"Farming Don't Pay:" The Anatomy of the 19th-Century Western Farm Mortgage Industry

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Introduction

In 1891, the Iowa Bureau of Labor Statistics collected surveys from farmers in its annual report for the first and only time. After six years of low crop prices combined with a pair of droughts, their frustration was profound. The farmers blamed traders in Chicago, they blamed the weather, and they blamed the most recent settlers. But for many, the blame was directed at their creditors: "I have worked on a farm in southern Iowa fifty-two years, have owned and managed my farm to the best of my ability; and while I have made a living, I have not made one dollar where the money loaner has made ten on the same amount invested."[1] Across Kansas, Iowa, Nebraska and their neighboring states, about 50% of farms had a mortgage, and their indebtedness was rising every year.[2] Although the farmers in the survey were hanging on, many had already given up and been foreclosed upon, and thousands more would soon join them. As the farmers failed, so too did their lenders.

The complaints of these 19th-century farmers resonate particularly strongly today because of their familiarity. In both 2008 and 2009, roughly three million American families defaulted on their mortgages.[3] The foreclosures, occurring alongside billions in bank bailouts, led widespread outrage against the financial system. The political reverberations of that anger -- including the Occupy Wall Street movement, the Dodd-Frank Act, and the popularity of the Bernie Sanders presidential campaign, to name just a few -- are still being felt today.

The 19th-century collapse of the farm-mortgage industry, despite its comparatively small size, was also a catalyst of political change. Indebted farmers were drawn to Populist parties,

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[1] J.R. Sovereign, *Bureau of Labor Statistics for the State of Iowa, 1891-1892* (Des Moines: G.H. Ragdale State Printing Office, 1892), 60 (hereafter referred to as *Bureau)*.
[2] Carroll Wright, *Abstract of the Eleventh Census* (Washington: Government Printing Office, 1894), 217-230 (hereafter referred to as *Abstract).*
[3] Les Christie, "Record 3 million Households hit with Foreclosure in 2009," *CNN Money,* <money.cnn.com>.

channeling their anger towards eastern money lenders into a political movement to alleviate their indebtedness.

The curious aspect of this anger is that it arises from a process that is supposed to be mutually beneficial. In both episodes, financial innovation allowed more people to become homeowners than had been possible before. All participants entered into this process willingly, yet many -- investors, borrowers, and lenders -- emerged bankrupt, or substantially poorer. And despite their mutual failure, most participants left this process with a group to blame that was not their own.

This process leads to three sets of questions. The first are about participation: why do homeowners take out loans they cannot afford? Why do investors buy risky loans they do not understand? Why do banks intermediate these loans? The second set are about failure: how and why does a financial system collapse? The third are about anger: how does a culture and politics of blame emerge from an episode in which everyone loses? Is this blame fair? This paper will try to answer these questions in the context of the 19th-century farm mortgage industry. While the answers to many of these questions are specific to that industry, the reader can decide for him or herself whether the conclusions presented at the end are applicable to the more recent crisis.

The challenge of understanding the 19th-century episode is gathering the necessary information. There has been little scholarship on the topic, perhaps because of the dearth of primary sources. This paper draws on four major sets of source material: first, the balance sheets of mortgage companies licensed to do business in New York and Massachusetts. These balance sheets were only collected after 1890, and thus offer a limited but nonetheless invaluable view of how mortgage companies operated; second, an Iowa Bureau of Labor Statistics Report that collected hundreds of first hand accounts from farmers across the state describing their local situations; third, newspaper articles from both eastern and western papers provide a contemporary, albeit oftentimes biased, perspective on the events unfolding; fourth, government census data and other government statistics reports provide information about interest rates, loan sizes, crop prices, and other key data to help understand the macroeconomic trends taking place. Together these sources provide a solid, if not complete, understanding of how the farm mortgage industry developed and collapsed.

Secondary research about the industry is sparse. The most insightful work has been done by Allan Bogue, whose extensive study of the J.B. Watkins company helps provide many operational details that would otherwise today be unknown. Otherwise, most scholars have focused on a particular aspect of the industry. Kenneth Snowden's analysis of the industry's mortgage-backed debentures, Peers Brewer's study of the eastern investors buying the mortgages, and Earl Spark's larger history of agricultural credit exemplify the approach of existing scholarship. While Jonathan Levy takes perhaps the most comprehensive look at the industry, he does so largely from a historical-sociological perspective, fitting it into a larger narrative of the western farmer's alienation from his land and labor in the late-19th century. While these sources inform parts of this paper, none fully challenges or supports its thesis.

Taken together, these sources help create a polyphonic narrative that traces the western farm mortgage industry from its birth to its failure through its three major sets of participants: farmers, investors, and bankers. By presenting the perspective of each group, their decision-making can be better understood, as can their assignment of blame following the collapse of the industry.

Part I: "I never saw so fine a country in my life"

The origins of the western farm mortgage industry of the 1870s-1890s trace back to the Homestead Act of 1862. For the previous two decades, settlers of the West had been encouraged to buy 160-acre plots of land in the Great Plains for $1.25 an acre, a significant fee for a potential pioneer. The Homestead Act, dropped that fee: for a nominal price and five years of work, any citizen of the United States who had not taken up arms against the government could own a plot of land in the West.[4] The reaction was at first muted -- the United States was still engulfed in the Civil War, and the railroads necessary to ship farm products east were unbuilt. While the number of farms in the Midwest grew rapidly from 1860 to 1870, the gross number was quite small: in Iowa, Kansas, and Nebraska, the total grew from 73,000 to 166,000. In the following two decades, the war subsided and the number of railroads exploded -- from roughly 53,000 miles in 1870 to 163,000 in 1890. The midwest accounted for more than 70,000 of the 110,000 new miles.[5] The railroad companies, eager to grow the Western economy and justify the number of lines they had built, served as the Homestead act's biggest advocates, sending agents and literature around the Northeast spinning tales about the "Golden West." Their efforts coincided with immigration from Germany and Scandinavia on an unparalleled scale.[6] As many of these new immigrants took up the railroad offers and headed West, the number of farms more than tripled from 166,000 to 480,000.[7]

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[4] David Wishart, "Settling the Great Plains, 1850-1930," Thomas McIlwraith ed., *North America: The Historical Geography of a Changing Continent* (Baltimore: Rowman and Littlefield Publishers Lanham, 2001), 155.
[5] "Data on Railroads, 1860-1920," *Central Pacific Photographic History Museum*, <cprr.org>.
[6] Frederick Jackson Turner, *The Frontier in American History* (New York: Henry Holt Company, 1921), 146.
[7] Peers Brewer, "Eastern Money and Western Mortgages in the 1870s," *The Business History Review* 50, No. 3 (1976), 357.

Among these prospective farmers was Thomas Butcher, who had recently emigrated from England. In 1871, Butcher joined a group planning to create a new colony in Southern Kansas. Butcher's letters back to his family in England conveyed the excitement of the young immigrant at the potential to own his own plot of land: "We have been round the country and I never saw so fine a country in my life. This country is all government land & free for all... I can go and pick out 160 acres of as good land as I ever saw anywhere in the state." The land could be Butcher's for just $14 dollars, payable at the end of the first year.[8] Like other Homesteaders, Butcher had ambition and a willingness to work hard for the chance to be a landowner. What he lacked was cash.

While the government had extended land, it provided none of the objects necessary to survive and farm in a harsh frontier environment. To properly set up his farm, a homesteader needed a home, a plow, livestock, horses, a wagon, seeds, and various other farm equipment. Depending on his surroundings, he may have needed to fence in his land, and set up proper irrigation or drainage systems. One estimate has put the cost of these expenses at $1,000 in the late 19th century.[9] This estimate may be slightly high -- the average mortgage was substantially smaller (roughly $800), and Butcher lists only about $700 in expenses, but the amounts were substantive enough that most prospective farmers, many freshly arrived in America, were unable to pay the expenses out-of-pocket. Butcher was lucky; he could turn to his family back in England for the $700. For thousands of other farmers, credit was needed.

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[8] Thomas Butcher, *Thomas Butcher to Family, March 5, 1871.* Letter. From Iowa Historical Society, *The Thomas Butcher Collection*.
[9] Barry Eichengreen, "Mortgage Interest Rates in the Populist Era," *The American Economic Review* 74, No. 5 (1984), 995-1015.

The supply of credit (the amount of money available for mortgages and other types of loans) had been a perpetual problem on the western frontier. Despite a natural abundance of land and potential crop production, western farmers had always lacked capital. Abundant capital could be found in the East, but a national market for capital was still in the process of developing. The development of this capital market has been widely documented and debated by economic historians.[10] This paper will not try to enter that debate. It is important to understand, however, that there is a general consensus that the second half of the 18th century was a period of national capital market integration. As barriers to lending money from the capital-rich East to the capital-poor West fell, interest rates in the two regions converged rapidly.[11]

This transitional era in lending can be viewed through the lens of the Western farm mortgage industry. Before the Homesteaders, the pioneers of the 1840s and 1850s had been serviced by small banking companies, which practiced a "rudimentary form of brokering mortgages," meaning that they extended mortgages to farmers then sold those mortgages, usually to eastern investors, taking a fee as the middleman. Still, there was no large-scale market or demand for these mortgages, and the primary job of these banking companies was to handle the challenges of exchanging currencies (of which there were hundreds, if not thousands in 19th-century America) and dealing with the transfer of land warrants.[12] The precedent of extending mortgages and selling them in the East would be essential to the growth of the West.

