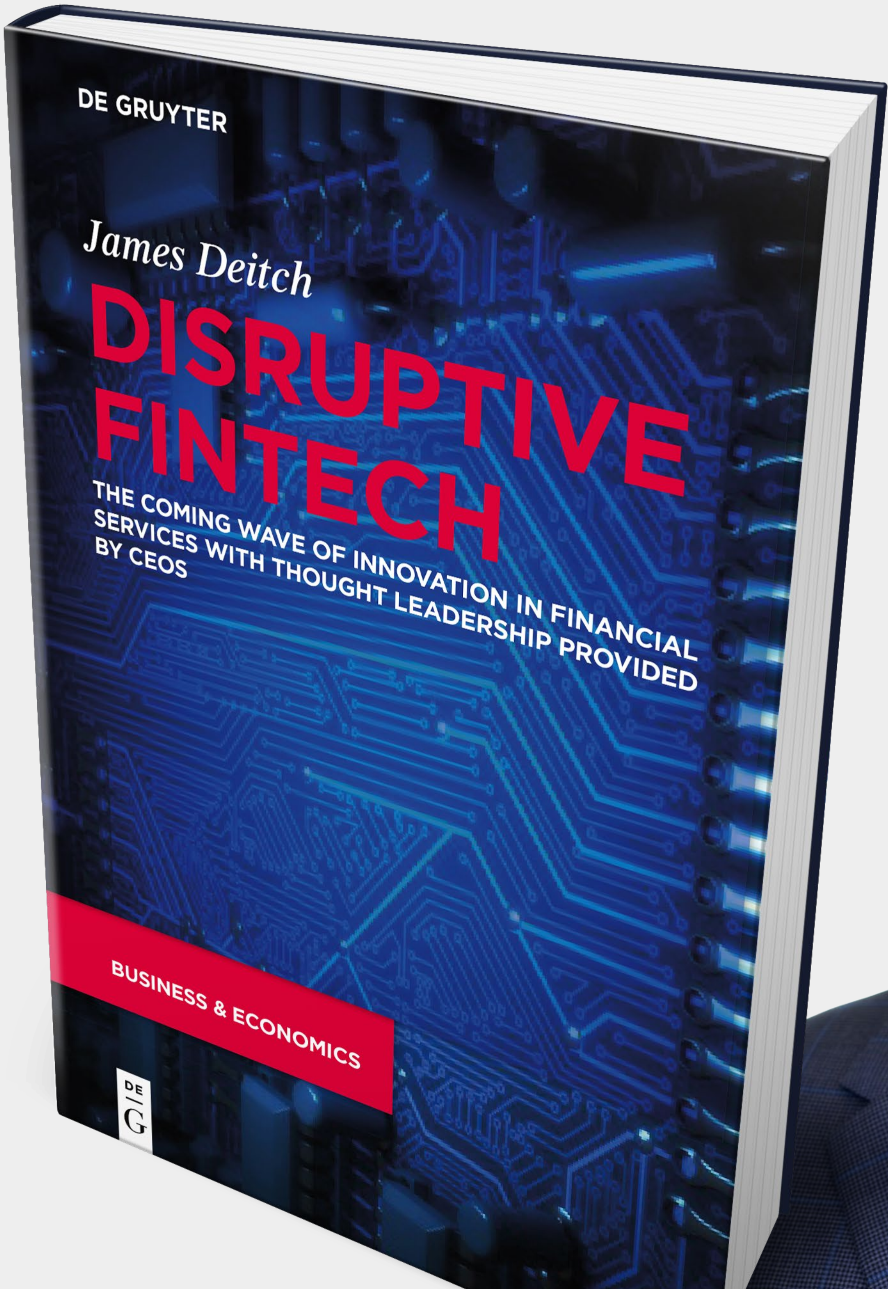

# DISRUPTIVE FINTECH

## CHAPTER 1

Complimentary Chapter 1 of *Disruptive Fintech* Available MBA Members

## Dedication

The MBA Opens Doors Foundation is a non-profit organization dedicated to aiding families with a critically ill or injured child by making their mortgage or rent payment. MBA Opens Doors currently works directly with nine children and hospitals to identify families in need.
Opens Doors holds a special place in my heart. All royalties from this book will be donated to the Opens Doors Foundation.

## Acknowledgements

Thank you to Judy, my wife, for encouragement, assistance, and practical advice, and most of all, for being a role model and mother to our kids.

To my children Michael and Christina, and grandchildren Marie, Belle, Colin, Caroline, and Austin for your constant inspiration.

To Alex Henderson, my friend, business partner, and consigliere for more than thirty years, who more or less kept me out of foolish adventures, to whom I have lost many one dollar bets on a variety of topics and who helped greatly in the concept and structure of this book.

To Don Bishop, as well, for 45 years of friendship, business, and fun, and for being a fellow entrepreneur and inspiration for so many ideas.

To Rob Peterson and Maylin Casanueva for your strategic knowledge and perspective on mortgage banking and capital markets and for helping our business partners in so many ways.

To the mavericks: A.J. George, Barrett Burns, Bill Cosgrove, Bill Emerson, Brett Chandler, Chris George, Chrissi Rhea, Dave Motley, Dave Stevens, Deb Still, Eddy Perez, Grant Moon, Jerry Schiano, Jonathan Corr, John Hedlund, Lori Brewer, Marcia Davies, Marie Gayo, Martin Kerr, Mary Anne McGarry, Matt Hansen, Maylin Casanueva, Nima Ghamsari, Patrick Sinks, Phil DeFronzo, Rick Arvielo, Rick Bechtel, Ross Diedrich Roy George, Stan Middleman, Susan Stewart, Scott Gillen, Steve Butler and Tim Nguyen. Thank you so very much for your willingness to share your thought leadership. Without your thought leadership, this book would not be possible. And when you skim through the pages, realize that your direct quotes are but a small part of your contribution. The overall discussions with you synthesized much of my thought throughout this book.

To Mauricio Valverde for your assistance in interviewing the Mavericks, research, and your help in finalizing the book.

To Eleni Valasis for your outstanding writing, editing, and research work. Outstanding!

To Anthony Nguyen for technical research, analytics, and helping with the production of the manuscript. Thank you to Barb Wise for all your design and graphic work over the years.

To Teraverde®'s partners, customers, and friends—you make this all possible!

## Foreword: Alex Henderson

Disruptive Fintech is Jim Deitch's third book about transformative disruption in the residential lending industry. From the ancient Oedipus Cycle plays of Sophocles to the futuristic Remembrance of Things Past novels of Chinese author Liu Cixin, trilogies have made their mark in the literary world. How fitting, then, that Jim Deitch completes his analysis of mortgage banking transformation and disruption (begun by Digitally Transforming the Mortgage Banking Industry in 2017 and continued in Strategically Transforming the Mortgage Banking Industry in 2018) in this third volume, with many illustrative examples ranging from the Greek agora to China's Alibaba. We might name these books the Residential Real Estate Lending trilogy.

The first volume in the trilogy, Digitally Transforming the Mortgage Banking Industry, was an instant best seller. The book focused on technological transformation. Technology is of course a key lever of industry transformation. In 2017 the mortgage banking industry needed to take advantage of current technology to reduce costs, increase customer satisfaction, and improve profitability. Many CEOs deployed the specific approach outlined in Digitally Transforming and found considerable success. But technology is only one of the levers of strategy.

Jim's second volume, Strategically Transforming the Mortgage Banking Industry, expanded the transformation analysis to include strategic transformation, not just technological transformation. Strategically Transforming provided a strategic roadmap for mortgage bankers, particularly in the area of data-driven enterprises. His comparison of the strategic challenges of mortgage banking industry to those of Major League Baseball, and the use of data in both has become a classic. Once again, Jim was specific, outlining how to use the levers of strategy. And again, CEOs deploying his levers found increased success.

The current volume takes on fintech, a concept and word often used but rarely understood. Jim expands his topic to the residential real estate industry, since disruption in the real estate brokerage space is impacting mortgage lending, and vice-versa. The writing of Disruptive Fintech demonstrates Jim's personal use of strategy in his capacity as an author. He continues the brilliant and highly successful research strategy of the first two volumes of the Residential Real Estate Lending trilogy.

Once again, Jim interviewed highly successful, disruptive "maverick" mortgage industry CEOs, this time to unlock the future of Fintech. As noted by reviewers of previous volumes, Disruptive Fintech again contains "great insights from some of the best known names in the industry" with "an amazing roster of residential real estate heavy hitters interviewed for their opinions on where the industry needs to go to stay productive and competitive." In fact, the success of the previous volumes has led the most innovative and disruptive maverick CEOs to seek out the opportunity to share their insights in this volume.

To look forward, Jim looks back. A major insight of Disruptive Fintech is that fintech is not actually new. It is in fact a repeat of a financial disruption process that has occurred over and over again for hundreds of years, from the Greeks in 600 BCE, to the Medici in the 1400s to the Bank of Amsterdam in the 1600s to the East India Trading Company in the 1700s. And of course he does not stop there, but carries on to discuss the New York Stock Exchange, the Federal Reserve, Sears, Visa/Mastercard, Apple, Uber/Lyft, and other modern disruptors. Placing fintech in a historical context enables Jim to identify the patterns of disruption in the residential real estate and lending industries.

Once again, in this third volume, Jim has specific actionable advice for CEOs in the residential real estate brokerage and lending industry—this time, how to be an intentional and successful disruptor. He identifies specific steps, which are not linear, but a circular process that is continuous. One step is to identify undervalued and overvalued assets, focusing on undervalued assets that represent opportunities for disruptive effort. Another is to reduce or eliminate provincial thinking. All of us think provincially, but we can intentionally move beyond that. That leads to imagining scenarios of disruptive transformation, rather than just anticipating events. An important step is to begin with the end in mind. Visualizing future success enables the CEO to evaluate existing tasks—can they be eliminated, automated, outsourced, or optimized?

Many years ago, as a young lawyer, I represented a client who, perhaps unconsciously, operated with a version of the disruption thinking process that Jim describes. He had started, operated, bought, and sold successful businesses. In this instance, he and a tech-savvy partner had started a data-driven business in an industry that my client knew all about. A venture capital firm had invested in the business with a typical structure of financial milestones and the ability of the venture capitalists to increase their share and control of the enterprise if the milestones were not met.

