

## THE GREEN AND THE BLACK

By Gary Sernovitz

## THE DOMINO EFFECT

By E. Russell Braziel

Reviewed by William A. Mogel\*

We are in the midst of a sea change in our energy markets. No longer is “Energy Independence” for the United States an unreachable goal, in large part due to the development of shale oil and natural gas. Gary Sernovitz and Russell Braziel tell this story. According to these two authors, the “Shale Revolution” creates great opportunities, as well as challenges for all involved in energy markets, including producers, pipelines, consumers, governmental entities and environmentalists.

The books are very different in scope and tone. Mr. Sernovitz, an investor and part-time novelist, has produced a collection of essays which meander between oil, gas, and financial industries, tied together by the discussion of fracking.<sup>1</sup> Mr. Braziel’s more disciplined book<sup>2</sup> reflects his long standing experience not only with fracking but with the interrelationship of natural gas, crude oil, and natural gas liquids markets.<sup>3</sup> *The Domino Effect* is an encyclopedic discussion of both domestic and international energy markets, and it provides useful definitions/explanations of numerous energy terms.<sup>4</sup> It promises “a critical examination of the responses of those [energy] markets since the advent of the shale revolution, a framework for understanding what happens next, and an explanation of how shale will continue to drive the energy industry in the coming decades in the United States and throughout the world.”<sup>5</sup>

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1. *The Green and the Black* also briefly discusses international politics, climate change, liquefied natural gas, electric power, coal, methane leaks, and the *Gasland* movie. See also Gary Sernovitz, *Trimming Oil Output Won't Keep OPEC States Afloat*, THE WALL STREET JOURNAL (Oct. 18, 2016).

2. This reviewer notes that he has consulted with Russell Braziel over the course of many years.

3. An example of the shifting emphasis in production illustrated by Mr. Braziel’s book was recently the subject of a piece in *The Wall Street Journal*, highlighting of the move of a major oil company away from developing massive offshore projects in favor of onshore shale drilling. Bradley Olson & Sarah Kent, *Oil Giants Renew Push Into Fracking*, THE WALL STREET JOURNAL at A1 (Aug. 17, 2016).

4. The terms include: DBH (drill bit hydrocarbons), natural gasoline, tight oil and gas, upstream, and light natural gas liquids.

5. RUSSELL BRAZIEL, *THE DOMINO EFFECT* (1st ed. 2016).

*The Green and the Black*'s focus is on fracking – “a testament to American engineering, pluck and the refusal to give up.”<sup>6</sup> Mr. Sernovitz, a vigorous advocate for entrepreneurship, observes that “oil and gas companies are producing the basic energy without which contemporary life in the developed world is unimaginable. And more and more people . . . want that sort of life.”<sup>7</sup>

*The Green and the Black* asserts “energy touches everything.”<sup>8</sup> *The Domino Effect* covers much of the same ground but in a dispassionate, chronological review that includes the beginning, present and future of the several energy industries. In a similar vein Mr. Sernovits dismisses environmental detractors, asserting that “[i]f the oil industry allows environmentalist sentimental self-righteous calls for less energy, and less consumption, billions of people will be worse off.”<sup>9</sup>

*The Green and the Black* then offers an extraordinary observation about the economics of fracking. It argues that the shale boom was attributable to three factors: engineering, gossip and money. Mr. Sernovits concludes that in the mid-2000s, “America was flush with money [causing] free market theorists to weep from joy.”<sup>10</sup>

Mr. Braziel comments on the disruption caused by the exploitation of these new resources:

The shale revolution has run roughshod over U.S. energy markets, transforming an era characterized by shortage into one of abundance.

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The shale revolution has unleashed forces that not only disrupt and realign energy markets but that have dramatic political, economic, and national defense implications. To say that these developments have been a surprise is the . . . understatement of the twenty-first century.

*The Green and the Black* provides a brief description of the traditional exploration and production business, observing that the business had been focused on fields that “weren’t easy” because of inconvenient locations, small pools, and complicated geology.<sup>11</sup> Mr. Sernovitz notes that prior to the Shale Revolution, the industry’s innovations in the 1990s were primarily deepwater drilling, and three dimensional seismic surveying. *The Green and the Black* describes the origins of the fracking process, and the use of dynamite for “well stimulation.”<sup>12</sup> Mr. Sernovitz contrasts today’s environment with the now-dated theory of “peak oil,”

6. GARY SERNOVITZ, *THE GREEN AND THE BLACK* (1st ed. 2016). Green refers to environmentalists, while black is the author’s label for the energy industry.

7. In its recent review of *The Green and the Black*, *The Wall Street Journal* concluded: “This book is ultimately a call for us to trust our native spirit of enterprise: The very ingenuity that led to America’s shale boom will allow us to meet the challenges that it has thrown up.” Delves Broughton, *The Shale Revolutionaries*, *THE WALL STREET JOURNAL* at A9 (Mar. 18, 2016).

