The first sub-prime mortgage crisis and its aftermath

Timothy J Riddiough[1]

Introduction

Financial markets in the years and months leading up to the financial crisis of 2007–08 were characterised by growth in the shadow banking sector, pyramiding and hidden leverage in the consumer and financial sectors, off-balance sheet financing by systemically important firms, and mortgage securitisation and other "creative" financing schemes that some say resembled games of "hot potato" and "hide the sausage". The failure of a prominent financial institution triggered an eventual full collapse in stock prices, resulting in, among other things, a foreclosure crisis with long-lasting negative spillovers into the real economy.

Many believe the recent crisis to be unprecedented, where, for example, Hyun Song Shin (2010) wrote: "The global financial crisis that erupted in the summer of 2007 has the distinction of being the first post-securitisation crisis in which banking and capital market developments have been clearly intertwined." In this speech I will present research I am conducting on the US panic of 1857 that contradicts Professor Shin's observation, where the 1857 panic bore eerie similarities to the more recent panic.[2]

The older panic, which occurred almost exactly 150 years prior to the more recent panic, had, in addition to the factors noted above, global capital flows emanating primarily from England and the Continent with clearly intertwined banking and capital markets. And, although sub-prime mortgage lending and securitisation were perhaps not as widespread as they were in the current crisis, they played a very central role in propagating the panic from a few strategically placed firms located near the frontier of the Old Northwest back east to New York City and Europe.[3]

It is said that every crisis is similar and that every crisis is different. Identification of the relevant similarities and differences requires memory and retained knowledge, where this knowledge can be gained and retained in different guises. The broader objective of this speech is to argue that historical perspective, and more generally inductive methods to research, provides a strong complement to more traditional deductive research methods such as large-sample econometric analysis.

This speech is organised in three acts. The first act sketches the background of the US economy in the years and months leading up to the crisis of 1857 (which occurred in late August and lasted through October of that year). The second act analyses the sub-prime mortgages and their securities that existed at the time, which were known as the railroad farm mortgage (RRFM) and the RRFM-backed security. The third and final act considers the failure of the prominent financial institution that triggered the panic, and the panic's aftermath as it specifically related to the RRFMs and their securities.

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[1] University of Wisconsin – Madison.

[2] This speech is derived directly from ongoing research I am jointly conducting with Howard Thompson on the panic of 1857 and its aftermath. See specifically Riddiough and Thompson (2011).

[3] Much of the modern treatment of the panic of 1857 is from a macro-banking perspective. See, for example, Calomiris and Schweikart (1991). Older and more historically focused treatments of the crisis include Van Vleck (1943), Fishlow (1965), Huston (1987) and Stampp (1990). One of the most interesting and informative treatments of the crisis comes shortly after the crisis occurred, from Gibbons (1859).

Act I: The years and months leading up to the panic of (late August through October) 1857

Some historical background on the 20 years leading up to the panic of 1857 is necessary to appreciate the panic's many contributing factors. At a very basic and very real level, the panic of 1857 was the natural culmination of events that started with the even more severe panic of 1837.

For my story, there are two essential direct consequences of the earlier panic that are relevant. First, as a result of state-level funding of transportation infrastructure development (canals and the relatively new invention of the railroad), a number of states defaulted on their bonds after the panic of 1837. This experience caused many states to restrict any public funding of transportation projects. These restrictions shifted the burden of financing public goods to cities and more often individuals, resulting in a number of distorting effects. Second, bank failures in the 1837 panic were related to "money-run" as opposed to "deposit-run" problems, as deposit-based banking was in its infancy in the United States. Thus, the free banking era was born after 1837, with most of the regulatory focus on the quality of money printed by individual banks. Deposit-based banks consequently operated at the fringes of banking and bank regulation at the time, and were in effect shadow banks. By the time of the 1857 panic, other non-money issuing firms such as railroads also operated as shadow banks by intermediating between direct capital suppliers and indirect investors.

In addition to state-level funding of infrastructure projects, significant amounts of the capital channelled into investment prior to the 1837 panic came from England and the Continent. After that crash, foreign investors said, "Never again!" Time and a yearning for easy riches erode many things, however. One key event that prompted a change in attitude among foreign investors was the California gold strike and gold rush of 1848 and 1849. That event significantly added to the gold stock of the United States and the world, resulting in, among other things, increased credit availability, growth in world trade, industrial construction and railroad building (Van Vleck (1943, pp. 38–39)).

