





Authors:

Emily Stone, Green Century Capital Management Larisa Ruoff, Green Century Capital Management Amy Galland, As You Sow Michael Passoff, As You Sow

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About the authors:

Green Century Capital Management is an investment advisory firm focused on environmentally responsible investing. Founded by a partnership of non-profit environmental advocacy organizations in 1991, Green Century's mission is to provide people who care about a clean, healthy planet the opportunity to use the clout of their investment dollars to encourage environmentally responsible corporate behavior. Green Century believes that shareholder advocacy is a critical component of responsible investing and advocates for greater corporate environmental accountability. To learn more about Green Century and the environmentally responsible mutual funds it manages, visit http://www.greencentury.com

As You Sow is a nonprofit organization, founded in 1992, dedicated to increasing corporate environmental and social responsibility. Its Corporate Social Responsibility Program is one of the nation's leading proponents of shareholder engagements providing research and advocacy to catalyze positive change within publicly held companies. http://www.asyousow.org

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Executive Summary

Nearly every canned food and beverage product on the market today contains a highly controversial chemical, bisphenol A (BPA), in its can lining. BPA has been linked to serious diseases and has been the focus of increasing consumer concern and regulatory restrictions. As investors, Green Century Capital Management (Green Century) and As You Sow believe companies may face financial risks from the presence of BPA in product packaging and should act quickly to eliminate the chemical to help protect shareholder value and preserve company reputations.

This report by Green Century and As You Sow builds on the first edition of *Seeking Safer Packaging*, published in April 2009, which ranked food and beverage companies on their efforts to address BPA in their product packaging. In this edition, the number of companies analyzed has expanded to include major U.S. retail companies that sell private-label canned products. The scoring and analysis for this report is based on a survey distributed to companies (see Appendix A & B).

Since the first publication of *Seeking Safer Packaging* in spring 2009, momentum to reduce exposure to BPA has increased. New scientific and investigative reports on the potential health impacts have been published, more states and localities are adopting restrictions, and consumer concern is rising. This report analyzes how companies are responding to this critical issue by disclosing information, exploring substitutes and committing to phase out BPA, and demonstrates that a growing number of companies are proactively mitigating BPA-related risks by testing and implementing substitute packaging.

The findings of this report indicate that notable progress has been made towards commercializing substitutes to BPA epoxy can linings. The overwhelming majority of companies that responded to the survey acknowledge some efforts to explore BPA-free packaging substitutes. Several have clearly become leaders by making direct company investments in identifying substitutes to BPA, and some have begun phasing out BPA from packaging. This report demonstrates that there are clear industry leaders, but unfortunately some of the largest companies are the biggest laggards in seeking substitutes to and phasing out BPA.

- Hain Celestial (A), whose brands include Health Valley, Earth's Best, and Westbrae Natural, ConAgra (A), which owns brands such as Chef Boyardee, Hunt's and Healthy Choice, and H.J. Heinz (A) are the highest-scoring companies in this report. Each of these companies has started using BPA-free can linings for certain products, is committed to removing the chemical from all of its packaging products, and has a timeline to achieve this transition.
- **General Mills** (B+), whose brands include Muir Glen, Progresso and Green Giant, also scores high in this report, mainly because it has committed to start using BPA-free can linings for one of its product lines (Muir Glen tomatoes). However, the company has not identified a timeline for continuing to phase out BPA from its remaining products.
- Nestlé (B) scores high for transparency, testing of substitute packaging and a commitment to eliminate BPA from packaging within "1 – 3 years."
- ConAgra (A) and Campbell Soup (C), the company behind the iconic soups and other brands such as Swanson, were the most transparent in their survey responses on their extensive testing process for BPA-free can linings. ConAgra has "placed more than 40,000 cans into various test packs across [its] product lines. These packs have represented in excess of 380 different variables, supported by 8 coating suppliers and 4 can suppliers." Campbell Soup has done "several hundred" tests, "with more than 500 this fiscal year alone."
- Sara Lee (C) and McCormick (C) are both committed to eliminating BPA from packaging but have not begun using BPA-free substitutes.

SUMMARY SCORECARD OF CORPORATE EFFORTS TO ELIMINATE BPA

	GRADE	
Hain Celestial	Α	
ConAgra	Α	
H.J. Heinz	Α	
General Mills	B+	
Nestlé	В	
Sara Lee	С	
McCormick	С	
Campbell Soup	С	
Kellogg	D+	
Whole Foods	D+	
Dean Foods	D+	
Costco	D	
Pepsico	D-	
JM Smucker	D-	
Coca Cola	F	
Del Monte	F	
Kraft	F	
Supervalu	F	
Unilever	F	
Kroger	F	
Safeway	F	
Wal-Mart	F	
Hormel	F	
Sysco	F	
Delhaize Group	F	
Hershey	F	

- Whole Foods (D+), whose private-label brand is 365 Everyday Value, is the highest-scoring retailer, largely due to the company's good transparency on this issue, but has not demonstrated that it is actively testing any BPA-free options for its private-label cans despite a commitment to eliminate the chemical from packaging.
- **Kellogg** (D+) is committed to eliminating BPA from can linings and has identified an internal timeline to do so, but is not actively exploring BPA-free packaging. **Dean Foods** (D+) is actively working to identify substitutions by investing company resources in the effort and contracting with suppliers, but has not committed to eliminating the chemical from packaging. **Costco** (D), whose private-label brand is Kirkland Signature, is committed to phasing out BPA once "a safe alternative becomes readily available," **J.M. Smucker** (D) is testing alternatives, and **PepsiCo** (D-) has "an active program to explore alternatives," but overall, these companies lag behind their peers which are further along in the process of implementing substitutes to BPA epoxy can linings.
- While clear leaders are emerging in the sector, many companies continue to fall short. Laggards identified by this scorecard include: **Coca-Cola** (F), **Del Monte** (F), **Kraft** (F), **Unilever** (F), **Kroger** (F), **Safeway** (F), **Supervalu** (F) and **Wal-Mart** (F). Most of these companies are exploring substitutes to BPA to some degree but do not commit to phasing out the chemical, are not funding the exploration of substitutes, and fail to sufficiently disclose information about how they are addressing consumer concern on the issue.
- **Delhaize Group** (F), **Hershey** (F), **Hormel** (F), and **Sysco** (F) failed to respond to the survey, demonstrating a disconcerting lack of transparency on this issue.