As is often the case with optimistic start-ups, the milestones were missed. We were going into what I thought would be a meeting with ugly results for my client, when my client said, "Alex, you need to tell the VCs that our results have not been what I had hoped and I don't feel motivated. They need to put more money in, my base salary needs to be increased, and I need options for a bigger percentage." I explained that this was not how the VC process worked. My client patted me on the shoulder and said, "Don't worry, Alex, you can do it." He told me that he had identified the undervalued asset (himself), an overvalued asset (the VC's capital), and he had moved beyond the standard start-up capital thinking and visualized the future success of the company and immediate success in these VC negotiations. And as he visualized, "I" did it.

Jim has provided the historical context, the present examples, and the approach for residential real estate industry CEOs to continuously and successfully disrupt their industry in the world of fintech.

## About the Author

James M. Deitch founded Teraverde® eight years ago, after serving as president and CEO of five federally chartered banks for over twenty-five years. Teraverde® now advises over 150 clients in mortgage banking, capital markets, and financial technology, ranging from some of the largest U.S. financial institutions to independent mortgage bankers to community banks. Jim founded two national banks, including a top 50 national mortgage lender.

Jim holds a Master of Business Administration, with concentrations in Finance and Marketing, and a Bachelor of Science degree in accounting from Lehigh University. He is a Certified Mortgage Banker and practiced as a CPA until he realized mortgage banking was a lot more interesting than public accounting. Jim has been a director of both publicly traded and privately owned banks and lenders through some very interesting times.

Jim's experience in residential mortgage banking for the last three decades on a retail, wholesale, and correspondent basis led to an intense desire to learn about how technology could be applied to financial institutions. His experience includes multi-channel loan origination and sales management, mortgage product design, credit policy, hedging, securitization and loan servicing. His beginning-to-end experience and his love of high-performance aircraft has fueled his "need for speed" in applying technology to mortgage banking.

He has served on the Mortgage Bankers Association Residential Board of Governors and served as a CEO panelist and speaker for major financial institutions, financial industry associations, corporate clients, the Department of Defense, and universities. Jim is a thought leader and has published numerous articles in the industry publications, including the best-selling books *Digitally Transforming the Mortgage Banking Industry*, published in February 2018 and *Strategically Transforming the Mortgage Banking Industry*, published in October 2018. Jim lives in Naples, Florida.

## Contents

## Introduction

I've always been an entrepreneur at heart. It may go back to my grandfather, who started a taxi business, founded a radio station, and built multifamily housing in northeast Pennsylvania in the early 1900s. He went bankrupt in the Great Depression, but then rebuilt his businesses. He retired in 1960 with little trust in banks, though he was a prolific equity investor.

I was about seven years old when I wandered into the walk-in closet on the third floor of his apartment. There were two large safes in the closet, about three feet tall and two feet wide. I found my grandfather there, getting some cash for my grandmother to go to the market. He looked up when I entered and smiled, holding up a hundred-dollar bill. PopPop (as I called him) said, "Jim, do you want one of these?" I responded with an emphatic "Yes," smiling in anticipation of a trip to the hobby store to buy new plane and car models.

Imagine the impact, then, when he replied, "Well, get off your butt and go earn it!"

That sounds like a harsh lesson, and at the time it was. Like many a harsh lesson, though, it stuck with me, and it motivated me in my teenage years to get my first job at the age of thirteen, working at RadioShack.

I fell in love with technology, particularly stereo high-fidelity equipment. By sixteen, I was buying stereo amplifiers and speakers at wholesale and reselling them to friends. My "customers" would look at equipment at Sol Kessler's Hi-Fi Shop in central Pennsylvania, and then give me the model number so I could get it for them at a discount. At the time I didn't realize it, but I was a 'disrupter' while still in high school. (My mother thought I was a disrupter, too, just not in the business sense.)

Selling stereo gear and using another person's retail showroom created friction with the owners of Kessler's. We spoke, and I struck an arrangement to sell from Kessler's stock at a discount to my friends and acquaintances, earning a commission in the process. Many of my friends' parents paid me to guide them on stereo purchases and then set up the equipment for them. Selling stereo gear remained a viable business for me all the way through college.

I didn't think of myself as a disrupter, just someone who was following his grandfather's advice to find a way to earn some money. That, however, is often how disruption works.

## Accidental Disruption

By 1982, businesses were beginning to invest in microcomputers. Don Bishop, my long-time friend and first business partner, and I discovered that local business wanted to use IBM PCs and Hewlett Packard Laser Printers, but IT departments wouldn't authorize the purchases. Looking into the situation, we discovered that many of these businesses were government contractors that could rent PCs and printers on a short-term basis in lieu of buying them as a capital asset. (Conveniently, this also got around Information Technology people preventing PC purchases, as PCs competed with their need for centralized control of all computer technology at the time.)

As a result, Don and I formed Mercury Services Inc. to purchase basic IBM PCs, upgrade the memory, add a hard drive, load them up with Lotus 123 and WordPerfect, and then rent them to businesses, particularly government contractors. We also set up and delivered the equipment, and provided training, thus completing the one-stop shopping idea. Our pricing model recovered the cost of the PC in three months. We found that businesses kept the PC for about a year and then wanted to upgrade. We replaced the old equipment with new, while redeploying the older equipment at a discount to accounting and law firms.

After 18 months, we sold the business at a substantial profit. Don and I didn't realize it at the time, but we were arguably an accidental fintech, providing a technology solution to businesses on a monthly "computing as a service" business model. We didn't discern the disruptive element of our business—providing a low-cost, easily accessible workaround to businesses that couldn't wait for a solution that their IT departments couldn't or wouldn't provide.

I didn't learn about disruption as a concept until years later when I read Harvard Professor Clayton Christensen's book The Innovator's Dilemma in 1998. The book was recommended by two American Management Association consultants, Mike and Maryann Kipp, who then invited me to work with them on a program they were arranging for Nortel Networks. It turned out that Mike and Maryann had arranged for Dr. Christensen to present at the program, as well.

So it was that my first personal encounter with Dr. Christensen was serving on a CEO panel moderated by Dr. Christensen himself at Duke University in 1999. The panel would focus on The Innovator's Dilemma. Nortel Networks was sponsoring it with the goal of laying out a strategy to transform the company from a legacy telecommunications entity into a twentieth-century technology competitor.

The story of what we discovered during those panel discussions is covered in my prior book, Strategically Transforming the Mortgage Banking Industry, so I won't repeat it here. Suffice to say, Clayton Christensen is now one of the most well-known thinkers on Disruption. In his own words:

*"As companies tend to innovate faster than their customers' needs evolve, most organizations eventually end up producing products or services that are actually too sophisticated, too expensive, and too complicated for many customers in their market.*

*Companies pursue these 'sustaining innovations' at the higher tiers of their markets because this is what has historically helped them succeed: by charging the highest prices to their most demanding and sophisticated customers at the top of the market, companies will achieve the greatest profitability.*

*However, by doing so, companies unwittingly open the door to 'disruptive innovations' at the bottom of the market. An innovation that is disruptive allows a whole new population of consumers at the bottom of a market access to a product or service that was historically only accessible to consumers with a lot of money or a lot of skill.*

*Characteristics of disruptive businesses, at least in their initial stages, can include lower gross margins, smaller target markets, and simpler products and services that may not appear as at-*

*tractive as existing solutions when compared against traditional performance metrics. Because these lower tiers of the market offer lower gross margins, they are unattractive to other firms moving upward in the market, creating space at the bottom of the market for new disruptive competitors to emerge."*[1]

Christensen followed up The Innovator's Dilemma with many additional works, focusing on solving the innovator's dilemma, but also branching out to examining specific segments such as manufacturing, the primary educational system, and even health care in the United States. In my opinion, his first work was his best work and resonates to this day in the conversation around disruption, which I hope can evolve further through this book.

## Why I Wrote This Book

My son bought a new home in San Diego for his family in December 2018. During his home search, we spoke several times about how the residential real estate buying process works for buying, building, or renting a home. He considered all three. As he concluded his purchase, rates fell dramatically. He ended up refinancing away from his original lender. He concluded, "Your industry is really screwed up. It costs too much and is too slow." He had other observations that amplified his conclusions.

His reaction was almost identical to my daughter's reaction several years earlier. She had the same view of the home financing process. These similar reactions spurred some thinking, so I reached out to many participants in the financial services industry. I also reached out to participants that were connected to the real estate transaction, but were outside of the lending industry. I also began historical research spurred on by Stan Middleman, CEO of Freedom Mortgage.[2]

My son paid closing costs (both direct and indirect) that exceeded the cost of a new automobile. This was in a perfectly visible market. This struck both of us as an economic situation that was just crazy.

My research led me to how, why, and when disruption occurs. It fascinated me that the residential real estate market has been largely immune to disruptive forces that have roiled and remade other industries such as music distribution, film entertainment, retailing, mobile phones, and personal computing.

In my career, I've lent money to borrowers from all walks of life, and I enjoy hearing and learning from their perspectives. One professional football player spoke about why he wanted a short amortization on his home purchase. He said something to the effect of "I'm a professional football player in the NFL. And NFL means 'not for long.'" He wanted to pay off his home quickly because he knew most players had relatively short careers, and their playing days were "not for long."

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[1] http://claytonchristensen.com/key-concepts/

[2] I owe a large debt of gratitude to Stan Middleman. Stan repeatedly emphasized to me the need to carefully consider the role of history when attempting to anticipate the future. Stan's most memorable quote is, "The industry is full of bad historians… for now."

I think that the current residential real estate model—the process used for buying, selling, building, financing, conveying, and insuring a home—has the same implication as those NFL initials: "not for long." It will change, especially in the pricing model that results in a very high transaction cost structure for consumers.

Consumers eventually will not pay 10 percent or more in transaction costs to buy a home. This book is the story of the 'why,' and how the coming wave of fintech innovation will drive the disruption of the residential real estate model to the tune of about $100 billion in cost reductions for consumers per year. It will affect just about everyone in the real estate value chain, as the cost to the consumer is revenue to the industry.

# Chapter One: The Drivers of Disruption

Many consider technology the driver of disruption. It's a common mistake. After all, technology feels as if it's the driver of so much in our culture today. When it comes to disruption, however, it is not.

What is the true driver of disruption? Thought leadership. Yes, thought leadership may manifest itself by using technology, but technology is usually just the tool of disruption, not the core driver.

I've interviewed over two hundred chief executive officers and 'C-Level' executives as research for my books. The thought leadership apparent in many of these executives indicates that the intersection of culture, strategy, process, and people is the "secret sauce" leading to disruption. The use of technology as a catalyst to thought leadership and as a tool for disruption is clear to me. The thought leadership of these executives in the form of transformative thinking distinguishes them as "mavericks."[3] It's a misconception that technology itself is a disruptor.

