ESSAYS IN NORTH AMERICAN ECONOMIC HISTORY

by

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ABSTRACT OF THE DISSERTATION

Essays in North American Economic History

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This dissertation examines two subjects. After an introduction, the next two chapters examine banks owned and operated by African-Americans before World War II. The final chapter looks at Newfoundland's political economy from 1867 to 1949.

Chapter 2, "Banking on African-American Business," uses a newly-created data set of banks owned and managed by African Americans from 1907 to 1930. I provide the first analysis of the contribution of African-American banks to the development of African-American communities. Economic progress is measured by business ownership, proxied by the number of African-Americans who reported employing at least one person, as well as white-collar occupations, mortgages, and home ownership. Fixed effects analysis shows that an additional African-American bank per ten thousand African-American adults in a county increased the share of African-Americans employing at least one person by 1.9 percentage points, 1.5 times the median rate. Put another way, African-American banks from 1907 to 1930 created roughly 14,000 African-American business owners. This effect persists when limiting the sample to both the South and the Cotton South. The effects on white-collar occupations and home ownership are positive but relatively small, and seen in both the North and the South. Overall, African-American banks made significant contributions to their communities, contrary to skepticism expressed in the previous literature.

Chapter 3, "Triple Segregation: Virginia African-American Banks, 1915-28," studies African-American banking operations in depth. Using a new dataset of declassified Virginia bank examinations from 1915 to 1928, this chapter provides the first in-depth comparison of banks owned and operated by African Americans to white banks. This dataset shows that banks owned and operated by African-Americans generated lower profits than white banks. These lower profits were likely due to African-American banks facing three segregated markets: the markets for borrowers, for bank deposits, and for mergers were all significantly different. In each case, the customers for African-American banks were almost entirely African-American. This confirms the assertions of scholars that the most important difference for the performance of African-American firms was the exclusion of white customers from their market. These segregated markets, along with other factors, may have led African-American banks to pursue lowerrisk strategies in their asset allocation and deposit mix.

Chapter 4, "The Many, Many Bonds of Newfoundland," describes how the selfgoverning Dominion of Newfoundland found itself in 1933 owing debt of approximately twice its GDP, with interest payments over 80% of government revenue. The tale of how the Dominion came to this point is sordid and fascinating; the means by which this crisis was resolved are unique. Researchers have mostly overlooked that Newfoundland was the Dominion of the United Kingdom that came the closest to defaulting, and for which default plausibly could have improved its circumstances. However, Newfoundland left behind over 34 bonds, loans, and other borrowing instruments, all with different clauses, maturities, interest rates, and investors. Using these variations, along with comparing Newfoundland bonds to more widely studied sovereign debt, allows an analysis of the bond markets of the early twentieth century. Results show that bond prices were disproportionately affected by World War I.

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Dedication

To the four women I love the most

Pamela Green

Jackie Clarke

Ali Clarke

Claudia Halbac

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Chapter 1

Introduction

I grew up in a bucolic suburban Massachusetts neighborhood, the kind that people of a certain age describe fondly: kids engaging in unstructured play, in and out of each other's homes. A dozen or so kids who would play together across eight or nine lawns. The group was a suburban melting pot of ethnicities: Irish-, Italian-, Polish-, African-American children. Until one day.

One day, our parents told us to go to our rooms, close the shades, and not come out. I heard loud shouting from a crowd down the street. The next day, the African-American family was gone. Our parents would never tell us what had happened.

This has informed my research agenda.

This dissertation includes two chapters on banks owned and operated by African-Americans before World War II. African-American banks were a frequently proposed panacea for shrinking the wealth gap between African-Americans and whites. Advocates included (at times) both Booker T. Washington and W. E. B. Du Bois, Marcus Garvey, other black nationalists, African-American community leaders, and Richard Nixon (Baradaran, 2017). Some of these advocates believed that African-American banks would facilitate a separate financial system, keeping African-American wealth within the African-American community (Harris, 1936).

The idea of a separate African-American financial system was flawed for at least two reasons. First, African-American wealth in the first half of the twentieth century was too limited to develop a financial network (Harris, 1936). Second, any financial network would require extensive interactions with white financial institutions (Baradaran, 2017).

African-American economists understood both of these flaws and argued against the spread of African-American banking, advocating different solutions for reducing the interracial wealth gap (Harris (1936), Brimmer (1971), Baradaran (2017)). Supporting their argument, they included balance sheet and bankruptcy evidence that African-American banks were small and fragile. However, while making an effective argument, these economists did not see that African-American banks provided benefits. Chapter 2, "Banking on African-American Business," shows that African-American banks increased the rate of African-American business ownership, home ownership, and white-collar occupations in a county. I do this by creating a new data set of 125 African-American banks operating at some point from 1907 to 1937, including 22 banks not listed in the most-cited prior list. This data set allows the first analysis of the effects of pre-WWII African-American banks on the African-American community

Specifically, an additional African-American bank per ten thousand African-American adults in a county increased the share of African-Americans employing at least one person by 1.9 percentage points, one-and-a-half times the median rate. The effects on white-collar occupations and home ownership are positive but relatively small. Many of the effects are concentrated in the South.