Given rising consumer and regulatory concerns, Green Century and As You Sow recommend that all companies make significant investments in phasing out BPA from products and take aggressive action to remove it where feasible and safe substitutes exist. Companies should also increase transparency on how they are responding to consumer concerns and possible risks to shareholder value associated with the chemical. Innovative companies that are spearheading the transition to BPA-free packaging for canned goods are sending a clear message to investors that they are looking to stay ahead of the market and gain an edge over competitors.

Introduction

Green Century and As You Sow are active investors who work directly with companies to improve their environmental and safety policies, performance, and transparency in an effort to reduce financial risks, especially those associated with ecological or health hazards. Historically, some companies that used toxic chemicals in their products or packaging have faced significant financial consequences. For example, the public outcry and subsequent flurry of lawsuits regarding asbestos demonstrated that the marketplace can move faster than regulators in deciding what is appropriate for public exposure. Some companies faced major lawsuits, experienced significant declines in shareholder value, or were even forced into bankruptcy as a result of their use or production of asbestos. Given this history, the authors believe it is important for investors to engage companies on BPA in an effort to protect shareholder value.

The companies surveyed for this report are large corporations that often appear in the portfolios of mutual funds, pension funds and individual accounts. Given the risks associated with the use of certain chemicals, engaging with corporations as a shareholder is a good way to bring important issues to the attention of corporate leadership and help protect share value, regardless of how many shares one owns.

Building on the 2009 version of *Seeking Safer Packaging*, this report investigates movement within the packaged food industry to respond to concerns about BPA. It first introduces BPA and discusses the reputational, competitive, regulatory, and litigation risks associated with use of the chemical by food, beverage, and retail companies. Second, the report analyzes what 26 companies are doing to identify BPA-free packaging options, eliminate BPA from product packaging, and disclose information to consumers and investors. Finally, the authors provide recommendations to aid companies in moving toward BPA-free packaging.

Background

Packaged food and beverage producers and retailers that sell private-label canned goods face a significant challenge: the lining of nearly every canned food and beverage product on the market today contains BPA, a chemical linked to an array of diseases that is the focus of increasing public concern and regulatory review.

In the 1930s, BPA was used as a synthetic substitute for the female hormone estrogen.² It was later discovered to strengthen and clarify plastics and is now used in a wide range of products including eyeglasses, DVDs, thermal-print receipt paper, and food can linings. BPA has been linked to cancer³, heart disease⁴, brain dysfunction⁵, impotence⁶, and infertility⁷, and a recent study conducted for the U.S. Centers for Disease Control and Prevention (CDC) found the chemical present in the urine of over 90% of Americans tested.⁸ In the past few years, public concern about human exposure to BPA, particularly through baby bottles and canned foods, has contributed to a significant increase in regulatory action and widespread calls for the elimination of the chemical from certain products, including can linings.

Financial risks to companies that use BPA

The companies included in this report proudly label canned foods or beverages with their brand names and are responsible for bringing these products to market. Consequently, problems stemming from the presence of BPA in cans could pose risks to company reputations and bottom lines. Given the growing scientific and public concern about the continued use of BPA in can linings, companies could face significant risks associated with the use of the chemical, including regulatory, litigation, reputational and competitive risks. Green Century and As You Sow believe companies that proactively start transitioning to BPA-free substitutes, even incrementally, are better positioned to respond to shifting consumer demand and a volatile regulatory climate while protecting shareholder value.

For retailers included in this report, such as Safeway and Whole Foods, BPA-related risk is primarily associated with their private-label (or "branded") products, and their scores reflect this exposure. Since retailers place their brand names on and are responsible for these canned products, they are similarly exposed to risk from BPA and should be equally engaged in efforts to identify and implement substitute packaging options.

BPA in can linings

Recent reports demonstrate that BPA can leach from can linings into many foods and beverages. Because canned foods are ubiquitous – found in school cafeterias, restaurants, food banks, and household pantries—it is next to impossible for most Americans to avoid exposure to BPA. As public and regulatory concerns grow and pregnant women are advised to avoid canned products, the reputations and bottom lines of companies that manufacture and/or label these items with their brand names may face increased risk.

Growing evidence of BPA's impact on human health

BPA is an endocrine disruptor, and over the last decade the scientific evidence linking BPA to serious health risks has grown significantly. According to a report by the Toxics Action Center, 75 of the 81 scientific studies published on BPA between January and July of 2010 concluded that "humans are exposed to BPA or that there are one or more adverse health impacts associated with exposure to BPA." Recent studies, some conducted on animals and others on humans, have linked the chemical to heart disease, diabetes, acncer, acncer, some conducted on animals and others on humans, have linked the chemical to heart disease, diabetes, and obesity. Studies also demonstrate that babies can be exposed to BPA through the placenta and from breastfeeding, which is of particular concern given the potential high vulnerability of fetuses and infants to impacts of BPA.