Shortly after the gold rush, a railroad boom indeed began in earnest, as newfound wealth and an influx of foreign capital made its way into the hands of railroads and their promoters. Figure 1 shows the extent of the boom, with the amount of investment and added railways from 1850 to 1856. It is estimated that in excess of 25 per cent of the US GDP derived from the railroads during the mid-1850s. As noted in Panel B of the figure, Ohio, Indiana, Illinois, Michigan, Wisconsin and Iowa were considered western states at the time, at or near the frontier of the country and of railroad development. Figure 2 provides a visual depiction of railroad investment/construction activity during the 1850s.

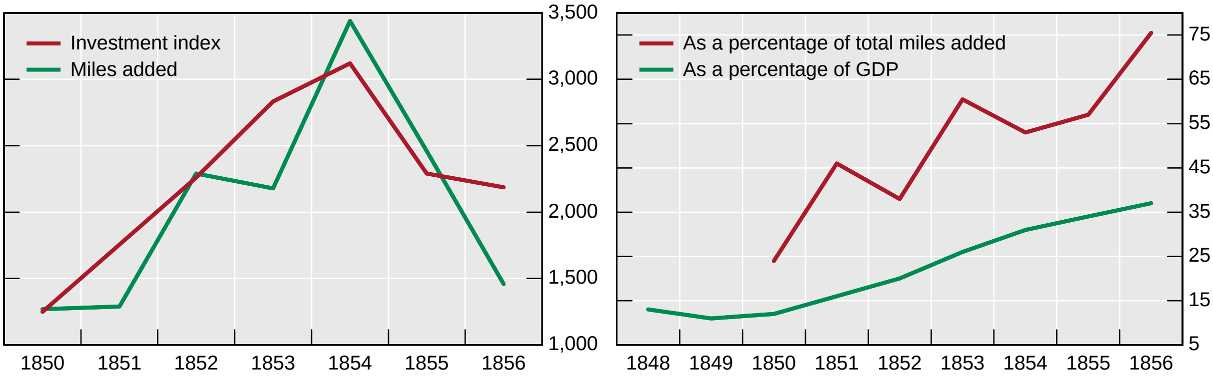
Largely because of the huge capital appetite of the railroads as a result of their stupendous growth during the 1850s, Wall Street began taking on its more modern character as an investment banker in addition to providing stock brokerage services and other methods of sourcing capital and making markets for securities. These developments helped lay the foundation for new creative ways to package securities for sale to investors.

The Crimean War raged in central Europe, lasting from late 1853 to early 1856. This war increased the demand for agricultural products grown and processed in the United States, where an increasing proportion of farming activity was migrating to the western states noted in Panel B of Figure 1. Huston (1983) and others have argued persuasively that the agricultural demand boom due to the Crimean War, followed by a decline in demand as the war approached its end, contributed to falling food commodity prices starting in 1855 and continuing through to the 1857 panic. Declining demand was coupled with a softening macroeconomy, particularly in the North, as well as ruthless and predatory competition among railroads in that most networked of industries. The result of this dynamic was railroad track being laid well ahead of demand, particularly in the frontier states of Illinois and Wisconsin.

Figure 1

Panel A: miles added and investment index, 1850–1856

Panel B: railroad investment as percentage of GDP, and miles added in Ohio, Indiana, Illinois, Michigan, Wisconsin and Iowa as percentage of total miles added, 1848–1856

