

Capital and the Common Good

Georgia Levenson Keohane

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Georgia Levinson Keohane's *Capital and the Common Good* is an excellent survey of recent developments in "innovative finance," and a text that provides important foundational research for scholars seeking to explore the integration of ethics and economics in the realm of finance. Her work surveys examples of situations where the invisible hand fails, so that economists, governments, and private firms need to deploy "a creative and 'visible' hand—that corrects the market failure and provides for the public good" (2). Keohane's examples of innovative finance are best interpreted as responses to market failures arising from the belief that because "markets are constructs, shaped by laws and customs" (3), market failure can be fixed. Keohane's five chapters treat the application of innovative finance to environmental issues and natural resource management, healthcare markets, capital markets, risk and disaster insurance markets, and domestic markets in the United States, respectively.

The book is filled with concrete examples of innovative finance in response to market failure. For example, in her treatment of the "new disaster finance," Keohane explores the African Risk Capacity (ARC), a subset of the African Union (AU) that is designed to address the market failure of moral hazard (124–29). In a global economic system where natural disasters are often met with relief funds from the international donor community, local governments are tempted to not invest their own resources in disaster management but instead to rely on help from international organizations and NGOs. This situation makes organizations such as the World Food Program essentially a global insurer against drought and famine. Thus, economists were able to develop an innovative solution to moral hazard by introducing pooled portfolio risk into the AU. Using modern weather data to model risk, ARC diversifies weather risk across the African continent and allows countries to purchase drought insurance at a much cheaper rate than would be possible without pooling. Participation in ARC also requires that countries implement rapid response measurements that allow for "early warnings, early payouts, and early interventions" that save both lives and money (127). By 2020, the Extreme Climate Facility will securitize the entire process by offering climate change catastrophe bonds. African Risk Capacity is thus a case of innovative finance as it tackles global issues, like famine, through creative applications of financial theory to tackle market failures—a benevolent visible hand.

Keohane surveys a number of other responses to other market failures, both formal failures addressed in economic theory and more informal failures recognizable to the general public. So, for example, in the United States the Earned Income Tax Credit (EITC) is an effort to offer refunds above owed amounts in taxes for the poorest working families. This program faces the market failure of information asymmetry: those families that most need programs like EITC may not know that such programs exist. Therefore, innovative financial institutions such as Single Stop USA have worked to connect over one million households with government services where each dollar spent by clients results in an

average of twenty dollars in benefits received (160). Keohane discusses “market shapers” such as prizes and challenges used to spark innovation in developing products in markets that companies, investors, or individual researchers might otherwise neglect because they concern nonexcludable public goods (68). Microfinance efforts in the developing world attempt to overcome high transaction costs (chap. 3), and earmarked microlevies—small taxes designed not to deter demand—placed on natural resources sales may ensure that resource-rich nations with corrupt governments may still receive some benefit from natural resources extracted by foreign firms (61).

As she surveys innovative approaches to finance, Keohane emphasizes the “TIES that bind” by exploring issues of time, incentives, execution, and success. One of the major successes of innovative finance is that it allows us to leverage future savings that arise from early interventions to pay for such interventions now (181–82). Innovative finance ultimately attempts to develop incentives that drive investors, firms, governments, and organizations to act in ways that benefit society long term (183). Keohane particularly emphasizes pay-for-success programs in financial instruments such as social-impact bonds that only pay out to the holder in the event that the program produces measurable results from the money sponsored (163–65). The execution of new financial programs often requires both “human interaction” rooted in trust and technological advancements such as pay-as-you-go mobile banking (189–90). Finally, the success of innovative finance is often plagued by what Keohane calls the quantity versus quality dilemma: when such instruments are successful and yield a profit, an increase in the supply of such funds may undercut the success of the instrument by targeting beneficiaries that are neither economically nor socially ideal (191). In essence, we must be wary of innovative finance bubbles.

Keohane’s work should be of interest to those who explore the intersection of finance and ethics, but her work is largely descriptive and rarely normative—she offers little in the way of guidance as to how such innovative financial instruments and organizations should be used. Nevertheless, the book’s material offers ample fodder for the discussion of economic ethics and the theology of economics. Considering how subsidiarity applies to the examples surveyed is potentially fruitful. Keohane is quick to argue that deploying a visible hand “does not necessarily mean direct government regulation or intervention” (3), and she provides examples of community-driven innovative finance such as catch-share policies for fishing communities (33). However, the work as a whole tends toward solutions rooted in organizations such as the World Bank and the World Health Organization, or in direct government intervention, often in the form of “public-private partnerships” (193). Christian economic ethics can offer a more thorough analysis of when innovative finance should be deployed on local levels and when such national and international agents are required for success. Similarly, where Keohane addresses how noted economists such as Muhammad Yunus claim that “the profit motive ... necessarily compromises the integrity of microcredit” (a textbook example of the quantity versus quality problem), the theology of economics can offer insights into how such motives and desires can be disciplined and restrained to help overcome the negative results of sacrificing quality for quantity and profits. On the other hand, theologians who are often prone to denounce capitalism in its

entirety will benefit from the numerous examples that Keohane provides to show how the market mechanism can result in more just or more benevolent outcomes with only small interventions to overcome market failures. Here Keohane shows that the right sort of capitalism can be deployed to ethical ends.

Filled with clear examples and case studies, *Capital and the Common Good* is a superior introduction to the world of innovative finance. Keohane's attention to technology and financial theory balanced with a summary of challenges that each strategy faces results in a well-rounded treatment of the subject. It offers much for theologians, ethicists, and economists to consider.

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Weapons of Math Destruction: How Big Data Increases Inequality and Threatens Democracy

Cathy O'Neil

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Weapons of Math Destruction exposes the tremendous power that data, the analytics of data, and the use of analytics yield over many aspects of our lives. Building on the shocking title, the author creatively uses the imagery of bombs, weapons, and war to organize the book and emphasize the real dangers of data analytics in our world.

The book begins with a chapter titled, "Bomb Parts," in which O'Neil describes the three measures she uses throughout the book to evaluate whether a data analytical system is a Weapon of Math Destruction (thematically abbreviated WMD) or is instead "benign." First, the more *opacity* a model has within it, the more dangerous it is. O'Neil considers *opacity* to be the level of transparency within the algorithm to those using it and affected by it as well as how accurately the statistics used in the analysis actually represent the desired outcome. Second, the larger the *scale* of the utilization and thus impact of the model, the more dangerous it is, simply because it affects more people. In addition, scale also includes the expanded applications of the model beyond its initial purpose. Third, the more *damage* a model has caused or has the potential to cause increases the likelihood of its diagnosis as a WMD. Within the analysis of the *damage* caused, O'Neil considers who exactly is hurt by the model and especially weighs the impact on vulnerable populations such as the poor or minorities. These three measures are best understood when operationalized in the dozens of examples presented in the subsequent chapters, of which we will explore several to get the gist of the dangers.

The sport of baseball is filled with statistics, statisticians, and sophisticated analyses that drive decisions in nearly every aspect of the sport. Baseball teams today rely heavily on these analyses to determine which players to draft, to retain, and to trade; where to position their defenses against various batters; which pitcher to start or bring in depending on the game, inning, upcoming batters, and so forth; and countless other decisions.