What’s Your Strategy for Supply Chain Disclosure?

Thanks to social media and an increasing flood of data, the capacity to generate causes and controversies almost instantly has become the new norm in today’s “super-transparent society.” Most business leaders have not yet come to grips with the new reality — and what it means for their organizations.
What’s Your Strategy for Supply Chain Disclosure?

With pressures to increase public disclosure of supply chain information mounting, executives need to appreciate the diverse forces and actors driving and enabling this trend — and learn how to cope with them.

BY DONNA MARSHALL, LUCY MCCARTHY, PAUL MCGRATH, AND FIONA HARRIGAN

WE LIVE IN AN ERA in which many organizations operate highly complex and globalized supply chains. While these supply chains are now required to be lean, agile, and sustainable, they are also the focus of growing attention from a variety of external stakeholders seeking information that includes and frequently exceeds what the company is legally obliged to disclose. (See “About the Research,” p. 38.) However, many companies have limited visibility of their supply chain information, have a poor understanding of their capabilities for capturing and reporting this information, and have not overtly considered their supply chain information disclosure strategy.

In this article, we discuss the pressures on companies to disclose supply chain information, the drivers and impediments to supply chain disclosure, and the types of supply chain information...
Pressures to Disclose Supply Chain Information

To understand how best to strategically manage public supply chain information disclosure, it is important that managers appreciate the diverse forces and actors driving and enabling this trend. Aside from internal governance and risk concerns, external pressure has come from government regulations, best practices of peers, and changing expectations from salient stakeholder groups such as nongovernmental organizations.

Recent examples of new regulatory pressure in the United States include the 2010 Dodd-Frank Wall Street Reform and Consumer Protection Act and the California Transparency in Supply Chains Act of 2010; in Europe, examples include the Restriction of Hazardous Substances Directive and the Registration, Evaluation, Authorisation, and Restriction of Chemicals regulation. At the same time, leading companies in many industries are shifting the boundaries of supply chain information disclosure. We have seen this in the apparel and electronics industries, with companies such as Nike Inc. leading the field in supply chain information disclosure and other companies following their lead. Once a brand leader begins to open its supply chain to public scrutiny, it is difficult for others in the industry to resist without a good commercial reason.

About the Research

For this paper, we conducted three levels of research. First, we did a literature review around the topic of supply chain transparency, reviewing 179 academic articles on the topic. We then set about identifying companies that were likely to be relatively advanced in their supply chain disclosure practices, choosing the top 20 companies by revenue across five selected industries groupings (electronics, medical devices, fashion, food, and pharmaceuticals), using the Forbes Global 2000 list. We undertook a detailed content analysis of the companies’ annual and corporate social responsibility reports and the relevant content of their websites to explore what they were saying about supply chain transparency practices and trends.

We also conducted 20 in-depth case studies (separate from the companies mentioned above) of selected exemplars and nonexemplars of supply chain transparency practice. In these cases, we focused our interviews on supply chain purchasing, and corporate social responsibility managers. The cases, following a grounded-theory research design, are representative of five industry sectors (electronics, medical devices, fashion, food, and pharmaceuticals) to enable us to explore varying transparency practices across different industries. The specific cases draw on publicly available information and are used for illustrative purposes rather than as evidence of empirical support for the arguments made. The identity of the companies in the case studies remains confidential, as required under our research protocol and research ethics guidelines. From the research and associated analysis, we developed and, through the empirical case studies, tested the tools and frameworks presented in this paper for relevance, validity, and robustness.
chains, certain industries, including fashion, often have limited knowledge of their supply chains and engage in limited public disclosure. For example, a 2013 survey of Australian fashion companies revealed that 93% of the companies surveyed didn’t know where their raw materials came from.²

Improved transparency, however, is not without its costs, especially in complex, multilevel supply chains. The cost and effort in setting up, using, and monitoring a transparent reporting system across a complex supply chain can be steep. In our research, many people we interviewed commented on “audit fatigue” associated with the growing level of transparency-related data gathering and reporting. The lack of standardized reporting systems, the absence of a common technology platform, ill-defined standards, and a lack of supplier education can also pose serious hindrances to companies wishing to improve their supply chain transparency.