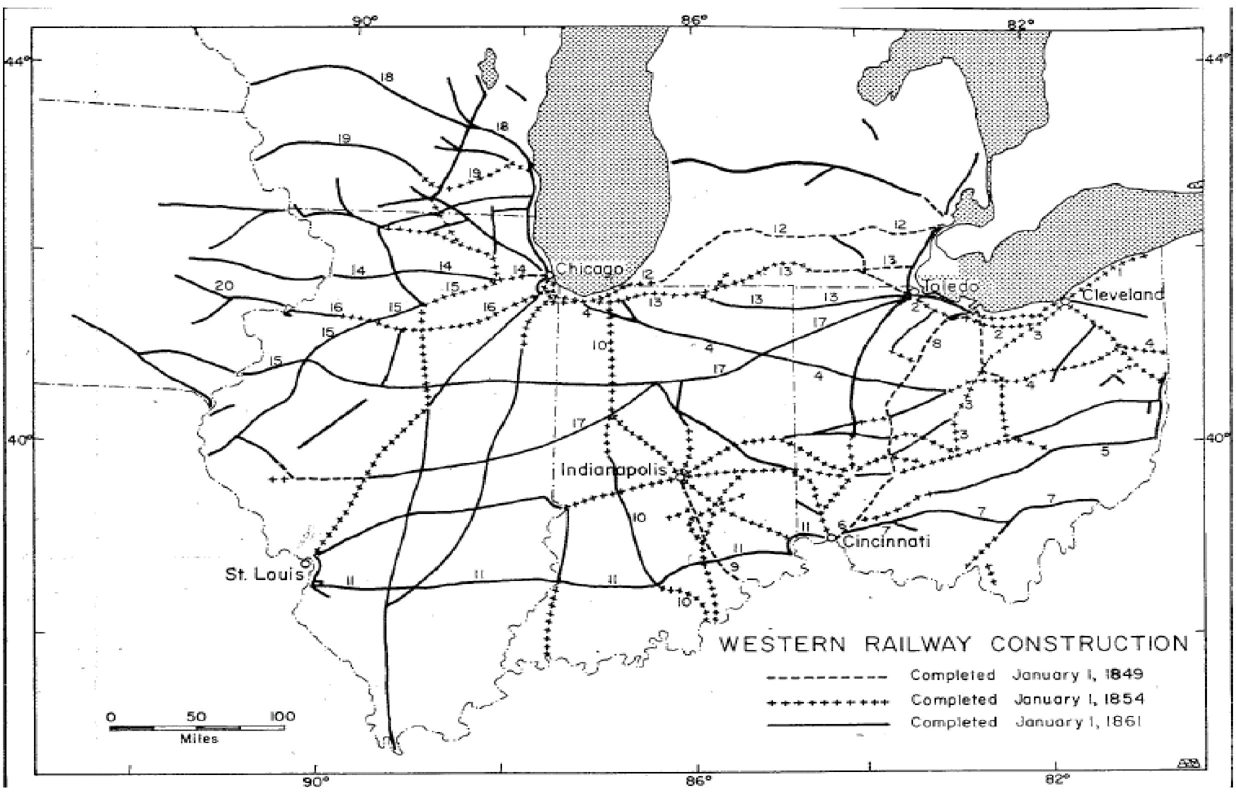


Note: In Panel A, investment equals gross investment times 30, in 1860 dollars.

Sources: Figure from Wahl (2009, Figures 5 and 6). His sources are Wilson and Spencer (1950, p.339), Stover (1987, p.317), Fishlow (1965, Table 16), and Historical Statistics of the United States, Millennial Edition (www.hsus.cambridge.org).

Figure 2

Western railway construction



Source: Fishlow (1965, Map 2).

Softening demand for long-haul transport of foodstuffs and other products produced at or near the frontier, along with overcapacity due to railroad construction occurring ahead of demand, caused a sharp decline in railroad share prices during the mid-1850s. These declines, implying increases in the cost of equity capital for the railroads, could not have come at a worse time as the railroad investment boom was moving ahead at full steam (pun intended).

A reduction in the supply of equity capital and increases in its cost had three implications for the railroads. First, it caused them to use more debt relative to equity to finance themselves, resulting in higher-leveraged firms. Second, it had the effect of increasing the opacity of the railroads, making it harder for outsiders to ascertain their true financial condition.[4] Third, it caused the railroads to become increasingly creative in the ways they sourced and packaged finance, with many railroads engaging in stock-watering schemes, off-balance sheet financings, and generally doing anything they could to raise capital but not disclose its true cost or its leveraging effects.

It was against this backdrop that the panic of 1857 occurred. Importantly, not unlike the more recent panic, there were a number of "mini-events" in the months leading up to the big event that shook the confidence of investors. Calomiris and Schweikart (1991) and Wahl (2009) stress the importance of the Dred Scott decision, which in early 1857 opened the far western American frontier to slavery. Its effects were to chill westward migration, land-value increases and railroad expansion. In early August, two prominent New England mills closed their doors due to declining demand, and at about the same time it was revealed that the Michigan Southern railroad had engaged in a Ponzi-like stock-watering scheme.

Finally, on 24 August 1857, the Ohio Life Insurance & Trust Company (OLITC) failed, triggering a full-scale meltdown in the markets. Railroad share prices plunged in the week following the failure, where, as shown in Table 1 and Figure 3, western railroads took a disproportionate share of the punishment. The four railroads singled out as "Other Western Railroads" in Table 1 experienced precipitous declines in share prices. The first two firms received most of the recent financing from the OLITC, as OLITC gambled on resurrection by doubling down its bets on the struggling railroads. The other two firms were laying track right at the north-western frontier of the country, in Wisconsin. These firms figure prominently in the next act of this speech as two of the biggest sub-prime mortgage lenders in the country.