It's no surprise that many consider Amazon a technological disruptor. It was and is nothing of the kind. Jeff Bezos, the CEO and founder of Amazon, advanced thought leadership when Amazon boldly billed itself as the "Earth's biggest bookstore" even though sales initially were drummed up solely by word of mouth, with Bezos himself assembling orders and driving the packages to the post office.2 Of course, Amazon used technology to create the marketplace by converging a large selection of books with the logistics to deliver those books anywhere, anytime. Bezos's disruptive act, however, was the thought leadership of conceiving of a marketplace so pervasive as to be the "Earth's largest bookstore."

## Amazon's Challenge to Retailing

The first major online challenge to powerful department and chain stores (including bookstores) was Amazon. At the time, most regarded Amazon as a curiosity in the emerging technology known as the internet. Internet was dial-up, and internet speed at 56,000 bytes per second was regarded as fast. (Today, 15 megabits per second is considered average, but it is in fact fast enough to stream a high-definition movie.) All in all, the internet of the time was clunky, and dominated by AOL.

As Christensen noted, Amazon was an entrant at the bottom of the market, with lower margins, a small target market of internet shoppers, and a simple model that focused on books. Amazon

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[3] The definition of "Maverick CEO" is set out in my book Digitally Transforming the Mortgage Banking Industry. A maverick can best be described as a groundbreaker, a pioneer. A maverick takes calculated risks to grow, to invoke change. In many ways, a maverick is an initiator, someone willing to explore unfamiliar territory, and try on innovative ideas when and where others are not. While some in the mortgage industry maintain an "If it ain't broke, don't fix it" mentality, an increasing number of maverick thought leaders are turning to transformation, be it via process, technology, or product innovation.

[4] https://www.history.com/this-day-in-history/amazon-opens-for-business

was initially a very inferior method of shopping for most Americans. “I love to page through a book before buying it. This Amazon thing won’t work,” an acquaintance of mine insisted back in 1999. Based on this belief, he even shorted the stock—a bad idea, it turns out.

Amazon’s trajectory moved rapidly. According to History.com, Amazon.com launched in July 1995. By the end of 1996, Amazon had racked up $15.7 million in revenues, and in 1997, Bezos took the company public with an initial public offering that raised $54 million. In 1998, Amazon extended beyond books and started selling music CDs; by the following year it had added more product categories, such as toys, electronics, and tools.[5] Despite all of this, however, book-selling superstores Borders and Barnes & Noble were not worried.

In a 1998 New York Times article, Elizabeth Babin, Barnes & Noble Vice President and Treasurer at the time, contended that the advantages of internet selling were overemphasized. “The money saved by direct sellers on stores and inventory is only part of the picture. Amazon does not have to carry the $1.5 billion of hard assets that Barnes & Noble does. But it does have to pay to generate ‘virtual foot traffic’ in its virtual marketplace.” According to the New York Times, Amazon spent $39 million in 1997, more than a quarter of its total revenue, on marketing and selling, $21 million of it for advertising, including banners on popular Web sites like Yahoo and Excite, to attract customers. [6]

“This is the same as paying for location to increase foot traffic,” Elizabeth Babin said. Going forward, those traffic-creation costs would be much harder to forecast for Amazon than for Barnes & Noble. Joy Covey, Amazon’s chief financial officer, said in the same article that she had little idea how much the company would have to spend on its relationships with Yahoo and others. The players’ bargaining power is evolving from day to day, she asserted: Next year it could be Amazon calling the shots, or it could be Yahoo, or America Online, dictating prices and terms. [7]

An Amazon screenshot from October 13, 1999 doesn’t seem to auger what Amazon had in store for Borders and Barnes & Noble, nor for the retail industry as a whole. The page is a time capsule back about 20 years. See at the bottom of the Figure 1-1 the “Library of Literature” and “Scads of Sports Stuff” description under the “Many Merchants, Fabulous Finds” heading.

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[5] https://www.history.com/this-day-in-history/amazon-opens-for-business
[6] https://www.nytimes.com/1998/07/19/business/investing-it-does-amazon-2-barnes-nobles.html
[7] Ibid.


Figure 1-1, Screenshot of Amazon's home page as of October 13, 1999.[8]

Elizabeth Babin did not recognize the $1.5 billion in inventory that Barnes & Noble carried to cater to its higher end and demanding customers would turn out to be a liability. Christensen's theory that catering to high-end customers that preferred physically shopping in the store would "unwittingly open the door to 'disruptive innovations' at the bottom of the market. An innovation that is disruptive allows a whole new population of consumers at the bottom of a market access to a product or service that was historically only accessible to consumers with a lot of money."

A screenshot of February 18, 2004 turns up an Amazon branded Visa card, as well as Amazon's "1-Click" transaction innovation. Notice that books are now not the focus of the Amazon home page in Figure 1-2.

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[8] This Amazon screenshot and those following were provided though the "Wayback Machine," an internet archive of webpages captured from various points in time. See https://archive.org/web/


Figure 1-2, Screenshot of Amazon's home page as of February 18, 2004.

The Amazon home page shows a push to online versions of books via the Kindle in Figure 1-3. Kindle was even available for a Blackberry. (Innocently, a young millennial researcher for this book asked, "What's a Blackberry?" during the drafting of this text. Time flies!)


Figure 1-3, Screenshot of Amazon's home page as of February 18, 2010.

Skipping ahead ten years, the February 1, 2014 Amazon home page in Figure 1-4 brings us Kindle again and promotes gift watches and NFL tee shirts. No physical books in sight.

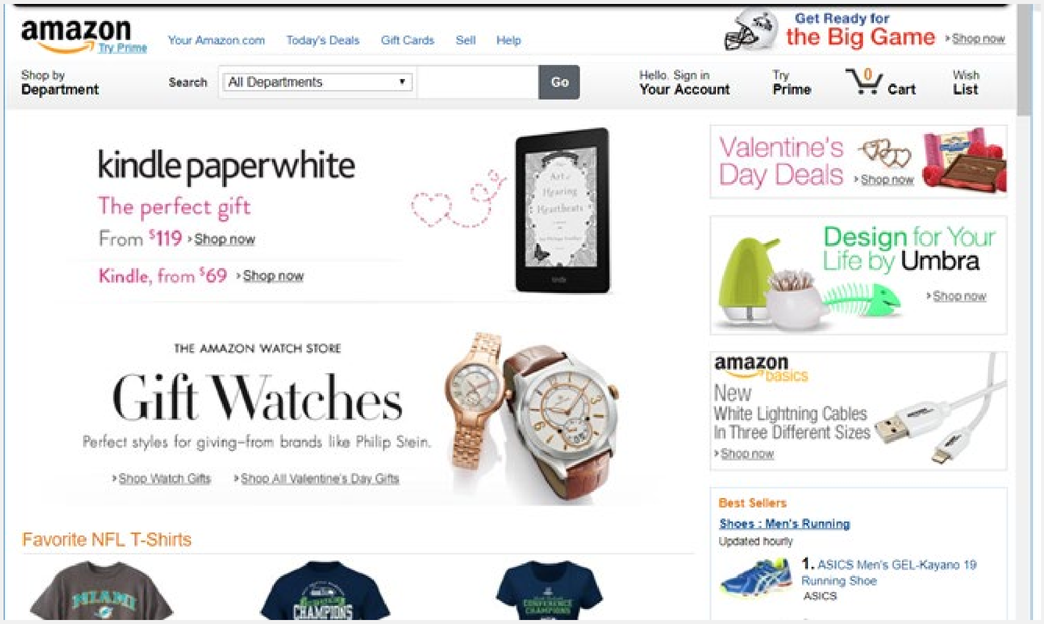


Figure 1-4, Screenshot of Amazon's home page as of February 1, 2014.

Finally, Figure 1-5 is Amazon's home page on May 31, 2019. It's a simple, clean look that features ease of search, and free shipping as fast as today. Search and free shipping are the beginning of the purchase process, culminating in fast and free delivery to your home or office door.

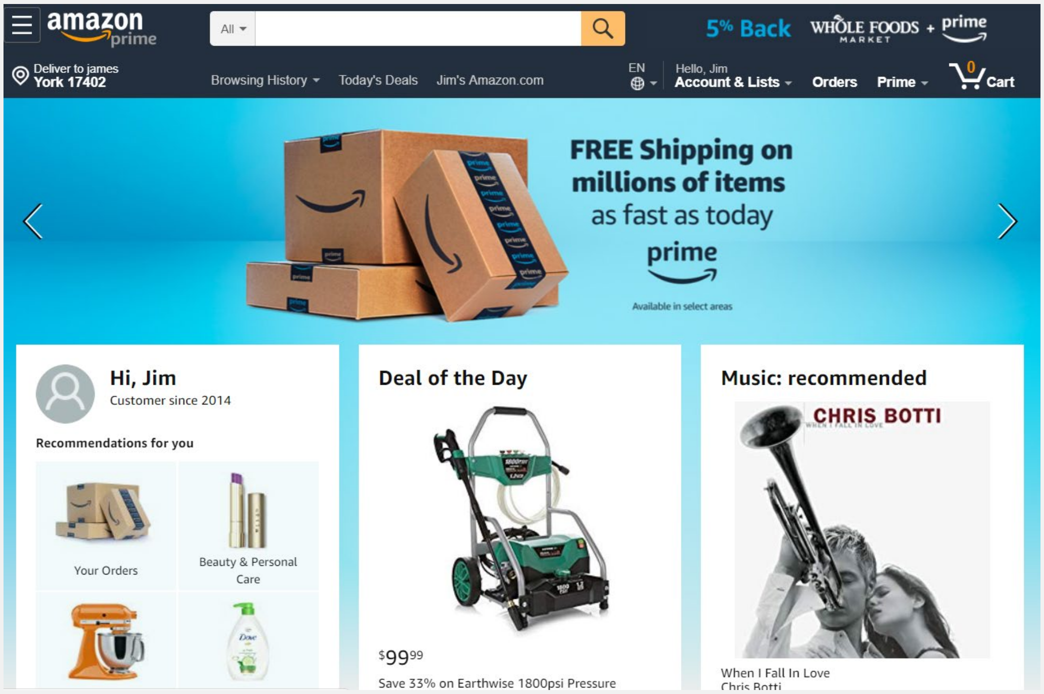


Figure 1-5, Screenshot of Amazon's home page as of May 31, 2019.

