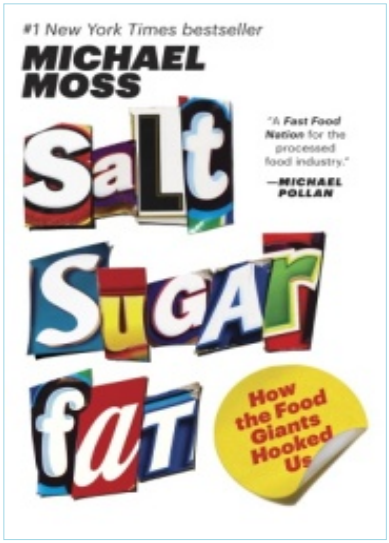
**Book Review**




**Salt Sugar Fat: How the Food Giants Hooked Us**, by Michael Moss; New York: Random House, 2013, 480 pp. $28.00 (hardcover); $16.00 (paperback); $11.99 (eBook); 22.50 (audiobook); $45.00 (CD)

Reviewed by Robert Schwarz

As a "foodie," I am as knowledgeable as I am disdainful of the processed food industry's products. Aside from the exceedingly rare indulgence[1] or the complete lack of another option in a dire hunger situation, I avoid processed foods as being totally devoid of value. Beyond my diet, however, is a more serious concern: processed foods can have direct, negative health impacts on those who choose to consume them. Moreover, from the broader standpoint of sustainable and responsible investing (SRI), these health impacts have negative socio-economic effects on all of society. These types of effects are of particular concern to SRI investors as they consider environmental, social, and corporate governance criteria in the process of making investment decisions that could generate long-term competitive financial returns and positive societal impacts.[2] With the interrelated perspectives of SRI and an appreciation of food in mind, I read *Salt Sugar Fat: How the Food Giants Hooked Us* by Michael Moss.

Mr. Moss, one may recall, is the *New York Times* investigative journalist who won a Pulitzer Prize for his 2009 laudatory work uncovering the "pink slime"[3] fiasco, wherein he

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[1] I find it ironic that many of the food items in which American society indulges are, very often, unhealthy.

[2] SRI is an alternative to the vast majority of other investment strategies, which primarily focus on short-term profits with very limited, if any, consideration for the negative environmental and social impacts produced by the companies in which one is invested.

[3] Mr. Moss did not coin the term pink slime. He discovered its use during the course of his investigative work on beef safety.

exposed the beef industry's unsavory practice of incorporating highly processed beef trimmings into hamburger patties and ground beef in a shameless effort to increase profits. His exposé resulted in the removal of this distasteful additive from these beef products peddled by grocery stores, fast-food chains, and school lunch programs across the United States.

*Salt Sugar Fat* (*SSF*) is in the same vein as the aforementioned series, yet on a grander scale. Moss spent three and a half years writing this 476-page work of diligent and exhaustive research. Divided into three sections, salt, sugar, and fat, Moss's book reveals the business and marketing strategies behind leading processed-food companies through the compelling use of interviews with the executives who crafted them and the managers who implemented them. The author also recounts a host of site visits to processing plants and labs wherein he elucidates the extensive research and development that goes into both devising the stated strategies and manufacturing the food products.

Moss begins by informing readers of an imminent predicament the industry was facing in 1999. He accomplishes this in a striking comparison to big tobacco, a comparison drawn not by him originally but by prescient industry insiders who were looking to bring the burgeoning obesity issue to the attention of the industry's corporate leaders. The ultimate risk to the food-processing industry in ignoring this issue, would, of course, be that it could potentially suffer the same fate as big tobacco did after the public became aware of its deceitful and manipulative practices regarding the use of nicotine and other chemicals in cigarettes. That fate for big tobacco entailed having to pay a US $535 billion settlement and weather other significant associated losses. Given the analogous situation in which the food-processing industry found itself, there was sufficient cause for concern.

Said comparison is delivered via an account of a privately held, unprecedented conference attended by the heads of the major processed-food companies. The primary objectives of the gathering were to (1) explain the industry's connection to the ongoing American obesity epidemic; (2) lay out the immediate and long-term risks associated with continuing business as usual; and (3) outline the opportunities associated with changing tack so as to mitigate the risks without sacrificing long-term profitability.

At the end of the daylong conference, the CEO of General Mills, who at the time was the industry leader in market share and sales, responded. The response, as later paraphrased by the organizer of the event, was "we are not going to screw around with the company jewels here and change the formulations because a bunch of guys in white coats are worried about obesity." This attitude served to justify the industry's unbridled use of salt, sugar, and fat going forward. Always keen to further my understanding of the tactics employed by this powerful and influential industry, I was hooked from this point on.