A 2014 report by Deloitte Consulting LLP³ described a number of approaches companies can use to improve their supply chain transparency, which typically involve trade-offs between cost or effort and quality. At the low-cost end of the spectrum, companies can gather basic information from their tier-one direct suppliers using simple solutions such as Excel spreadsheets or SMS texting surveys, with the potential to gradually adopt more sophisticated reporting technologies such as product coding and real-time monitoring tools. A second, more involved approach requires suppliers to meet externally certified accreditations as a precondition for becoming part of the supply chain. For example, suppliers might have to comply with environmental management standards such as ISO 14000. This approach externalizes the cost of audit and compliance, but it is limited in terms of its ability to be tailored to the specific needs of the company. A related, potentially more expensive approach is to outsource all or part of the audit function to third-party bodies. Although this facilitates tailored data gathering, it can still be costly. What’s more, it is unlikely to foster a collaborative engagement with suppliers and may create an ongoing dependency on external experts.

Of course, developing one’s own data-collecting and audit capabilities, coupled with a collaborative philosophy across the supply chain, offers the greatest potential for developing a high-quality transparency system. However, tools such as real-time monitoring, product coding, and serialization will require substantial up-front investment in both resources and industry collaboration. Once the investments have been made, companies would have substantially improved data capabilities to pursue further transparency and process improvements. Companies exploring or adopting this approach, such as the Coca-Cola Co., tend to provide guidance and assistance to their suppliers to help them attain high levels of transparency, thus increasing joint competencies and minimizing the administrative burden while maximizing the quality of the data transfer.

Types of Supply Chain Information

Once a company understands the pressures it faces to release supply chain information to the public and is aware of its information-gathering constraints and capabilities, it must understand the scope of supply chain information available for release. We identified four common types of supply chain information that tend to be publicly disclosed: supply chain membership, provenance, environmental information, and social information.

Supply Chain Membership Releasing information on the suppliers that make up the supply chain is especially important if suppliers are involved in practices that are a risk to the reputation of a company. Publicizing basic information within this category will, at a minimum, involve providing

A 2013 survey of Australian fashion companies revealed that 93% of the companies surveyed didn’t know where their raw materials came from.
names of first-tier direct suppliers. For example, in the electronics and fashion industries, many companies publish lists of first-tier suppliers, but this is less common in the food, pharmaceutical, or medical devices industries. A growing trend among exemplar companies is to disclose information on supplier location and also about lower-tier suppliers. Nike, for instance, began to move toward disclosure throughout the late 1990s, and in 2005 it became one of the first companies to reveal a global suppliers list containing information on 90% of its suppliers. Now, corporate responsibility information appears on Nike’s main website, and the company reveals a supplier list for its entire product range, including the name, location, workforce composition, and subcontracting status of every supplier.4

**Provenance** Information on the materials used in a product, the source location of the material or ingredients, and details on how the material or ingredients were extracted and produced is becoming increasingly common. The point is to ensure that there are no harmful or hazardous components in the finished product and that the materials meet appropriate regulatory standards. For example, many consumers are unaware that tantalum, tungsten, tin, and gold are common elements in electronic devices and that companies may have sourced them from suppliers in locations where armed gangs profit from their extraction and where mining processes are dangerous. Intel Corp. took the lead as the first electronics brand to offer microprocessors made with materials from smelters validated as conflict-free.

**Environmental Information** Most corporate responsibility reports include a wide range of environmental measures such as carbon and energy usage levels, water use, and levels of waste in the supply chain. For example, Puma SE, the athletic footwear and clothing company based in Herzogenaurach, Germany, leads the field in environmental reporting of its supply chain. Puma discloses information on water use, land use, air pollution, and waste from its own operations as well as its lower-tier suppliers, and it publishes an environmental profit-and-loss statement.

**Social Information** Companies may provide details on labor policies, human rights, and social impacts within the supply chain. Information about labor policies may include work hours and holidays, wages and benefits, working conditions, and health and safety reports. Human rights reports may include information about child labor, forced labor, freedom of association, and nondiscrimination. Social impact information includes anti-corruption policies, impact on local communities, local engagement and development programs, and noncompliance with rules and regulations.

We have developed a supply chain disclosure radar that provides a visualization of the four broad categories of supply chain information discussed above and their key subcategories. (See “The Supply Chain Disclosure Radar.”) This radar is not intended to capture the full extent of all possible supply chain information gathered by organizations. Rather, it is designed as a broad guide for managers to help them categorize and plot their current approach to information gathering and disclosure, and to frame thinking and change in relation to future disclosure strategies.
Selecting a Disclosure Approach

After identifying the types of information a company can disclose, the next challenge is supporting strategic thinking around the level of supply chain information disclosure. Based on our research, we developed a transparency matrix to frame four typical supply chain disclosure strategies: transparent, secret, distracting, and withheld. On one axis, companies can select the degree of supply chain disclosure they want. On the other axis, they can show their assessment of supply chain information: Does the company have a good grasp of the information in the supply chain, and if so, is it reported accurately and appropriately? (See “A Supply Chain Transparency Matrix.”)