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[10] Marie Elizabeth Sushka et al., "Banking Structure and the National Capital Market, 1869-1914," *Journal of Economic History* 44, no. 2 (1984), 463-477; Lance Davis, "The Investment Market, 1870-1914," The Journal of Economic History 25, no. 3 (1965), 355-399; Richard Sylla, "Federal Policy, Banking Market Structure, and Capital Mobilization in the United States, 1863-1913," *The Journal of Economic History* 29, no. 4 (1969), 657-686.
[11] Davis, "The Investment Market, 1870-1914," 375
[12] Howard Preston, *History of Banking in Iowa* (Iowa State: State Historical Society of Iowa, 1922), 54-55; Brewer, "Eastern Money and Western Mortgages in the 1870s," 356-380.

But to handle the influx of tens of thousands of homesteaders, a few small landjobbers and mortgage companies would not be sufficient. To gain investor confidence and attain sufficient capital, western farmers would need a larger, more standardized group of intermediaries.

Part II: "if there is one thing in this country for which I have a greater distrust than any other, it is western real estate"

Into this void entered a new industry of mortgage banks. One such bank was the Iowa Loan and Trust, founded on a "cold winter night in '72," as described by its company history.[13] Organized by John Owens, a retired businessman, the gathering brought together some of Des Moines most prominent citizens; these included Samuel Merrill, a civil war hero and two-term governor of Iowa; Tom Jewett, later founder of the Jewett Typewriter Company, which earned the highest prize at the Chicago World Fair in 1893; and Corydon Fuller, a respected banker and close personal friend of President James Garfield.[14] Owens told the men: "Iowa has a future... what it need[s] most [is] some eastern money and some organized effort to keep the money coming this way to finance the growth of the young town and state."[15] Their biographical details were critical -- to sell large quantities of mortgages in the East and get this eastern money would require a degree of trust never before placed in western banks or western farm mortgages.

Already suspicious of the plains states and their development, the nascent farm mortgage industry proved a compelling target for the skeptical eastern elite. The general sentiment was

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[13] *Fiftieth Anniversary 1872-1922* (Des Moines: Iowa Loan and Trust Publishing, 1922), 4.
[14] Tom Jewett, *George Anson Jewett, Pioneering Iowa Entrepreneur* (Mountain View: Google Books, 2006); Corydon Fuller, *Reminiscences of James A. Garfield,* (Cincinnati: Cincinnati Standard Publishing, 1887); David Hudson Ed., "Merrill Samuel," *The Biographical Dictionary of Iowa* (Iowa City: Iowa University Press, 1878), 375.
[15] *Fiftieth Anniversary 1872-1922*, 4.

expressed by one Wall Street financier: “if there is one thing in this country for which I have a greater distrust than any other, it is western real estate... I have seen for myself, how excitable and unsteady are the judgements of western men.”[16] The “financier” captures a dual-wariness: this was not just a question of unproven agricultural lands; it was a question of trustworthiness and whether the “west,” which most of these men had never visited, could be entrusted with their money. In this vein, the *New York Times* hammered away at the industry for almost two decades in both their news and opinion sections. A letter to the editor in August, 1876 blared, “there is probably no legitimate business carried on between the two oceans so loosely and which such an utter disregard of the ordinary precautions taken by businessmen as the lending of Eastern money in the West.[17] A news article a year later described the industry as, “an organized system of perjury and fraud... and the visible operators being men of straw.”[18] The suspicion extended even into the literary realm: Mark Twain, James Fenimore Cooper, and Charles Dickens all satirized the industry.[19] The validity of these concerns will be returned to later. For the moment, however, it is important to realize that there was a strain of deep suspicion both of western farmers and their bankers among the investing establishment, one that would persist as the farm mortgage ran its course.

Why, then, did investors defy the pundits and invest in these securities? The investing landscape certainly contributed. In the fixed income arena, two of the most popular options -- treasury bonds and railroad bonds -- lost much of their appeal throughout the 1870s and 1880s. Treasury bond yields were driven down by a combination of fiscal policy, and by the demands of

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[16] Brewer, “Eastern Money and Western Mortgages in the 1870s,” 356.
[17] Anonymous “Observer,” “Letter to the Editor: Western Mortgages,” *New York Times* (New York, NY), August 29, 1876.
[18] Anonymous “Observer,” “Letter to the Editor: Western Mortgages.”
[19] Brewer, “Eastern Money and Western Mortgages in the 1870s,” 355.

the growing National Bank network, which required treasury bonds to back its currency issuances. In the late 1860s, twenty-year treasury yields had averaged between 5-6%. Throughout the 1870s, prices rose and yields fell below 4%. For investors seeking long-term, risk-free debt, the situation would not improve for decades, as yields averaged between 3-3.5% in the 1880s and 1890s.[20] New England municipal bonds, another popular investment, offered little attraction -- their risk premiums over treasuries were virtually zero, and even became negative at times due to the previously mentioned structural necessity of purchasing treasury bonds. In other words, an investor could at times expect a *lower* return on New England municipal bonds than on United States Treasury bonds. Railroad bonds had been a popular option for higher yielding securities, offering a roughly .5-1% risk premium over treasuries.[21] But after years of speculative growth, railroad securities (and their underlying businesses) had collapsed in 1873, leaving 20% of the industry's bonds in default rising to 30% by 1876.[22] While investors were compensated with a higher risk premium for holding railroad bonds during this period, the situation diminished both the supply of and demand for these bonds. As tends to happen in a low-yield environment, investors were susceptible to chasing higher returns at higher risk profiles.

Into this void entered companies like the Iowa Loan and Trust, J.B. Watkins Company, Kansas Loan and Trust, and National Loan and Trust. Although the investing environment was favorable, it still took considerable effort to convince eastern investors of the virtues of western farms. Jabez Bunting "J.B." Watkins, a young midwestern lawyer and founder of his eponymous mortgage company, went to great lengths to attract investors. After taking out advertisements in

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[20] Sidney Homer, *A History of Interest Rates* (Hoboken: Wiley, 2005), 308-310.
[21] Homer, *A History of Interest Rates,* 307.
[22] Brewer, "Eastern Money and Western Mortgages in the 1870s," 360.

twenty-five newspapers and periodicals, he invited investors to visit his office in Lawrence, Kansas at his own expense. Watkins spent considerable time trying to assuage the concerns of these investors, whose knowledge of the West was limited at best. Many associated Kansas and the surrounding states with drought and locusts. Through both reassurances and a growing record of success (Watkins' loans largely survived the great locust plague of 1874), Watkins slowly managed to convince investors that loans to Kansas farmers could be safe.[23]

Despite Watkins' efforts, the biggest selling point was never going to be safety -- the returns of farm mortgages compared to the standard menu of investments available were unparalleled. Although usury laws had been established in many of the Great Plains states in the 1850s, the interest rate caps were the highest in the nation: usually 11 or 12%.[24] Unfortunately, little information survives about the returns investors received on farm mortgages in the 1870s. Especially in the early years of the industry, however, mortgage companies seem to have avoided this cap in many cases, possibly through a structure that involved upfront fees in addition to standard interest payments -- even after eastern agents, loan agents in the West, and the Watkins took a slice of the interest, investors received as high as 10% returns on money entrusted to J.B. Watkins.[25] In states without a cap, returns could have been much higher: in states like the Dakotas, interest rates of 18% were not uncommon.[26] By 1880 rates had fallen considerably -- the average farmer paid 12.7% in the Dakotas, 10% in Kansas, 8.6 % in Iowa -- and investors could have likely expected returns roughly 2-3% below those figures.[27] Of course, comparing

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[23] Allan Bogue, "The Administrative and Policy Problems of the J.B. Watkins Mortgage Company, 1873-1894," *Bulletin of the Business Historical Society* 27, No. 1 (1953), 28-29 (hereafter referred to as *Administrative and Policy*.
[24] Wright, *Abstract*, 168
[25] Bogue, *Administrative and Policy,* 30.
[26] *Commercial and Financial Chronicle* (New York, New York), April 1899, 749.
[27] Wright, *Abstract,* 250; Bogue, *Administrative and Policy,* 42.

individual mortgages to railroad and government bonds is not a fair comparison -- the idiosyncratic risk of an individual mortgage was substantially higher than that of an established company, much less a government. Still, investors presumably diversified by buying portfolios of different loans. In the 1880s, this process would be formalized through the mortgage backed debentures, bonds that combined hundreds of mortgages to provide a safer income stream. Even as competition intensified in the 1880s and interest rates in the West fell, these debentures yielded between 5-7% (with most offering 6%) in a period when treasury bonds offered half that return. These debentures will be discussed in further detail. It is important to realize for now that for the entire existence of the farm mortgage industry, barring foreclosure, the potential returns of farm mortgages dwarfed those of safer eastern bonds.