Thus, the effects of an African-American bank are both small and large.¹ Small, because African-American banks could not redress the structural inequality and racism inherent in twentieth century American society. Large, because these were for-profit institutions from the African-American community itself that generated positive effects.

The findings of Chapter 2 raise questions about African-American banks before World War II: how profitable were African-American banks? How large were they? How did they compare to white banks? Did they have white customers? What ended up happening to them?

These questions are a starting point for Chapter 3, "Triple Segregation: Virginia African-American Banks, 1915-28." In it, I use a dataset of declassified banks examinations to find that African-American banks were less profitable than two samples of white banks. I further examine the data to find that African-American banks experienced segregation in three markets: the market for consumers, the market for bank deposits, and the market for mergers. In each of these markets, the vast majority of the customers that African-American banks faced were African-American.

¹I thank Martha Olney for this insight.

The findings that African-American banks faced these three segregated markets make the results of Chapter 2 even more remarkable. If Chapter 2 shows the positive effects of small failure-prone African-American banks, one can imagine the magnitude of those effects if African-American banks at the time faced the same market as white banks.²

The increased failure rate of African-American banks and the lack of interracial mergers probably has some effect on the development of current-day African-American wealth, which in 2014 was approximately 7% of white wealth (W. Darity Jr. et al., 2018). The mechanism and magnitude of this effect is unknown.

This dissertation also contains a chapter on Newfoundland.

I have spent a significant amount of time thinking about possible connections between Newfoundland and African-American banking. I believe the connection between the third chapter and the first two is that I am attracted to research projects where the background history is unknown to or unreflected upon by most persons, even most researchers. I find that informing people about the historical background often interests them in the research that I perform, and that is certainly the case for Newfoundland.

Motivated by a description in Reinhart & Rogoff (2009), Chapter 4, "The Many, Many Bonds of Newfoundland," begins with a survey of primary and secondary sources showing how the territory, a Dominion of the United Kingdom in the nineteenth century, lost self-governing status due to a sovereign debt crisis brought about by Newfoundland's profligate borrowing.

It continues with a preliminary examination of some of the 34 Newfoundland bonds that were traded on the public markets of London, Montreal, and New York. Newfoundland bonds originated in different years, had different interest rates, different dates of maturity, and were marketed in different cities. These differences are useful for disentangling the effect on prices of Newfoundland changes and market changes. These bonds have been overlooked by other researchers, such as Chavaz & Flandreau (2017), who use a large sample of bonds to draw conclusions about the effects of microstructure

²I thank Carolyn Moehling for this insight.

changes. The Newfoundland dataset will provide a comparison from the Dominion of the United Kingdom that came closest to default.

The largest African-American bank in Chicago, Seaway Bank, defaulted in 2017 (https://www.fdic.gov/bank/individual/failed/seaway.html). That left 23 African-American banks in the United States currently. The assets of each are under \$1 billion at a time when community banks are defined as having assets less than \$50 billion. That these banks are still small may point to the continued effects of the white repression of African-Americans in the early 20th century.

Chapter 2

Banking on African-American Business

2.1 Introduction

Banks owned and managed by African-Americans were "ornaments" that had "no real economic justification" and "could never perform the magic of banking that is the multiplication of capital through fractional reserve lending," according to three African-American economists (Brimmer (1971), p. 402; Harris (1936), p.175; Baradaran (2017), p. 71). These economists argued against black nationalists and free-market capitalists who believed in the power of African-American banks to redress the systemic white oppression of African-Americans in the twentieth century (Cayton & Drake (1946); W. A. Darity Jr. (1989)). The arguments of these economists were correct: African-American banks could never be the solution to the widespread white oppression, and, later, discrimination, of African Americans in the twentieth century.

However, while their arguments were correct, their characterizations of African-American banks overlooked the positive impact these banks had on African-American business ownership, white-collar occupations, and home ownership. This research is the first to analyze the effect of African-American banks on these economic outcomes in the African-American community, and finds positive effects of African-American banks on these three African-American economic outcomes.

I employ a new data set of African-American banks coupled with county-level census data to quantify these effects. This data set is the most complete listing of African-American banks ever compiled, documenting 125 that operated at some point between 1907 and 1937. These 125 African-American banks increased the African-American business ownership rate: the share of African-American adults in a county who report that they employ at least one person in a non-domestic capacity. An additional African-American bank per ten thousand African-American adults in a county increases the business ownership rate by 1.94 percentage points, one-and-a-half times the median rate of 1.31%.

Applying this result to the counties that contained African-American banks implies that African-American banks created approximately 14,000 African-American business owners. In a counterfactual world where every county with ten thousand African-American adults had an African-American bank, this effect would have more than tripled, to 49,000 business owners. This effect is even more striking because the indepth examination of the operations of African-American banks in Chapter 3 shows that they were, on average, less profitable than white banks, due to the segregated markets they faced.