<table>
<thead>
<tr>
<th>Degree of disclosure</th>
<th>Degree of assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transparent</td>
<td>High</td>
</tr>
<tr>
<td>Withheld</td>
<td>Low</td>
</tr>
<tr>
<td>Secret</td>
<td>High</td>
</tr>
<tr>
<td>Distracting</td>
<td>Low</td>
</tr>
</tbody>
</table>

**Transparent** A company following this strategy aims for maximum public disclosure of all supply chain information. This practice typically extends both internally through its supply network and externally into the public domain. Companies committed to transparency tend to regard disclosure as a core competence or capability. For example, Patagonia Inc., the Ventura, California–based outdoor apparel company, provides a map of suppliers, indicating which materials or processes a supplier is involved with. Nike is another company that provides a rich variety of detailed supply chain information. Tainted in the 1990s for reports about sweatshop labor and poor working conditions in its supply chain, Nike is now known for responsible supply chain membership, provenance, and environmental and social sustainability disclosure. Although scrutiny of the company continues, Nike has been cited as a company that “turned full disclosure into a badge of honor.”

**Secret** Companies employing this strategy have a high degree of knowledge about their supply chain activities but will not disclose or will disclose very little information into the public domain. In fact, they may deliberately and selectively conceal supply chain information, protecting their intellectual property to enhance their brand value and, ultimately, competitive advantage. Issues such as new products under development, unique manufacturing techniques, sources of supply, recipe composition, technical specifications, or simply lists of customers may be kept under wraps, as they constitute important strategic information to a competitor. The formula for the popular WD-40 lubricating spray provides a good example. Although the WD-40 Co., based in San Diego, California, reveals what is not in WD-40 (“silicone, kerosene, water, wax, graphite, or chlorofluorocarbons (CFCs”), it guards its 1953 formula in a bank vault. The company further protects the formula’s secrecy by mixing the substance in three different cities before passing it on to its manufacturing partners for production. Closely guarded formulas also protect the ingredients for Coca-Cola, the recipe for Twinkies, and the recipe for KFC fried chicken batter.

**Withheld** This is a strategy of nondisclosure, either intentionally hiding poor practices or failing to collect and disclose necessary information. Nike is also another company that provides a rich variety of detailed supply chain information. Tainted in the 1990s for reports about sweatshop labor and poor working conditions in its supply chain, Nike is now known for responsible supply chain membership, provenance, and environmental and social sustainability disclosure. Although scrutiny of the company continues, Nike has been cited as a company that “turned full disclosure into a badge of honor.”

**Distracting** Companies following this strategy report substantial information to external stakeholders but in a manner that is either unwittingly or wittingly distracting. In the first instance, the company doesn’t understand or evaluate what is pertinent to stakeholders and the public and instead reports excessively on other practices. However, companies will occasionally and deliberately distract stakeholders from focusing on questionable practices by flooding the public domain with excessive levels of data on self-selected practices and hiding or downplaying others. For example, the practice of “greenwashing,” a

**A SUPPLY CHAIN TRANSPARENCY MATRIX**

This matrix outlines four types of transparency strategies, based on the amount and depth of evaluation and the level of public data disclosure. Managers can use it to describe and reflect on the coherence of their current approach to supply chain transparency.

<table>
<thead>
<tr>
<th>Degree of disclosure</th>
<th>Degree of assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transparent</td>
<td>High</td>
</tr>
<tr>
<td>Withheld</td>
<td>Low</td>
</tr>
<tr>
<td>Secret</td>
<td>High</td>
</tr>
<tr>
<td>Distracting</td>
<td>Low</td>
</tr>
</tbody>
</table>

Example: WD-40 and Coca-Cola never reveal their secret product formulas.

Example: Suppliers in the prawn industry failed to disclose labor rights information and were exposed by a media investigation.

Example: BP was awarded Greenpeace’s Emerald Paintbrush Award for greenwashing due to overemphasizing information about its investment in alternative energy sources.
marketing tactic some companies use to present themselves as environmentally friendly even if their practices are not, falls into this category. Greenpeace highlighted this practice in 2008, when it awarded its Emerald Paintbrush Award to BP plc, which focused its marketing campaign on green energy even though its investment in solar and wind energy at the time represented only about 4% of its total investments.