At first gradually, and then in droves, investors began to embrace this new investment. In most writing about the farm mortgage industry, the end "investor" is described in only the most ambiguous terms. Who these investors actually were remains a source of uncertainty and debate. In critical eastern papers, the average investor was invariably a small-time saver living in the Northeast. After the failure of the Kansas Farmers' Loan and Trust Company in 1889, *New England Farmer* described the loss of "the means of living of several hundred investors scattered throughout New England, who, by advice of savings bank officials, who were considered shrewd businessmen had invested their money in these mortgages."[28] The New York Times, described the end buyers of these mortgages as "multitudes of small Eastern investors," or as "the mortgagee, living in New Haven, Newark, or Rochester.[29] These claims were not wrong, but

[28] New England Farmer, "An Emphatic Warning to Eastern Investors," *New York Times* (New York, New York), October 25, 1889.
[29] "Western Mortgages," *New York Times* (New York, New York), July 10, 1879; "Collapse of Western Mortgages," *New York Times* (New York, New York), November 11, 1877.

after predicting the imminent failure of the industry for two decades, the image of small retirees being duped into investing their hard-earned savings with shifty western companies fit well into the newspapers' chosen narrative.

Retail investors, however, were far from the only investors involved in the western farm mortgage industry. Scholars agree that the biggest investors were likely insurance companies, banks, and possibly investment companies in the East.[30] How big is unclear. Most state laws allowed life insurance companies to invest only in local mortgages, if at all. Two states, Connecticut and Wisconsin were the exceptions, and their five major insurance companies became major investors in western farm mortgages.[31] While some of these insurers set up their own networks of loan agents, most relied on the farm mortgage banks as intermediaries.[32] While it is unclear how much of their business was done through the banks, by any metric they were major investors in farm mortgages: already by 1876, the four companies from Connecticut held $46 million worth of the securities. By comparison, fourteen years later (by which time the population of the region had roughly doubled and per capita mortgage indebtedness had increased substantially) farm mortgage banks had $251 million in loans outstanding.[33] Savings banks were also investors in western mortgages, as both distributors (passing the investments along to their small retail depositors) and as end holders themselves, and some were forced to

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[30] Larry MacFarlane, "British Investment and the Land: Nebraska, 1877-1946," *Business History Review 57,* No. 2 (1983), 260. Does not provide a specific figure, but claims that "most" credit was provided by these companies; Preston, *History of Banking in Iowa*, 282

[31] Aetna, Northwestern Mutual, Travelers, Phoenix, and Connecticut Mutual

[32] Kenneth Snowden, "Evolution of Interregional Mortgage Lending Channels," *National Bureau of Economic Research* (1995), 225.

[33] Kenneth Snowden, "Covered Farm Mortgage Bonds in the Late Nineteenth Century U.S.," *National Bureau of Economic Research* (2010), 27 (hereafter referred to as "Covered Farm Mortgage Bonds").

shut down after taking losses on farm mortgages in the 1890s.[34] As for investment companies, an Iowa newspaper reported that a dozen of them held western farm mortgages in 1883, with one said to hold $20 million alone.[35] The involvement of "smart money," or capital invested by professionals, does not in itself validate the existence and safety of the western farm mortgage. The role these institutional investors played does, however, undermine the theory that western farm mortgages were an obviously bad investment (as coverage from the *New York Times* suggested), much less a scam directed towards unwitting retail investors.

What has been presented so far is the core of the western farm mortgage industry. Long before there was any thought of disastrous droughts, overvaluation, mortgage backed debentures, or guarantees there was a simple business model: facing increasingly poor investment options, eastern investors, both institutional and individual, sought out alternative options. At the same time, the West needed capital to help thousands of prospective farmers take advantage of the Homestead Act and build their livelihoods. Mortgage banks sprang up to connect these two parties with a simple business model of originating loans and selling them to investors. Stripped of its complications, the western farm mortgage industry was a reasonable way of moving capital west and developing the Great Plains.

Part III: "I could not loan the money as fast as it came in"

The 1880s proved to be a tumultuous decade for the farm mortgage companies. At the beginning of the decade, farm mortgage lenders had established a healthy and profitable

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[34] "Western Farm Mortgages," New Hampshire Patriot and State Gazette (Concord, New Hampshire), Date: February 12, 1885; "Savings banks and Farm mortgages," *New York Times* (New York, New York), March 30, 1897.

[35] *Evening Gazette* (Cedar Rapids, Iowa), August 3, 1883.

business, had earned the trust of investors, and had even overcome a challenging period for investments of all types in the late 1870s. By the end of the decade, the industry was in chaos, with dozens of companies plunging into bankruptcy, farmers abandoning their homesteads, and investors feeling suspicious of what many were calling a giant scam. This was more than a financial problem -- farming as a whole had become unprofitable, and the entire region was in a state of crisis. Still, the industry by that point had evolved considerably, and those changes must be examined before considering the macroeconomic headwinds that emerged. This evolution can largely be characterized by two major changes: a new business model that featured mortgage-backed debentures, and the entrance of hundreds of new mortgage lenders. Both of these changes have been linked to the eventual collapse of the industry, and so it is necessary to evaluate both their significance and the extent to which they were avoidable.

Until 1881, the western farm mortgage industry operated exclusively under a simple "brokered loans" model. After originating a loan, it would be sold to eastern investors, then taken off the mortgage lender's books. While seemingly both simple and effective, the model was neither. The loans were first complicated by a variety of "guarantees," used to entice investors. What a "guarantee," really meant, however, could vary wildly. A guarantee of payment could mean a full assurance of payment by the mortgage lender: if a farmer defaulted on his loan, the lender was responsible for paying off the loan to investors. A guarantee of collection, likely a more common approach, forced investors first collect as much as possible from the farmer (usually via foreclosure and land sales), before seeking recourse from the lender. [36] Of course, either type of guarantee could end up worthless, or impossible to collect, in the

[36] Edward Darrow, *A Treatise on Mortgage Investments,* (Ann Arbor: University of Michigan Library, 1892), 32.

event of the lender's failure.[37] Both the existence of the guarantees and the uncertainty of their collection complicated a relatively straightforward business model.

The individual loans were also challenging to sell. To market them, mortgage banks sent lists of potential investments to investors one at a time, giving basic information about each loan. Upon request, the lender would have to furnish more information about each loan, including a detailed loan application, appraisals, and verification of those appraisals by both an architect and a lawyer, among other documents.[38] This situation was also not ideal for investors. To avoid idiosyncratic risk, an investor would need a substantial number of loans in his portfolio. This required a substantial amount of investment capital (each individual loan averaged around $700), and a large commitment of time to determine whether a loan was investable from over a thousand miles away. For both parties, there was appetite for a better system.

In 1881, the Iowa Loan and Trust company introduced its first mortgage-backed debenture, which streamlined the process of both selling and investing in western farm mortgages. The lender would take a pool of 100-200 loans, and issue a bond backed by their income stream. There was no longer any question of guarantees or legal recourse -- the loans covered by debentures remained on the lender's balance sheet, and the lender was responsible for originating, servicing, and collecting on those loans.[39] Instead of marketing hundreds of unique products, lenders now only had to sell a single homogenous one, greatly reducing costs. The increased opacity -- investors saw only an income stream, not individual loans -- also allowed the

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[37] Even if there was money to be distributed, investors often found that courts refused to recognize the guarantees as legally binding (Darrow, *A Treatise on Mortgage investments,* 30).
[38] Bogue 90-92, Darrow, *A Treatise on Mortgage Investments,* 17-18.
[39] Snowden, "Covered Farm Mortgage Bonds," 9.

lenders to collect a wider spread between the interest they collected and what they paid out to investors.[40]

The question that has emerged from this change is whether the debenture put the farm mortgage industry on a course towards failure by both allowing and incentivizing mortgage companies to make riskier loans at higher valuations. Debentures certainly increased the opacity of farm mortgage investments. From the outset, the long distance between the two had made understanding the mortgage investments a challenge for investors. This gap had been filled by making copious amounts of information available, as was previously discussed. The debenture model allowed investors to ignore this information. The lack of idiosyncratic risk instead allowed investors to make a straightforward bet that western farmers as a group would continue to pay their mortgages. Investors could still examine loan-level data if they wanted to, but in practice, inspecting hundreds of loan documents required a massive expenditure of time. Lenders like J.B. Watkins predicted that investors would fail to inspect debenture loans.[41] Although Watkins does not confirm that investors stopped examining individual loans, another lender, Edward Darrow, compared the practice of purchasing mortgage debentures to the ineptly purchasing of a farm animal: "[Even] careful investors have invested thousands of dollars... without making the least inspection as to whether the animal was blind, halt, or lame; whether he was in good or bad condition."[42] Beyond just allowing lenders to hide riskier loans, the debenture model actually incentivized putting riskier loans in debentures: a bank would be happy to sell safer mortgages through the fee-based broker model and sell riskier loans through the spread-based debenture model, where higher interest loans directly meant higher profits.

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[40] D.M, Frederiksen. "Mortgage Banking," *Journal of Political Economy 2,* no. 2 (March 1894), 218-219.
[41] Bogue, "Administrative and Policy Problems," 130-131.
[42] Darrow, A *Treatise on Mortgage Investments, 24.*

Whereas before the profit on brokering loans had been capped, the riskier the loans put behind debentures, the higher the potential for profit.

