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Seth C. Oranburg
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Introduction

The end is nigh for financial regulation. The financial revolution will not be televised; rather, it will be liked, shared, tweeted, and direct messaged. Data technology, such as "apps" for cellular phones, may prove to be as transformative for investing as the telegraph or even the Internet. But few people understand how these technologies impact investing. This book explores the legal dynamics and ramifications of financial regulations in the digital age and offers readers a detailed, but digestible, account of corporate finance history. It pairs lively narrative with brief applications of economic theory. This provides readers with the historical context and theoretical framework needed to understand the true nature of finance today – and where finance is trending.

This book focuses on the impact of technology on investing in regulated markets. It identifies how legal regulation is lagging behind technology, leaving ordinary investors and main street entrepreneurs without safe and profitable financial options. The current regulatory apparatus is vastly expensive and causes huge wealth disparities. Instead of providing for a land of equal financial opportunity, the system protects entrenched interests at the expense of newcomers. These problems demand that scholars and policymakers study our distended financial regulatory system and work to reform it.

Our story of U.S. corporate finance unfolds in three eras. The first era began with the ratification of the Constitution in the 1790s and ended with the Great Depression in the 1930s. The second era began with the Securities Act of 1933 and ended with the Great Recession of 2007–2008. The third era began with the emergence of Bitcoin in 2008 and continues to this day. We are living in the third era of corporate finance.

With this timeline in mind, we can see qualities that are particular to each of these eras. The first era is characterized by unbridled capitalism, rugged individualism, and western expansion. In the first era, there were many financial markets across the young nation, but they were relatively disconnected. Then, technological advances, including the railway and the telegraph, inexorably intertwined the nation of states into an economic union. By the time that the last continental territory, Arizona, was

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admitted as a state on February 14, 1912, a vast network of roads, rail, telephone lines, and power grids knit the United States together as a single economic entity. Unfortunately, that interconnectedness also meant that any financial crisis would be of national proportions.

The second era was characterized by a centralized command-and-control approach to securities regulation. This began when this nation fell into the Great Depression, which provided the impetus for sweeping political and economic change. This international economic crisis created political instability across the globe. Americans looked to Uncle Sam for help in this desperate time as socialism and communism swept across Europe. The U.S. federal government responded by dramatically increasing in size and scope. President Franklin Delano Roosevelt created a plethora of new federal agencies, including the Securities and Exchange Commission (the SEC). To pay for this growing federal bureaucracy, the maximum federal income tax was increased from about 3 percent in 1932 to over 50 percent by 1944.

As Washington, DC, increasingly became America's political center, New York City increasingly became the locus of financial activity in the United States. Yet amid this period of centralization and consolidation, an intrepid group of risk-seekers began developing its own self-regulated band of venture capital investing – an investors' club limited to the affluent. The New York Stock Exchange rose in the East as Silicon Valley rose in the West. Meanwhile the middle of America did reasonably well. For a time, corporate profits seemed to flow to a rising middle class. But by the 1990s, investment had changed. Most public stock were owned by large firms, not people. The dot-com era was the last hurrah for public stock markets. After its excesses crashed in Y2K, regulators once again tightened the screws on domestic stock markets.

In the third era, however, geographic limitations fall away as the Internet increasingly makes financial markets ubiquitous and accessible to all. Rising social consciousness about wealth inequality and popular notions of Startup Nation and Silicon Valley have brought about a renewed interest in democratizing entrepreneurship and investment, while a growing distrust of federal regulators and centralized banks has brought "cypherpunk" culture – which combines cryptography and anarchy – into the mainstream. Now, anyone can participate in exotic, unregulated financial products, like cryptocurrencies, initial coin offerings, and decentralized autonomous organizations. The recent rise of "metaverses," which are persistent online worlds that have their own societies and economies, is further hastening the demise of any efforts to centrally control finance.

In our third era, financial law has fallen far behind financial technology. Federal laws that regulated communications about investment opportunities that were drafted during the Great Depression no longer make sense in the digital age. For example, the legislative history of the Securities Act prohibits fraudulent advertising, but these concepts do not easily map onto a social media world where "influencers"

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promote companies through "buzz" and "likes." Further, new technologies allow us to write self-enforcing contracts that eliminate the need for courts of law and lawyers. Judges continuously and emphatically struggle to fit the square peg of modern communication into the round hole of traditional advertising and business practices.

How do we further the dual goals of regulation – encouraging the generation of capital while protecting investors? What legal regime would fit with the flexible and varied nature of investment and in the Third Era economy? How do we balance the benefits of less regulation with the potential costs of fraud and corruption? Is there an efficient amount of regulation, and, if so, how do we calculate it?

