

1,001 Issuers' Compliance with the Letter and



Spirit of the Dodd-Frank Conflict Minerals Rule



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Executive Summary

This research brief seeks to determine the effects of the SEC’s Conflict Minerals Rule on companies’ behavior. To answer these questions, the Global Law Scholars of the Georgetown University Law Center read the disclosures of all 1,001 companies that filed a Conflict Minerals Report with the SEC for 2013¹ and assigned each company two scores: The first score focused on the whether companies followed the “letter of the law” – whether companies complied with the specific requirements for disclosure and due diligence set forth in the Rule. The second score focused on whether companies followed the “spirit of the law” – whether companies disclosed the information that was not required by the law but which advocates hoped would help establish a conflict-free supply chain. We then used statistical tools to examine the relationship between companies’ “letter” and “spirit” scores and variables that measure a company’s visibility, size, financial health, industry, location, participation in the Conflict-Free Sourcing Initiative (“CFSI”), investment from socially responsible investors, and human rights record.

We found that about one-third of companies received a perfect letter-of-the-law score, although many others struggled. In contrast, only about four percent of companies received perfect spirit-of-the-law scores, with many companies not taking steps advocates hoped would help clean up supply chains. We also found several variables that correlate with better letter- and spirit-of-the-law scores, including a company’s internet visibility, financial health, industry, location, participation in the CFSI, and investment from socially responsible investors.

This research brief proceeds as follows. First, the paper presents the background to the Conflict Minerals Rule, which is unusual in its focus on disclosure to investors as a means of ensuring corporate social responsibility. Second, the paper explains the indicators used to calculate each company’s scores for following the letter and spirit of the law. Third, the paper discusses the apparent disconnect between some companies’ scores and general reputations of those companies for Corporate Social Responsibility (“CSR”). Fourth, the paper presents each of the variables found to correlate with higher letter or spirit scores. The final section discusses the methodology for gathering data, including the issue of inter-rater reliability.

¹ About 1,300 companies filed under the Conflict Minerals Rule. However, in accordance with the Rule, about 300 companies covered by the rule were exempt from filing conflict mineral reports with the SEC, because they carried out a reasonable country of origin inquiry and found no reason to believe that their necessary conflict minerals originated in the Democratic Republic of the Congo or adjoining countries. These 300 companies provided too little information to analyze and are thus excluded from our report.

I. Background to the Conflict Minerals Rule

Conflict minerals present a tough problem: the mining of “conflict minerals” – tin, tantalum, tungsten, and gold – finances militias in the Democratic Republic of the Congo (“DRC”), who use murder and rape to control local people.² These same minerals are essential for thousands of products Americans use every day, including computers, smart phones, surgical instruments, medical devices, auto parts, and jewelry. However, few if any American manufacturers of such products purchase their minerals directly. Rather, American manufacturers are typically at the end of a long, international supply chain that includes miners, smelters or refiners, suppliers, and parts manufacturers – many of which are connected only by contracts and business relations or may not know each other’s identity at all. Therefore, unfortunately, manufacturers and consumers of these everyday products may finance human rights abuses in the DRC without even knowing it.

Accordingly, Section 1502 of the Dodd-Frank Act required the Securities and Exchange Commission (SEC) to promulgate a Conflict Minerals Rule to address this issue. The SEC’s Rule tackles this tough problem in an unusual way. Instead of imposing penalties for the use of conflict minerals that finance conflict, the Rule requires only that companies carry out due diligence on their supply chains and disclose the process and results of this due diligence.³ The SEC makes this information public through the EDGAR database, and companies must also post this information to their websites, typically in the section for investor relations. Thus, a company may state clearly that it uses conflict minerals that finance militias in the DRC and face no penalties, so long as it properly disclosed its due diligence. The rule originally also required companies to label their products as DRC Conflict Free, Not Found to Be DRC Conflict Free, or DRC Conflict Undeterminable.⁴ However, the D.C. Circuit held this labeling requirement unconstitutional under the First Amendment in 2014, such that only the disclosure requirement remains.⁵

The rule’s disclosure-based scheme raises interesting questions. Is disclosure without penalties powerful enough to encourage companies not to use minerals that finance conflict? Is a disclosure scheme geared to investors effective? Do conflict minerals matter enough to influence investors’ decisions? Do conflict minerals matter enough to influence consumers’ decisions, especially without a labeling requirement and when information on a company’s due diligence is available only through the SEC’s EDGAR database and companies’ investor relations pages? How can socially responsible investors and non-government organizations use the law’s unusual architecture to influence company behavior? This research brief seeks to address some of these questions by examining the rule’s influence on companies’ behavior and what factors correlate with more desirable behavior.

² See generally Jeffrey Gettleman, *The World’s Worst War*, N.Y. TIMES, Oct. 15, 2012, available at http://www.nytimes.com/2012/12/16/sunday-review/congos-never-ending-war.html?_r=0.