[4] George Hudson, the king of British railroads in the 1840s, famously said, "I will have no statistics on my railroads". His counterparts a decade later in the United States had similar sentiments. Chancellor (1990), in his entertaining book on the history of financial speculation, notes of Hudson: "His false accounting and generous dividends had misled speculators into believing the railroads were more profitable than they actually were."

Table 1

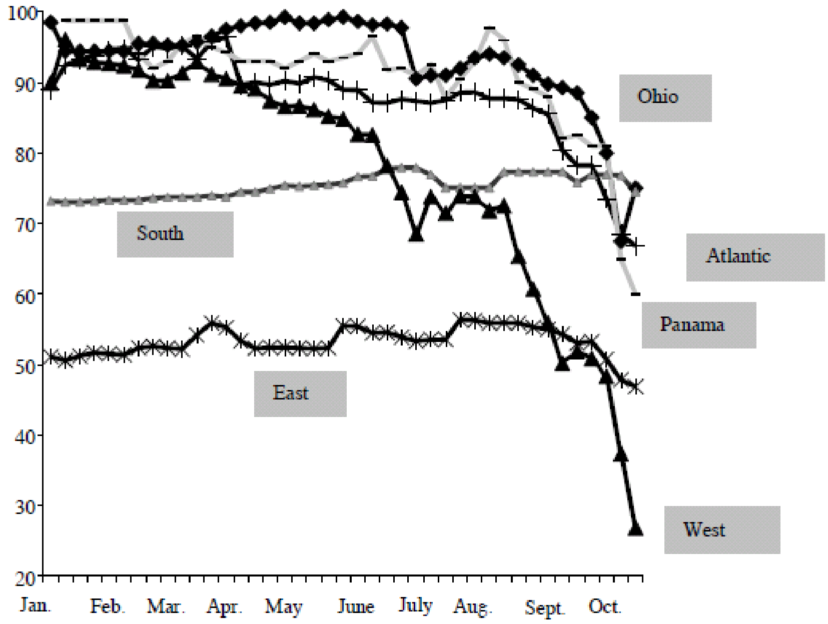
Stock price changes of railroads, grouped by region, immediately prior to and immediately after the date OLITC announced failure

Railroad	%Δ stock price ART data week prior	%Δ stock price ART data week of	%Δ stock price NYT-BA data week prior	%Δ stock price NYT-BA data day after	%Δ stock price NYT-BA data week of
New England RRs					
Boston & Lowell	0.00	0.00	N/A	N/A	N/A
Boston & Prov	2.70	-1.32	N/A	N/A	N/A
Boston & Worcester	0.00	0.00	N/A	N/A	N/A
Eastern of Mass.	0.00	0.00	N/A	N/A	N/A
Western of Mass.	0.00	0.00	N/A	N/A	N/A
Regional average	*0.56*	*-0.28*	*N/A*	*N/A*	*N/A*
Middle States RRs					
Baltimore & Ohio	0.00	5.26	N/A	N/A	N/A
New York Central	-2.50	2.56	-2.54	-3.58	-3.58
New York & Erie	-9.68	-28.57	-8.80	-17.25	-21.05
Penn Central	0.00	-8.60	N/A	N/A	N/A
Regional average	*-1.92*	*-4.30*	*N/A*	*N/A*	*N/A*
Western RRs					
Chicago Burl. & Quincy	0.00	-33.33	N/A	N/A	N/A
Cleveland & Toledo	-2.13	-13.04	-10.57	-7.78	-8.36
Illinois Central	-6.67	-28.57	-2.82	-7.14	-20.54
Michigan Central	-7.23	-22.08	-6.97	-2.28	-12.38
Regional average	*-4.41*	*-26.15*	*N/A*	*N/A*	*N/A*
Other Western RRs					
Cleveland & Pittsburgh	-16.67	-60.00	N/A	N/A	N/A
Marietta & Cincinnati	0.00	-60.00	N/A	N/A	N/A
La Crosse & Milwaukee	-21.21	-80.77	-31.20	-6.98	-51.16
Milwaukee & Mississippi	-11.11	-58.33	-2.04	-12.50	-25.00
Regional average	*-13.29*	*-63.71*	*N/A*	*N/A*	*N/A*

Source: “United States railway share and bond list,” *American Railway Times*, *New York Times,* and *Boston Advertizer.*

Figure 3

Railroad stock indices, 1 March 1857–10 October 1857



Source: From Wahl (2009, Figure 14). His source is Sylla et al (2002).