There is some limited evidence to suggest that this theory played out in practice. Darrow decried that: "It is to be seriously regretted that some mortgage companies, under an extravagant and reckless management, have issued their debenture bonds, secured by injudiciously if not rashly selected mortgages."[43] One recent scholar, Professor Kenneth Snowden, extensively studied the loans made by the J.B. Watkins company, which, like many of its peers, sold both debenture bonds and individual loans side-by-side throughout the 1880s. Snowden finds that the use of debentures allowed Watkins to fund higher cost and higher risk loans, contributing to the industry's "rapid expansion just before the onset of the western agricultural mortgage crisis of the 1890s."[44]

Still, there is substantial evidence to suggest that the debentures did not make the industry or individual companies meaningfully riskier. Snowden's own data suggests that the mortgages placed behind debentures were only slightly riskier than those sold directly to investors. The average debentured loan was originated 287 miles from Watkins, as opposed to 245 miles for brokered loans (Snowden statistically links longer distances from Watkins' office to higher foreclosure rates). The effective interest rate on debentured loans was 10.77%, just .68% higher than brokered loans. The debt-per-acre of the loans, a measure of both farmer indebtedness and land valuation, was actually lower on debentured loans than on brokered ones. Ultimately, Snowden was also unable to find a statistically significant link between debentured loans and foreclosure.[45]

[43] Darrow, *A Treatise on Mortgage Investments,* 21.
[44] Snowden, "Covered Farm Mortgage Bonds," 3, 27.
[45] Snowden, "Covered Farm Mortgage Bonds," 29-30.

Looking beyond just the J.B. Watkins company, the mortgage lenders that issued debentures actually survived the collapse of the industry at a much higher rate than those that did not. Of the 99 companies that were licensed to do business in Massachusetts and New York in 1890, 62 had issued debentures. Of the nine that survived until 1897, eight had issued debentures.[46] Furthermore, the riskiest loans (those on the fringes of the Great Plains, like the Dakotas, Texas, and Colorado) were generally made by newer companies, which were forced to operate outside of the best farming areas because of their late entry. Most of these loans had to be sold individually because the newer companies usually did not have the track records to issue debentures.[47] This does not eliminate the possibility that debentures made some companies riskier, but the nearly complete failure of non-debenture issuing banks and survival of some debenture issuing banks certainly suggests that debentures could not have been the deciding factor in the collapse of farm mortgages. While debenture-issuing companies

To the extent that mortgage companies did not abuse the debenture model, how can their good behavior be accounted for? There are a few possible answers. First, buying a debenture was a bestowal of trust on a company to properly select the security's mortgages. Despite the ensuing frenzy for the loans themselves, investors seemed to have shown some discipline in this regard. While older, better established companies like Iowa Loan and Trust were able to conduct 100% of their business through debentures, younger ones were forced to continue their brokered loans models, and many newer companies were unable to issue debentures at all.[48] While older companies may not have been models of restraint, with longer track records of success and

[46] E.M. McPherson, *First Annual Report of the Commissioner of Foreign Mortgages* (Boston: Wright and Potter Printing, 1890), 4; E.M. McPherson, *Eighth Annual Report of the Commissioner of Foreign Mortgages* (Boston: Wright and Potter Printing, 1897), 6 .
[47] McPherson, *First Annual Report of the Commissioner of Foreign Mortgages*.
[48] McPherson, *First Annual Report of the Commissioner of Foreign Mortgages*.

reputations to uphold, they may have followed J.B. Watkins's example of limited, but relatively responsible gamesmanship of the system. It is likely not a coincidence that of the nine companies that survived, seven had been founded before 1884, while only 37% of the licensed companies were that old.[49] The selling of debentures and a history of successful lending went hand-in-hand. Second, in a downturn, a lender that offered both brokered loans and debentures would have prefered to have riskier loans in a brokered loans model. The covenants on the debentures were such that should the lender fail to make an interest payment, the entire company could be put into receivership (whereas in the brokered loans model there was often a lengthy foreclosure process before the payment of any guarantee).

Despite the evidence that the debenture model was not used specifically to fund riskier loans, it did dramatically increase the systematic risk of the industry. As was previously mentioned, the debenture dramatically streamlined the process of intermediating the sale of western farm mortgages. Instead of facing a stack of papers from loan applicants, an investor could now simply buy a debenture based on the name of a trustworthy lender, sit back, and enjoy market-beating returns. Whereas western farmers had once had no credit available, now, in part because of the innovative debenture, too much capital was available, driving the mortgage industry to the fringes of the Great Plains and increasing land valuations dramatically.

Debentures, however, were not the only source of this new capital. As the bonds were being introduced, the industry was undergoing perhaps an even more important change: the number of competitors was expanding rapidly. Just how rapidly is unclear. Of the companies licensed in 1890, 14 had been founded before 1880, 23 in the following five years, and 62 in the

[49] Snowden, "Covered Farm Mortgage Bonds", 27.

next five years. These numbers may actually underestimate the number of new entrants in the 1880s; multiple contemporary sources estimated that there more than 200 mortgages companies operating in the 1880s.[50] It is possible that some of these companies did not do business in Massachusetts or New York. It is also possible that some had failed before the licensing process even began. In both cases, the companies not included would have predominately been smaller, newer entrants.

These new players had good reasons for entering the market. The track record of western farm mortgages up to the mid-1880s had been excellent, and investors were throwing more money at the lenders. One New Hampshire newspaper counted western farm mortgages among "the safest line of investments the [state savings banks] have held."[51] Companies like the Iowa Loan and Trust could boast that investors had not lost a penny on their investments since its founding in 1872.[52] With interest rates on traditional investments like treasuries continuing to fall -- now down to around 3% --the 6% and up offered by debentures along with an outstanding track record made the mortgages an immensely popular investment. 'I found drafts, money orders, and currency heaped on my desk every morning," described one mortgage company secretary. "I could not loan the money as fast as it came in."[53]

The process of mediating between farmers and investors had also proven to be lucrative. Unfortunately, there is limited data about profitability before 1885. J.B. Watkins, the only company for which there are records, distributed dividends of 10 per cent to its shareholders

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[50] J.N. Briedenthal, *Second Biennial Report of the Bank Commissioner* (Topeka: Hamilton Printing Company, 1894). *The Commercial and Financial Chronicle 68,* (1899), 479.
[51] "Western Farm Mortgages," *New Hampshire Patriot and State Gazette* (Concord, New Hampshire) ,February 12, 1885, 4.
[52] *Five Per Cent Ten Year Gold Debenture Bonds Issued by the Iowa Loan & Trust Company* (Des Moines: Iowa Loan and Trust, 1914), 18.
[53] Charles Moreau Harger, "The Farm Mortgage of Today," *Review of Reviews* 33, (1906), 572.

throughout the 1870s and 1880s.[54] This seems to have been roughly the industry standard: when companies began reporting to regulators in 1890, they consistently reported dividends between 8 and 10 per cent over the previous five years, with few exceptions.[55] By comparison, from 1871 to 1891, publicly-traded equities are estimated to have returned dividends of just 5.6% annually[56] Unsurprisingly, investors were happy to continue financing new operations.

Together the debenture and the new companies ensured that abundant capital was flowing from eastern investors to western farmers. As will be discussed, the supply of capital began to outstrip the demand, laying the groundwork for a bubble. But it is important to realize that both changes -- the debenture and the new companies -- were logical for both prospective and existing lenders. The debenture dramatically improved the efficiency of mortgage lending, and the new companies (and their backers) were chasing high returns in an industry that had been consistently profitable for decades. While both changes can be pointed to as major causes of the farm mortgage bubble, it is difficult to argue that they could have been avoided.

Part IV: "Farming don't pay"

As dozens of companies entered the western farm mortgage business, the foundation on which it was built began to crumble. It is important to remember that behind all the loan covenants and debenture contracts were thousands of farmers, who by the 1880s were struggling to eke out a living, much less pay the interest on their mortgages. Western farming had developed into a merciless catch-22. Overproduction had driven corn prices so low that even in a "good" year, a farmer could struggle to pay his bills. In a bad year, corn prices might rise, but

54 Bogue, *Administrative and Policy,* 53.
55 McPherson, *First Annual Report of the Commissioner of Foreign Mortgages,* 3.
56 Robert Shiller, "U.S. Stock Market Returns from 1871-Present and CAPE Ratio, <www.econ.yale.edu/~shiller>.

that meant little to the many farmers who had lost their crop. A shakeout was needed -- enough farmers had to be driven back east, either due to low prices or drought, to stabilize corn prices. This would, of course, entail thousands of foreclosures.

This essential aspect of the mortgage industry has been largely neglected, first by contemporary observers and later by scholars. Rarely do corn prices appear in the breathless coverage of the industry by the *New York Times,* nor in articles by Frederiksen, MacFarlane, Mappin, or Snowden. Even in the generally perceptive reports of the Eastern Foreign Mortgage Commissioners, references to the struggles of western farmers, as opposed to their lenders, are made rarely and even then, indirectly.

For farmers, however, there was no missing the changing economics of farming. As thousands of settlers had moved west in the late 19th century, corn had become oversupplied, and prices had correspondingly fallen. Whereas in the 1860s a farmer could have expected around 96 cents for a bushel of corn, that number had fallen to roughly 63 cents in the 1870s, 46 cents in the 1880s, and 37 cents in 1890.[57] In the 1890s, prices at times fell below 30 cents a bushel.[58] In many cases, farmers received substantially less than these posted prices owing to their distance from markets and the necessity of dealing with middlemen.[59] Corn was the staple crop in the Midwest, but even the price of alternate crops fell -- wheat averaged 27% lower during 1885-1895 than during the ten years prior, rye 15%, oats 12%, and barley 23%.[60]

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[57] L.L. Polk, "Agricultural Depression. Its Causes -- The Remedy" (speech, Senate Committee on Agriculture and Forestry, Washington, D.C., April 22, 1890).
[58] Edwin Goldfield, Ed., *Statistical Abstract of the United States* (Washington: U.S. Department of Commerce, 1955), 666.
[59] Sovereign, *Bureau*, 14-25.
[60] Goldfield, *Statistical Abstract of the United States,* 666.