**Withheld** Companies using this approach withhold supply chain information from the public. They have not disclosed supply chain information either because they have not collected the data about dangerous practices in their supply chain (they are unknowingly withholding information) or they have intentionally avoided releasing data that would reveal harmful practices in the supply chain (knowingly withholding information). In terms of supply chain membership, it is vital to have information about suppliers used for high-risk tasks (such as environmentally damaging material extraction) and those with tainted records (such as reported human-rights abuses). A good example is the 2014 investigation by The Guardian that found that a large Thai prawn farmer supplying some very large global retailers buys fishmeal from suppliers that “own, operate or buy from fishing boats manned with slaves.”

Our transparency matrix helps managers clarify their current approach to supply chain information disclosure and helps integrate the company’s approach to disclosure with its core business strategy. Although we don’t think there is an optimal one-size-fits-all approach that suits every company, companies need to undertake an adequate level of assessment to minimize their exposure to brand risk.

### Determining What to Disclose

Once managers understand the pressures for increased transparency and identify what their transparency strategy is, they need to determine the information they will disclose. This brings to the fore decisions about how reactive or proactive the company wants to be in this area. Ideally, a company should anticipate the information demands of its external stakeholders ahead of time in order to determine the materiality of the information to the company. In our view, reactive responses reduce the time for planning, participation, and experimentation and limit opportunities for early-mover competitive advantage.

We developed another matrix for categorizing supply chain information disclosure, one that balances the value to the company and the associated amount of risk to the supply chain. It describes strategies for critical, strategic, optional, and noncritical disclosure. (See “A Supply Chain Disclosure Matrix.”) The “critical” category involves information that is both high risk and high value to the company. Companies taking advantage of this approach recognize that there are issues in their supply chain that, if left unaddressed and undisclosed, are likely to result in pressure from NGOs, the media, and eventually end customers, resulting in damage to brand value. (This might include information relating to unsafe, poor-quality, contaminated products; bribery and corruption in the supply chain; worker suicides; or major environmental degradation.)

A second category involves information that’s low risk in the supply chain but has high brand value to the company. We call this type of information “strategic.” Although stakeholders may not demand the information, by releasing it, management hopes to achieve product differentiation and enhance the

### A SUPPLY CHAIN DISCLOSURE MATRIX

This matrix helps companies identify distinct categories of supply chain information pertinent in their particular supply chain and guides them in developing their disclosure strategy.

<table>
<thead>
<tr>
<th>Value to the Company</th>
<th>Risk in the Supply Chain</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>High</strong></td>
<td><strong>High</strong></td>
</tr>
<tr>
<td>Strategic</td>
<td>Critical</td>
</tr>
<tr>
<td>This strategy can be employed when an information category is not high risk but can lead to enhanced reputation.</td>
<td></td>
</tr>
<tr>
<td>Example: Disclosing the fact that there are organic ingredients in food, beauty, and fashion products can provide differentiation for products and enhance marketing capabilities.</td>
<td></td>
</tr>
<tr>
<td>Example: As child labor is an emotive issue, steps for monitoring and eradicating this practice in high-risk areas must be disclosed.</td>
<td></td>
</tr>
<tr>
<td>Noncritical</td>
<td>Optional</td>
</tr>
<tr>
<td>Companies can use this strategy when information is neither necessary nor demanded.</td>
<td></td>
</tr>
<tr>
<td>Example: Child labor statistics, although relevant in high-risk areas, are less relevant in countries where child labor regulations are strongly enforced.</td>
<td></td>
</tr>
<tr>
<td>Companies can choose not to disclose information if the information does not impact the end customer and is only an internal concern.</td>
<td></td>
</tr>
<tr>
<td>Example: Faults or quality issues in the internal supply chain need not be disclosed if they were caught and did not affect the end customer.</td>
<td></td>
</tr>
<tr>
<td>Optional</td>
<td>Critical</td>
</tr>
<tr>
<td>Critical</td>
<td>Noncritical</td>
</tr>
<tr>
<td>Critical</td>
<td>This strategy is used when an information category impacts both brand value and reputation and must be disclosed to the public domain.</td>
</tr>
<tr>
<td>Example: Disclosing the fact that there are organic ingredients in food, beauty, and fashion products can provide differentiation for products and enhance marketing capabilities.</td>
<td></td>
</tr>
<tr>
<td>Noncritical</td>
<td>This strategy involves information that is both high risk and high value to the company.</td>
</tr>
<tr>
<td>This strategy can be employed when an information category impacts both brand value and reputation and must be disclosed to the public domain.</td>
<td></td>
</tr>
<tr>
<td>Example: Disclosing the fact that there are organic ingredients in food, beauty, and fashion products can provide differentiation for products and enhance marketing capabilities.</td>
<td></td>
</tr>
<tr>
<td>Example: As child labor is an emotive issue, steps for monitoring and eradicating this practice in high-risk areas must be disclosed.</td>
<td></td>
</tr>
</tbody>
</table>
reputation of the company. In the food or beauty products industry, this might include providing contextual information to consumers about organic ingredients; it would allow consumers to easily discern the benefits of choosing one company’s product over that of a competitor.