Act II: Necessity as the mother of invention

As mentioned earlier, railroads at the north-western frontier were laying track ahead of demand. This was particularly true in Wisconsin, which was recognised as being endowed with extremely fertile land but having little in the way of financial capital or infrastructure outside the city of Milwaukee.

Given the speculative nature of railroad investment at the frontier, coupled with the huge capital demands of the railroad business, it is no surprise that funding such ventures proved daunting along several dimensions. First, the conventional wisdom at the time was that anything in excess of a 50 per cent leverage ratio for a railroad was imprudent.[5] This forced railroads to source significant amounts of equity capital to finance investment. Most of the available equity capital resided on the north-eastern seaboard of the United States and in Europe. This capital, in turn, wanted to see a slug of local equity capital invested as a signal of the quality of the railroad. With no local equity capital, there was therefore no arm's-length equity and hence there were strict limits on the ability to debt-finance, all of which implied no new investment. Second, as also noted earlier, many north-western states, Wisconsin included, had amended their constitutions to restrict the public financing of transportation infrastructure projects. This consequently excluded a very important potential source of local finance, forcing the railroads to become even more promotional and creative than they already were.

[5] Henry Varnum Poor was the most ardent and articulate spokesperson in this regard. See Chandler (1956) for a warm and well-executed biography of Poor and his times.

Wisconsin outside of Milwaukee was land rich but "as poor as poverty's grandmother". The question then was how to source the necessary local equity capital that would open the floodgates for even more debt and equity capital flowing from the east. In the early 1850s the owners of the La Crosse & Milwaukee railroad hit on an idea. Why not approach local farmers, particularly those farmers whose property lay near the path of the railroad line and its depots, and ask them to mortgage their farm to the railroad in return for shares of stock in the railroad? The dividends from the stock would be at least equal to the interest required on the mortgage, where the dividend-interest swap negated any need for the farmer to come out of pocket for interest payments on the debt. In fact, no cash changed hands at all between the farmer and the railroad in this debt-for-equity swap.

From the farmer's perspective, it was a beautiful transaction. At no apparent cost, the farmer increased the value of his land by aiding in the laying of track near his property. He also got to share in the success of the railroad through appreciation in the stock price. There was no down payment required on the mortgage. There was also no loan documentation required – only an appraisal done by an agent of the railroad. The allowable loan-to-value ratio on the mortgage was 67 per cent – significantly higher than the prudent accepted maximum loan-to-value ratio at the time of 50 per cent. These mortgages were in essence sub-prime loans. They were even better than the sub-prime loans offered during the recent crisis, in that the railroad farm mortgages were high-leverage, no-documentation, no-down-payment loans that in fact required no mortgage payment whatsoever.

This brilliant conception accomplished several objectives at the same time for the railroad. By issuing shares to acquire an asset – the railroad farm mortgage – the railroad could claim that it successfully sourced local equity capital. The thorny issue of consideration – ie taking a mortgage in lieu of cash to fund the purchase price of the stock – could be addressed in a second step. The transaction also reduced the reported leverage of the railroad, since 100 per cent equity had been issued to finance ownership of the RRFMs. Figure 4 displays a stylised balance sheet of a railroad that starts with assets of 100 and a 50 per cent leverage ratio. The all-equity-financed purchase of 100 of the RRFMs is seen to double the size of the company and reduce the leverage ratio by half.

Figure 4

Stylised balance sheet statements of railroad with railroad farm mortgage purchases

Panel A: Prior to RRFM financing

Assets		**Liabilities**	
RR Assets	100	Debt	50
		Equity	50

Reported leverage ratio: 50 per cent.

Panel B: After RRFM financing

Assets		**Liabilities**	
RR Assets	100	Debt	50
RRFM	100	Equity	150

Reported leverage ratio: 25 per cent.

Source: Riddiough and Thompson (2011).

Figure 5

Partial prospectus of a farm mortgage bond financing from 1856

FARM MORTGAGE BONDS

OF THE

RACINE AND MISSISSIPPI

Railroad Company.

WITH AN APPENDIX.

RACINE, WIS:

PRINTED AT THE JOB OFFICE OF HULETT & HARRISON.

1856.

FARM MORTGAGE BONDS.

OFFICE OF THE RACINE AND MISSISSIPPI R. R. Co.,
RACINE, Wis., April 1st, 1856.