At times, crop prices could seem almost absurd. On the morning of January 18, 1890, Kansans woke up to an editorial suggesting that, "whenever corn is cheaper than any other fuel obtainable it is the very best policy for farmers to burn it." By the newspaper's desperate logic, burning corn as fuel would help correct the oversupply and, "give farmers good margins over the cost of production and greatly revive all business interests in all corn producing sections."[61] Although the suggested benefits were hyperbolic, the problem itself was not -- in 1889, Illinois farmers had *lost* $10 million on their corn crop, and Iowans had *lost* $23 million (on a $58 million crop).[62] This came in a year without any significant drought or blight.

The 1891 biennial report of the Iowa of Bureau of Labor Statistics contained for the first and only time a section entitled, "Voice of the Farmers." Over nearly thirty pages, dozens of farmer-correspondents were able to explain their situations, complaints, and perspectives on the farming situation throughout the state. Unsurprisingly, their words were deeply pessimistic. Many agreed on a date -- 1885 -- when the good times had ended. One relative optimist wrote that, "farming at times has returned a profit and at others a loss but it is safe to say that the farmers in this township have barely made expenses since 1885." Most agreed with the more blunt conclusion shared by one farmer that, "there has been no profit in farming since 1885." But 1885 may have been an enigma, a good year in recent memory that overshadowed so many bad ones. One farmer estimated that his land had fallen 50% in value since 1870. Another grimly summed up his struggles, "I have plowed and sowed, paid taxes, and interest and twenty years ago I was better off than I am today. If I were young again I would choose some other vocation than farming." There was a grim determination apparent in these statements, and more

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[61] Sovereign, *Bureau,* 8.
[62] Sovereign, *Bureau,* 14; L.L. Polk, "Speech at Senate Committee on Agriculture and Forestry on Agricultural Depression, Its Causes -- The Remedy," (1890).

references to the potential for future failure than failure past. But the sentiment shared by farmers in one township was echoed across Iowa: "farming don't pay."[63]

Although it is impossible to fully assess the financial condition of western farmers at this juncture given the range of crops, plot sizes, proximity to markets, and weather conditions that farmers might experience across the Midwest in a year, it is possible to build a model of the "average" farmer. Information is drawn from a variety of sources, primarily census data, government reports, and bankruptcy documents. The range of corn prices is drawn from the range of corn prices different Iowa counties received during 1890. The average farmer is assumed to have a plot size of 160 acres, unchanged from the plot he received in the Homestead Act, and to have an average Iowan yield per acre and cost per bushel (cost per bushel includes all costs of farming, processing, and taxing corn). The length, size, and interest rates on the loan should be taken as rough approximations, and are drawn from Eleventh Census data as well as the documents from a large mortgage lender's bankruptcy documents. The assumptions made are shown in figure 1.

[63] Sovereign, *Bureau,* 66-96.

Average Farm Size	160	Acres
Corn Yield per Acre	26	Bushels Per Acre
Bushels Per Year	4160	
Cost Per Bushel	$0.30	
Total Cost	$1,248	
Average Mortgage Size	$791	
Average Interest Rate	9%	
Average Lenght of Loan	5	
Annual Payment	$203	
Corn Price Range Lower Bound	0.25	
Corn Price Range Upper Bound	0.38	

Figure 1[64]

Even given the looseness of the assumptions, the results (shown in figure 2) demonstrate how tight the margins were for western farmers. Two cases are provided: one in which the mortgage amortizes (meaning that the principal is paid back), and one in which only the interest is paid. As will be discussed, loans were almost entirely interest-only. The amortizing case serves to demonstrate the impossibility of a farmer getting out of debt -- to pay off the principal steadily would have been virtually impossible except at the highest end of the price range. Even in the interest-only case, a farmer could have had trouble paying his mortgage bill at prices below 33 cents a bushel (a level corn prices frequently fell below in the 1880s and 90s). Note that the "profit" shown in the tables below do not include any basic, non-farming expenses of life: food, clothes, and other goods.

[64] S. Pelletier, "S. Pelletier to Caleb Bradlee*,* August 2, 1892. Letter. From Iowa Historical Society, *The Caleb Bradlee Collection*; Goldfield, *Statistical Abstract of the United States,* 666; Sovereign, *Bureau*, 18-25, 105-120; Wright, *Abstract,* 250.

Corn Price	Annual Revenue	Annual Profit
$0.25	$1,040	-$411
$0.27	$1,123	-$328
$0.29	$1,206	-$245
$0.31	$1,290	-$162
$0.33	$1,373	-$79
$0.35	$1,456	$5
$0.37	$1,539	$88
$0.38	$1,581	$129

Figure 2 (amortizing)

Corn Price	Annual Revenue	Annual Profit
$0.25	$1,040	-$279
$0.27	$1,123	-$196
$0.29	$1,206	-$113
$0.31	$1,290	-$30
$0.33	$1,373	$54
$0.35	$1,456	$137
$0.37	$1,539	$220
$0.38	$1,581	$262

Figure 3 (interest-only)

Although a farmer may have had some other sources of income, including feeding grain to livestock for sale, or raising other, sometimes more lucrative, crops, it is clear that the challenge of meeting annual mortgage payments would have been nearly impossible on a consistent basis.

How did farmers continued to pay their mortgage bills? One answer is that there was no thought of paying down principal. One farmer wrote that he knew of no mortgage foreclosures in his area, "but the farmers are only able to pay the interest. They have not reduced the principal very much." Another offered that while the number who had foreclosed was small, the number who have paid their mortgages is smaller."[65] Even without any amortization the interest was a difficult burden, but a relatively manageable one. For their part, the mortgage companies had no incentive to demand the repayment of principal. As will be discussed, the underlying land had lost its value, and the process of selling it was both expensive and value destroying. From the bank's perspective, a farmer continuing to till his land and pay his interest was the most profitable option. As long as the interest was received, the mortgage companies could pay the coupons on their debentures and brokered loans, with any reckoning delayed for years when the principal came due.

For a long period, however, the influx of eastern money allowed that reckoning to be delayed. These companies increased the capital seeking investment as farming became increasingly unprofitable and land plummeted in value in the 1880s. With millions in both new and old money seeking investment, farmers found it easy to refinance their mortgages, despite their ongoing struggles. One loan agent writing back east reported that many farmers were actually receiving even larger loans: "Mortgages, to the best of my knowledge, are not being paid off, but many have been renewed and the loans increased."[66] It is unclear whether the larger loans were due to higher land valuations or larger encumbrances on the land. Likely some of both was taking place -- valuations increased as more capital chased the same pool of farmers, and farmers became increasingly indebted to make up for their decrease in income. For both of these reasons, the average mortgage in Iowa and Nebraska increased by 35% from 1880 to 1889, even as the intrinsic value of the land (based on crop prices) would undoubtedly have fallen.[67]

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[65] Sovereign, *Bureau,* 60,83.
[66] Sovereign, *Bureau,* 78.
[67] Wright, *Abstract,* 168.

It is important to understand the decisionmaking of the lenders in regards to valuation. Undoubtedly, the lenders were intimately aware of the challenges farmers were facing. Even if there was a period in the early 1880s when higher land valuations may have seemed justified by successful farming, by the end of the 1880s, when property valuations peaked, that justification had disappeared.[68] Still, it is difficult to say what lenders could have done to avoid overreaching. Short of declaring the market overvalued and returning capital to investors (a decision for which there are few examples in the annals of business history), the nature of the vastly increased competition meant that banks, even the well-established ones, had to compete fiercely on both interest rates and valuations. The structure of the mortgage banks made even cutting back on lending challenging. The banks operated through networks of local agents, who brought them loans. While a bank may reject a few, an agent could easily grow frustrated and leave for a different shop if too many were turned down.[69] Because these agents were paid on volume, they were not incentivized to make good business decisions -- that was the role of the mortgage banks (and investors, who by this point seem to have been doing little, if any, due diligence on their investors). But for banks to reject loans would have meant losing their agents, and with them, their businesses.

Even the larger debt loads and higher valuations were not enough to sate the flood of money seeking to invest in western farm mortgages. Once the proven lands in the Great Plains had been claimed by early homesteaders, new farmers began to settle further West, South, and North, and lenders quickly followed them. Not only were these lands less productive for corn planting, they were more prone to drought. But as of the early 1880s, these facts could be easily

[68] Frederiksen, "Mortgage Banking," 207.
[69] Bogue, "Admin and Policy Problems," 49.

obfuscated, if they were even known. The farming history of these new lands was extremely short for settlers, and recent years had brought deceptively heavy rains. Railroads, still seeking to expand their market, were happy to advertise this recent prosperity.[70] In this fortuitous environment, it was easy for both eastern investors and prospective settlers to believe that the "the West is the West," without distinguishing between "a corn and blue grass section of the West and a section fit only for sorghum and winter wheat."[71] The difference between prime and fringe agricultural regions would shortly be laid bare. In the 1880s, however, there was a widespread belief that, "the profitableness of agriculture and the values of land would expand as population expanded[72] The new farmers and the money kept coming west, even if the lands were no longer the same.