Chemical industry trade associations often claim that there is insufficient evidence linking BPA to health risks. However, as reported in the 2009 edition of *Seeking Safer Packaging*, the chemical industry's role in funding studies in this area is highly controversial. According to a 2009 analysis, 98% of all studies that have been conducted on mammals demonstrate harm from low doses of BPA, but "[n]o chemical industry funded study concludes that low doses of BPA cause harm."²⁰ While there is no scientific consensus around BPA's safety, the above examples illustrate that the scientific community is growing increasingly concerned and has identified BPA as a substance that could cause harm. This emerging scientific perspective, and its implications for growing consumer concern, may pose reputational and competitive risks to companies that do not recognize and respond to these findings by transitioning out of BPA packaging.

Increasing support for regulating or banning BPA

Regulatory action to ban or limit the use of BPA has grown significantly over the past several years at the local, state, federal and international levels. In 2009, California led a new movement of over 20 states that introduced bills to ban or regulate BPA. In 2010, the U.S. Food and Drug Administration (FDA) and U.S. Environmental Protection Agency (EPA) announced that they are evaluating further regulation of the chemical.

As moves towards regulating BPA gain support, companies that use the chemical in their products face the risk of "toxic lockout," when a company's products can no longer be sold because they contain recently outlawed constituents and the company is not prepared to transition to safer substitutes.²¹ Without active company investment into exploring substitutes to BPA, these companies could experience declined competitiveness in their own markets.

States are taking the lead on regulating BPA

Many states are not waiting for federal action to address concerns about BPA and have passed restrictions banning or limiting its use. Over 20 states have introduced legislation that would ban or limit the use of BPA and as of September 2010 seven states had passed restrictions.²²

- Connecticut, Minnesota, Washington, Wisconsin, Vermont, Maryland, and New York have passed legislation banning
 or limiting the use of BPA, primarily in products used by infants. Connecticut and Vermont have adopted the strictest
 bans to date, with the Vermont ban applying to sports bottles, thermoses, and metal cans (starting in July 2014) and
 the Connecticut ban applying to baby food cans and containers.²³
- California's Office of Environmental Health Hazard Assessment has determined that BPA meets the criteria to be listed
 as a reproductive toxicant under Proposition 65, the Safe Drinking Water and Toxic Enforcement Act of 1986, and is
 evaluating potential further action based on public comments received during spring 2010. If the chemical becomes
 listed under Proposition 65, companies would be required to provide a "clear and reasonable" warning before
 knowingly and intentionally exposing anyone to BPA.²⁴
- The Massachusetts Department of Public Health (MassDPH) issued a public health advisory to limit BPA impacts in August 2009. Among their recommendations, MassDPH advised, "[p]regnant or breastfeeding women can eat or cook with fresh or frozen products instead of canned foods — which may contain BPA — to reduce fetal or infant exposure to BPA."²⁵
- The Maine Department of Environmental Protection has announced its intention to list Bisphenol A as a "priority chemical." Under this designation, the state proposes restrictions on BPA in certain children's products and reporting on BPA in other products children use, including infant formula and baby food containers.²⁶

Individual municipalities are also moving ahead with regulations. The City of Chicago passed an ordinance in May 2009 that will ban reusable food or drink containers intended for children under three that contain BPA, and four counties in New York (Albany, Rockland, Schenectady, and Suffolk) have instituted BPA bans.²⁷

Federal regulatory action in the United States from 2009 to 2010 U.S. Food and Drug Administration

The FDA is the federal agency responsible for potential regulation of BPA in food and beverage contact applications. In January 2010, the FDA reversed its long-standing position that BPA is safe and issued a statement declaring that the agency had "some concern about the potential effects of BPA on the brain, behavior and prostate gland of fetuses, infants and young children." In this same announcement, the FDA sent a clear signal to industry that it should transition out of BPA can linings when it stated: "FDA will support changes in food can linings and manufacturing to replace BPA or minimize BPA levels where the changes can be accomplished while still protecting food safety and quality." After holding a public comment period in the spring of 2010, the FDA announced its intent to update its recommendations regarding BPA in food and beverage contact applications and is "prepared to take additional action if warranted."

U.S. Environmental Protection Agency

The EPA, which is responsible for evaluating the environmental impact of chemicals, has announced plans to take action on BPA. In March 2010, the EPA announced it will consider adding BPA to its list of chemicals of concern, investigating levels of BPA in surface, ground, and drinking water, and requiring manufacturers to provide test data on BPA's potential impacts.³¹

U.S. Congress

During the 2009-2010 Congressional session, several bills were introduced that would limit or ban BPA from products, including the BPA-Free Kids Act of 2009, the BPA Consumer Information Act of 2009, and the Ban Poisonous Additives Act of 2009.³² Senator Diane Feinstein (D-CA) has pledged to push for a ban on BPA in children's food and drink containers as part of the FDA Food Safety Modernization Act, which is under debate in Congress at the time of this report's publication.³³

While legislation has yet to pass, momentum for federal restrictions on where and how BPA can be used escalates risks for companies not prepared to phase out the chemical.

Global regulatory action

At least three countries are making strides to restrict BPA in certain applications.