This company have for sale $500,000 of Farm Mortgage Bonds, guaranteed by the Company. These Mortgages are for various amounts, from $500 to $5,000 each. They run for five years from the tenth day of May, 1856 upon interest at ten per cent. per annum, payable by the Bond of the Company, semi-annually, at their office in New York City. They constitute a three-fold security:

1. The Note of the Mortgagor. Our farmers are now in a very independent condition. Nine out of ten of the notes would be good without any other security. Indeed, in a majority of the cases, the makers could pay the notes at once, from the proceeds of their personal property alone.

2. The Mortgage. The mortgages are taken to secure the notes, and are mostly upon valuable and improved farms situate in Winnebago, Stephenson and Carroll Counties, in the State of Illinois. These counties are upon the northern line of Illinois —have been settled about twenty years—are very populous, and contain the best lands in the State. The lands mortgaged are all situate near the line of the road, and the mortgages have been given by the inhabitants from an enlightened self interest to secure its construction. It was better for them, and for the Company, to give these mortgages, than it would have been to have had them made cash subscriptions. Better for them, because in this new country, where improvements are being made rapidly, each farmer can use his cash means more profitably otherwise. Better for the Company, because thereby they get their whole cash means at once, and they can complete the road immediately. The lands being near the line of the road, its construction will enhance their value in most cases more than the amount of the mortgage.

The mortgages are a first lien upon the premises, and the official certificate from the proper county officer accompanies each one, showing that the land is free from all other incumbrances whatever.

None of them are for more than two-thirds of the appraised value of the lands at their present worth. The appraisal is made by two persons appointed by the Company, and their certificate of appraisal accompanies each mortgage. Great caution has been used in getting low appraisals, and there has been no inducement for the Company to have any other, as they had more mortgages offered than they wanted to take.

The lands in this part of the west all have a market price, which can be realized at any time upon short notice. They are continually increasing in value, owing to the rapid improvements made in the country, and the great immigration; and cash sales are frequent in every neighborhood.

By the laws of Illinois, the process of foreclosure is simple and speedy, and the lands are sold at auction to the highest bidder, absolutely, allowing the mortgagor one year's redemption by paying the amount the land sold for with interest at 10 per cent.

3. The Bond of the Company. This is made the principal debt, and the note and mortgage are placed as collateral. The Company agree to pay the principal and interest at their office in New York City—the interest semi-annually. The Bonds are made with Coupons. The value of this bond must depend upon the value of the project of the road in itself, the amount and character of the capital stock which the Company has in proportion to the cost of the road, the amount already done by the Company, and the management of the affairs of the Company.

THE PROJECT OF THE ROAD.

This is a legitimate Railroad, and one which ought to be built. It has, from the first, had the unqualified endorsement of the best railroad men in the country. It runs east and west,

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according to the natural channels of business. It forms one of the shortest routes between Lake Michigan and the Mississippi River, and passes through a better tract of country, and a more populous, than any other running in that direction. Its way business alone will make the stock remunerative.

COST OF THE ROAD.

The distance from Racine to Savanna on the Mississippi is 136 miles; and, at $25,000 per mile, the cost of the road would be $3,400,000. This estimate is a high one, and will cover all discounts, the interest accruing during construction, and large equipments.

CAPITAL STOCK.

There is now over $3,000,000 of subscribed Capital Stock.— This is of three kinds.

1. Individual cash subscriptions to the amount of $425,000. There has been already paid upon these over $200,000, and nearly the whole subscription may be considered as secured thereby.

2. $540,000 of subscriptions by Town and City Bonds, $490,000 of which have been negotiated, netting the Company 87½ cents on the dollar.

$2,035,000 secured by farm Mortgages, as above stated; of which $600,000 have been already negotiated at par.

No Railroad Company in the west ever had a subscription to compare with this, either in amount or availability.

In addition to this, the Company has issued its First Mortgage Bonds on the Road from Racine to Beloit, 68 miles, for $680,000—all of which have been lately negotiated on favorable terms.

WHAT THE COMPANY HAS DONE.

The road is completed and in operation 47 miles, from Racine to Delavan.

The iron, chairs and spikes, for the whole road to the Mississippi, are purchased.