We refer to information that has low value to the company but where the risk in the supply chain is high as “optional.” This means that the information does not impact the end customer and is primarily an internal supply chain concern. An example might include a potential problem that was averted (for example, low-quality ingredients in the pharmaceutical supply chain that were removed during quality control screening and never affected the end product).

The final category in this matrix is information that is both low value to the company and low risk to the supply chain, with negligible effect on brand value. We call it “noncritical.” Examples might include information on child labor in countries where the child welfare laws are clear and actively enforced. Disclosure of such information is deemed unnecessary.

The information disclosure matrix can help managers map their future disclosure practices for specific categories of supply chain information. It outlines when it is critical to disclose information, when information should be strategically disclosed to differentiate a company or product, when decisions are made not to disclose irrelevant or inappropriate information, or when disclosure is noncritical. Managers should map stakeholder needs to identify material supply chain issues for disclosure. This will enable them to see where the company might be targeting resources inappropriately, releasing unnecessary information, or needs additional investment in data gathering or release of more information.

### How Apple’s Approach Changed

To illustrate how a company’s approach to supply chain transparency can evolve, we studied Apple Inc., using publicly disclosed supply chain information to compare the years 2009 and 2014. When Tim Cook took over as CEO in 2011, Apple had been in the headlines following reports of suicides at Taiwanese supplier Hon Hai Precision Industry Co. Ltd. (known as Foxconn). Cook had to respond to the public outcry and act to protect Apple’s reputation and ensure that workers throughout Apple’s supply chain were treated fairly and in line with basic human rights. The events at Foxconn pushed Apple to open up supply chain details to the public, moving it from an extremely secretive supply chain to a more open one.8

Apple did not release specific information on the number of suppliers in its supply chain for 2009; it did not publicly disclose information related to any areas of membership, provenance, or environmental sustainability. Its 2009 report9 provided results for 83 social sustainability audits. The company’s 2015 report, relating to 2014, refers to 633 supplier audits.

Beginning in 2012, Apple periodically responded to media or NGO criticism, reactively disclosing supply chain information, including limited information about supplier membership and provenance. By 2015, Apple produced an extensive array of information and reports covering the radar categories. Included in this information was a list of 200 first-tier suppliers, including company names and addresses; a list of metals and minerals sourced from lower-tier suppliers, their provenance, and whether the supplier was using a conflict-free protocol; and separate reports on the environmental and social performance of suppliers.

The 2015 environmental report10 covers 100% of the carbon emissions of the entire Apple supply chain and waste generated throughout the supply chain. It also reveals that the top 200 suppliers used 120 billion gallons of water, but it does not provide

---

Reactive responses reduce the time for planning, participation, and experimentation and limit opportunities for early-mover competitive advantage.
any information about supply chain energy usage. Apple also reported social sustainability information for its suppliers.

Between 2009 and 2014, Apple went from regarding its supply chain information as a source of strategic secrecy to openly publicizing it as a reputational insurance policy. For example, in the space of a few years, Apple has become much more transparent about its material provenance, environmental sustainability, and social sustainability. As for secrecy, Apple only discloses aggregate environmental and social sustainability information, keeping specific examples or cases out of the public arena. In the future, Apple may decide to follow the example of companies such as Nestlé, which give more specific information.

Although Apple has come a long way on disclosure since 2009, there are still areas to be addressed and improved. Regarding information that might be considered critical, a 2014 BBC documentary about Apple exposed, among other things, poor treatment of workers in Chinese factories in Apple’s supply chain. Following this, Apple has been under pressure to provide information on how it is tackling first-tier and lower-tier social sustainability issues. Apple also hasn’t yet publicly discussed how it plans to ensure a living wage for workers in its supply chain.