³ Specifically, the rule applies to “issuers” that are required to file financial reports with the Securities and Exchange Commission (SEC) and that manufacture products where conflict minerals are necessary to the functionality or production. Conflict Minerals, 77 Fed Reg. 56,274, 56,363 (Sept. 12, 2012) (to be codified at 17 C.F.R. pts 240 and 249b). Since 2013, issuers unsure that their minerals are conflict-free based on an initial “reasonable country of origin inquiry” have been required to exercise due diligence on their supply chain, and disclose the results of that due diligence in a Conflict Minerals Report (CMR) filed with the SEC. *Id.*

⁴ *Id.*

⁵ *National Association of Manufacturers v. Securities and Exchange Commission*, 748 F.3d 359 (D.C. Cir. 2014)

II. Letter and Spirit of the Law

We developed a total of twelve indicators, six of which measure whether the company has followed the letter of the law and six of which address whether the company has followed the spirit of the law. As discussed in the Introduction, the letter of the law refers to the requirements of the Rule itself, while the spirit of the law refers to steps not required by the rule but that help ensure that a company's supply chain is conflict-free.

A. The Letter of the Law

We based our six-letter indicators on the text of the Rule and the public statement by the SEC following the D.C. Circuit decision holding the Rule's labeling requirement unconstitutional.⁶ The scores for each of these indicators are not legal conclusions on our part and should not be taken as such – to draw a legal conclusion about a company's conflict mineral disclosure would require much more time and energy than we could devote to each of the 1,001 Conflict Mineral Reports we read. Rather, we believe the scores are a proxy for compliance based solely on the information available within the four corners of the forms each company submitted to the SEC – the Special Disclosure Form ("Form SD") and the Conflict Minerals Report ("CMR"). Accordingly, our six letter-of-the-law indicators were:

1. Whether the company provided a working link to its website in its Form SD in accordance with Item 1.01(c).⁷ About 98% of companies satisfied this indicator.
2. Whether the company stated that it has followed the five-step framework of the Organization for Economic Cooperation and Development (OECD) – currently the only internationally recognized due diligence framework⁸ – in accordance with Item 1.01(c)(1)(i).⁹ About 94% of companies satisfied this indicator.
3. Whether the company disclosed steps it has taken or will take to improve its due diligence process or mitigate conflict mineral risk in the future in accordance with Item 1.01(c)(1)(iii).¹⁰ About 82% of companies satisfied this indicator.
4. Whether the company disclosed either the facilities used to process the necessary conflict minerals in its products or stated that it was unable to determine these facilities in accordance with Item 1.01(c)(1)(i).¹¹ About 77% of companies satisfied this indicator.
5. Whether the company disclosed either the known countries of origin of its conflict minerals or stated that it was unable to determine the country of origin of its minerals in accordance with Item 1.01(c)(1)(i). About 63% of companies satisfied this indicator.
6. Finally, whether the issuer disclosed its efforts to determine the mine or location of origin of its minerals with the greatest possible specificity, in accordance with Item 1.01(c)(2)(i).¹² About 55% of companies satisfied this indicator.

⁶ Keith F. Higgins, Statement on the Effect of the Recent Court of Appeals Decision on the Conflict Minerals Rule, (Apr. 29, 2014), available at <http://www.sec.gov/News/PublicStmt/Detail/PublicStmt/1370541681994>.

⁷ Conflict Minerals, 77 Fed Reg. 56,274, 56,363 (Sept. 12, 2012) (to be codified at 17 C.F.R. pts 240 and 249b).

⁸ See, e.g., *Fact Sheet: Disclosing the Use of Conflict Minerals*, SECURITIES AND EXCHANGE COMMISSION, (July 29, 2014), <http://www.sec.gov/News/Article/Detail/Article/1365171562058#.VF5QOvTF-1A>.

⁹ Conflict Minerals, 77 Fed Reg. 56,274, 56,363 (Sept. 12, 2012) (to be codified at 17 C.F.R. pts 240 and 249b).

¹⁰ *Id.* at 56,363.

¹¹ *Id.* at 56,363.

The average score for all companies was 4.68 out of six possible points. About one third of issuers satisfied all six indicators. Large companies with perfect letter-of-the-law scores include Blackberry, Nokia, General Electric, Ford, Hewlett-Packard, IBM, Procter and Gamble, Microsoft, Target, and Caterpillar. Large companies with near-perfect letter-of-the law scores include Walt Disney, Abbot Labs, and Raytheon.

Furthermore, several smaller companies with revenues of less than \$1 billion dollars also satisfied all six indicators, including Black Box Corporation, Big 5 Sporting Goods Corporation, Tetra Technologies, Leapfrog Enterprises, Johnson Outdoors, and NxStage Medical. This is not an exclusive list of high-scoring companies. Factors correlating with higher or lower letter-of-the-law scores are discussed below in the sub-sections on company's visibility, financial health, industry, location, participation in conflict-mineral focused industry grounds, and investment from socially responsible investors.