Amazon's stock was initially offered at a split-adjusted $1.97 and is currently just under $2,000.00 per share. Amazon's market capitalization is about $900 billion, up from just over $50 million at its initial public offering.

In 20 years, Amazon grew from a small online bookseller to one of the world's largest e-commerce sites. Amazon's Gross Merchandise Value sold in 2018 was about $240 billion.[9] This compares to Walmart's $514 billion in sales.[10] During that same 20-year period, the list of major book, music and video retailers that failed[11] included:

- B Dalton
- Blockbuster Video
- Borders Books
- Camelot Music
- Crown Books
- Disk Jockey
- Hollywood Video

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[9] https://www.fool.com/investing/2018/12/26/the-7-largest-e-commerce-companies-in-the-world.aspx/
[10] https://www.statista.com/statistics/183399/walmarts-net-sales-worldwide-since-2006/
[11] http://self.gutenberg.org/articles/list_of_defunct_store_chains_of_the_united_states

- Media Play
- Sam Goody
- Tower Records
- Virgin Megastores
- Waldenbooks
- Wall to Wall Sound and Video

On June 7, 2019, Barnes & Noble was acquired by hedge fund Elliott Advisors for $638 million, closing another chapter in the bookseller's history and a far cry from Amazon's $900 billion market capitalization.[12]

## The Amazon Effect:: Beyond Books

According to a Wall Street Journal article published on May 30, 2019, Blockbuster failed to see the transition from companies spending big mainly to get bigger to companies spending big to get smarter.[13] Getting bigger—or scale for scale's sake—does not necessarily result in economies of scale. While Walmart scaled, it did so by continuously optimizing its supply chain efficiency and pricing power. Like Amazon, logistics (not size) is a differentiator for Walmart. The Walmart logistical engine drove the demise of many retailers, from small-town mom-and-pop stores to chains like K-Mart and Sears.

Walmart learned from and adopted the lessons available in the wake of the Amazon Effect. It deployed scale as a competitive weapon.

A disruptor in China has done the same thing. Alibaba Group Holding Limited, a Chinese multinational conglomerate holding company, specializes in e-commerce, retail, internet, and technology.[14] What's more, Alibaba has a global focus, and attempts to eliminate friction in business-to-business commerce on an international scale. The company was founded in April 1999. Like Amazon, Alibaba offers electronic payment services, a variety of security and delivery services, shopping search engines, and cloud computing services.

As of 2018, Alibaba's gross merchandise value was estimated in excess of $768 billion,[15] more than Amazon and Walmart combined. Amazon and Alibaba created a combined $1 trillion in gross merchandise value sales in 2018. Neither company existed at the beginning of 1995.

That's the power of disruption.

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[12] https://www.nytimes.com/2019/06/07/books/barnes-noble-sale.html
[13] John D. Stall, Wall Street Journal, "Behind Big Deals: No One Wants to Be Blockbuster Video," May 30, 2019.
[14] https://www.alibabagroup.com/
[15] https://www.fool.com/investing/2018/12/26/the-7-largest-e-commerce-companies-in-the-world.aspx

## Creative Destruction

Joseph Schumpeter's 1942 book Capitalism, Socialism, and Democracy[16] was prescient in describing an entrepreneurial effect that he called "creative destruction." He described the concept as an inherently organic process carried out by entrepreneurs in a "perennial gale":

> *"The opening up of new markets, foreign or domestic, and the organizational development from the craft shop to such concerns as U.S. Steel illustrate the same process of industrial mutation—if I may use that biological term—that incessantly revolutionizes the economic structure from within, incessantly destroying the old one, incessantly creating a new one. This process of Creative Destruction is the essential fact about capitalism."*

Schumpeter did not foresee Amazon, per se. What he did do was describe a free market's perennial tendency to eliminate companies and jobs as an inherent process of economic pruning. More agile and adaptive companies replace the vanishing companies, with an accompanying increase in employment in the new companies offsetting the loss of employment in the old companies. This is the brutal reality of disruption.

Richard Alm and W. Michael Cox, in an article entitled "Creative Destruction," argue that:

> *"Herein lies the paradox of progress. A society cannot reap the rewards of creative destruction without accepting that some individuals might be worse off, not just in the short term, but perhaps forever. At the same time, attempts to soften the harsher aspects of creative destruction by trying to preserve jobs or protect industries will lead to stagnation and decline, short-circuiting the march of progress. Schumpeter's enduring term reminds us that capitalism's pain and gain are inextricably linked. The process of creating new industries does not go forward without sweeping away the preexisting order."*[17]

The impact of creative destruction isn't limited to technology improvements in recent times:

> *"Transportation provides a dramatic, ongoing example of creative destruction at work. With the arrival of steam power in the nineteenth century, railroads swept across the United States, enlarging markets, reducing shipping costs, building new industries, and providing millions of new productive jobs. The internal combustion engine paved the way for the automobile early in the next century. The rush to put America on wheels spawned new enterprises; at one point in the 1920s, the industry had swelled to more than 260 car makers. The automobile's ripples spilled into oil, tourism, entertainment, retailing, and other industries. On the heels of the automobile, the airplane flew into our world, setting off its own burst of new businesses and jobs.*

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[16] *Capitalism, Socialism, and Democracy*, Joseph Alois Schumpeter, Wilder Publications, 2018.
[17] https://www.econlib.org/library/Enc/CreativeDestruction.html

> *"Americans benefited as horses and mules gave way to cars and airplanes, but all this creation did not come without destruction. Each new mode of transportation took a toll on existing jobs and industries. In 1900, the peak year for the occupation, the country employed 109,000 carriage and harness makers. In 1910, 238,000 Americans worked as blacksmiths. Today, those jobs are largely obsolete. After eclipsing canals and other forms of transport, railroads lost out in competition with cars, long-haul trucks, and airplanes. In 1920, 2.1 million Americans earned their paychecks working for railroads, compared with fewer than 200,000 today."*[18]

With the creative destruction of disruption comes pain and gain. While reducing employment in the ranks of Teamsters driving horse carriages and blacksmiths forming horseshoes, this disruption in the world of transportation eliminated one very frustrating and even dangerous byproduct of so many horses: manure.

Repeating one of my favorite stories from my prior book, Strategically Disrupting the Mortgage Banking Industry, let me share with you a tale that focuses on that very byproduct of horses. The story was written in the New Yorker magazine[19] by author Elizabeth Kolbert. Kolbert writes:

> *"In the eighteen-sixties, the quickest, or at least the most popular way to get around New York was in a horse-drawn streetcar. The horsecars, which operated on iron rails, offered a smoother ride than the horse-drawn omnibuses they replaced. New Yorkers made some thirty-five million horsecar trips a year at the start of the decade. By 1870, that figure had tripled.*
>
> *The standard horsecar, which seated twenty, was drawn by a pair of roans and ran sixteen hours a day. Each horse could work only a four-hour shift, so operating a single car required at least eight animals. Additional horses were needed if the route ran up a grade, or if the weather was hot. Horses were also employed to transport goods; as the amount of freight arriving at the city's railroad terminals increased, so, too, did the number of horses needed to distribute it along local streets.*
>
> *By 1880, there were at least a hundred and fifty thousand horses living in New York, and probably a great many more. Each one relieved itself of, on average, twenty-two pounds of manure a day, meaning that the city's production of horse droppings ran to at least forty-five thousand tons a month. George Waring, Jr., who served as the city's Street Cleaning Commissioner, described Manhattan as stinking 'with the emanations of putrefying organic matter.' Another observer wrote that the streets were 'literally carpeted with a warm, brown matting . . . smelling to heaven.' In the early part of the century, farmers in the surrounding counties had been happy to pay for the city's manure, which could be converted into rich fertilizer, but by the later part the market was so glutted that stable owners had to pay to have the stuff removed, with the result that it often accumulated in vacant lots, providing breeding grounds for flies.*

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[18] Ibid.
[19] Elizabeth Kolbert, "Hosed", New Yorker Magazine, November 9, 2009.

*The problem just kept piling up until, in the eighteen-nineties, it seemed virtually insurmountable. One commentator predicted that by 1930 horse manure would reach the level of Manhattan's third-story windows. New York's troubles were not New York's alone; in 1894, the Times of London forecast that by the middle of the following century every street in the city would be buried under nine feet of manure. It was understood that flies were a transmission vector for disease, and a public-health crisis seemed imminent. When the world's first international urban-planning conference was held, in 1898, it was dominated by discussion of the manure situation. Unable to agree upon any solutions—**or to imagine cities without horses** [my emphasis]—the delegates broke up the meeting, which had been scheduled to last a week and a half, after just three days.*

*Then, almost overnight, the crisis passed. This was not brought about by regulation or by government policy. Instead, it was technological innovation that made the difference. With electrification and the development of the internal-combustion engine, there were new ways to move people and goods around. By 1912, autos in New York outnumbered horses, and in 1917 the city's last horse-drawn streetcar made its final run. All the anxieties about a metropolis inundated by ordure had been misplaced."*

It can be difficult to envision a way through disruption and its paradigm shifts. Few people saw the transformation of transportation in the major cities from horse-drawn carriages. Henry Ford didn't try to disrupt urban transportation. It just happened as a result of the automobile. Quicken Loans didn't start out as an online direct-to-consumer lender.

Bill Emerson, vice-chair of Rock Holding Inc, and former CEO of Quicken described his early strategy at the company. Initially, Quicken was a traditional lender focusing on growing the retail branch business, the economies of scale, while exploring online lending.

*"I started with Rock Financial in 1993. We were a branch originator. And by the time 1998 rolled around, we had about 30 branches around the country. And there was an e-mail that Dan [Gilbert, Chairman of Rock Holdings Inc.] sent internally to a group of people in 1998 that basically said 'We are behind the eight ball. The internet is the way to go.'*

*He had read an article about a company that was trying to do some stuff on the internet and that we needed to get on it and start figuring out this business model or we'd get left behind. Now, this is 1998. So, when we started out, we took about six, seven smart people, put them in a room, and started building a website. And that website was called Rockloan.com. And actually, that was a website, that back in 1999, you could literally have credit pulled, you could lock in interest rate if you wanted to.*

*Dan [Gilbert] was wandering by the room where the group had built the website and asked what was going on. He asked, 'How many people were visiting the site?' Somebody said, 'We had about 50 visits.' Dan said, '50 visits! We're shutting down* *all the branches and we're going to the internet only.' Then somebody goes, 'Wait, wait, Dan. Forty-seven of the fifty were just testing the website.' Dan said, 'I don't care. We are getting out of the branch model and going to the internet only.'*

The reality of it is something along those lines, but we really did say we've got to start focusing on a centralized model and we did decide to go out and shut down every branch outside of the state of Michigan."