The formulations referred to in the quotation above are the respective amounts and proportions of salt, sugar, and fat the industry uses to make consumers "crave"[4] their products. Moss thoroughly describes the great lengths an array of talented, expert food scientists, chemists, biologists, bio-psychologists, and others go to in their collaborative and well-funded efforts. These efforts include using advanced statistical analysis, brain imaging, and other sophisticated means to determine scientifically, for example, a product's "bliss-point," optimum "mouth-feel," and other characteristics in order to ensure that its taste is as irresistibly appealing as possible. *Bliss-point*, as the term connotes, is the narrow range of salt, sugar, and fat that is the most pleasurable in a food product. Regarding mouth-feel, specialists at Frito Lay have figured out the most desirable crunchiness of a chip by determining the exact amount of force, in pounds per square inch, consumers prefer to exert when they bite into chips. Determining these product characteristics, of course, virtually eliminates the overuse of raw materials, thus optimizing margins, and serves to keep consumers coming back for more and more.

In addition to describing the technical aspects of processed food production, Moss does an equally fine job of demonstrating marketing strategies used by the industry. These strategies involve another cadre of highly qualified experts who conduct consumer studies and testing, using advanced mathematics to accurately determine whom to target and how best to do so. By employing taste preference and demographic data, the researchers further categorize consumers in terms of detailed consumption frequency and time statistics. These methods enable highly influential product messaging and other marketing tactics to be deployed to great effect. One effect is the gain of mindshare. Mindshare, as the reader learns, is the amount of time a consumer spends thinking about a product or brand. Coca-Cola has mastered this technique by managing to associate Coke, through decades of commercials and other forms of advertising, with the most meaningful and/or enjoyable moments in one's life. Examples of these moments include a father and son enjoying a baseball outing, an athlete winning an Olympic gold medal, or someone proposing marriage.

*SSF* also provides insight into the unethical mindset behind the creation of these types of advertisements. This mindset is put into action in a variety of marketing devices that often exploit consumers' biological and psychological vulnerabilities in order to trigger the desire to buy a product. For instance, a 2008 Kellogg's commercial aimed at mothers claimed that kids who ate Frosted Mini-Wheats improved their classroom attentiveness by nearly 20 percent. Aside from the fact that the study was commissioned and paid for by Kellogg's, 50 percent of the children in the study showed no improvement whatsoever, and only 1 in 7 showed an increase of 18 percent or more. Similarly, a former Coca-Cola

[4] Which is not to say become addicted. This term, in all forms, is avoided in the industry as it draws comparisons to drug abuse.

executive who ended up retiring early, partly due to his moral qualms regarding entering emerging markets, bluntly stated Coke's overall strategy as one "… [to] drive more ounces into more bodies more often." And, on keeping an industry-wide promise not to market to children under the age of 12, "teenagers became the battleground for early brand adoption." Then, "magically, when they would turn twelve, we'd suddenly attack them like a bunch of wolves."

*SSF* proceeds in a similar manner through each section by detailing the means by which the industry has engineered and marketed its products, using the vast intellectual, capital, and political resources at its disposal. Analogous to the means by which the industry entices consumers with its products, Moss's easy yet informative style facilitates the consumption of considerable amounts of business and science subject matter for the lay reader. He writes interesting vignettes and case-study-like scenarios, thus rendering his work very enjoyable and thought provoking. Moreover, although *SSF* is very much an indictment of the industry, Moss maintains a fair degree of objectivity regarding his research findings by letting the quotations obtained from corporate executives and management and the descriptions of events speak for themselves, thereby empowering readers to reach their own conclusions.

This information would have been as pleasurable as it was fascinating, to a sustainability-minded foodie at least, if it were not for the fact that all the testing, experimentation, and analyses are done in an effort to knowingly manipulate consumers into buying and consuming unhealthy foods and to increase corporate profits. Granted, the industry cannot be held totally responsible for the related socio-economic costs of their efforts, such as the 33 percent of adults and 20 percent of youths who are clinically obese in America. Nor is it totally accountable for the estimated annual cost of $300 billion in added medical expenses and lost productivity that result from this condition and the diseases it causes. What the industry can be held accountable for, however, is its concerted efforts to manipulate levels of salt, sugar, and fat in a single serving too close to the respective recommended daily allowance and, in some cases, beyond these levels in order to drive sales and maximize profits.

The industry's twofold response to this charge has typically been along the lines of *we are simply supplying market demand* and *ingredients are stated on labels,* that is, respectively, *we are giving consumers what they want and we are not hiding anything.* Although essentially true, this response does not acknowledge these key points:

1. The industry has engineered the demand it references.
2. In so doing, its members have largely eliminated consumers' abilities to choose nutritious foods.
3. Labels can be very deceiving and confusing.

4. Despite being well aware of the negative health effects of the extensive consumption of salt, sugar, and fat, they have done little, if anything, to curb the use of these ingredients in their products.
5. They could easily develop healthier alternatives.