B. The Spirit of the Law

Our six indicators for the spirit of the law reflect steps that are not required by the Rule, but which non-government organizations and socially responsible investors believe are helpful in establishing a conflict-free supply chain.¹³ As with the letter-of-the-law indicators, the scores for each of these spirit-of-the-law indicators are not dispositive conclusions on a company's conflict mineral process. Rather, we believe the scores are a proxy for taking steps above and beyond the law based solely on the information available within the four corners of the Form SD and the CMR. Accordingly, our six spirit-of-the-law indicators were:

1. Whether the company stated that it had developed or would develop a conflict mineral policy. About 87% of companies satisfied this indicator.
2. Whether the company's description of its due diligence followed the specific steps laid out in OECD's five-step framework, thereby suggesting greater commitment to the OECD's recommendations. About 58% of companies satisfied this indicator.
3. Whether the company discussed any contractual provisions with suppliers related to conflict minerals. Examples include "flow-down" clauses that incorporate the requirements of the regulation into the supplier agreement, clauses that require suppliers to provide information, and clauses that require suppliers to carry out due diligence. About 58% of issuers stated they included or would include some such clause.
4. Whether the company disclosed specific smelters in its supply chain. This indicator reflects not only a company taking a step toward a cleaner supply chain, but also suggests that their due diligence efforts were thorough enough to produce results. About 25% did.
5. Whether the company disclosed specific countries of origin of its minerals? About 13% did.
6. Finally, whether a company's combined Form SD and CMR were over five pages, which was the 25th percentile of all the companies we surveyed. This indicator captures whether

¹² *Id.* at 56,364.

¹³ See, e.g., Darren Fenwick & Patricia Jurewicz, ENOUGH PROJECT & RESPONSIBLE SOURCING NETWORK, EXPECTATIONS FOR COMPANIES' CONFLICT MINERAL REPORTING 4 (2013), available at <http://www.enoughproject.org/files/Expectations-for-Companies-Conflict-Minerals- Reporting.pdf>.

a company's disclosures were generally detailed – in fact, disclosures of five or fewer pages are generally too brief to provide useful information. By definition, about 75% of companies were at the 25th percentile or above for page numbers.

The average score for all companies was 3.16 out of six possible points. Thirty-nine companies – about four percent – received perfect spirit-of-the-law scores. Perfect scoring companies include Blackberry, Nokia, Apple Computer, Hewlett Packard, Microsoft, Intel, Xerox, Polaris Industries, MSC Industrial Direct, Intuitive Surgical, Cree Inc., Kemet, Coherent Inc., Leapfrog Enterprises, Infinera Corp, and Lam Research Corporation. Many companies' scores surprised us. Nokia performed very well, despite a previous negative documentary about its use of conflict minerals.¹⁴ Some issuers with excellent reputations did not score as high as expected. Factors correlating with higher or lower letter-of-the-law scores are discussed below in the sub-sections on company's visibility, financial health, industry, location, participation in conflict-mineral focused industry groups, and investment from socially responsible investors.

III. Apparent Disconnect Between Some Companies Scores and General CSR Reputation

Our reporting produced some obvious results. Companies like Intel, Microsoft, and Apple, which have all been regarded as leaders in the corporate social responsibility (CSR) field,¹⁵ earned perfect or near-perfect letter-of-the-law and spirit-of-the law scores. This is to be expected.

However, there were also surprises in the rankings. Small companies, such as Johnson Outdoors, Leapfrog, and Hittite Microwave, compiled some of the most thorough reports, reporting at a level similar to or better than companies whose revenues dwarf theirs. Their exceptional reporting could be due to a multitude of factors, and some research demonstrates that all three companies perform well in social responsibility reviews.¹⁶ For example, Leapfrog has faced pressure from groups demanding corporate social responsibility in years prior to Dodd-Frank, suggesting they may be more ready to respond to conflict minerals today.¹⁷

At the same time, large companies well known for their corporate social responsibility efforts, such as Costco, Sony, and Berkshire Hathaway, performed well below their reputations would expect. Sony is regarded as a leading company in the CSR field,¹⁸ and yet they received

¹⁴ BLOOD IN THE MOBILE (Koncern 2010).

¹⁵ Jacquelyn Smith, *The Companies With the Best CSR Reputations*, FORBES (Oct. 2, 2013), <http://www.forbes.com/sites/jacquelynsmith/2013/10/02/the-companies-with-the-best-csr-reputations-2/>; Rafe Blandford, *Nokia Publishes Corporate Social Responsibility and Sustainability Report for 2012*, ALL ABOUT SYMBIAN (May 17, 2013), http://www.allaboutsymbian.com/flow/item/17539_Nokia_publishes_corporate_soci.php.