That strategy evolved to allow Quicken to be a direct online lender and focus on developing technology and processes in order to excel at customer service. Quicken gave up on their prior loan-officer-focused retail strategy and focused solely on direct-to-consumer lending. This focus propelled Quicken to impressive growth, allowing the company to achieve economies of scale, as well as outstanding customer service. While Quicken is privately held, it is well understood that Quicken also attains superior profitability.

Many in the mortgage industry today can't envision a future where the production cost of a mortgage loan is $1,000 or less and the loan commitment (not a pre-approval) happens in seconds, but it is likely the future for the industry, as we will discuss in a future chapter. For now, let's look at how disruption occurred again in the transportation industry, and how another disruption in the urban transportation industry quickly and seriously affected a segment of the financial services industry.

## Financial Services Disruption

More recent disruption in the transportation industry led to the failure of several financial institutions in New York state. If anything, these examples show just how quickly disruption can transform an industry. As the pattern of 'creative destruction' perpetuates itself, this transformation can even extend to related industries, as was the case with the recent ascendance of Uber.

As a bit of history, New York City began licensing taxicabs to limit the number of taxis on the streets of New York, and as a source of license revenue to the city coffers. By 2015, over 13,000 taxi medallion licenses were in use in New York City.1 You needed a medallion to pick up a rider off the street in Manhattan.

Uber arrived on the scene in 2015 and arrived with gale-force winds in the urban transportation scene, especially in New York City. Ridership of New York City-licensed yellow cabs fell precipitously. In fact, Uber's ridership had surpassed New York yellow taxi ridership by May 2017. This feat was accomplished in under three years. Other ride-hailing services such as Lyft, Juno, and Via entered the New York market to capitalize on Uber's market expansion success.

Figure 1-6 shows the changes in ridership for taxi and ride share services.

[20] https://www.taxiintelligence.com/the-history-of-new-yorks-taxi-medallions/

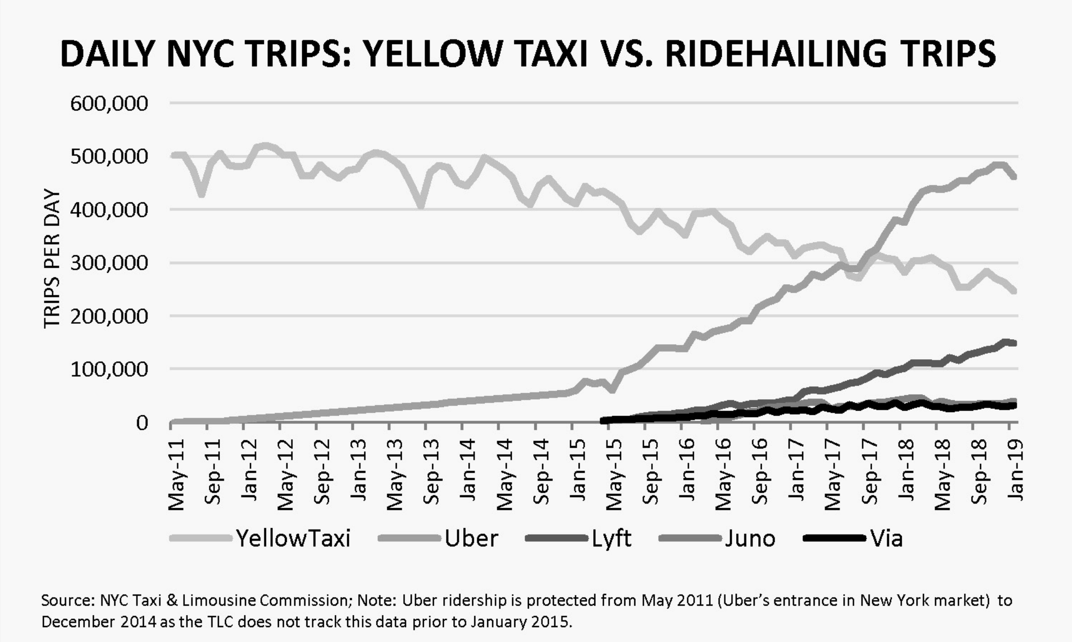


Figure 1-6, New York City Yellow Taxi versus Ride Hailing Services

The increase in competition has benefited the New York consumer; the total number of individuals using a form of ride services, in the form of a yellow taxi or other for-hire vehicles, has increased, as shown in Figure 1-7.

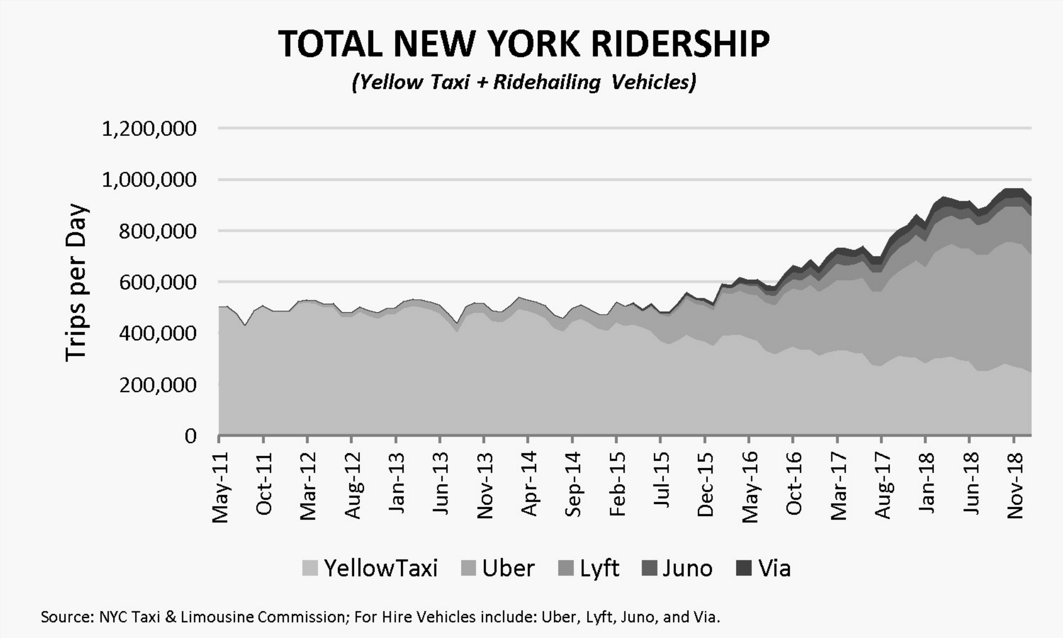


Figure 1-7, Total New York City ridership for licensed Yellow Taxis and 'for-hire vehicles.'

This increase in ridership, however, ended up having a significant, deleterious effect on the financial services industry. In order to understand how this happened, we need to look at the structure of the yellow cab system.

New York City—as well as Chicago, Boston, Philadelphia, and other cities—regulate cab hailing[21] via "taxi medallions." The increase in competition and its impact on New York yellow taxi ridership is evident in the following chart.

There is a direct and opposite correlation between yellow taxi ridership and taxi medallion price, the value of which depends on the cash flow streams generated for the driver from rider fares. Fewer riders taking yellow taxis equates to less income from fares and tips collected by the taxi drivers. This ultimately depresses the demand and prices for taxi medallions. Its negative impact on New York taxi medallion prices is shown in Figure 1-8. New York has three classes of taxi medallions: individual, unrestricted, and corporate. Note: Trend lines were added for certain months, as these were limited to no sales transfer activity.

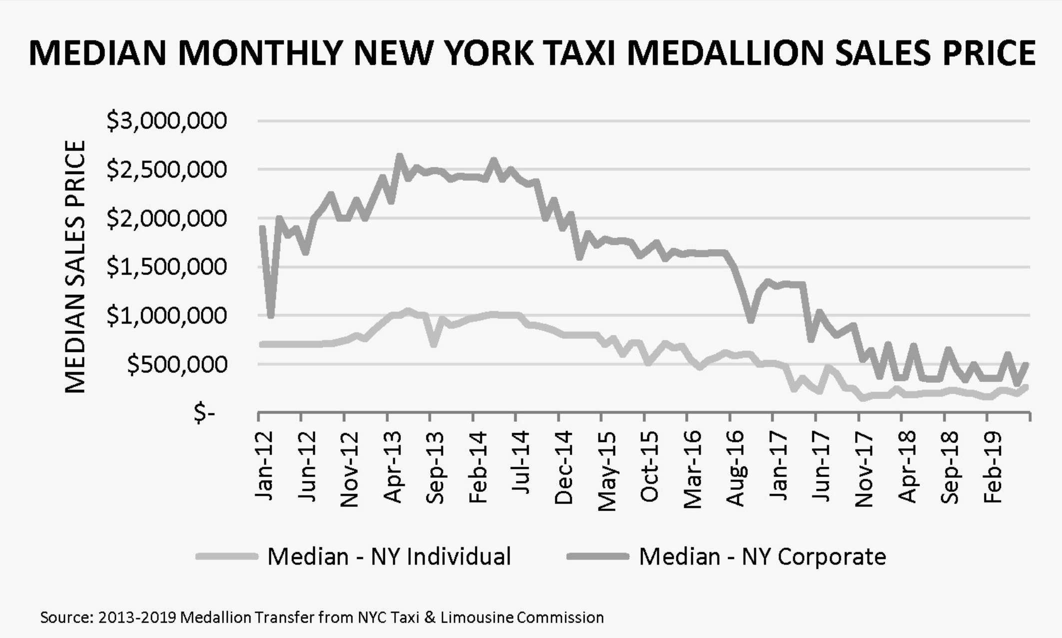


Figure 1-8 Illustrates the decline in taxi medallion prices over the five-year time span, coinciding with the arrival of ride share services like Uber.

In the past, credit unions and other financial institutions originated loans secured by these taxi medallion assets. They viewed them as lower-risk loans largely due to the stability and continued upward appreciation of the taxi medallion prices to back these loans. For years, prices of taxi medallions escalated, just like home prices through 2006.

Then… Uber.

The sudden change in the ride services landscape changed the status quo. Financial institutions holding loans backed by taxi medallions faced a dilemma—the $1,000,000 loan that they originated and hold on their balance sheet is now backed by an asset worth $200,000. What if the borrower decides to stop paying, such as in strategic default, or is unable to make payments on

[21] Cab hailing means flagging down a cab on the street as opposed to going to a cab stand or calling a taxi company to send a car. Cities regulate cab hailing ostensibly to protect citizens from unscrupulous limo drivers and potential criminals. Cities also regulate cab hailing as a source of licensing revenue.

the loan due to the decrease in monies collected from fares?