**Developing a Successful Disclosure Strategy**

What steps should companies take to ensure a viable and high-quality supply chain transparency strategy? We suggest the following:

1. **Analyze the pressures for increased supply chain transparency.** Executives should begin by understanding which supply chain information is critical to stakeholders, both internal and external, and use this knowledge to proactively respond to the needs of key stakeholder groups. This activity needs to become a core dimension of the company’s approach to effective stakeholder management.

2. **Assess current capabilities and resource base.** Companies need to audit the technological and human-factor capabilities of both their own company and those of their suppliers to assess current capacity for gathering critical, high-quality supply chain information and to assess the financial costs and resource feasibility of improving transparency information.

3. **Identify current levels and quality of critical information in your supply chain.** Many managers have limited knowledge of the depth and quality of supply chain information currently available to them. Companies often have other information-gathering systems in place, and many are already evaluating suppliers on triple-bottom-line criteria. This information could be gathered from different departments. The radar will aid in the identification of current and desired levels of supply chain information capture and disclosure. Gaps should be filled by new investments in supply chain information gathering.

4. **Clarify strategic thinking around your supply chain information disclosure.** Companies should have strategic clarity in relation to their broad approach to supply chain transparency, and it should be aligned with the company’s core business strategy and its need to protect intellectual property. The transparency matrix will enable focused debate in relation to this core issue.

5. **Decide on the type and level of information disclosure.** Once a company is clear on its broad strategic approach to supply chain disclosure, it needs clarity on the type and level of information it needs and wishes to disclose. The disclosure matrix can aid this process.

6. **Ensure strategic alignment between supply chain information and company strategy.** The
more information a company has on hand in advance of a critical event (as outlined in the radar), the quicker it can resolve the problem. The information may also be used to gain competitive advantage and develop added value. For instance, if the strategy is to deliver high-quality products to the customer, having complications with provenance or membership could be catastrophic. Disclosure reporting is too important to be the preserve of a single department or business function.

7. **Build collaborative relationships.** Our research suggests that the best route to high-quality internal and external transparency is to develop close collaborative relationships across the supply chain. This may require companies providing technical, operational, or financial assistance to suppliers to share the cost burden, foster learning, and ensure that there is a culture of transparency throughout the supply chain.

8. **Anticipate future demands.** Once a company has established a strategy for supply chain disclosure, it should begin to investigate competitors’ information disclosure strategies and gather intelligence on the changing concerns and priorities of external stakeholders. It can also analyze the best-in-class disclosure strategies of companies such as Nike and Patagonia. In addition, it is important to monitor the media and the reports and campaigns of NGOs and influential commentators.

The demands for transparency in supply chain information are growing. Managers must understand these demands and respond in creative and meaningful ways without undermining the competitive advantage of their company. The tools and advice presented here will aid managers in grappling with this complex and evolving area.

**Donna Marshall** is a senior lecturer at UCD Business School at University College Dublin in Ireland. **Lucy McCarthy** is a lecturer at Queen’s Management School in Belfast, Northern Ireland. **Paul McGrath and Fiona Harrigan** are both lecturers at UCD Business School. Comment on this article at http://sloanreview.mit.edu/x/57219, or contact the authors at smrfeedback@mit.edu.

**ACKNOWLEDGMENT**

The authors would like to acknowledge the support and generous funding of the Irish Research Council.

**REFERENCES**

5. See Doorey, “The Transparent Supply Chain.”

Reprint 57219.
Copyright © Massachusetts Institute of Technology, 2016. All rights reserved.
Articles published in MIT Sloan Management Review are copyrighted by the Massachusetts Institute of Technology unless otherwise specified at the end of an article.

MIT Sloan Management Review articles, permissions, and back issues can be purchased on our Web site: sloanreview.mit.edu or you may order through our Business Service Center (9 a.m.-5 p.m. ET) at the phone numbers listed below. Paper reprints are available in quantities of 250 or more.

To reproduce or transmit one or more MIT Sloan Management Review articles by electronic or mechanical means (including photocopying or archiving in any information storage or retrieval system) requires written permission.

To request permission, use our Web site: sloanreview.mit.edu or E-mail: smr-help@mit.edu Call (US and International): 617-253-7170 Fax: 617-258-9739

Posting of full-text SMR articles on publicly accessible Internet sites is prohibited. To obtain permission to post articles on secure and/or password-protected intranet sites, e-mail your request to smr-help@mit.edu.