¹⁶ Hittite Microwave Corporation, CSR HUB, http://www.csrhub.com/CSR_and_sustainability_information/Hittite-Microwave-Corporation/ (last visited April 2, 2015); Johnson Outdoors Inc, CSR HUB, http://www.csrhub.com/CSR_and_sustainability_information/Johnson-Outdoors-Inc/ (last visited April 2, 2015); Leapfrog Enterprises, Inc., CSR HUB, http://www.csrhub.com/CSR_and_sustainability_information/LeapFrog-Enterprises-Inc/ (last visited April 2, 2015).

¹⁷ Anne Moore Odell, *Making Toys is Not Child's Play*, SOCIAL FUNDS (November 14, 2007), <http://www.socialfunds.com/news/article.cgi/2415.html>.

¹⁸ Jacquelyn Smith, *The Companies With the Best CSR Reputations*, FORBES (Oct. 2, 2013), <http://www.forbes.com/sites/jacquelynsmith/2013/10/02/the-companies-with-the-best-csr-reputations-2/>.

nine of the possible twelve points for a combined letter- and spirit-of-the-law score, placing them near the middle for all companies. Similarly, Costco and Berkshire Hathaway are seen as CSR leaders whose founders and CEOs have been applauded for their efforts in this field.

Surprisingly, they were in the bottom 15% of companies in our rankings. Why is there such a disconnect here?

Part of the answer may be that the letter- and spirit-of-the-law scores focus on information obtainable within the four corners of the Form SD and the CMR. Thus, a company may maintain an excellent conflict minerals program but still receive a low score if the details of this program are not disclosed to the SEC or do not match the indicators we selected. For example, the scores addressed whether companies published their results online and discussed their conflict minerals policy in their reports but did not look directly at whether companies were changing their smelters or work patterns. Another issue is that about one third of companies received perfect scores for following the letter of the law; thus, even one or two mistakes may force a company down in the rankings. Finally, companies like Costco and Berkshire Hathaway are large companies whose primary business focus is not the manufacture of products containing conflict minerals. Therefore, they may focus their corporate social responsibility energies in areas more central to their businesses, devoting less attention to conflict minerals.

IV. Variables that Correlate with Letter-of-the-Law and Spirit-of-the-Law Scores

After gathering data based on the SD Forms and CMRs for 1,001 companies, we searched for variables that may correlate with higher letter- and spirit-of-the law scores, and therefore begin to explain what factors may encourage better outcomes for companies under the Rule’s disclosure-based regime. We found several variables that show some statistically significant relationship with letter- or spirit-of-the-law scores: membership in the Conflict-Free Sourcing Initiative (“CFSI”), investment by Socially Responsible Investors (“SRI”), and Alexa ranking, as well as variables measuring size and profitability, geography, and industry.

A. Membership in the Conflict-Free Sourcing Initiative (CFSI)

The Conflict-Free Sourcing Initiative (“CFSI”) is an industry organization open to all companies and associations that transact in 3TG minerals. The Initiative provides lists of conflict-free smelters and refiners freely on the Internet, which many companies rely on in their conflict mineral compliance. Furthermore, the Initiative provides its members with programs, workshops, access to reasonable country of origin data, and insight on sourcing initiatives and regulatory schemes. CFSI member companies include a variety of industries and company sizes—technology companies like Apple and Microsoft, foreign telecom companies such as Vodafone and Turk Telekom, and American big-brands like Johnson & Johnson, Eastman Kodak, and General Motors. The CFSI was founded in 2008 by the Electronic Industry Citizenship Coalition (“EICC”) and the Global e-Sustainability Initiative (“GeSI”), both of which have played similarly important roles in the conflict mineral world but focus on companies in the electronics industries. Almost all members of the EICC are also members of the CFSI, and so we focused our attention on the CFSI rather than the EICC.

Membership in the CFSI is the most powerful and robust variable we found. The 123 CFSI members in our population had an average letter score of 5.28 and an average spirit score of 3.36, compared with averages of 4.59 and 2.78 respectively for non-members. Both findings were significant at the 0.01% confidence level; furthermore, both CFSI members' scores remained significantly higher even with other variables, such as investment by SRIs, Alexa ranking, financial health, geography, and industry, were controlled for.