- In September 2010, the Canadian government department Environment Canada announced it will soon designate BPA as toxic under Canadian law.³⁴ In June 2009, Canada announced plans to move ahead with proposed regulations to prohibit the advertisement, sale, and importation of BPA-containing polycarbonate plastic baby bottles.³⁵ According to Environment Canada, "bisphenol A [is] considered as a substance that may be entering the environment in a quantity or concentration or under conditions that constitute or may constitute a danger in Canada to human life or health."³⁶
- As of July 1, 2010, Denmark instituted a ban on BPA in bottles, feeding cups, and food-contact materials marketed
 for children three and under. The ban will remain in effect "until new studies document that low doses of bisphenol A
 do not have an impact on development of the nervous system or the behavior of rats."³⁷
- In June 2010, France banned BPA in baby bottles.38
- In June 2010, the German Federal Environment Agency recommended that "manufacturers, importers, and users of Bisphenol A seek to use alternative substances that pose less risk to human health and the environment." ³⁹

International agency response

The World Health Organization will be holding a joint meeting with the United Nations Food and Agriculture Organization in November 2010 to discuss the health implications of BPA and possible substitute materials.⁴⁰

Litigation risk from use of BPA

Companies may face litigation risk associated with the use of BPA in product packaging. While the authors are aware of no lawsuits regarding canned food for adults that have been filed as of the publication of this report, lawsuits related to BPA exposure from other products, including from canned baby formula, have been filed in the U.S.⁴¹

Over 25 lawsuits have been filed against companies that use BPA in their products. Defendants have included baby and sport bottle manufacturers such as Avent America Inc., Playtex Products Inc., and Nalge Nunc International Corp, maker of Nalgene bottles, along with baby formula makers such as Abbot Laboratories and Nestlé USA.⁴² According to court documents, the lawsuits accused the defendants of "violation of state consumer protection statutes, fraud, breach of warranty, unjust enrichment, strict product liability, breach of contract and negligence." Many of the cases, including all of the cases against infant formula makers, have since been dismissed.

Six of the cases against baby formula and bottle makers were filed in California. According to media reports, plaintiffs "allege that each company knew, or should have known, that their BPA-containing products were and are dangerous and could potentially cause injury to children and infants. According to the lawsuits, each company continued to sell, promote, market and distribute infant formula and baby bottles containing BPA with reckless disregard to its risks."

Recent cases of toxic liabilities

Historically, some companies that used toxic chemicals in their products or packaging suffered financial consequences and litigation. As a result, it is important for investors to consider engaging companies that face such potential risks in an effort to protect shareholder value. Examples include:

- In 2007, the company RC2 lost \$17.6 million because of "recalls... consumer product replacement costs and shipping costs... as well as the additional replacement costs or refunds, donations, notice charges, claims administration and legal fees related to the settlement of the class action lawsuits"⁴⁶ after it was discovered that many of its Thomas & Friends™ wooden railway toys were made with paint that contained lead.⁴⁷ The company settled a class action lawsuit for \$30 million in 2008.⁴⁸
- The RAND Institute for Civil Justice reported that since the first asbestos lawsuits were filed in the 1960s through the
 end of 2002, companies paid \$70 billion in response to 730,000 personal injury claims related to asbestos, and that
 by mid-2004 over 70 companies had filed for bankruptcy.⁴⁹
- DuPont has faced multiple high-profile cases associated with its Teflon® products that contain the chemical PFOA (perfluorooctanoic acid). In 2005, DuPont agreed to pay \$10.25 million plus an additional \$6.25 million to settle with the EPA over PFOA contamination charges, which at the time was "the largest civil administrative penalty EPA has ever obtained under any environmental statute." The company also faced 23 class-action suits over its failure to warn consumers about Teflon-related potential health problems, which were dismissed in 2008. The consumers also the consumers about Teflon-related potential health problems.

Findings

Following is an analysis of company responses to our survey requesting information about how each is responding to risks associated with BPA in cans. In limited cases, additional information from company websites and SEC filings was also used. This year's report is primarily focused on company efforts to identify substitutes to BPA and plans to phase out the chemical from packaging (survey questions and grading methodology can be found in Appendix B).

Table 1. SUN	/ΙΜΑ	RY S	SCO	REC	ARD	OF	CO	RPO	RAT	E EI	FFOI	RTS	ΤΟ Ι	ELIN	1IN/	TE I	BPA					
	Hair	Celesti	Agra H.J.	dein ¹	ara Milit	is satis	, Mc	ornick Can	Kelic	Allo Allo	Deaf	Koode Cost	60 E	jn s	Coc	Cola	Monte Wat	Sup	arvalu Unik	Azoci	ger Sate	wal war
ALTERNATIVES	Α	Α	Α	Α	С	D-	D	С	F	D-	С	D-	D	D	D	D-	D-	D-	D-	F	F	F
PHASEOUT	Α	Α	Α	С	Α	Α	Α	С	Α	С	F	С	F	F	F	F	F	F	F	F	F	F
DISCLOSURE	Α	B+	B+	B+	B+	B+	F	C-	F	B+	D+	D+	D+	D+	D	С	D+	D+	F	D+	F	F
GRADE	Α	Α	Α	B+	В	С	С	С	D+	D+	D+	D	D-	D-	F	F	F	F	F	F	F	F

Substitutes exist and companies are beginning to implement them

With continued external pressure from consumers and investors in an uncertain regulatory environment, the results of this year's survey demonstrate companies have increased efforts to identify and test substitutes to BPA in can linings. In fact, a growing number of companies are already using BPA-free can linings.

Substitute can linings on the market today include polyester-based linings, such as thermoplastic polyester coatings⁵² and polyester coatings commonly used in Japan, or oleoresinous (plant oil based) linings such as those used by Eden Foods.⁵³ Some companies, including Hain Celestial and Whole Foods, are exploring other packaging that is BPA-free, such as glass jars or Tetra Pak cartons. Furthermore, as demonstrated by company responses to the survey, there are thousands of tests being done on additional substitutes that could prove successful in the future.