The impact has been and continues to be significant and widespread. Table 1-1 below shows those financial institutions no longer in existence as a result of carrying these assets.[22]

Table 1-1 shows the financial institutions and their respective asset size that failed primarily because defaults on taxi medallion loans.

| INSTITUTION NAME | HEADQUARTERS | DATE CLOSED, LIQUIDATED, OR PLACED INTO CONSERVATORSHIP | ASSET SIZE IN DOLLARS (AT TIME OF CLOSING |
|---|---|---|---|
| **Montauk Credit Union** | New York, NY | September 2015 | 162,000,000 |
| **Melrose Credit Union** | Briarwood, NY | February 2017 | 1,700,000,000 |
| **LOMTO Federal Credit Union** | Woodside, NY | June 2017 | 236,000,000 |
| **First Jersey Credit Union** | Wayne, NJ | February 2018 | 86,000,000 |

The reach of 'creative destruction' is wide. Fortunately, the counterbalance of the innovation that comes with it—and its benefits to the consumer—makes up the difference in the gestalt.

## When an Industry Demands Disruption

A discussion I had with Dr. Christensen on disruption in 1999 still rings true: "Figure this out: If you were a competitor, how would you kill off your business?" The last twenty years have provided many examples of disruption. Amazon stands out as a disruptor in the book distribution business. And in the publishing business. And the retail products business. And the music distribution business. And in the cloud hosting business. Seems like Amazon could keep going ad infinitum at this point. But will it?

In a discussion regarding the potential and/or imminent disruption of the residential lending business, Stan Middleman of Freedom Mortgage spoke of 'bad historians' who fail to look at history to learn lessons going forward. Stan commented that executives frequently do not see disruption coming, in an actionable sense. Executives may sense something is changing, that we are on the precipice, but then, according to Stan, "Refinances have bailed us out." Stan has an important caveat to that: "That will eventually end."

Bill Emerson of Quicken Loans noted that Quicken builds close relationships with its customers. "[We use] every relationship build tool available, except one. We never meet our customers face to face. Some lenders can't imagine how we build close relationships and outstanding customer

[22] These financial institutions failed. Many others suffered large loan losses due to the depreciation of medallions but did not fail.

satisfaction without face-to-face meetings. It can be done and done well and done repeatedly. That is demonstrated by Quicken's number one ranking in mortgage origination customer satisfaction by J. D. Power, the independent consumer satisfaction research agency."

Brian Stoffers, Vice Chairman of the Mortgage Bankers Association and CBRE stated that:

> *"We have enormous strategic decisions to make, which will shape our future. The impact of technology disruptors and the financial implications they have on our decisions is incredible.... Technology helps us be more efficient and effective with our very limited time in a fast-paced business world.*
>
> *Homebuyers want more efficient, instant home buying information, but they still want in-person assistance as well. Technology has given homebuyers the ability to be as self-sufficient as they would like. They can even bypass traditional realtors using sites like Zillow and Redfin."*
>
> *Rocket Mortgage "completely changed the mortgage lending landscape forever by appealing to consumers' appetite for online gratification and turbocharged the desire for every other lender to better serve their customers."*

Brian has framed the glowing embers of a potential disruption—no, revolution—in the residential real estate and lending industries. Consumers will demand instant gratification and lower costs. Consumers will demand industry disruption. The current economics are ripe for a shake up in the real estate brokerage, mortgage lending, appraisal and title businesses, as well as the service businesses that support the residential housing market.

Labor costs in real estate brokerage consume roughly 80% of the brokerage revenue. Labor costs in mortgage banking consumer about 70% of mortgage banking revenue. Labor costs in the title business consumer about 75% of the title insurance premium. Labor costs in the appraisal business consume about 75% of the appraisal revenue. The cost stack of real estate transactions looks like this:

The Mortgage Bankers Association (MBA) estimates 2020 home sales and average home prices[23] as set out in Table 1-2.

Table 1-2, Home sale transaction estimates for 2020.

[23] Urban Institute, Housing Finance Policy Center, "Housing Finance At a Glance: A Monthly Chartbook", February 2019.

| YEAR: 2020 *(estimated)* | |
|---|---|
| **MBA Home Sales Estimates** | 6,381,000 |
| **Average Sales Price** | $250,000 |
| **Total Real Estate Sales** | $1,595,250,000,000 |

That's $1.595 trillion dollars of estimated annual transaction volume. How much are the total transaction fees paid by a consumer for real estate commission, mortgage origination fees, title insurance fees, appraisal and inspection fees, and governmental taxes and fees? Let's work through the math.

First, the MBA's total mortgage dollar amount for the purchase of homes in 2020 is estimated at $1.273 trillion dollars.[24] The difference between the total mortgage amount and total home sales is the down payment made by homeowners. The average down payment forecast by the MBA in 2020 is about 20.2%. The down payments vary from the average from as little as 3% down to much higher amounts. Mortgage lenders compute the 'loan to value'[25] for a home by dividing the loan amount by the purchase price.

Transaction fees include the real estate commission of 6%. Typically, the real estate commission is internally split by the real estate brokerage into a 'listing commission' and a 'selling commission,' known as the listing 'side' and 'selling' side. The typical buyer does not see the breakdown as it is internal to the brokerage.[26] For purposes of this analysis, I am considering the real estate commission as borne by the buyer, even though the seller is typically the party legally responsible to pay the fee. Nonetheless, my view is that the buyer is ultimately paying the commission indirectly.

The mortgage origination fees are computed using the MBA's average cost to originate a loan. Some mortgage fees are paid directly by the borrower, such as an application fee, processing fee and underwriting fee. The bulk of the cost is paid indirectly, through a higher interest rate, so that the lender or mortgage broker can sell the loan at a 2 to 3 percent premium to a mortgage investor.

Title insurance fees include the title insurance premium, notary fees, recording fees, and other fees that may vary from state to state. Appraisal and inspection fees are paid by the buyer even though the appraisal and inspections are required by the lender. Fees on real estate, mortgage, and title insurance vary by state and location, so consider the following chart as indicative of national averages which may be higher or lower than those in each locale.

[24] MBA "Mortgage Finance Forecast" January 17, 2019.

[25] Loan to Value is the loan amount divided by the home sales price. An $80,000 mortgage on a home purchase price of $100,000 is 80% loan to value, or 'LTV'.LTV.' The higher the LTV, the greater the risk of default, as the borrower has less down payment at risk. 95% and 100% LTV loans have default rates of 6 to 8 times higher than a 60% LTV loan during the subprime mortgage crisis of 2006 to 2010.

[26] The commission is visible as a divided commission if the borrower uses a 'buyer's agent' solely representing the buyer, though this arrangement is not common in the United States.

Once the total sales transaction and mortgage volumes are known, the fees can be computed as set out in Table 1-3.

Table 1-3, Total fees by provider for both private provider and governmental taxes and fees.

| REVENUE TO PROVIDER OF THE FOLLOWING SERVICES | FEE AS A PERCENT | HOME SALES OR MORTGAGE VOLUME | DOLLARS | CUMULATIVE DOLLARS |
|---|---|---|---|---|
| **Total Real Estate Commissions** | 6.000% | $1,595,250,000,000 | $95,715,000,000 | $95,715,000,000 |
| **Total Loan Origination Fees** | 3.750% | $1,273,000,000,000 | $47,737,500,000 | $143,452,500,000 |
| **Total Title and Related Fees** | 1.250% | $1,595,250,000,000 | $19,940,625,000 | $163,393,125,000 |
| **Appraisal and Inspection Fees** | 0.375% | $1,595,250,000,000 | $5,982,187,500 | $169,375,312,500 |
| **SubTotal Private Provider Fees** | | | $169,375,312,500 | |
| **Total Taxes and Government Fees** | 2.000% | $1,595,250,000,000 | $31,905,000,000 | $201,280,312,500 |
| **Total Transaction Fees** | | | $201,280,312,500 | |
| **Per Cent of Home Purchase Price** | | | 12.6% | |
| **Average Cost per Home** | | | $31,544 | |

Consumers will likely pay an estimated $201 billion in fees related to 6.4 million home sales in 2020. Let me repeat that. Consumers will pay $201 billion in fees related to 6.4 million home sales. That equates to about 12.6% of the purchase price of a home, or $31,544 for an average home. In other words, the $31,544 of fees exceeds the 5% or 10% down payment of many first-time borrowers. The fees in a typical real estate transaction put the typical first-time borrower "underwater" (meaning the mortgage amount exceeds the value of the home after fees are deducted from the selling price).

The fees are paid to private providers (about $169 billion) and governmental agencies (about $32 billion). Of the $169 billion dollars of fees paid to private providers, about $135 billion went into commissions and compensation for loan officers, producing branch managers, real estate agents, title agents, and real estate appraisers. That's roughly 8.5% in compensation costs of the value of all real estate transactions projected in 2020. How long will Amazon, Zillow, Google, and other tech giants let human labor extract that kind of compensation?

## Analysis of the Fee Structure in a Real Estate Transaction

With regard to the listing side of the real estate commission, the value of a listing agent used to be local market knowledge and access to MLS listing data. This information is now free on

Zillow, Realtor.com, and a host of other sites. Discount real estate firms are offering listing fees as low as 1%, because there's not much work in making a listing presentation and entering the home's particulars in the multiple listing service. There is some value here, but not 3% for the listing side of the transaction.

Let's also consider the selling side of the real estate commission: In the historical paradigm, the selling agent used local knowledge to recommend homes to prospective buyers. The agent then ferried prospective buyers around, showing houses and helping the buyer to write a contract and find financing. Today, most buyers do research on neighborhoods, schools, real estate taxes, and other data. Listed homes can be researched online. Many listed homes have video tours, can be seen on Google Street view, and buyers can travel around from home to home easily via Uber. Buyers search for loans online, and most real estate contracts are "fill in the blanks." It's hard to justify a 3% commission on the selling side of the transaction. That's where discount real estate brokerages are attempting to gain ground.

The value of a loan officer used to stem from a knowledge of how to structure loans, counsel borrowers on loan options, and facilitate the transaction. But loan choices are now thirty-year or fifteen-year fixed rate mortgages guaranteed by FreddieMac, FannieMae, or GinnieMae. What's more, structure is now tightly regulated by "Qualified Mortgage" regulations. Borrowers can obtain their credit score for free. Online resources assist borrowers in computing their eligibility for a loan. How much value does a loan officer provide in most transactions? First time homebuyers need guidance and are willing to pay for it. But for 3.5% to 4.0% fees of the mortgage amount?