There are several possible explanations for the effect of CFSI membership. On the one hand, CFSI is a voluntary group and may include corporations that are generally more socially responsible and thus self-selected into CFSI. This may be especially true for the small group of corporations that joined even before they were required to comply with the Conflict Minerals Rule. In turn, these more socially responsible corporations may have prioritized and encouraged increased or full compliance with the Rule after it became law. On the other hand, compliance with the Rule has been challenging and many corporations struggled with interpretation and implementation. CFSI provided its members with answers to compliance challenges and tools for increased competence and efficiency during compliance. CFSI members might have taken advantage of CFSI's assistance and used it to improve their compliance with the Rule. This point is especially convincing when examining the case of the Korean Electronics Association, whose member corporations were originally duplicating their conflict minerals reporting documents and wasting time and resources. After consulting with CFSI, the association was able to streamline and simplify its members' compliance efforts.

B. Investment by Socially Responsible Investors (“SRIs”)

Socially responsible investing is an investment strategy that uses environmental, social, and corporate governance criteria in investing decisions on the theory that such criteria will have a positive social impact and create a long-term financial competitive advantage.¹⁹ Sustainable and Responsible Investments manage over an estimated US\$ 3.74 trillion in assets.²⁰ Several SRIs were active in the legislative and administrative process that led to the passage of Dodd Frank § 1502 and the promulgation of the current regulation.²¹ SRIs generally argued for tough rules that would allow investors to readily distinguish between companies based on the conflict minerals risk in their supply chains.²² In a March 2011 letter, a community of SRIs, including members of the Social Investment Forum (“SIF”), indicated that information on manufacturers sourcing conflict minerals is material to investors’ ability to assess social and reputational risks in an issuer’s supply chain.²³ SRIs urged the SEC to take a tough stance on rule implementation. They argued against exempting small companies from Dodd Frank § 1502 disclosure rules,²⁴ noting that investors need information from companies of all sizes when deciding where invest.²⁴

¹⁹ See *SRI Basics*, The Forum for Sustainable and Responsible Investment, <http://www.ussif.org/sribasics>.

²⁰ *Id.*

²¹ See Letter from Boston Common Asset Management et. al to Elizabeth Murphy, Secretary, Securities and Exchange Commission (March 2, 2011), available at <http://www.sec.gov/comments/s7-40-10/s74010-158.pdf>.

²² See, e.g., Darren Fenwick & Patricia Jurewicz, *Expectations for Companies Conflict Minerals Reporting*, ENOUGH PROJECT & RESPONSIBLE SOURCING NETWORK, 4 (Sept. 2013), <http://www.enoughproject.org/files/Expectations-for-Companies-Conflict-Minerals-Reporting.pdf>.

²³ *Id.*

²⁴ *Id.*

We hypothesized that if SRIs invested in a particular company, that company would likely have higher spirit- and letter-of-the-law scores. To determine which socially responsible investors were most likely to have a relationship with disclosure and compliance, we selected for analysis only those investment management companies that took steps to comment with the SEC on the conflict minerals proposed rule. For that larger group of SRIs, we then searched their websites for publically available lists of their holdings. Those companies that did not disclose their holdings – making it impossible to determine whether or not they invested in companies filing disclosure forms under Dodd Frank § 1502 – were excluded from the analysis. The end result was a list of five SRIs: Calvert Asset Management Company, Boston Common Asset Management, Trillium Asset Management, and the Teachers Insurance and Annuity Association and College Retirement Equities Fund. We counted companies that received investment from any one of these SRIs as an SRI company for the purposes of our statistical analysis.

Investment by an SRI had a powerful and robust effect on companies' letter- and spirit-of-the-law scores. Specifically, the 345 companies in our population that received SRI investment had an average letter score of 4.81 and an average spirit score of 3.36, compared with 4.42 and 2.78 respectively for non-SRI companies. Moreover, this effect remained robust in regressions controlling for all other statistically significant variables. Thus, SRI investment meant, on average, that a company more effectively complied with the Conflict Minerals Rule and also chose to go beyond the requirements and voluntarily disclose information about their supply chain.

There are several possible explanations for the correlation between SRI investment and better compliance and disclosure scores. The data only established correlation, so it is possible that SRIs were more likely to invest in companies that were already inclined to comply effectively and disclose more, such that there was no causation. However, it is possible that SRIs may encourage companies in which they invest, or are considering investing in, to comply and disclose more. This could be because SRIs that promoted the Dodd Frank legislation may be concerned about “reputational risk” posed by supply chains abroad²⁵ and seek to encourage companies to disclose more information to investors on their direct and indirect flow of funds to armed groups in the DRC.²⁶ These results suggest that SRIs may have an important role to play in encouraging companies to disclose and perhaps take steps to ensure a conflict-free supply chain.

²⁵ See *id.* (“[C]onflict mineral disclosures ... will inform and improve an investor's ability to assess social (i.e., human rights) and reputational risks in an issuer's supply chain.”).

²⁶ See *id.* (“We hope more companies will ... give investors further insight into how management decisions are potentially aiding the direct or indirect flow of funds to armed groups in the DRC.”).