While western publications derided the naïvety of eastern men and their dearth of knowledge about the West, they did so only after the farm mortgage industry began to collapse. The author could not find a single instance of a western publication making these warnings in the 1870s or 1880s. Instead, publications were far more likely to castigate the eastern establishment (possibly in response to the*New York Times* editorials) for its cautiousness:

> When loans of $300 or $1,000 were being made on farms of 160 acres in Illinois, there were plenty of careful people in the East who predicted that the lender would have to take the farms. They said the same when Iowa and Minnesota were filling up with people, and reiterate the same thing as applied to Dakota. Their prophetic vision was and is at fault, and money from these very people now seeks investments in Illinois and Iowa farm mortgages at very low rates of interest.

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[70] Turner, *The Frontier in American History,* 147
[71] *The Homestead* (Des Moines, Iowa), October 25 1889; "Defaulting Farm Mortgages," *The Homestead* (Des Moines, Iowa), September 20, 1889
[72] "Farm Values and Western Mortgages," *Springfield Republican* (Springfield, Massachusetts), January 29, 1890, 4.

Nor were the mortgage banks expanding to these new areas limited to new upstarts -- a substantial portion of others were well-known and trusted operators looking to grow their businesses. J.B. Watkins, for example, had expanded his business even before competitive pressures forced him to so. Already by 1880, he was extending loans across the entire state of Kansas (the western half of which proved extremely vulnerable to drought and low yields). In 1881, he considered expanding in the Dakota territory, but deemed the land valuations there overinflated. He did, however, choose to expand into Northern Texas later that year, a region that would account for a large number of his foreclosures later on. Never did Watkins, a man who had lived in the West his entire life and was deeply invested in the success of his business, express any concern about the viability of these new lands. Although he chose not to enter the Dakota Territory, the decision was made because of valuation. In Texas, Watkins and the head of his local office pitched the high fertility of the soil and the variety of crops that could be grown there as the area's major selling point to investors, and there is nothing from his internal correspondence to believe this was an intentional deception. Watkins even tried at one point try to move much of his business to Texas, believing that it offered better, safer opportunities that Kansas.[73]

Watkins was not alone among the older companies in moving to the farther reaches of the West. It is hard to gain a complete picture because the most expansionist companies may have already failed when records were first collected in 1890. Still, even in 1890, the Kansas Loan and Trust, founded in 1873, had a small

[73] Bogue, Administrative and Policy Decisions, 36-38, 50, 53.

operation in Colorado. The Iowa Loan and Trust, renowned for its conservatism (it survived the collapse of the industry), operated in the Dakota Territory. Other well-established companies had long operated in central and southern Kansas. Overall, there was a clear trend: older companies tended to keep their businesses in more conservative areas, while newer companies moved to the fringes. Still, there is nothing to suggest that the failure of these newer regions was a foregone conclusion among western men.

Part V: "Everyone losing money and denouncing western mortgages"

By 1890, it was clear that the western farm mortgage industry was in a state of decline. As dozens of new competitors entered the market and more eastern money flooded into the farm mortgage asset class, valuations had become inflated. The areas that had first galvanized investors had become overbought, and companies had been forced to expand outwards from the core regions, inflating values there as well. Cascades of new farmers and a string of successful years had oversupplied the market for the Great Plains' core crops, leaving farmers struggling to hang on. While the structure of farm mortgages allowed many to just barely pay their interest, the position of both these farmers and their lenders was precarious.

That precariousness would be exposed by two sets of shocks -- drought and financial panic -- which pricked the western real estate bubble and drove most of the lenders into bankruptcy. The first of these, drought, came in a wave that slowly unfolded for over a decade. After decades of fortunate weather, the region experienced a drought in 1887, which disproportionately affected the newly developed parts of western and central Kansas.[74] In 1890 there was another widespread crop failure, this time reportedly affecting nearly every area of the West.[75] After a few exceptional years of good crops, the worst of these droughts, "which for severity and widespread damage to crops, has never been equalled," came in 1894.[76] After that final drought, in which millions of acres of crops went unpicked across the region, the rains returned again and the dry period was over.[77]

For the mortgage lenders, farmers, and investors, however, the damage was done. As the droughts hit, many farmers finally gave up their struggle. Thomas Butcher had successfully tilled his land for over twenty years when he finally left Kansas for the deep south in 1892. The instability of crop prices, the excessive heat, the failed crops all made what had been an adequate profession no longer stable enough to support his now quite large family.[78] He was joined by many others: for the first time, the population of Kansas declined throughout the late 1880s and early 1890s after years of rapid growth.[79] Undoubtedly, the populations of its neighbors followed a similar pattern.

The following graphs describe the impact these foreclosures had on the farm mortgage companies. Figure 4 shows the amount of interest that was 60 days or more past due at the time of the financial statement filings. This figure is meant to give a

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[74] Bogue, *Administrative and Policy,* 53.
[75] E.M. McPherson, *Second Annual Report of the Commissioner of Foreign Mortgages* (Boston: Wright and Potter Printing, 1891), v.
[76] Benjamin Gue, *History of Iowa* (New York: Century History Company, 1904), 175.
[77] Gue, *History of Iowa,* 176.
[78] "Editor's Note," from the Iowa Historical Society, *The Thomas Butcher Collection*.
[79] Preston, *History of Banking in Iowa,* 13.

sense of how mortgages had performed recently. Although it misses the aftermath of the 1887 and 1894 droughts (because these statements were not collected in those years), the graph provides a sense of the variability of payment the mortgage companies faced -- after the 1890 drought, over 2% of interest was late, whereas in the following three years that figure hovered around 1.2%. Even as the market calmed during better years, figure 5 shows the real estate held by these companies increased steadily as the result of foreclosure.

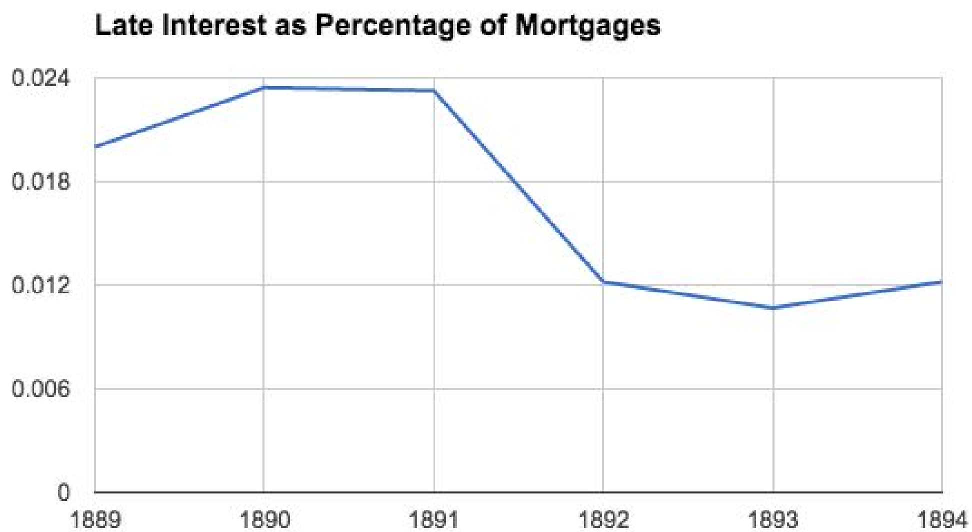

Figure 4

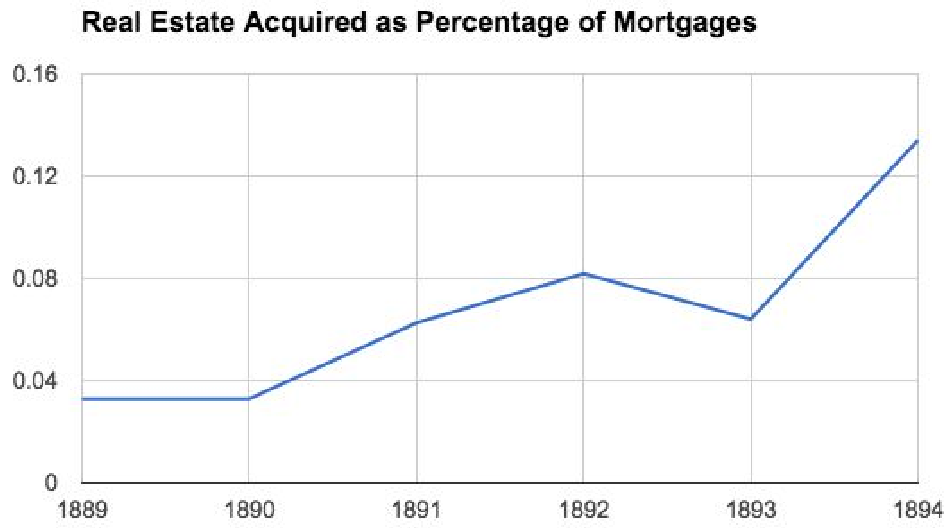

Figure 5

While the collection of foreclosed real estate by mortgage lenders is usually a standard practice, in the West it was disastrous. The loans had survived not because of a fair valuation, but because farmers had been able to produce just enough to pay the interest. When lenders were forced to take possession of the land, they quickly found that no one was willing to pay even close to the value of the mortgage. As dozens of banks liquidated land and the tide of new settlers slowed (recall that the population of the region was actually decreasing), prices fell to a firesale level. While some of these cases bordered on the absurd -- in one instance, land that had been valued at $5000 was assessed at $100 -- the price of land had fallen so drastically that even fairly valued land could result in a substantial loss.[80] While it is hard to say what a "fair value" for