Broadly speaking, the element of choice and the information at one's disposal to make choices, for consumers, producers, and regulators alike, complicates these issues, and thus limits the industry's potential ultimate liability. An example of one such factor[5] is Moss's estimation of the role of the USDA and the FDA in regulating what Americans eat as "less a matter of regulation than it is promotion of some of the industry practices deemed most threatening to the health of consumers"; that is, consumers are getting mixed signals from competing parties, both of whom claim to have consumers' best interest in mind.

The point of knowing deceit, however, which recalls the earlier analogy to the tobacco industry, is key as it demonstrates a clear governance issue. Although not written with the intention of evaluating the industry from a sustainable and responsible investing (SRI) perspective, *SSF* does provide evidence of endemic ethical lapses and lack of accountability. In addition to those previously cited in the description of the industry's manufacture and marketing practices, Moss further demonstrates this disconnect within the industry by way of interviewees' position on processed foods as having a negative value. Examples include the scientist who formulated Dr. Pepper and does not drink soda because "it's not good for your teeth"; the Frito-Lay executive whom Moss visited and who had virtually no processed foods in his home; and finally, the scientist who regretfully remarked, "I feel sorry for the public."

The revelations *SSF* brings to the fore regarding the link between the food-processing industry's manipulation of salt, sugar, and fat and the increase in obesity rates also highlight clear and present long-term investment risks that do not offer a commensurate reward. These risks extend from investment portfolios to society at large, since they carry significant short- and long-term negative health and economic consequences as previously evidenced. Therefore, SRI investors may do well to review their holdings for the presence of processed food companies.

The justification for said review, simply put, is the prospect of declining sales and profits that could result from consumer backlash against an industry too focused on profits to make the changes necessary to eliminate the health risks their products pose. On top of that risk is the threat of processed foods being regulated or phased out of diets in one way or another. Even if not carried out on the scale suffered by big tobacco, there are

[5] Two other important factors, a full discussion of which is beyond the scope of this review, are individual biology and psychology.

considerable forces at work toward similar ends. For instance, at the federal level, First Lady Michelle Obama has made childhood obesity her cause. She has successfully lobbied food companies to remove hundreds of billions of sugar and fat calories from their products as well as to restrict their use of salt. At a municipal level, a decision from the New York Court of Appeals is due in 2014 regarding former New York City Mayor Michael Bloomberg's proposed ban on sugary drinks. At an organizational level, Kaiser Permanente eliminated the sale of soft drinks and fried french-fries organization-wide.

Reputational risk is another consideration. Institutional investors, in particular, can add this risk to those aforementioned, since activist and concerned share- and stakeholders will not abide by investments in companies whose products inherently contribute to the detriment of society. Furthermore, if institutional investors were to sell off processed-food-industry stocks, stock devaluations could result, which could negatively affect other investors.

With these risks in mind, but without either taking on the merits and demerits of divestiture or advocating for such a measure, a case can easily be made for screening[6] food-processing-industry equities from one's portfolio. For, just as one may view profiting from the manufacture or sale of products such as alcohol, firearms, pornography, or tobacco as inherently detrimental to society, and therefore an unacceptable investment, one may also conclude that there is little, if any, well-founded evidence of processed foods doing anything but financial, social, and environmental harm.[7]

Some may fault Moss for not offering any solutions to the issues he has identified so clearly, despite his being privy to inside information and having spent three and a half years thinking about the subject. One could surely assert that he must be in a position to offer some ideas on how best to address the issues. Nevertheless, I will refrain from criticizing Moss for the absence of any substantive recommendations or solutions to the issues. The reasons are that the issues are complex and complicated and Moss is an investigative journalist, not a management consultant, biologist, psychologist, lawyer, lawmaker, or any of the other professionals who would be needed to help formulate a solution. His self-assumed charge is to uncover the issues, not solve them.

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[6] Screening is the active exclusion of an investment from one's portfolio based on one's morals, ethics, and/or values.

[7] There is no discussion of environmental harm in SSF. The industry does, however, rely on monoculture farming, particularly for the cultivation of GMO corn, from which high-fructose corn syrup, i.e. sugar, is derived. This farming method uses vast quantities of fossil-fuel-based fertilizers, the production of which contribute to climate change. Monoculture farming also destroys soil, reduces bio-diversity, and is water-intensive. In addition, food processing itself can be very energy and water intensive.

Moss hopes *SSF* will serve as "a wake-up call for the processed food industry, and at the same time… "[provide] a powerful tool in learning to shop and eat more healthily." At this he certainly succeeds; and read from the perspective of an investor seeking to integrate ESG criteria into food-processing equities, *SSF* takes on an additional degree of utility and importance. Sadly, it is doubtful *SSF* will have as immediate and wide-ranging an effect as the pink slime investigation did, which is unfortunate given the ubiquity, accessibility, and mass consumption of processed foods in the United States.

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