Table 2. SCORECARD O	F CO	RPO	OR/	ATE	EFF	OR	TS 1	ГО Е	ΧP	LOF	RE S	UB	STI	ΓUΤ	E P	ACK	AG	INC	j			
ALTERNATIVES	Hair	Con	Agya,	Heinz	West Nest	is Carr	de la	A No.	Ornick	coci	a Jula	Sara	Tee Muc	e foot	Aonte Norte	Unite	cost cost	co Supr	Kelly	Atoc	ger Sate	Wal Ma
Is the company actively exploring alternatives to BPA for its packaging needs?	Α	Α	Α	Α	Α	Α	Α	Α	Α	Α	Α	Α	Α	Α	Α	Α	Α	Α	F	F	F	F
Has the company entered into a contract with a supplier to test BPA-free can linings for your products?	Α	Α	Α	Α	Α	Α	Α	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F
3. Is the company doing internal testing of BPA-free can linings?	Α	Α	Α	Α	Α	Α	Α	Α	Α	Α	Α	F	F	F	F	F	F	F	F	F	F	F
Which entity funds your company's BPA-free can lining testing process?	Α	Α	Α	Α	Α	Α	Α	Α	Α	F	F	С	С	С	С	С	F	F	F	F	F	F
(Company)	•	•	•	•	•	•	•	•	•													
(Can Supplier) 5. Is the company using alternatives to BPA epoxy resins in any of its cans?	A	A	A	A	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F
GRADE	Α	Α	Α	Α	С	С	С	D	D	D	D	D-	D-	D-	D-	D-	D-	D-	F	F	F	F

Industry Leaders

The clear leaders in this section include H.J. Heinz, Hain Celestial, ConAgra and General Mills, which all received "A" grades for utilizing BPA-free substitute packaging for some products. The next highest grade was a "C," received by Campbell Soup, Nestlé and Dean Foods. Each of these companies demonstrated that it is committed to identifying feasible substitutes, but has not yet begun the process of implementing substitutes to BPA can linings.

Hain Celestial, H.J. Heinz, ConAgra and General Mills are the only companies in the report that are currently using substitute can linings in some products: Hain Celestial and H.J. Heinz are currently using BPA-free can linings in infant food cans, ⁵⁴ ConAgra has "begun packaging some products, specifically tomatoes, in non-BPA lined cans," and General Mills has publicly committed to implement BPA-free can linings in its Muir Glen tomato brand.

Campbell Soup and ConAgra stood out for their transparency on making major investments in the identification of viable substitutes. Campbell Soup has done "several hundred" rounds of testing, with "more than 500 this fiscal year alone." ConAgra has "placed more than 40,000 cans into various test packs across [its] product lines. These packs have represented in excess of 380 different variables, supported by 8 coating suppliers and 4 can suppliers." This transparency and investment in identifying substitutes demonstrates that both companies are actively committed to bringing BPA-free can linings to market.

While the overwhelming majority of companies acknowledged some efforts to explore BPA-free packaging substitutes, only eight companies reported making company-funded investments into investigating these materials. The rest of the respondents either indicated that they are relying on suppliers to fund and test possible substitute can linings or failed to disclose this information. For example, Sara Lee expressed that the lack of control over the supply chain can be challenging: "Since we do not manufacture the epoxy resins, we rely on our suppliers to develop cost-effective useable options that are BPA-free. We do not control the process and work within the suppliers' options and schedule." Even so, given the direct risks posed by BPA to the companies' bottom lines, Green Century and As You Sow believe this reliance on suppliers is inadequate and encourage companies to become directly involved in testing substitutes.

Safety Testing

While Green Century and As You Sow encourage companies to implement BPA-free can linings where possible, it is critical that companies ensure the substitute materials are truly safer. Currently, there is limited information on the substitutes available, and concerns have been raised about additional health problems that could result from chemicals or other ingredients in substitute packaging. For example, oleoresinous linings may use a chemical primer underneath the lining, but key information about that base is not disclosed.⁵⁶

It would be a mistake for a company to introduce a new lining without ensuring that the BPA-free material does not present health problems for consumers. Companies should require detailed safety tests of any new lining, conducted by independent third parties and taking into account the most recent and best science, to be sure that they are not substituting one problem for another, and should improve transparency around available substitutes.

Phasing out BPA remains a challenge, but more companies are committed to take action

As feasible substitutes become available and additional substances are under review for approval, disclosure on timelines for phasing out BPA from packaging becomes a clear indicator of companies' commitments to this effort throughout their supply chains.

Table 3. SCORECARD OF	CO	RPO	ORA	TE (COI	MM	ITN	1EN	TS 1	ΓΟ Ε	ELIN	ΛIN	ATE	ВР	ΑF	ROI	M P	ACI	KAC	SIN	G		
PHASEOUT	Hair	Coles	Agra ,	Hest	ie Sara	Mc	Vell's Vell's	Gene	Carri	obell S	cost Cost	pear Dear	Koods	Cocs	Cola	Monte Visit	JME	Supe	ar Unite	Aroo	er Safei	Walth	art
Does the company plan to phase out BPA in all of its branded can packaging?	Α	Α	Α	Α	Α	Α	Α	Α	Α	Α	Α	F	F	F	F	F	F	F	F	F	F	F	
Has the company identified an estimated timeline for phasing out BPA from packaging, even if multi-stage?	Α	Α	Α	Α	Α	Α	Α	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	
GRADE	Α	Α	Α	Α	Α	Α	Α	С	С	С	С	F	F	F	F	F	F	F	F	F	F	F	

Timelines

Eleven out of the 22 responding companies (Campbell Soup, ConAgra, Costco, General Mills, Hain Celestial, H.J. Heinz, Kellogg, McCormick, Nestlé, Sara Lee, and Whole Foods) reported an intention to phase out BPA from all packaging when effective and feasible substitutes are available. However, only seven of the responding companies (Campbell Soup, ConAgra, Hain Celestial, H.J. Heinz, Kellogg, Nestlé, and Sara Lee) reported having estimated timelines for eliminating BPA from product packaging. Hain Celestial and H.J. Heinz provide the most detailed timelines of the companies surveyed.