[80] Preston, *History of Banking in Iowa,* 13.

this land was, there is anecdotal evidence that land worth $125 during a normal period was being sold for as little as $10 an acre.[81]

The question for the banks became how long they could remain solvent and avoid collapse. Both structures of the mortgage banks -- the brokered loan model and the debenture model -- were such that surviving this downturn would require the continued buy-in of investors. In the brokered loan model, the payment of loan guarantees could destroy the capital base of a lender quickly if demanded by investors. Even in cases where guarantees were not offered or were not paid, burned investors could easily stop investing in new brokered loans, effectively terminating the lender's operations. In the debenture model, the patience of investors was even more important: when the banks failed to pay interest on a debenture, investors had the opportunity to put the entire bank into receivership (meaning the liquidation of its assets) to receive payment.[82]

Oftentimes, investors chose to quickly put companies into receivership. One observer attributed the decisions to the "customary want of wisdom" of eastern men, and indeed, the choice made little sense on the surface. After putting the company into bankruptcy, the mortgages were left in the hands of eastern lawyers to undertake foreclosure proceedings and sell the mortgages.[83] Given the market situation at the time, these mortgages fetched almost nothing at auction. A Bostonian lawyer was forced to tell his client that her $10,000 investment in the Security Investment Company of Yankton, South Dakota was worth zero: $46,250 face value of mortgages

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[81] Kingman, Robins. *The Farm Mortgage Handbook* (New York: Doubleday, 1916), 99.
[82] Robins, *The Farm Mortgage Handbook,* 99.
[83] Robins, *The Farm Mortgage Handbook,* 99.

had sold at auction for $3300, barely enough to cover the outstanding taxes, legal expenses, and other sums advanced involved in the sale. While allowing the bank's management to continue running the company may not have recouped investors' entire investments, it would have allowed them to continue collecting interest from non-defaulted farmers, and it would have avoided inexperienced eastern lawyers liquidating the property.

While evidently the decision to bankrupt the companies was a mistake, the decision may have been motivated by more than just faulty judgement. One writer in 1887 had predicted in regards to the farm mortgage industry that, "any permanent interruption of the friendly financial and business relations of the East and West would be a very serious matter."[84] In 1890, the failure of the Baring Brothers bank and the resulting financial panic and depression created just that sort of interruption. It is unnecessary to trace the macroeconomic developments that brought that crisis to America, but its effects -- a severe tightening of the money supply and massive spike in interest rates (which effectively amounted to a suspension of credit) -- were felt across the United States. While the immediate panic was stemmed, there followed two years of continued fallout and easiness, before an even worse panic hit New York in 1893. This panic resulted in a large drop in the stock market, widespread bank runs (particularly on western banks) and a rush to liquidate all sorts of securities, and another tightening of credit.[85]

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[84] Joseph Sampson, "Letter to the Editor: Western Farm Mortgages," *New York Times* (New York, New York), December 30, 1887.
[85] William Lauck, *The causes of the Panic of 1893* (New York: Houghton Mifflin, 1907).

The pair of panics affected the mortgage banks in a variety of ways, all negative. Most directly, J.B. Watkins, like many of its competitors, had relied on a line of credit from an eastern bank, Brown Brothers, to finance its purchase of land. When the line of credit was cancelled, it made continued operations impossible.[86] More broadly, the general financial panic only exacerbated the fearfulness surrounding western mortgages as an investment, which were increasingly being maligned in the eastern newspapers by this point. One of Watkins' subordinates, travelling throughout the East, found "everyone losing money and denouncing western mortgages," and that "no effort is being made now to send money West."[87] The farm mortgage industry's fuel -- the legions of eastern investors who had piled into their securities -- was nowhere to be found. The panics also would have affected the aforementioned decisions about whether to put mortgage banks into bankruptcy when they breached loan covenants. While in normal times investors may have had the patience to await a recovery, the panics create short-term liquidity concerns, wherein investors were forced to sell investments in a hurry to meet their obligations. This certainly may have played a role in the decision to bankrupt the companies and sell their mortgages as soon as possible rather than wait for the market to rebound.

Between bad loans, loss of financing, lack of investor interest, and forced bankruptcy proceedings, there were plenty of reasons for banks to go out of business in the early 1890s. And they did in droves, as shown by the number of companies licensed to sell mortgages in Massachusetts over time is shown in Figure 6. While the

[86] Bogue, *Administrative and Policy,* 54.
[87] Bogue, *Administrative and Policy,* 54.

Iowa Loan and Trust, known as the best-established and most conservative of these banks, and a handful of others survived this period, most were unable to continue their operations. For a time, at least, the western farm mortgage banking industry effectively ceased to exist.

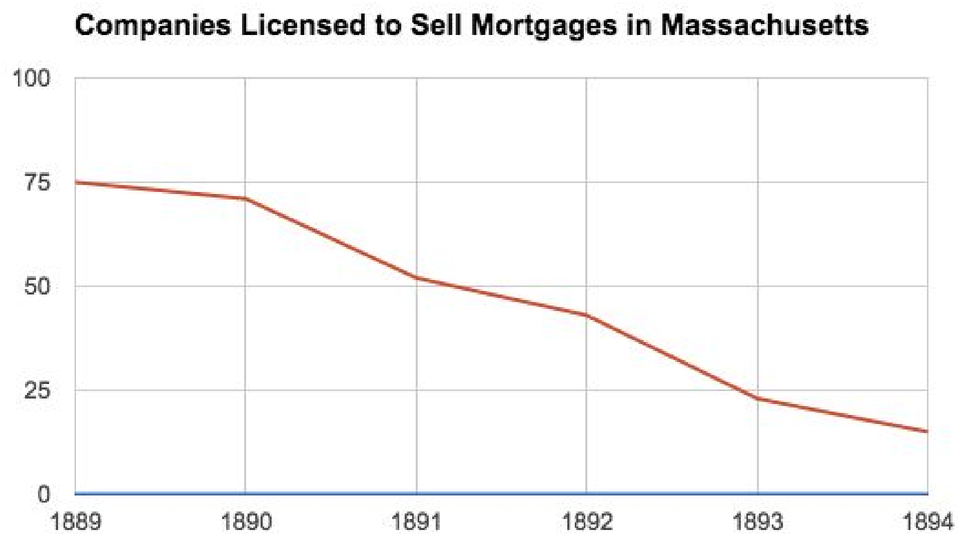

Figure 6

Part VI: "Robbed and oppressed"

As the farm mortgage industry slowly collapsed, rural populist parties, under various banners, emerged as a voice for agrarian discontent. Although their ideas -- most notably, an expansionary monetary supply -- had existed for decades, around 1890 they began to gain serious political traction.[88] In Nebraska, for example, Republicans

[88] The most notable attempt to implement this idea was the Greenback parties in the 1870s; Frederick Haynes, *Third Party Movements Since the Civil War, with a Special Reference to Iowa,* (Des Moines: State Historical Society of Iowa, 1916), 105-113.

had carried every statewide election for more than thirty years before 1890. In that year, however, the Independent party (later associated with the Populist party), captured the state legislature, and nearly the governorship. The election was not a fluke: a combined Democrat/Populist fusion ticket controlled state politics for the next two decades.[89] In this reversal, Nebraska was typical of, rather than an outlier to, elections across the Midwest in 1890.[90] Nationally, Iowan James Weaver captured about 9% of the vote for President in 1892, and won five western states.[91] Notably, the agrarian areas where Populism had the most electoral success -- the Rockies and Plains states -- were the areas most affected by the farm mortgage industry and the bubble-like land speculation of the 1880s. The South and the "old" Midwestern states like Illinois and Ohio, indebted, but largely untouched by the farm mortgage industry, remained with the major two parties.[92]

While the timing of these electoral successes is not coincidental, the Populist party's rise in the West cannot be linked solely to farm mortgages. Even without debt, the causes of the farm mortgage industry's collapse -- low crop prices, drought, and the general unprofitability of farming, particularly in the fringe western states -- could have alone triggered resentment against the eastern establishment. Still, there is compelling evidence to suggest that the farm mortgage industry was a major, and possibly even the primary, source of agrarian unrest. When Populist U.S. senator William Peffer

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[89] John Barnhart, "Rainfall and the Populist Party in Nebraska," *The American Political Science Review* 19, no. 3 (1925), 535.
[90] Haynes, "*Third Party Movements Since the Civil War, with a Special Reference to Iowa," 237.*
[91] R.B. Westbrook ed., "Election of 1892," *The New Encyclopedia of the American West* (New Haven: Yale University Press, 1998).
[92] Jeffrey Ostler, "Why the Populist Party was Strong in Kansas and Nebraska and not in Iowa," *Western Historical Quarterly* 23, no. 4 (1992), 451

summarized the mission of his party in four bullet points, two were related to mortgages. The first was the perennial proposal of western Populists, later to achieve infamy in William Jennings Bryan's "Cross of Gold" speech: expand the monetary supply with silver to allow for inflation.[93] During the lifespan of the farm mortgage industry, farmers had consistently dealt with a deflationary economy.[94] This meant that when a mortgage came due, its value was greater (and thus more difficult to refinance) than when it had initially been taken out. An increased money supply would have meant a more manageable debt burden for farmers, and corresponding losses for eastern investors.