That brings us to mortgage brokers, who broker loans to lenders that close the loan in the lender's name and pay the broker compensation for services. In my opinion, United Wholesale Matt Ishiba has emerged as a mortgage lending disruptor on several fronts. Last year, Mr. Ishiba engaged in some public commentary on Quicken Loans, which was publicly rebutted by Jay Farner, President of Quicken Loans. Mr. Ishiba has been very vocal in encouraging loan originators, particularly from larger companies, to become a broker.

John Hedlund, Chief Operating Officer of AmeriHome Mortgage has some insights on these topics:

> *"I've heard him {Mr. Ishiba] speak a few times and he's been very open and direct about his strategy…to drive retail loan officers to become brokers, thereby growing the wholesale channel for all participants.*
>
> *The incentive was to create pricing so good in wholesale that it basically hurt the retail LO (losing deals to their broker counterpart). Earlier in the year, when rates were up, many retail companies could not compete with the excellent pricing in the wholesale channel.*
>
> *In my mind, it was less a price war and more a component of their overall wholesale market share strategy (and part of the overall AIME movement). It was designed to encourage LOs to move to be brokers.*

*You could go hang your own shingle, run your own shop, have very limited overhead and sign up with UWM or one of the many large wholesalers. They help develop your webpage, give you marketing support, provide ARIVE software; all with some of the best pricing in the business. While maybe not for everyone, it is a compelling offer.*

*And I understand it was leading to growth of the wholesale channel. However, now only a few months' later rates started dropping, volumes increased for everyone and the pressure on price has abated. Now both retail LO's and brokers are super busy. So time will tell if the wholesale channel continues taking share from retail (in all market cycles).*

Mary Ann McGarry, CEO of Guild Mortgage, describes the current state of affairs:

*"The industry is in a transition right now; costs are too high. The market is highly competitive, with margin compression. We need to align compensation with product complexity and business channel. Automation is taking over and there are price wars right now. That puts a lot of pressure on profitability.*

*I feel that brokers are growing into a bigger threat to a retail model. Technology is now being provided to the broker through the wholesale channel. This allows the broker to be a nimble, low-cost originator with access to advanced technology tools."*

Dave Stevens, former CEO of the Mortgage Bankers Association, discussed a LinkedIn post that questioned an overvalued asset, that being of some mortgage loan officers:

*"It makes no sense to pay a loan officer 120 or 150 basis points when the lender ends up with 20 basis points of profit and takes all the risks. I didn't say there was no need for loan officers. What I said was the value proposition for loan officers is broken. Loan officers who make a couple hundred basis points for a one-time origination without any obligation or risk downstream for performance or duration risk. Loan officers refinance that loan repeatedly. That model makes absolutely no sense.*

*If you are building this from scratch, you wouldn't build the model the way it works today. Far too many bodies. Far too much cost. And particularly for sales commissions, it's absurd. It makes no sense to pay 120 to 150 basis points for what loan officers currently do, which is source transactional business."*

Susan Stewart of SWBC Mortgage weighed in on compensation versus value added:

*"Most companies can afford to pay 100 basis points for origination, but companies are paying more than that. Without question, that is setting companies up to give away all profits. This isn't sustainable.*

> *It would be great if some changes were made to compensation requirements. The industry needs some carve-outs for the loan officer to participate in a price concession and sharing in that. But you don't allow them to raise the price. This will correct the problem the industry has right now. And it is clearly really significant."*

On the other hand, the actual lenders—those companies taking life of loan risks of default, litigation, and prepayment—earned about 18 basis points in profit in 2018. Projecting forward, shareholders and owners of mortgage lenders will earn about $2.3 billion in profits for carrying roughly $50 billion in costs of origination, assuming all the risk of repurchase, litigation, cures, reimbursements, and related costs. That doesn't seem like appropriate compensation to ownership. So, both the homebuyer and lender are pushing back on mortgage broker and loan officer commission costs.

A title agent used to provide a manual search of title records in order to ensure there were no intervening or unsatisfied liens on the subject property. Many of the transactional records are automated. The company insuring the title receives less than 10% of the total title insurance costs listed on a loan closing disclosure. The rest is labor and commissions.

Appraisers used to apply judgment and market knowledge. It's largely a lost art, and any lender that has repurchased a loan due to a so-called defective appraisal knows that most appraisals simply parrot the contract price. The data of real estate transactions owned by the GSEs and several private firms can provide a data-driven valuation of a subject property.

## The Lessons of Convergence

How long will billions in fees be extracted from homebuyers? There is friction in the homebuying process imposed by regulations. Only licensed realtors can offer homes for sale. Only licensed or registered loan officers can offer mortgage loans. Only licensed title agents and attorneys can offer settlement and title services. Only licensed appraisers can offer appraisal services. Only licensed homeowner's insurance agents can offer homeowners insurance. These barriers to entry are formidable. But they will fall.

How might a residential real estate transaction occur in the future? Here are a few concepts to consider first.

**Convergence:** George Gilder proposed convergence in the mid-1990s. Gilder was a futurist author who penned the Gilder Technology Report,[27] covering emerging trends in technology. In 1995, Gilder believed that a mobile phone, internet browser, and email would converge onto a single device. He postulated that the device would be software adaptable, meaning new uses and upgrades could be added via software.

This was revolutionary thinking in 1995. At the time, mobile phones were analog devices of significant size. Mobile carriers were isolated companies that extracted 'roaming' fees to users out-

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[27] http://www.gildertech.com/

side of their 'home' network. Netscape was the preferred browser, with dial-up service. America Online announced 'You've got mail.' A single software adaptable device was yet to come.

Gilder also postulated that personal assistants, cameras, and games would be converged into a single device. It took until 2007, but the first iPhone proved Gilder's convergence hypothesis correct. The iPhone launched the iOS platform, and Android soon followed. Both iOS and Android support convergence—the Internet of Things is the next round of convergence. Convergence, in fact, is now taken for granted.

Product logistics is getting physical goods from one location to another on schedule and efficiently. The U.S. Post Office was the first logistical fulfillment agency in the United States, offering free rural delivery to facilitate communications and commerce in the late 1890s.[28] United Parcel Service upped the ground game of logistics in the 1970s and 1980s.[29] Federal Express developed the air game for letters and small packages that needed overnight delivery.[30] In those 130 years, the logistics of physical goods became a commodity.

Data logistics on a network followed a similar path. The Defense Advanced Research Products Agency created an initial data network to exchange data related to classified research. Those protocols developed into the modern internet protocols.[31] Copper wire was replaced with fiber optics lines. Speed increased, as did capacity. The logistics of moving data, too, has become a commodity.

Payment logistics is moving payment for goods from the buyer to the seller. Payment technology started with national and international funds wired between banks, then transitioned to using Western Union[32] to move small amounts of money internationally. Credit cards provided the ability to move a payment from consumer to merchant. PayPal, Venmo, Square, and a host of other payment mechanisms have contributed to a fast and efficient way to transfer money for commerce quickly, safely, easily, and at a low cost.

Amazon's spectacular success has come about by leveraging logistics and convergence into a seamlessly integrated experience. Starting the fulfillment end of the process, Amazon mastered the convergence of physical logistics and data logistics. Physical goods can be sourced from any seller or supplier and delivered overnight to the buyer. The data logistics are married to the physical logistics such that physical presence can be accessed via data logistics. This logistics network delivered $275 billion of goods in 2018.

Amazon leveraged convergence by reducing every product offering into a searchable state and allowing for comparison of similar products as well as suggesting other products. Product, data, and payment logistics are combined into a search engine, while browser, mobile, big data, payment technology, and observable tracking were designed in. And, miraculously, the process can be reversed for returning items. Amazon de-risked the purchase process and made it easy for

[28] https://about.usps.com/who-we-are/postal-history/significant-dates.htm
[29] https://www.ups.com/cy/en/about/history.page
[30] https://about.van.fedex.com/our-story/history-timeline/history/
[31] https://www.internetsociety.org/internet/history-internet/brief-history-internet-related-networks
[32] https://www.u-s-history.com/pages/h1801.html

the consumer to buy with confidence by ensuring that defective, unsuitable, or "I changed my mind" returns could be done quickly and easily.

As a contrast, the residential housing business has seen little convergence, largely due to friction, creating an "expectation gap" for consumers, according to David Zitting, CEO of AvenueU. At this point, consumers are expecting the same ease of use, even with more complex transactions, and feel suffocated by the complexity of a real estate transaction. What causes this? Friction from regulatory barriers is one reason. Inertial friction is another. But let's suspend friction for a few moments and imagine a future of little friction in the residential housing business, a convergence Chris George described as "the proverbial Holy Grail" for the industry.

## Fintech Disruption via Convergence and Logistics: It's Already Underway

Two such shake-ups were recently announced. The following are examples of convergence of products—and convergence of customers—with logistics to create a path towards a one-stop shopping experience in residential real estate home buying and finance.

Amazon and Realogy Alliance: Amazon and Realogy announced TurnKey in a July 23, 2019 press release: "…TurnKey combines Realogy's real estate expertise across its brands, including Better Homes and Gardens Real Estate, Century 21, Coldwell Banker, ERA and Sotheby's International Realty, with access to Amazon's Home Services and smart home products…."

Launching with select Realogy affiliated brokers and agents in 15 major markets across the United States can now visit Amazon when they are ready to kick-off the homebuying process. The Amazon site will match an Amazon customer according to the homebuyer's profile to TurnKey agents. Upon closing on a home, Amazon connects the buyer with services and experts in their area to help make the house a home. Valued from $1,000 to $5,000 in complimentary products and Amazon Home Services courtesy of Realogy.[33]

TurnKey is a convergence of digital buyers with traditional local real estate agents.

Quicken and State Farm Alliance: Quicken continues to innovate. Quicken announced an alliance with State Farm Announces Alliance Bringing Rocket Mortgage's Award-winning Mortgage Process to its Customers in a press release dated July 17, 2019.[34]

According to the release, "America's largest property and casualty insurance provider is joining forces with the nation's largest mortgage lender. The alliance will allow State Farm agents to help more clients in more ways by originating Rocket Mortgage products for their customers.