8. *The Domino Effect* states: “Energy markets are big. . . Energy starts wars, shapes geopolitics, and shifts trillions of dollars in wealth from energy have-nots . . . to the energy haves . . . The average U.S. resident spends almost a quarter of . . . after tax income on energy.” Braziel, *supra* note 5.

9. Sernovitz, *supra* note 6.

10. *Id.*

11. *Id.*

12. *The Green and the Black* offers a paean to George Mitchell, the determined proponent of horizontal drilling, “who is destined to become the Henry Ford of shales” and to Aubrey McClendon of Chesapeake Energy, as “the Steve Jobs of the shale revolution, the visionary who brought it all together.” Sernovitz, *supra* note 6.

once holding that “No matter what you did, no matter how many enhanced oil recovery techniques you tried, you couldn’t increase oil production [beyond the mid-2000s].”<sup>13</sup>

*The Green and the Black* acknowledges there are adverse impacts from fracking—such as low energy return on investment, and water contamination which raise significant concerns for local communities.<sup>14</sup> “[F]racking was no longer about fracking. It had come to [be] a figure of speech. . . for the entire drilling and completion process and the shale revolution itself.”<sup>15</sup>

Pointing out that many countries have banned fracking, *The Green and the Black* is dismissive of environmental concern, commenting that France took that action because “it’s France.”<sup>16</sup> *The Domino Effect* provides a better explanation of why shale development in other countries is proceeding very slowly. It is because mineral rights in the United States generally are owned by private entities whereas in foreign countries the ownership is with the State.<sup>17</sup>

In contrast to *The Green and the Black*’s breezy style, Mr. Braziel provides a comprehensive education for readers on energy markets, replete with charts and graphics. However, the most intriguing aspect of *The Domino Effect* is Mr. Braziel’s unique thesis of the sixteen dominos affecting energy markets. He explains:

Each of these dominos was a major market event . . . shifting billions of dollars out of the pockets of those on the wrong side of the energy markets—like coal companies—to those on the right side—like chemical companies. For those following individual markets . . . such as . . . natural gas NGLs, crude oil, coal or petrochemicals, it may have seemed as though some of these events came out of the blue, each creating significant, unanticipated economic shifts. Not so, when looked at as a chain of mutually interdependent events, it becomes clear that these shifts were not only understandable, but also predictable.

As to the future, *The Domino Effect* confidently concludes that we are in the very early years of the shale revolution, and that developmental focus on the United States will change.

*The Green and the Black*’s major shortcoming is that it can’t be relied on as a research source. Also, its frequent attempts at inventing catchy phrases, such as calling the actor Mark Ruffalo, “the Clooney of the Catskills” or likening oil and gas to Homer Simpson’s observation that alcohol is “the cause and the solution to all of life’s problems” detract from the seriousness of its story.<sup>18</sup>

13. In a review of *The Oracle of Oil*, the biography of Marion King Hubbert, the father of the theory of “peak oil,” *The Wall Street Journal* notes: His peak oil prediction was accurate in the near term, but over the longer span it was wildly wrong . . . the technologies of the shale revolution have blurred the distinction between conventional and unconventional hydrocarbons and reversed the decline in U.S. oil and gas production that Hubbert insisted was terminal. Mason Inma, *Ignoring the Shale Revolution*, THE WALL STREET JOURNAL at A11 (Apr. 26, 2016).

14. Oklahoma and Kansas have suffered earthquakes initially thought to be caused by fracking. Studies have revealed: “The general cause. . . is not drilling but what happens after, when operators dispose of wastewater. The operators inject the wastewater into disposal wells that go thousands of feet underground, which can increase fluid pressures and sometimes cause faults to move.” Jen Fifield, *States’ Efforts to Curb Fracking-Related Earthquakes Seem to be Working*, THE WASHINGTON POST at E6 (Aug. 16, 2016).

15. *Sernovits*, *supra* note 6.

16. *Id.*

17. *Braziel*, *supra* note 5.

18. *Sernovits*, *supra* note 6.

In contrast, *The Domino Effect* is a comprehensive, organized and timely discussion of not only the shale revolution but more generally of the natural gas, crude oil, and natural gas liquids industries. It ends on an optimistic note:

This time around, it is quite possible a market of abundance may be around for quite some time. That is a whole new world for everyone involved in the energy business. Success in navigating abundant energy markets will be far more dependent on the ability to think creatively and imaginatively than on relying on past experience from those bygone days of shortage.<sup>19</sup>

My enthusiasm for *The Domino Effect* is tempered by two nits—only four sentences are devoted to environmental issues, and the distraction of continuously using “dominos” to explain the author’s thesis. However, *The Domino Effect* is an encyclopedia of energy markets—past, current, and future—should be read by all those in the energy industries.

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19. As to the future, *The Green and the Black* states: “[F]inancial success from the shale revolution will be much harder to come by . . . The late autumn’s orchard has fewer apples to pick.” *Id.*