C. Alexa Ranking

Alexa Internet, Inc. is a company that ranks over thirty million websites by popularity.²⁷ Thus, for our purposes, a company's Alexa ranking serves as a proxy for that company's visibility. Because consumers are more numerous than investors, greater visibility probably means that a company is more "consumer facing." For example, Walt Disney and Johnson Controls have similar revenues of about \$45 billion, but Walt Disney has the 1,046th most popular website, according to Alexa, while Johnson Controls has the 77,162nd most popular. This is not surprising given that Walt Disney produces everything from movies to toys while Johnson Controls produces products and services that optimize buildings' energy efficiency. Because Alexa rankings range from 1 to 30 million, we found it beneficial to use the natural log of Alexa Ranking. This also reflects the fact that there is greater difference for visibility purposes between the first and second most popular websites than between the 10,000,000th and 10,000,001st most popular websites. We predicted that companies with higher Alexa rankings would have higher scores for both the letter and spirit of the law, because companies with higher brand visibility and companies that market or sell directly to consumers may care more about human rights issues for public image and consumer relations reasons.

We found that companies with higher Alexa rankings tended to have higher letter- and spirit-of-the-law scores. For example, increasing a company's Alexa score from 1,000,000 to 1 would correspond with an expected increase in letter score of 1.28 points and an expected increase in spirit score of 1.74 points. Both of these findings are significant at a less than 1% confidence interval. However, this is not a very powerful effect: increasing Alexa rank from 1,000,000 to 1 is the equivalent of increasing visibility from a Mueller Industries, KeyW Holding Corp., or Gilat Satellite Networks Ltd. to Google. This suggests that a company's visibility plays a role in its conflict mineral compliance, but is not as important a factor as CFSI membership or SRI investment.

D. Size and Profitability

A company's revenue, market capitalization, return on equity, net profit margin, and cash reserves all have a statistically significant relationship with letter- and spirit-of-the-law scores. Bigger and more profitable companies are more likely to follow the requirements of the Conflict Minerals Rule and also are more likely to take steps above and beyond what the rule requires. Interestingly, however, only return on equity retains its statistical significance in a regression with all five measures of size and profitability. Return on equity also retains its significance when CFIS membership, SRI investment, and Alexa Ranking are controlled for. However, a ten-percentage point increase in return on equity corresponds with a 0.025 increase in letter score and a 0.031 increase in spirit score. Thus, while the effect of return on equity is robust, a

²⁷ ALEXA, <http://www.alexa.com/about> (last visited Nov. 8, 2014). Alexa's global traffic rank for each website is "a measure of how a website is doing relative to all other sites on the web over the past three months. The rank is calculated using a proprietary methodology that combines a site's estimated average of daily unique visitors and its estimated number of page views over the past three months." For example, Google's ranking is 1, making it the most visited website in the world.

significant increase in profitability corresponds with only a modest increase in conflict minerals compliance.

Revenue is surprisingly unimportant for both letter- and spirit-of-the-law scores. While revenue does have a statistically significant relationship with both scores when it is the only variable accounted for, revenue loses significance when other financial variables are controlled for, and also when CFIS membership, SRI investment, and Alexa Ranking are controlled for. This suggests that company size on its own is less important for conflict minerals compliance than one might suspect. This observation is born out by the many medium-sized enterprises discussed above that earned scores close to companies like Nokia, BlackBerry, and Apple.

E. Geography

There were three statistically significant relationships between companies' locations and letter- and spirit-of-the law scores. We determined companies' locations based on their principle place of business as reported in the Form SD and then tested for statistically significant relationships based on whether the company was located in the United States, European Union, one of the OECD countries, Europe, the Middle East, or East Asia. We further tested for statistically significant relations based on whether companies were located in China, Taiwan, Japan, and Korea, as well as in California, New York, Massachusetts, Texas, or Maryland. California²⁸ and Maryland²⁹ were singled out from other states because they are the only states that have adopted statewide conflict minerals legislation.

Only three geographical variables were statistically significant: location in the United States, location in California, and location in China. Surprisingly, location in Europe had no statistically significant effect on scores.

1. Primary Place of Business in the United States

Companies located in the United States had higher letter-of-the-law scores. Specifically, the 874 U.S. companies in our population had an average of 4.49 compared to an average of 4.70 for non-U.S. companies, a finding that was significant at the 4% confidence level. Furthermore, this relationship remained statistically significant even when other statistically significant variables, such as location in California, Alexa ranking, membership in the CFSI, investment from SRIs, and various industry variables were controlled for. This suggests that location in the United States is robust and is not being explained by some other variable. However, companies in the United States did not have statistically significantly higher spirit-of-the-law scores. Therefore, U.S. companies may be better at complying with the required provisions of the Rule, but are not more likely to take beneficial steps above and beyond the Rule.

²⁸ CAL. CIV. CODE § 1714.43 (Deering, Westlaw through L.2014); CAL. CIV. REV. & TAX. § 19547.5 (Deering, Westlaw through L.2014).