Hain Celestial summarized its timeline as follows:

- "Commercialize BPA-free cans for non-acidic products: September 2010
- Commercialize Tetra Pak recart for qualifying existing acidic products: First-half calendar year 2011
- Commercialize acidic products in non-BPA cans: Target calendar year 2011 based on supplier progress through our collaborative efforts."

H.J. Heinz has a "multi-stage target time plan:

- To eliminate BPA from Australian cans within 6 months
- To eliminate BPA from lids within 2 years (no food contact)
- To eliminate BPA from adult cans within 5 years."

While there are certainly challenges in identifying and implementing substitutes, the above timelines demonstrate it is possible for companies to set clear goals, which help ensure that incremental progress is made.

Motivations

Respondents identified multiple motivations for taking steps to eliminate BPA from can linings.

- Consumer concern: Twelve companies (Campbell Soup, ConAgra, General Mills, Hain Celestial, H.J. Heinz, Kellogg, Kraft, Nestlé, PepsiCo, Sara Lee, J.M. Smucker, and Whole Foods) pointed to consumer concern as a driver for transitioning out of BPA.
- **Precautionary principle:** Campbell Soup, ConAgra, Hain Celestial, Sara Lee, and Whole Foods cited the precautionary principle (proactively avoiding risks despite the absence of scientific consensus) as a contributing factor toward the transition to substitutes.
- Reputational concern: Campbell Soup, ConAgra, Hain Celestial, H.J. Heinz, Kellogg, Sara Lee, and Whole Foods are exploring BPA-free can linings in part due to concerns about the possible reputational impact of failing to take action.
- Regulatory changes: Campbell Soup, ConAgra, Hain Celestial, H.J. Heinz, Kellogg, PepsiCo, Sara Lee, and Whole Foods identified possible regulatory changes as a motivation for their move to BPA-free packaging.

Challenges

According to company responses, there are several key hurdles that must be overcome before widespread commercialization of BPA-free can linings.

- Lack of viable substitutes: Sixteen companies (Campbell Soup, Coca-Cola, ConAgra, Dean Foods, Del Monte, General Mills, Hain Celestial, H.J. Heinz, J.M. Smucker, Kellogg, Kraft, Nestlé, PepsiCo, Safeway, Sara Lee, and Whole Foods) cited the difficulty of finding a substitute can lining for all of their canned products.
- Cost constraints: PepsiCo, Sara Lee, and Wal-Mart were the only respondents to identify cost increases as a hindrance in this process.
- **Supply chain difficulties:** Whole Foods and Sara Lee cited their lack of influence over the process because of their relatively small amount of canned product lines and having to work through suppliers to explore BPA-free can linings as challenges to moving more rapidly on BPA.
- Lack of scientific and consumer consensus: Campbell Soup, Unilever, and Wal-Mart highlighted conflicting science or confused consumers as a challenge.

Companies that are transparent with consumers may have a competitive advantage

Given heightened public awareness about the possible health impacts of BPA, it is critical for companies that use BPA to disclose the presence of the chemical in product packaging and how each is addressing the controversy to best mitigate potential reputational and competitive risks. Companies that publicly move toward BPA-free packaging may be recognized as responsible leaders, while other companies that fail to phase it out may find themselves punished by both consumers and investors that do not want to take on the risks associated with the chemical.

Table 4. SCORECARD OF	CO	RPC	ORA	TE.	ΓRA	NS	PAI	REN	CY	ON	BP	A IN	I PA	CK	AG	ING							
DISCLOSURE	Hair	Celest	ie Foot	Gene Yolgs	Nest Nest	sata	, 4.j.	Hein?	Monte	JM S	COS	6 00€	Deaf	Kood	Sup	Atoc Susin	Co _{ct}	a McC	Vell'	July July	Safe	Walne	ķ
Does the company have a publicly- available position on BPA?	Α	Α	Α	Α	Α	Α	Α	Α	Α	С	С	С	С	С	С	С	Α	С	С	С	С	С	
Does the company disclose the actions it is taking to address public concern about BPA?	Α	Α	Α	Α	Α	Α	Α	С	С	С	С	С	С	С	С	С	F	F	F	F	F	F	
Does the company disclose risks related to BPA or other chemicals in its 10-K?	Α	F	F	F	F	F	С	Α	F	С	С	С	F	F	F	F	С	F	F	F	F	F	
Has the company disclosed a public commitment to phase out BPA in places other than this report?	Α	Α	Α	Α	Α	Α	С	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	
GRADE	Α	В+	В+	B+	В+	В+	B+	С	C-	D+	D+	D+	D+	D+	D+	D+	D	F	F	F	F	F	

Financial reporting

The authors found a significant discrepancy in company responses in this section. Some companies, such as Del Monte and Hain Celestial, have recently begun citing regulatory risk from BPA restrictions in their official Securities and Exchange Commission (SEC) filings, demonstrating the materiality of BPA risk. Other companies such as J.M. Smucker, Coca-Cola, PepsiCo, and Costco refer broadly to regulatory risks associated with the presence of chemicals in their products.