By studying the history, theory, and reality of corporate finance, this book finds that, in general, the costs associated with overregulation are vastly underestimated. But the solution is not random deregulation. While reverting to an era of deregulation may seem appealing, the truth is, some regulations are more necessary than others. The question becomes, which regulations should be increased, and which should be diminished?

When this question is presented to regulators and policy makers, history shows that very wealthy investors and long-established companies have an oversized impact on the regulatory process. The result are financial policies that perpetuate and even increase wealth inequalities, without preventing financial crises that are devastating for ordinary investors and small businesses. This untenable problem causes Americans to lose faith in capitalism – even if our current system is really bureaucratic cronyism masquerading as free-market capitalism. The solution requires a reevaluation of financial technology and its regulation.

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The First Era

The Wild West

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1

Under a Buttonwood Tree

In 1792, a handful of would-be stock traders gathered underneath a buttonwood tree on Wall Street in New York City. They signed an agreement, known as the Buttonwood Agreement, that would one day grow into the New York Stock Exchange, which is by far the world's largest stock exchange today. But, in those days, information travelled slowly, so markets were regional. The federal government was small, and it lacked the resources to police financial practices in the vast and growing new nation. Citizens were mainly left to fend for themselves. In this Wild West of rugged individualism, expansion, and industrialization, many stock markets came and went. Small and often shady operations, known pejoratively as bucket shops, let people bet on stock prices without actually selling the stock itself.

> It might be demonstrated that the most productive system of finance will always be the least burdensome.
>
> – *Alexander Hamilton, Federalist Paper No. 35*

Most students of American history know that our Constitution is based on a strong belief in protecting personal liberty. Indeed, the original Thirteen Colonies that formed the United States of America declared their independence from England on July 4, 1776, to secure their inalienable rights to "Life, Liberty, and the pursuit of Happiness." Capitalism is a form of personal economic liberty, and the Constitution contemplates a capitalist society. To protect capitalism from social control by the states, the commerce clause was ensconced in the Constitution.

But the wealthy, landowning Founders surely thought differently about capitalism and corporations than we do today. In early America, corporations could only be organized by introducing a private bill in the state legislature, which needed to be passed and signed into law by the governor. Accordingly, there were only six for-profit incorporations in colonial America by 1789. Indeed, the lucky few who successfully lobbied the legislature to grant a corporate charter received an effective monopoly. For this reason, early corporate charters were also known as "patents." Today, a patent refers to the exclusive right granted by a sovereign state to commercialize a certain product or to employ a certain process. In colonial days, obtaining

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the state's permission to create a corporation was tantamount to an exclusive right to conduct that line of business under the corporate form.

THE NATURE OF CORPORATIONS

Modern corporations can be freely formed by filing some simple forms. But why do people form corporations? And why do governments permit it? The answer to this fundamental question requires a little discussion on the nature of the corporate form. The following sections provide a brief review of key corporate concepts.

CORPORATE LIMITED LIABILITY

Corporations are entities that exist separately from the people who form them and the governments who charter them. Some have even gone so far as to say that corporations are people, but that is not precisely true. However, corporations do have certain rights of their own, rights which are not derived from the individual rights of their progenitors. Corporations may own property and even have limited rights to free speech. And, since they have an existence that is separate and independent from any particular human being, they can effectively exist forever. These characteristics make corporations powerful vehicles for the agglomeration of great wealth. As states increasingly allowed individuals to form corporations at will, the corporate form drove economic development in early America.

The key reason people choose to concentrate wealth in corporations is because investors in corporations cannot lose more money than they invest. This is a concept called limited liability, and it does not exist when a person pursues a trade without a corporate form. For example, imagine that Bob, a builder, spends $200 in materials to build a storage shed for Carry, who pays Bob $300 for his work and materials. Now Bob has an additional $100 thanks to his work. But what if the shed collapses due to a defect in Bob's work, destroying Carry's goods stored there, worth $500? Carry can sue Bob for $300 to rebuild the shed plus $500 to replace the goods. Bob is now $700 worse off than before he started because he has unlimited liability for injuries caused by his work.

What if Bob formed a corporation instead? Imagine that Bob invests $200 in Bob Corp., and Bob Corp. spends $200 in materials and pays Bob $100 in salary to build a shed for Carry. Bob receives the same $100 that he would have received if he did the work for Carry directly, but the result for Carry is quite different. When the shed collapses, Carry sues Bob Corp. for $800, but, after paying for materials and Bob's salary, Bob Corp. is broke. Carry cannot recover anything from Bob Corp., and Bob is not personally liable for the injuries caused by Bob Corp. Carry cannot recover from Bob for the injuries caused by Bob Corp. because Bob, an investor, has limited liability.