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Now, the second step of the transaction was for the railroad to monetise the RRFMs so that it could purchase the track and equipment necessary to expand the line. The solution to this problem resulted in what we believe to be the first case of mortgage securitisation executed in the United States. It was a railroad farm mortgage-backed security – effectively a covered bond offered by the railroad to potential investors located on the east coast and in Europe. Figure 5 displays the first four pages of an 1856 offering of farm mortgage bonds by the Racine & Mississippi railroad, which we believe is representative of other offerings that occurred at the time.[6] As seen in the offering, three sources of security are offered to the investor: i) the note, which states the financial obligation of the farmer to repay the stated mortgage amount; ii) the mortgage, which offers the farm as collateral; and iii) the bond of the railroad, which offers its reputation for repayment and its other assets on an unsecured basis.

Notice, however, that there is no mention of the fact that the farmer pays no interest on the underlying mortgage collateral. Also notice that no other documentation is offered on the mortgage loans, other than assurances that a loan-to-value ratio of 67 per cent is not exceeded based on an appraisal done by an agent of the railroad.

These frontier railroads were successful in their RRFM-backed securities offerings, generally raising 80 cents on the face value dollar with a coupon interest rate of 10 per cent. Figure 6 references and extends the stylised balance sheet seen in Figure 4 by showing what happens when RRFMs are securitised and sold to investors, with proceeds used to invest in railroad track and equipment. Issuance proceeds of 80 are recorded as railroad assets, while the discount of 20 on the securities (following the practice of the day) was capitalised and carried as an asset by the railroad. The contingent covered bond liability is "off-balance sheet" and hence ignored, with the leverage ratio remaining at 25 per cent. What a beautiful transaction, not only for the farmer, but also for the railroad!

Figure 6

Stylised balance sheet statements of railroad with railroad farm mortgage purchase and subsequent bond issuance

Assets		**Liabilities**	
RR Assets	180	Debt	50
Unam Disc	20	Equity	150

Reported leverage ratio: 25 per cent.

Source: Riddiough and Thompson (2011).

Act III: The meltdown and the aftermath

On 24 August 1857, OLITC shut its doors and was never to reopen. The closing of this historically important and highly respected bank was like "a clap of thunder in a clear blue sky" and "struck on the public like a cannon shot". It caused members of the public to look suspiciously at each other, asking, "Do you go next?"[7] The closing triggered a financial panic and a sharp downturn in the economy that was to last in the northern frontier states until the start of the Civil War. Some argue that the adverse effects of the panic, which centred on the northern states, emboldened the South to secede from the Union (see, eg Huston (1987)). In any event, OLITC's failure created a realisation in the investment community and general

[6] The full prospectus can be found in Riddiough and Thompson (2011).

[7] See Riddiough and Thompson (2011) for references and further background and context.

populace that they had neglected many significant risks – asking, what is it that we do not know that we do not know?

OLITC was, as mentioned earlier, in fact a shadow bank that financed itself with deposits largely originating from the east coast. It also operated as a regional “money centre” bank that kept excess local bank funds on deposit. It reputedly offered very attractive rates on interest on its deposits. In the years and months leading up to its closure, OLITC took this money and lent it out almost exclusively to north-western railroads. The investments were primarily in high-risk, low-priority bonds, as OLITC gambled on the resurrection of increasingly distressed firms. Its two biggest customers, the Cleveland & Pittsburgh and Marietta & Cincinnati railroads, ultimately went into receivership, as did the two Wisconsin railroads cited and discussed previously.

The failure of the Wisconsin railroads triggered a farm mortgage foreclosure crisis. As a result of the railroad bankruptcies, which revealed much greater leverage and much lesser-quality collateral than advertised, RRFM-backed securities investors nonetheless assumed they were in a relatively secure position due to the “cover” of mortgages as additional collateral backing the securities issuance. But they were soon to learn, to their surprise, that the RRFMs did not pay any interest, thus robbing them of interim cash flow and resulting in ballooning loan balances. Further, contrary to statements made in the securities prospectus, investors learned that the equity cushion on the loans, stated to be at least 33 per cent of property value, was illusory as many of the appraisals on the farm properties were in fact inflated. This problem was compounded by post-panic property value declines of 50 per cent or more. And finally, investors found out the hard way that the foreclosure process was not nearly as simple and speedy as advertised in the offering prospectus.

Railroad bankruptcy and subsequent default on the covered bonds made it necessary for security holders to travel nearly 1000 miles to pursue foreclosure in a rugged frontier state that was full of hostile farm mortgagors that had themselves misunderstood the bargain offered to them by the railroads. It was bad enough that the farm mortgagors had seen their hopes of personal riches and local prosperity dashed by the crash, but most had failed to contemplate that their farms would be taken away from them – particularly given the fact that the railroad stock that had been conveyed in return for the mortgage was now worthless. Thus, in a bargain brokered by local railroads, now gone from the scene, both sides of the RRFM transaction felt betrayed and confused, scrambling for safety as quickly as possible, with retribution at the forefront of their minds.