²⁹ MD. CODE ANN., STATE FIN. & PROC. § 14-413 (West, Westlaw through L.2014).

2. Primary Place of Business in California

Companies located in California had higher letter- and spirit-of-the-law scores. Specifically, the 204 California companies in our population had an average letter score of 4.86 compared to 4.63 for non-California companies and an average spirit score of 3.38 compared to 3.11 for non-California companies. Both findings were significant at the 1% level.

California is the only U.S. state besides Maryland that has passed its own conflict minerals legislation. In 2011, the state added Section 10490 to its Public Contract Code, which prevents companies found to be in violation of the conflict minerals regulation from bidding on California state contracts.³⁰ We therefore further divided California companies between the thirty-one California companies that had received California government contracts and other California companies³¹ that had received no such contracts. However, we found no statistically significant difference between these two groups of California companies, suggesting that Section 10490 may not have played a role in Californian companies' higher scores. Location in Maryland has no statistically significant effect on scores, despite the similarity of the two states' laws. However, in addition to the state conflict mineral bill, the California Transparency in Supply Chains Act,³² which took effect in January 2012, may also have contributed to Californian companies' better performance. More testing is needed to determine the effect of this law.

Furthermore, California is home to many technology-based companies, in particular semiconductor manufacturers who tend to earn higher letter and spirit scores and be members of the CFSI and the EICC. In fact, the difference in both letter and spirit scores loses statistical significance in regressions that control for companies in the semiconductor industry and CFSI membership, suggesting that these variables explain the apparent California effect.

3. Primary Place of Business in China

Companies located in China had lower spirit-of-the-law scores. Specifically, the eleven Chinese companies in our population had an average spirit score of 2.45 compared to 3.17 for non-Chinese companies. In particular, most Chinese companies did not adopt a company conflict mineral policy, disclose smelters, or include contractual provisions on conflict minerals in their supply contracts. The finding deviates from the finding that foreign corporations, on average, were not much less compliant with the SEC rule.

A more strained relationship with SEC's counterparts in China may have contributed to the lower spirit scores by Chinese companies. The SEC has a bilateral memorandum of understanding ("MOU") with Japan, Korea, and Taiwan.³³ However, it only has a specific

³⁰ CAL. CIV. CODE § 1714.43 (Deering, Westlaw through L.2014); CAL. CIV. REV. & TAX. § 19547.5 (Deering, Westlaw through L.2014).

³¹ State Contract & Procurement Registration System (SCPRS) Data, CALIFORNIA DEPARTMENT OF GENERAL SERVICES PROCUREMENT DIVISION, available at <http://www.dgs.ca.gov/pd/Programs/eprocure/SCPRSData.aspx> (last visited Nov. 8, 2014).

³² 165 CAL. PUB. CONT. CODE § 10490 (Deering, Westlaw through L.2014).

³³ Cooperative Agreements with Foreign Regulators, SECURITIES AND EXCHANGE COMMISSION, (April 10, 2014), http://www.sec.gov/about/offices/opia/opia_cooparrangements.shtml.

technical assistance MOU with China relating only to the provision of technical assistance between the counterparts.³⁴ In December 2012, the China Securities Regulatory Commission (“CSRC”) refused to transfer documents relating to Chinese accounting companies that were under investigation by the SEC for accounting fraud. The incident strained the relationship between the U.S. and Chinese regulating agencies and makes it unlikely that SEC will be able to rely on cooperation with the CSRC in the future.

F. Industry

There were four statistically significant relationships between companies’ industries and their letter- and spirit-of-the law scores. We determined companies’ industry based on the SEC’s Standard Industrial Classification (“SIC”) system.³⁵ Reporting companies represented over 230 industries; we examined statistical significance for the twelve most represented industries, which had at least fifteen companies each. Five industries had average letter or spirit scores that differed from the overall average in a statistically significant way: (1) Semiconductors and Related Devices; (2) Motor Vehicle Parts and Accessories; (3) Pharmaceutical Preparations; and (4) Surgical and Medical Instruments and Apparatus.

1. Semiconductors and Related Devices – SIC Code 3674

Companies in the semiconductor industry had higher letter- and spirit-of-the-law scores. Specifically, the ninety-eight semiconductor companies in our population had an average letter score of 4.95 and an average spirit score of 3.60, compared to averages of 4.65 and 3.12 respectively for other companies. Both findings were significant at about the 1% level. As manufacturers of electronic components and products, semiconductor manufacturers were part of the larger group of electronics producers for which issues of supply chain management and risk mitigation were of particular importance due to the unique characteristics of the industry. In particular, some of the minerals covered by Dodd-Frank § 1502 – gold, tin, tantalum and tungsten – were essential to the production of all electronics products. In addition, electronics companies had frequently been the targets of human rights related campaigns and public scrutiny. Thus, it was expected that the combination of these factors would likely increase the level of supply chain management expertise, including familiarity with the procurement of gold, tin, tantalum and tungsten, among semiconductor companies had prior to the imposition of Dodd Frank § 1502.

