do not only send surveys out to their suppliers; they also undergo on-site validation processes and work directly with suppliers to encourage their participation in third-party audit programs. 221

Intel's commitment to only produce conflict-free processors is an example of how companies can potentially turn compliance into a competitive advantage. While supply chain transparency laws pose a unique compliance challenge for firms, there are important benefits to companies that have been overlooked. For instance, compliance mitigates potential risks and enhances a company's reputation among such stakeholders as consumers, investors, and NGOs. Moreover, in the process of complying with these laws and conducting due diligence, companies can find possible inefficiencies within

220. Id.
their supply chain and thereby improve their supply chain management so as to effectively reduce costs. Law firm Schulte Roth & Zabel LLP (SRZ) reports the experience of several clients:

In 2013, some companies used [section 1502] as a catalyst for assembling for the first time a centralized database of vendor compliance personnel, enabling them to more efficiently disseminate compliance communications and track vendor responses. At some companies with a decentralized procurement function, the data gathered in connection with the Rule is being used to identify common vendors and opportunities for volume pricing and vendor consolidation, as well as pricing discrepancies among business units.222

Companies should see supply chain transparency as an opportunity to not only be better global citizens, but to also make their operational systems more effective by accessing useful information about their respective supply chains. As Michael Littenberg, a partner at SRZ, observes:

It may be nothing specifically to do with sourcing from the DRC countries, but you learn a lot more about the source [of all of your components]. You are able to do it more efficiently and this becomes something that not only pays for itself but maybe that saves you money at the end of the day.223

Rather than focusing on the immediate costs of complying with supply chain laws, companies should recognize potential long-term benefits such as efficient business processes and enhanced reputation.

CONCLUSION

This Article analyzes the effectiveness of using domestic law to promote global supply chain transparency based on a case study of conflict minerals legislation in the United States. Its empirical analysis of section 1502 of the Dodd-Frank Act reveals a due diligence gap among companies that submitted Conflict Minerals Reports. It identifies three factors that are hindering compliance: (i) international norms on supply chain due diligence are in their infancy; (ii) there is a proliferation of certification standards and in-region sourcing initiatives that are still evolving and sometimes competing; and (iii) inadequate local security and weak governance are inhibiting the


223. Interview with Michael R. Littenberg, supra note 217.
mapping of the mineral trade and the tracing of minerals in the region. In order to improve corporate compliance, home countries need to play a larger role in implementation by investing in local capacity-building, coordinating in-region sourcing initiatives and certification standards, and supporting companies still struggling with compliance. In addition, companies need to invest in a culture of compliance led by an interdisciplinary team of employees from multiple departments and featuring organizational learning around supply chain management.

The early implementation of section 1502 provides lessons for other countries and regional bodies such as the EU that are drafting similar legislation that extraterritorially regulates supply chains. While section 1502 applies to the use of conflict minerals from certain African countries, future regulation may cover broader geographies and additional commodities. Therefore, companies should implement a flexible compliance program that can accommodate emerging legislation on supply chains. In addition, firms may need to scale their operations to efficiently meet new responsible sourcing requirements and shifting markets for their products, given evolving consumer and investor demand for disclosure and ethical purchasing.

Just as companies should take a multi-disciplinary approach to compliance involving various departments, scholars need to study the intersection of global supply chains with various areas of law. We need more theoretical and empirical work on the implications of outsourcing on a variety of fields including contract law, intellectual property law, human rights law, and international law. Given the centrality of outsourcing in the world political economy, this Article aims to stimulate further legal scholarship in this increasingly relevant area.
Definitions of Variables Used in Regression Analysis

OECDComply: The dependent variable. This is the total score given to a particular Conflict Mineral Report (CMR), where total score is given a value between 0-5, and is calculated by summing the presence of five factors that correspond to strong due diligence under the OECD due diligence framework. Each factor is based on a dummy variable that is described in the main text.

Ad_Sales: This is the ratio of advertising expenditures to net sales for fiscal year 2012. Data taken from Compustat.

Log_assets: This is the natural log of total balance sheet assets in fiscal year 2012. Data taken from Compustat.

ROA: This is return on assets, which is the ratio of net income to total assets in fiscal year 2012. Data taken from Compustat.

Liquidity: This is the ratio of cash to total balance sheet assets in fiscal year 2012. Data taken from Compustat.

CFSI: This is a dummy variable with a value of 1 if the CMR referenced the Conflict-Free Sourcing Initiative (CFSI), Conflict-Free Smelter Program (CFSP), or any variation on the Conflict-Free Sourcing Initiative.

CalTSCA: This is a dummy variable with a value of 1 if the issuer is listed on the website “www.knowthecahn.org" as being in compliance with the public disclosure requirements of the California Transparency in Supply Chains Act.

OtherRef_1: This is a dummy variable with a value of 1 when the CMR makes one reference to exactly one of the following initiatives: 1) The Responsible Jewelry Council Chain-of-Custody Certification Program; 2) the International Tin Supply Chain Initiative; 3) the London Bullion Market Association Responsible Gold Program; 4) Solutions for Hope; 5) the Public-Private Alliance for Responsible Minerals Trade; 6) the Tungsten Conflict Mineral Council; 7) the Conflict-Free Tin Initiative.

OtherRef_2plus: This is a dummy variable with a value of 1 when the CMR makes reference to two or more of the seven initiatives given in OtherRef_1.

Industry Controls: These are dummy variables based on the firm’s primary SIC industry as reported in Compustat. The dummy variables are based on the following sector groupings: Agriculture, Forestry, and Fishing, Mining, and
Construction (SIC 1-19); process manufacturing (SIC 26, 28, and 29); other nondurable manufacturing (SIC 20-23 and 27); high-technology manufacturing (SIC 36-38 and 3571); other durable manufacturing (SIC 24-25, 30-35 excluding 3571, and 39); transportation (40-47); utilities (48-49); wholesale and retail trade (50-59); finance (60-67); other services (70-89).