According to company survey responses, Campbell Soup and ConAgra may be most exposed to risk associated with BPA in cans. Approximately 50% of Campbell Soup's sales are from canned products, and 24% of ConAgra's sales are from canned foods. However, as of the writing of this report, neither company discloses BPA-related risks in its financial filings. The authors believe these disclosures are critical for the investment community, which utilizes SEC filings to evaluate risk exposure and material issues for the companies in which they invest.

Addressing consumer concerns

The clear leaders in transparency on BPA for the general public are Hain Celestial, H.J. Heinz, General Mills, Sara Lee, and Whole Foods as these companies have publicly-available disclosures on their websites that include information on actions each is taking to address consumer concern about BPA. Examples of leading disclosure include:

- Hain Celestial's 2009 Corporate Social Responsibility Report contains a section stating "[w]e have continued our efforts to remove Bisphenol-A (BPA) from our packaging, as the U.S. Food & Drug Administration and other international agencies continue to research its effects. In March 2009 we converted our infant formula cans to a non-BPA container, and are currently testing non-acidic products including beans in cans that do not contain BPA in their seals. We are partnering with industry packaging leaders to develop and evaluate BPA-free packaging substitutes for all products and will implement when testing is complete and product integrity is assured."
- ConAgra has a section in its 2010 Corporate Responsibility report entitled "Listening to Our Consumers Regarding Bisphenol A," which includes language stating: "In regard to alternatives to BPA coatings, we have begun packaging some products, specifically tomatoes, in non-BPA lined cans, and we will continue to evaluate non-BPA liners for the remainder of our canned-product portfolio."⁵⁷
- Whole Foods published a website listing the company's policy on the chemical, company actions to date addressing BPA, scientific studies (including those demonstrating possible harm), and the current FDA position.⁵⁸

These disclosures provide reassurance that each company is responsive to public concerns and moving ahead to identify solutions despite industry challenges. Furthermore, transparent communication on BPA highlights the growing market for substitute packaging and helps to facilitate a swifter transition.

There is clear progress in the transition to BPA-free can linings

The chart below compares corporate responses to the 2010 survey conducted for this report to company responses to a similar survey for Green Century and As You Sow's initial 2009 edition of *Seeking Safer Packaging* (see list of companies surveyed in Appendix A). This chart clearly illustrates that compared to last year, more companies are exploring substitutes, committed to removing BPA from products, establishing a timeline for the phase out process, and disclosing actions each are taking to address consumer concern. Also of note, the company response rate increased 21% between 2009 and 2010.

Table 5. COMPARING COMPANY RESPONSES IN 2009 AND 2010												
	2010 (% of responders)	2009 (% of responders)										
Exploring substitutes?	82%	79%										
Committed to phasing out BPA?	50%	21%										
Have an internal timeline?	32%	7%										
Disclose company actions to address BPA?	27%	N/A										
Survey response rate	85% (22 out of 26)	70% (14 out of 20)										

Recommendations

More collaboration needed

It is possible that BPA will remain a high-profile issue for consumers and regulators until the packaged food and beverage industries have eliminated the chemical from packaging across the board. While first movers on this issue may gain competitive advantage as consumers respond positively to the phase-out of BPA, this is an industry-wide problem and therefore requires collaborative action from companies, suppliers, and trade associations.

Alignment throughout the supply chain

Food, beverage, and retail companies often rely on suppliers to provide safe packaging. Can and coating manufacturers have expertise working with epoxy linings and, through supply-chain collaboration with chemical manufacturers, are arguably best positioned to develop BPA-free packaging.

The most significant setback currently is the resistance on the part of the major can manufacturers and the conventional food industry to acknowledge a potential problem and push for alternatives; we believe that the unified support and interest of a broader group of industry stakeholders would accelerate the development of viable alternative can linings.

- WHOLE FOODS

When viable alternatives prove safe and effective for other products, we would expect can suppliers and the food industry – in response to consumer interest – to convert to alternative coatings.

- GENERAL MILLS

Can manufacturers such as Ball Corporation and Silgan Containers Corporation and can coating manufacturers such as Valspar Corporation and PPG Industries stand to gain from identifying a viable substitute that meets consumer demand and possible regulatory requirements. There is a significant opportunity for these companies to capitalize on the burgeoning market for BPA-free can linings and an incentive for them to work in collaboration with food, beverage and retail companies to identify and commercialize suitable substitutes.

As additional substitutes emerge that can replace BPA epoxy can linings, further collaboration will be needed to ensure these new packaging options have been tested for safety. The authors encourage industry to create a safety testing

framework that that goes beyond current regulatory requirements and addresses endocrine disruption and

other concerns that have come to light so that companies will be able to avoid substituting one risk for another.

We are members of GMA and NAMPA, and we are actively working from within to encourage a move away from epoxy compounds. Indeed, we have spoken out at... conferences on the subject over the last 5 years.

- H.J. HEINZ

Alignment with trade associations

Trade associations such as the Grocery Manufacturers Association (GMA), the American Beverage Association (ABA), and the North American Metal Packaging Alliance (NAMPA) could help the long-term interests of their membership by supporting legislation or regulations

that encourage innovation and create consistent market signals in favor of BPA-free packaging. According to company survey responses, nearly all of the companies in this report belong to the GMA, several belong to the ABA, and several to the NAMPA.⁵⁹ Yet the ABA, for example, spent \$18.85 million in 2009 on lobbying, including lobbying on, and presumably

against, multiple bills that would protect consumers from BPA exposure. 60

We supported HR 2749, the Food Safety Enhancement Act of 2009, which was passed by the U.S. House of Representatives and included language that would require FDA to continue to pursue studies, seek input from all stakeholders and provide clarity on potential health effects from BPA exposure.