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If this result seems unfair, consider a third scenario where Irina, who is not at all involved in the operations of Bob Corp. and knows nothing about building sheds, invests $200 in Bob Corp. Should Irina be personally liable for Bob's shoddy work? What if Carry's shed is destroyed by a foreseeable natural disaster, like a heavy snowfall in Boston in February, or an unforeseeable event, like an earthquake in Washington, DC? If you are still not sure, take this hypothetical to its extreme example: suppose 20,000 people each invest $0.01 in Bob Corp. Should all 20,000 of those investors be personally liable to Carry for her $800 claim?

This simple example highlights several fundamental issues with corporations that will run throughout this book. First, limited liability is necessary to attract outside investors to a business enterprise. If investing $0.01 in a single share of Bob Corp. made you personally liable for their entire debt, would you risk losing tens of thousands of dollars for the opportunity to make a few cents? Of course, you would not. When you buy Bob Corp. stock, you only risk losing your penny investment, because investors in corporations have limited liability.

Second, limited liability externalizes the risk of corporate failure onto other people. This is the part of the equation that seems unfair to Carry. But some concerns about externalizing risks may be mitigated when you think more critically about the entire situation. First, Carry is aware that Bob Corp. is a limited liability entity because it has "Corp." in the name. Indeed, corporations are required to include a suffix like corporation, incorporation, or company to signal to consumers that they are limited liability entities. Second, with this knowledge, Carry can negotiate for a lower price or for other protections. For example, Carry can demand that Bob Corp. obtains insurance before doing the work, or she can hire someone else who will do the work for more money but will not have limited liability. But these solutions can be limited, especially when a corporation is a monopoly, such that Carry has no alternative choice. And, sometimes, these so-called corporate externalities spill over onto society in general. What if Carry's shed fell not on her property but instead toppled onto and damaged the house of Ned, her neighbor? Ned will have no recovery against the broke Bob Corp. after the fact, and Ned may have no opportunity to protect himself before the fact (although financial products like insurance can mitigate some of these risks). As we will see throughout this book, the issue of limited liabilities versus corporate externalities is at the heart of many struggles regarding corporate finance and securities regulation.

CORPORATE INVESTORS

Many people assume that corporate investors are ordinary people like themselves. But nothing could be further from the truth. Over 80 percent of investors in public stock markets (like the New York Stock Exchange and the NASDAQ) are massive institutional investors who might control large blocks of stock and have powerful

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voting rights. In private markets, more than 99 percent of funding comes from wealthy accredited investors, including angels and venture capitalists.

In theory, corporations attract investors in part because of their structure, which separates ownership and control. The investors who buy stock, called stockholders, technically own the corporation, but the board of directors (who are appointed by the stockholders) has authority and controls the corporation's actions. Shareholders have limited rights under corporate law to control a corporation that they own, but shareholders can negotiate for contract rights of control. Contractual control rights (like the right of shareholders to prevent the company from issuing more stock, to obtain financial information about the corporation, to prevent other shareholders from selling the corporation's stock, or to have a representative on the board of directors) are often found in private stock purchase agreements. For public companies, shareholders have to find other ways to corral management, perhaps by manipulating public opinion.

In practice, investors throughout the ages have found it useful or necessary to maintain some control over corporate management.

CORPORATE RISK AND REWARD

Setting aside for a moment the debate on limited liability versus corporate externalities, we can next examine what people receive when they invest money into a corporation. People generally do not simply give their money to corporations, expecting nothing in return. In return for their investment, people receive a "security." In Part III, The Third Era, we will discuss some of the new and exotic forms of securities and investment contracts, but, for now, we will start with the most familiar security: common stock. Stock, at its most basic, just reflects a percent of ownership – a "share" – of a corporation. Investors buy stock because stock value increases as the worth of the company increases. For example, Alexander Hamilton founded the Bank of New York (BNY) (today, BNY Mellon) in 1792, and he raised money by initially selling 500 shares of BNY stock to investors. Imagine that BNY sold 125 shares of its common stock to its founder, Hamilton, for one dollar per share, totaling $125. Then, Mr. Hamilton would own 25 percent of BNY. Today, BNY is worth about $54 billion, so Mr. Hamilton's 25 percent would be worth about $13.5 billion. Even accounting for inflation, that is a 4,500,000 percent return on investment. Mr. Hamilton's investment in BNY turned out to be quite good.

Of course, things do not always go so well. Most corporations fail, and 25 percent of $0 is zero. Sometimes businesses are profitable, and sometimes they go bust. But that is the nature of risk, and, as they say, no risk, no reward.

A corporation can fail for many reasons, but one particularly troublesome reason is because the corporate managers commit fraud. Consider the Enron Corporation. In early 2001, its managers – whose pay is based on revenues – claimed the corporation had annual revenues of nearly $101 billion. But, in December 2001, it was

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