The second bullet point dealt with interest rates, calling for them to be reduced to the level of "average net profits in productive industries."[95] Although lowering interest rates did not take the same precedence as free coinage, it was naturally a target for western farmers. Usurious rates were a gripe throughout the course of the farm mortgage industry. While most western states had usury laws, their caps (often around 11-12%) were among the highest in the nation.[96] Although rates had fallen as western mortgages became more popular among eastern investors, they never approached the level of eastern, or even southern, rates. Between 1880 and 1890, average mortgages rates had fallen from 10 to 8.65% in Kansas, 9.3% to 8% in Nebraska, and 8.6% to 7.6% in Iowa. But in 1890, the northeastern and southeastern averages stood at 5.5 and

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93 William Peffer, "The Mission of the Populist Party," *The North American Review* 157, no. 445 (1893), 666.
94 Ostler, Why the Populist Party was Strong in Kansas and Nebraska and not in Iowa," 453.
95 William Peffer, "The Mission of the Populist Party," *The North American Review* 157, no. 445 (1893), 666.
96 Caroll Wright, *Report on Real Estate mortgages in the United States at the Eleventh Census*, (Washington: Department of the Interior, 1894), 168.

6.5%, respectively.[97] How aware western farmers were of this disparity is unclear, but Peffer's inclusion of the point among his four bullet points highlights the importance of these rates.

In its call for free coinage and lower interest rates, the Populist party was not as much the farmer's party, as the mortgaged farmer's party. This is highlighted by a study of voter and tax rolls in North Dakota in 1890, which found that 50% of landed farmers aligned with Populists, compared to just 38% of landless farmers.[98] While the larger agrarian concerns of drought and unprofitability cut across landed and landless farmers, little could be done to address those issues. What could be addressed were the challenges farm-owners faced, the greatest among them being paying back their mortgages.

This debate about debt in the context of Populism, gave open voice once again to the mistrust between eastern and western men. As the Populist party conventions denounced "plutocratic" Eastern moneylenders, who had "robbed and oppressed" the farmer for decades, even the *New York Times*, always skeptical of farm mortgages, snarkily came to the defense of investors: "The agriculturist in Western Nebraska or Western Kansas who has failed to make a living... should remember... that the 'plutocrat' who loaned him money... may have lost every cent of the sum so surrendered."[99] Senator John Hale of New Hampshire was even more blunt when

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[97] Caroll Wright, *Report on Real Estate mortgages in the United States at the Eleventh Census*, 250.
[98] John Dibbern, "Who were the Populists," *Agricultural History* 56, no. 4 (1982), 681-682.
[99] "'Plutocrats' and Mortgages," *New York Times* (New York, New York), July 27, 1896.

speaking to a Populist adversary, telling him that with the eastern capital to western farmers now cut off, the farmers could, "quit hollering and get back to work."[100]

Conclusion

When considering the real narrative of the farm mortgage industry, there is an absurdity to this blame game. Were the Populists correct that a small class of massively wealthy investors had enriched themselves on the backs of their labor? Only if small eastern investors and insurance companies (trying to make good on their claims in a deflationary environment) represented the plutocracy. Did westerners pay higher interest than the rest of the country? Yes, but only as a reflection of the risk inherent in the development of new agricultural areas. If anything, the interest rates were unduly optimistic -- the subsequent collapse of farm mortgage prices suggests that, in fact, investors should have demanded even higher interest rates.

There is also no apparent basis to the claims of laziness made by Senator Hale and the *New York Times* (and certainly held by a substantial portion of the eastern establishment). Laziness is certainly not reflected in the testimonials of farmers as they struggled to survive while playing a perverse game: the harder they worked collectively, the lower crop prices fell, and the more difficult it became to sustain their families the next year. Did laziness keep the farmers of Iowa on their land even as their newspapers told them it would be more profitable to burn their crop for fuel than to sell it?

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[100] "Savings banks and Farm mortgages," *New York Times* (New York, New York), March 30, 1897.

One group that has thus far seemingly gone unmentioned in this postmortem is the farm mortgage lenders. And yet, by extension, they have been mentioned at length -- to the western farmers they represented the eastern investors; to the money lenders, they represented the western farmers. Can they be held accountable? Had new loan agents helped create a speculative bubble in the late 1880s? Yes, but only because they had seen a raft of businesses successfully intermediating funds between eastern investors and western farmers. And had older banks, too, participated in the creation of a bubble by continuing to originate inflated loans? Yes again, but to have done the opposite would have meant to go out of business and lose their jobs.

Ultimately, no matter where one looks at the 19th-century farm mortgage industry, it is difficult to find a group to blame. Farmers dreamed of becoming independent landholders, but ironically became indebted to do so. Investors faced a distressing investment environment, and understandably turned to farm mortgages as a cure. Banks linked the two, and with innovations like the mortgage-backed debenture, did so with unprecedented efficiency.

This conclusion cannot necessarily be said to carry over from one collapse to another; pardoning J.B. Watkins does not necessarily allow us to pardon J.P. Morgan. It does, however, highlight the importance of examining each group of actors' perspectives, motivations, and roles. By breaking the western farm mortgage industry into three narratives, we can see how the industry was created and destroyed, even as all of these groups largely made reasonable decisions given the circumstances they faced.

Unfortunately, the aftermath of such a collapse does not create an environment conducive to reasoned reflection. The foreclosed farmer does not seek to understand the perspective of his mortgage-holder, just as his mortgage-holder does not see the best intentions of his failed farmer. Although relatively objective narratives may emerge quickly, the influence of this mutual anger is probably unavoidable.

Although this boom, bust, and political reaction cycle is generally regretted in public discourse, the 19th century crisis can also be viewed through a positive lens. The origins of the farm mortgage industry should not be forgotten. Despite the eastern skepticism of western men, there was a great deal of optimism about the region. As Frederick Jackson Turner later wrote, "fundamentally, the Middle West is an agricultural area unequaled for its combination of space, variety, productiveness, and freedom from interruption by deserts or mountains."[101] This was reflected in the unprecedented capital mobilization that took place in the 1870s and 1880s. As C.F. Emerick wrote in his 1896 analysis of agrarian populism, "debts... abound where there is wealth and industrial opportunity."[102] For evidence, westerners could look to the depressed south, where obtaining credit was extremely difficult even as money flooded into the West.[103] In some sense, the development of the Great Plains was a gold rush wrapped in a corn husk. But that gold rush, both in people and capital, allowed for unprecedentedly fast (and permanent) development. Emerick suggests, with reason, that, "probably no farming country in the world [has] ever increased in wealth at an

[101] Turner, *The Frontier in American History,* 149.
[102] C. F. Emerick, "An Analysis of Agricultural Discontent in the United States," *Political Science Quarterly* 11, No. 4 (1896), 604.
[103] Emerick, "An Analysis of Agricultural Discontent in the United States," 604.

equal rate."[104] Whereas it had taken Illinois and Indiana fifty years to produce 60 million bushels of wheat annually *combined*, in North Dakota alone it took just seven. [105] In this sense, the financial machinery (which continues to be honed to this day) displayed in the farm mortgage industry is a double-edged sword, both facilitating the remarkably quick exploitation of economic opportunity while also guaranteeing a painful pullback when that exploitation gets out of hand.

The populist agrarian reaction to that pullback, while to some degree hot-headed and unfair, can also be said to have made positive contributions. The concrete role of the Populist party in the post-1900 Progressive Movement is still widely debated.[106] Without fully entering that debate, it can be seen that years before the rise of the Progressive movement, the Populist party gave a national platform to a critique of the late 19th-century American economy, and promoted ideas that became hallmarks of 20th-century progressivism. The 1896 party platform argued in its preamble that the functions of government had been surrendered to "corporate monopolies" and that, "plutocracy had thereby been enthroned on the ruins of democracy." While the document's primary proposal, abandonment of the gold standard, was not adopted for almost a century, it a proposed a federal income tax and the direct election of senators, the basis of the Sixteenth and Seventeenth Amendments to the Constitution respectively. Jumping beyond even the Progressive era, the platform contained an

[104] Emerick, "An Analysis of Agricultural Discontent in the United States," 603
[105] Jonathan Levy, *Freaks of Fortune* (Cambridge: Harvard University Press, 2012), 156.
[106] For more on Populism as an antecedent to Progressivism, see Samuel Webb, "From Independents to Populists to Progressive Republicans: The Case of Chilton County, Alabama, 1880-1920," *The Journal of Southern History* 59, no. 4 (1993); Sheldon Hackney, *Populism to Progressivism in Alabama,* (Princeton: Princeton University Press, 1969).

element of New Deal ideology: "In times of great industrial depression idle labor should be employed on public works as far as practicable."[107] At the time, John Maynard Keynes was nine.

None of this is to say we should accept the worst abuses of the financial system, nor of Populist responses to the failings of that system. Instead, this paper as a whole suggests that financial innovations can collapse, even without terrible abuse or unreasonable decision-making; that blame (often irrational) can arise naturally out of this process and take on a political nature; and that neither is entirely destructive -- the gains of the process can be worthwhile.

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[107] "People's Party Platform," *Vassar Projects,* <projects.vassar.edu>.

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