- SUPERVALU

Green Century and As You Sow encourage companies to work within their trade associations to support industry-wide and regulatory solutions to the challenges posed by BPA to all companies with branded canned products.

Action steps for individual companies and shareholders

In light of health studies, consumer demand, regulatory risk and legal liabilities described above, as well as the recent moves by companies to implement BPA-free substitutes, Green Century and As You Sow recommend the following steps for companies striving to be industry leaders in reducing BPA-related risks.

- Companies:
 - Take urgent action to phase out BPA from products where feasible and safe substitutes exist
 - . Commit to eliminating BPA from product packaging as soon as possible and identify a timeline to do so
 - Require that suppliers conduct detailed safety testing that goes beyond current regulatory requirements and disclose information about the substitute linings used
 - Increase company investments in exploring and implementing BPA-free can linings and formally pressure suppliers to do the same
 - Improve public and financial disclosures to address consumer concerns and reassure investors that the company is acting on this issue
 - Press trade associations to take public positions that support independent science and innovative consumer-friendly solutions
 - Support industry-wide efforts to explore substitutes and implement BPA-free packaging
- Shareholders:
 - Ask the companies in which you invest what each is doing about BPA and demonstrate your support for BPA-free packaging
 - Consider filing shareholder resolutions on this issue at laggard companies for the 2011 proxy season

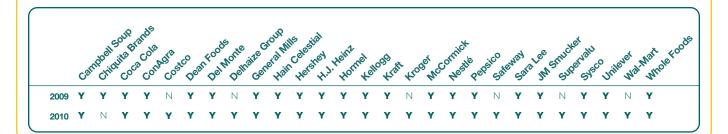
Conclusion

There is clear momentum within the food and beverage industry to transition away from can linings containing BPA. While the scientific consensus regarding BPA's safety remains incomplete, growing consumer and regulatory concern provides substantial motivation for companies to actively explore substitutes to BPA packaging for their canned goods.

There are definitive distinctions between industry leaders and laggards. A handful of industry leaders and innovators are spearheading this transition to BPA-free packaging for canned goods. These companies are sending a strong message to investors that they are looking to stay ahead of the market and gain an edge over competitors. However, some of the largest companies are industry laggards. This report demonstrates that more industry-wide collaboration is needed to move substitutes to BPA into the mainstream.

Given the potential BPA-related risks faced by packaged food and beverage companies and the opportunity to respond to changing consumer preferences, investors should consider engaging with the companies in this report to encourage a transition to BPA-free packaging.

APPENDIX A: Companies surveyed



APPENDIX B: Survey questions and methodology

Each company that responded to our 2010 survey reported using BPA in its food packaging. Green Century and As You Sow evaluated companies on how each is addressing this issue by analyzing eleven indicators in three categories: efforts to explore substitutes, commitment to eliminating BPA from product packaging, and transparency on BPA.

Companies were graded on a grade-point scale of 4. A "4" represents full points awarded and an "A," a "2" represents half-points awarded and a "C," and a "0" represents no points awarded and an "F."

The highest-weighted category on which companies were graded was efforts to explore substitutes (55% of total score). Green Century and As You Sow believe that actively exploring BPA-free packaging by entering into contracts with suppliers to test options, internally testing possible substitutes, funding testing, and implementing BPA-free packaging are significant steps that companies should take to mitigate risks associated with the chemical.

A commitment to eliminate BPA from product packaging once feasible substitutes are available is, in the opinion of Green Century and As You Sow, a best practice for companies that currently sell products packaged in containers with BPA (35% of total score). A timeline for phasing out BPA, even incrementally, demonstrates that a company has dedicated time and resources to evaluating its options and has concrete plans to eliminate the chemical from its packaging.

Disclosure of information to investors and consumers is a keystone of responsible business practices and is critical to demonstrate that a company recognizes the reality of growing consumer and regulatory concern about BPA (10% of total score). Companies were given full credit if their information was publicly-available on websites or in Corporate Social Responsibility reports and given partial credit if the information was only available by request or did not specifically address BPA in packaging.

Table 6. GRADING METHO	DOLOGY			
	WEIGHT	Α	С	F
TRANSPARENCY	10%			
Does the company have a publicly-available position on BPA?	20%	Publicly-available information in website, CSR report, or SEC filings	Information only by request or does not specifically discuss cans	No public information
Does the company disclose the actions it is taking to address public concern about BPA?	50%	Publicly-available information	Information only by request or does not specifically discuss cans	No public information
Does the company disclose risks related to BPA or other chemicals in its 10-K?	10%	BPA discussed specifically	Broad chemical risk identified	Chemical risk not discussed in 10-K
Has the company disclosed a public commitment to phase out BPA in places other than this report?	20%	Yes		No
EXPLORING ALTERNATIVES	55%			
Is the company actively exploring alternatives to BPA for its packaging needs?	15%	Yes		No
Has your company entered into a contract with a supplier to test BPA-free can linings for your products?	25%	Yes		No
Is your company doing internal testing of BPA-free can linings?	10%	Yes		No
Which entity funds your company's BPA-free can lining testing process?	5%	Company is funding testing	Only supplier is funding testing	No testing ongoing or no information given
7. Is the company using alternatives to BPA epoxy resins in any of its cans?	45%	Yes		No
BPA PHASE-OUT	35%			
Does the company plan to phase out BPA in all of its branded can packaging?	50%	Yes		No
Has the company identified an estimated timeline for phasing out BPA from packaging, even if multi-stage?	50%	Yes		No

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