Rocket Mortgage is creating new technology that will allow the State Farm agents to offer a Rocket Mortgage loan as a licensed loan originator. State Farm agents can provide its customers

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[33] https://www.prnewswire.com/news-releases/realogy-launches-turnkey-in-collaboration-with-amazon-300888956.html
[34] https://www.quickenloans.com/press-room/2019/07/17/state-farm-announces-alliance-bringing-rocket-mortgages-award-winning-mortgage-process-to-its-customers/#XWdOUiTXS52bePeY.99

conventional Fannie Mae or Freddie Mac, FHA, VA, USDA, and Jumbo mortgages. The rollout will take place over the next several months, and all new mortgage loans will be originated by State Farm Agents through Rocket Mortgage."

The alliance appears to be the convergence of the high personal touch of State Farm agents with the technology-powered relationship platform of Rocket Mortgage. Essentially, Quicken is acquiring a "ground game" of financial service product salespersons without having to hire or manage them directly.

## The Convergence of Residential Real Estate Data: A Scenario

How will the convergence of data in real estate happen? Let's consider a scenario. A millennial is thinking of buying a home. Preferences and habits are gleaned from the potential buyer's internet behaviors, responding to the likelihood that the millennial is thinking about buying a home. Suitable neighborhoods and homes are proposed. The potential buyer takes the suggestions and begins an active search. The potential buyer identifies neighborhoods and properties of interest. Video tours provide a look inside, and all the statistics—school quality, crime, livability, entertainment, cultural offerings—are converged. The potential buyer sees a few properties of interest.

In the background, the potential buyer's bank has discerned that their customer may be looking for a home, and has an intelligent estimate of the needed mortgage. Checking accounts, asset accounts, and credit are updated, and the potential buyer is offered financing. The collateral values of the homes of interest are determined by the bank. The loan will be held in the bank's portfolio and serviced by the bank.

The potential buyer accepts the financing offer, and is now a "cash buyer." The homes of interest are scheduled online, and the buyer's mobile device uses Bluetooth to open the home when the mobile device is in the immediate vicinity of the door lock.

The potential buyer selects the home and makes an offer via a mobile device app. The seller is notified, sees the buyer already has a mortgage commitment, accepts the offer, and schedules settlement. Data on home repairs, maintenance, and overall condition are accessed. Homeowners insurance is bid to ten carriers. A home warranty removes risk.

The buyer decides to close next week. The seller agrees, and the real estate is held in an LLC. No title work is required, and no transfer tax is paid. The transaction closes electronically, funds go to the seller, and the interest in the LLC is transferred by book entry. Transaction costs? Under $1,000.

Farfetched? The technology to accomplish the transaction described exists today. It requires two things: snapping together the correct elements of business process and technology so that the company makes a compelling offer to a customer, and inducing that customer to act in a way that benefits the customer and the company. Ideally, in the words of Rick Bechtel, Executive Vice President and Head of Mortgage at TD Bank:

> *"Unbelievably fascinating things are going on in terms of the way we will assemble data. Consumer direct particularly will change given big data. It's the predictive ability to go to consumers whether they're in your portfolio, whether they're in your bank, or whether they're just out there in the world.*
>
> *The predictive ability to offer a financial solution before the consumer may even realize they need the solution is at hand. Much like Netflix knows what movie I should be watching tonight, or Amazon knows what I should be buying next or that it's time to buy it.*
>
> *We want to solve a problem for a customer that they may not even be able to articulate. We want to achieve awareness of customer intent before they act. We want to discover that you are buying a house before you told anybody. Even a realtor.*
>
> *We'll know you plan to buy a house because we saw you on Zillow, we saw you on the realtor website. We saw that you rented a car in the town you looked at homes on Zillow. We saw that you have a plane ticket from your town to that town.*
>
> *We think you're buying a condo in Florida. And so, you're going to start seeing us pop up on ads and whatnot. The key is we don't have to advertise to millions of customers. If we can narrow down that list to the 50,000 customers that look like they're going to buy a house this year my ad budget is substantially reduced. And more importantly, we can start that relationship with a customer through a much less costly direct-to-consumer channel."*

This is the essence of predictive strategy, and some lenders are applying this strategy now. Others will soon follow. This is truly a game-changing strategy.

And you can envision far more radical ways of disrupting the residential real estate market. Want to cut out the requirement to sell a home using a traditional realtor? Put the home in an LLC, and you are no longer transferring real estate. Same for transfer taxes. How should you show the LLC owning the home? Could it work via eBay or Amazon?

A bank can make a loan to a buyer, qualifying it using bank statements, residual income, or using IRS transcripts. If the real estate loan is under $250,000, no appraisal is legally required. Banks make credit decisions on a data-driven instant basis all the time via credit cards, indirect auto loans, and so on. Why not a real estate loan? (Most banks have not converged their lending business, so it's siloed into consumer, mortgage, HELOC, small business lending, etc.) If a bank is willing to extend unsecured credit to a borrower, why not secured real estate? It costs a bank under $100 to approve and issue a credit card. Why not use the same process for real estate under $250,000?

## Where the Residential Real Estate Industry Is Headed

The rest of the book will explain why real estate transaction fees will materially fall (as set out in Table 1.4) and move toward a one-stop-shopping experience. Other opinions may vary, but the impact of disruption will be very favorable for the consumer. If transaction costs fall, the cost of home ownership will fall. Real estate will become more liquid and more affordable as transaction costs fall.

Not all fees will fall, however. Governmental taxes and fees seem to always ratchet upward. Excluded are governmental taxes and fees, because they are insulated from market forces that cause prices to move up and down. Private provider fees will fall because of the disruptive effect of fintech companies. The coming wave of innovation in financial services includes real estate transactions, mortgage lending, title insurance, and collateral evaluation such as appraisals and inspections, and related services. Table 1.4 shows the possible impact on fees in the future versus the current fees structure.

Table 1.4, Proforma fees for real estate transactions post-disruption.

| REVENUE TO PROVIDER OF THE FOLLOWING SERVICES | FEE AS A PERCENT | HOME SALES OR MORTGAGE VOLUME | DOLLARS |
|---|---|---|---|
| **Total Real Estate Commissions** | 2.000% | $1,595,250,000,000 | $31,905,000,000 |
| **Total Loan Origination Fees** | 1.250% | $1,273,000,000,000 | $15,912,500,000 |
| **Total Title and Related Fees** | 0.500% | $1,595,250,000,000 | $7,976,250,000 |
| **Appraisal and Inspection Fees** | 0.100% | $1,595,250,000,000 | $1,595,250,000 |
| **Total Private Provider Fees** | | | $57,389,000,000 |
| | | | |
| **Savings versus Prior Estimates** | | | $111,986,312,500 |

The consumer wins. Fees will likely fall by over $100 billion. Real estate brokerage operators, real estate agents, lenders, mortgage brokers, loan officers, and title agents will have to perform more transactions to make the same earnings. And of course, the weaker or less efficient participants will exit the business or fail.

This description is designed to provoke thinking and perhaps a bit of angst. You may think that the hypothesis of a streamlined residential real estate transaction is farfetched. You might conclude there are limits to Amazon and Alibaba's trading platforms. There are. But the elimination of friction from trading combined with an integrated finance and logistics platform will reduce fees to consumers.

The coming wave of fintech-driven innovation is unstoppable. And disruptive waves are not a recent phenomenon. The mantra of "disrupt or be disrupted" is the battle cry of the innovators. The first such wave of fintech innovation occurred 2,500 years ago. Surprised? Let's look at this concept in detail.

Also By James Deitch

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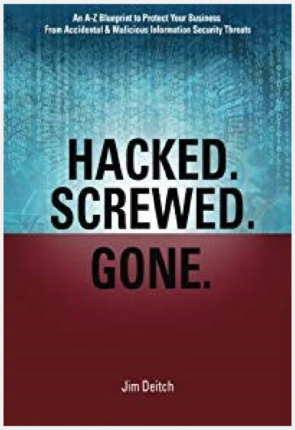
<td>
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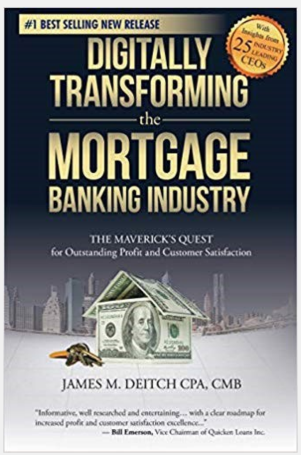
<td>
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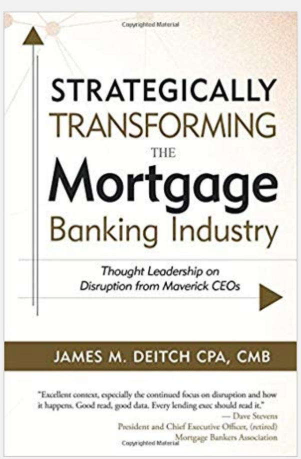
<td>
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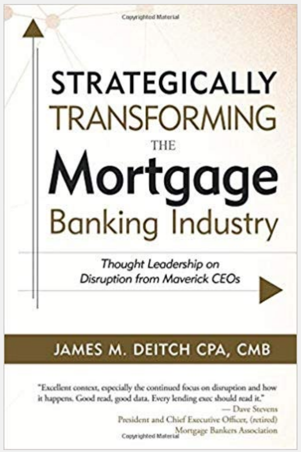

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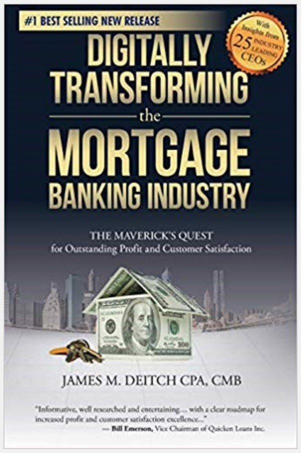

I am impressed and excited by the Maverick CEO's. This is my third book that included their experiences and insights. They are awesome.

Two truths came to me after I wrote this book.

First was that the talent to transform our industry exists. The Maverick CEO's prove that.

Second was that we need to marshal that talent and turn it into action. Fast. We have a 'need for speed' in our industry.

I invite you to take a look at the website. Our mission is make it a resource for us all as we transform our industry.

Jim Deitch

P.S. If you have any ideas that you want to share about how you 'manage differently' please send me an email at jim.deitch@maverickceo.com

MAVERICK CEO™

Learn more about the Mavericks and stay connected with the latest ideas that will transform the mortgage banking industry. The website features biographies of all the Mavericks, some of their industry insights and The 'Thinking Differently' blog.

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