To get a sense of the tension that existed at the time, there are several stories of eastern security holders showing up to claim their collateral, only to find themselves surrounded by a group of hostile western farmers, temporarily imprisoned, and forcefully put on a train headed east. Indeed, the failure of these railroads created a permanent animosity between the eastern establishment and the western farmer. For example, numerous Wisconsin historians have noted lasting sentiments along the following lines: “To the end of their lives the distressed farmers and their sympathisers were never to forgive the agonies of uncertainty, of monetary sacrifice, of complete impoverishment. With these feelings went an underlying hatred of ‘Wall Street’ and the ‘railroads.’”

Not surprisingly, circuit courts in Wisconsin, which were naturally sympathetic to the plight of the local farmer, responded to the chaos by placing stays of foreclosures on affected properties. This enraged easterners, who had found out that the bond of the railroad meant almost nothing and had been deceived into thinking that some cash flow and collateral would at least be forthcoming to cover their initial investment. As one New York Times letter writer observed: “Payment of interest has stopped, the farmers have banded together in leagues, and threaten to kill, burn and destroy … we have come to the conclusion that Wisconsin is a community lost to honour, the abode of corrupt politicians and the home of degraded people.”

Many of the poorer farmer mortgagors ended up losing everything, moving out of state to avoid deficiency judgments that would otherwise haunt them for years to come. Other mortgages were purchased at steep discounts by deeper-pocketed neighbours or speculators, who then negotiated with security holders for reduced payoffs. Similarly, the original security holders often sold their positions at steep discounts to speculators and vulture investors that were often located within the borders of the state. Russell Sage was one such investor.

Finally, in 1860, the Wisconsin Supreme Court ruled in favour of the security holders, allowing them to proceed with their foreclosures. The decision turned on whether the initial debt-for-equity swap between the farmer and the railroad was a legal conveyance – the court ruled that it was. Many felt the decision was politically motivated, as the coming Civil War was already casting a long shadow, with states knowing that they would be required to borrow money in eastern capital markets to help finance the cause. Debt repudiation was not quite as attractive in 1860 as it had been in 1857.

In any case, for most involved, the decision was too little, too late, as most claims had been settled under a cloud of uncertainty, the cost of which was largely borne by the original farm mortgagors and the original security investors. The whole of the experience in what is now the upper Midwest of the United States laid the foundation for a particular brand of populism that expressed itself in the Grainger railroad regulation laws of the early 1870s, followed by the emergence of progressivism in the early 20th century.

Concluding comments

Although the crises of 1857 and 2007–08 differ in their details, the broad economic contours are remarkably similar. Agency, uncertainty, leverage, neglected risks, shadow banking and hidden systemic risks, and financial innovation in response to economic and regulatory circumstance are front and centre as first-order contributing causes to both episodes. The lessons of this earlier crisis seem to have gotten lost, however, as there has been little in the way of discussion of the 1857 panic either before or after the more recent panic. Why? I can offer two reasons. First, the panic of 1857 happened just prior to the introduction of the greenback as the national currency in the United States, which accompanied much improved archival bank data. The improved data has thus caused many researchers to ignore the antebellum years of the US banking system. Second, the panic happened just prior to the Civil War, and although the economic downturn that followed the panic may have played a key role in helping to cause the Civil War, the 1857 panic has gotten lost in the tidal wave of events surrounding the war.[8]

Looking forward from early September 2011, I am not optimistic that the financial system we are endowed with today is easily managed – at least in the West. I believe that we are in fact in the early innings of a nine-inning game with respect to figuring out how to efficiently regulate this vast interconnected financial system. Unfortunately, and contrary to what some might wish to be true, complexity in the financial system is largely irreversible and is even necessary to support complex economies.

It took the United States approximately 100 years to figure out how to regulate version 1.0 of its decentralised and fragile financial system (from the 1830s to the 1930s), and it is going to take a while for developed economies to figure out how to regulate version 2.0. Coordination amongst sovereign countries is a difficult task, as evidenced by the current problems in the

[8] See Stampp (1990) and Huston (1987) for excellent treatments of the events of 1857 and the coming of the Civil War.

eurozone. And political and economic pressures associated with entitlements, medical care, education, and voting demographics suggest the existence of many distractions over the coming years – and searches for easy financial fixes.

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