However, Companies in the semiconductor industry are also significantly more likely to be located in California and be members of the CFSI and the EICC, all of which also correlate with better scores. Perhaps these variables explain the apparent semiconductor effect. Semiconductor companies’ higher letter scores lose statistical significance in a regression controlling for California location, although the companies’ higher spirit scores retains significance. Conversely, semiconductor companies’ higher spirit scores lose statistical

³⁴ *Id.*

³⁵ Division of Corporation Finance: Standard Industrial Classification (SIC) Code List, SECURITIES AND EXCHANGE COMMISSION (July 22, 2014), <http://www.sec.gov/info/edgar/siccodes.htm>.

significance in a regression controlling for membership in the CFSI, although the companies' higher letter scores retains significance. This suggests that the semiconductor may play some role in better scores independent of geography and CFSI membership, although the role is not entirely clear.

2. Other Computer Technology Companies

Like semiconductor companies, companies in our population that produce prepackaged software, computer communications equipment, and miscellaneous electronic components had higher-than-average letter or spirit scores. However, there were often too few companies in each of these industries to evaluate the cause of these higher scores further. Nevertheless, these companies success suggests computer technology industries in general seem to do a better job with conflict minerals.

3. Surgical and Medical Instruments and Apparatus – SCI Code 3841

Companies that produce surgical devices and medical instruments had lower average letter and spirit scores. Specifically, the thirty-six surgical and medical instrument companies in our population had an average letter score of 3.97 and an average spirit score of 2.55, compared with scores of 4.70 and 3.18 respectively for other companies. This negative correlation remained significant even other variables such as Revenue, Return on Equity, Alexa Ranking, and CFSI membership are controlled for. Therefore, the reasons for this industry's low scores are unclear.

V. Methodology for Collecting Data

Collecting data for 1,001 companies was a challenge. This was enhanced by tensions between a choice to apply quantitative social science research methodology to assess relationships between company characteristics and SEC disclosure forms; yet also to focus on indicators that represented key concerns of various stakeholders in the conflict minerals rule. While we made efforts to create a methodology that was as rigorous as possible, and which ultimately had several strengths, some limitations nevertheless bare mention.

Limitations of this study include limited generalizability to future conflict minerals disclosures and to predicting company behavior in general, for several reasons. First, this study was cross-sectional, being based only on a snapshot of the issuers and their disclosures for the year of 2013. Without longitudinal data showing how companies' conflict minerals disclosures evolve over time, the predictive value of our correlations is limited. Second, while we chose to focus on indicators that were most important to legal, business, and advocacy stakeholders in the conflict minerals rule, these indicators accounted for a low percentage of the variability in the disclosure data, with R-squared values not exceeding 0.12. This may well be due to the fact that we were searching for a limited selection of indicators in a data set of securities disclosures, which are always driven by a vast array of issuer motivations and further reflect the input of a

variety of consultants, attorneys, and other third parties assisting in the disclosures' preparation.

This study also had several key strengths. Instead of having to select a sample, we were able to analyze the entire population of disclosures filed with the SEC for the year of 2013. Moreover, our indicators had strong levels of inter-rater reliability. In order to avoid a company's score varying according to rater, and the validity of results being undermined, we developed two mechanisms to ensure inter-rater reliability: First, our criteria were as "black-letter" as possible, leaving as little room as possible for subjective interpretation. Second, we took several steps as we were coding to ensure consistency.

Furthermore, we took steps to ensure that we were applying these black letter rules as uniformly as possible. We selected three of our members of our group most knowledgeable about the rule as coders. These three members coded the same twenty-five issuers independently, and then compared scores and discussed any discrepancies. Furthermore, these three coders communicated periodically as they coded the remaining 976 companies, raising questions about difficult or ambiguous cases, and comparing averages for each indicator to ensure that any differences were as a result of genuine variation among companies and not subjective differences in coding. The end result is a data set where letter- and spirit-of-the-law do not vary significantly according to coder.

A final strength of our research was that our quantitative analyses were grounded in the results of qualitative inquiries of priorities as voiced by key informants, namely human rights organizations, businesses, and law firms who all have a direct stake in the Conflict Minerals Rule under Section 1502 of the Dodd Frank Act. With our work, we hope to contribute to initial insights into how issuers are approaching this novel form of disclosure and to what extent they are complying with the Conflict Minerals Rule or going beyond its requirements in a possible effort to showcase corporate social responsibility. These insights may provide useful tools for all stakeholders involved in conflict minerals supply chain due diligence and to the business and human rights community at large.