This effect of African-American banks on business ownership persists when restricting the data to the South, with a 2.32 percentage point increase. Further limiting the dataset to a subset of the South, the six states of the Cotton South: Alabama, Arkansas, Georgia, Louisiana, Mississippi, and South Carolina, produces a 2.91 percentage point increase. This increase persists when limiting the Cotton South sample to urban counties, suggesting that cotton farming itself is not the driver of this effect.

I find smaller positive and significant effects when analyzing the effect of African-American banks on both white-collar occupations and home ownership. An additional African-American bank per ten thousand African-American adults results in a 0.266 percentage point increase in the rate of white-collar workers, 16.4 percent of the median rate. An additional African-American bank per ten thousand African-American adults also led to a 1.74 percentage point increase in the rate of African-American home ownership, 5.09 percent of the median rate. Applying this result to counties with an African-American bank shows that African-American banks created approximately 12,000 African-American homeowners and 1,900 white-collar workers.

There are three endogeneity concerns that may bias these results upward. First, the causality might be reversed or simultaneous: more African-American business owners cause the increase in African-American banks. Second, the distribution of African-American banks is not random across counties. Third, there may be some factor that increases both African-American bank formation and business ownership.

To address these endogeneity concerns, I do three things. First, I analyze the data

using county and year fixed effects, which resolves the issue of non-random assignment of banks to counties. Second, I lag the African-American bank variable by three years to diminish the chances of simultaneous causality. Third, I add vectors of controls. These vectors control for both African-American demographics, including literacy, migration, urban population, population share, and age; and white economic achievement, including share of labor force in manufacturing (of all races), business ownership, and home ownership.

This research makes three contributions to African-American economic history. The first contribution is the assessment of the impact of African-American banks on the African-American community, the first of its kind on African-American banks in the Jim Crow Era.

The second contribution of this research is a new, comprehensive list of African-American banks of this time period. Using any previous data source misses several African-American banks, and possibly includes banks that never operated in the community.

Finally, this research contributes to the growing literature re-examining African-American economic life from the Civil War to World War II. This scholarship, exemplified by Butler (1991), Cook (2011), and Logan (2018), centers on the contributions made by African-American entrepreneurs, inventors, and politicians in the late nineteenth and early twentieth centuries, providing a new perspective on African-American achievements from 1867 to 1940.

Mehrsa Baradaran warns about focusing on African-American bankers in this way, saying "[I]t is not a story celebrating the heroic struggles of individual black bankers who were triumphant despite the odds. There are certainly stories of inspiration to be found, but the overemphasis on Horatio Alger tales of success can lead to distraction" (Baradaran (2017), p. 7). My research rebuts this statement in two ways. First, I argue that the literature has moved far away from the rags-to-riches stories that echo Horatio Alger, thus overlooking the actual economic benefits of African-American banks. Second, this research shows that the story of African-American banks, rather than the story of a few large successful entrepreneurs, is the story of granting credit to many small business owners.

2.2 Historical Background

After the failure of the Freedman's Savings Bank¹ in 1873, due to mismanagement, overexpansion, embezzlement, and the Panic of 1873, commentators and historians lamented the effect this collapse would have on generations of African-American households. W. E. B. Du Bois said the failure "not only ruine[d] thousands of colored men, but taught to thousands more a lesson of distrust which it will take them years to unlearn" (Quoted in Baradaran (2017), p. 31). Nevertheless, as noted by Abram Harris, African Americans were organizing banks just fifteen years later (Harris (1936), p. 45).²

I define African-American banks as banks identified as "Colored" or "Negro" in local and/or national sources.³ The possibility of integrated ownership or management was unlikely during the Jim Crow era (Woodward, 1955). Narrative histories of African-American banks in this time period show that they were, with no recorded exceptions, entirely owned by African Americans (Harris (1936), Osthaus (1973), Sandler (1994), Ammons (1996), Marlowe (2003), Bradley (n.d.)). My analysis of one African-American bank's board of directors in Chapter 3 also shows that the board was entirely African-American.

Conversely, the one example of a somewhat integrated bank is the Dunbar National Bank. This bank, founded by John D. Rockefeller in 1928 and staffed, in part, by African-Americans, had one African-American director (the property owner) (New York Herald Tribune, 1928). The Dunbar National Bank is never cited in African-American

¹The Freedman's Savings Bank was chartered by Congress at the end of the Civil War to safeguard deposits for African-American soldiers and newly-freed persons. It had an exclusively white board of directors until late in its existence. With no restrictions on interstate branching, it grew to over thirty branches throughout the South and East (Osthaus, 1976).

 $^{^{2}}$ c.f. Baradaran (2017), p.31, where an African-American banker active in the 1920s laments the long delay after the failure of the Freedman's Savings Bank.

³Prior to the passage of the Financial Institutions Reform, Recovery, and Enforcement Act of 1989, the definition of an African-American bank was: a bank owned and managed by African-Americans. The current definition of minority depository institutions, created after the Act and used by the Federal Reserve and Federal Deposit Insurance Corporation, is: joint stock or privately held banks majority owned by African Americans, or small banks managed by African Americans serving an African-American community (Federal Deposit Insurance Corporation, 2016b).

newspapers or academic literature as an African-American bank (Bruce, 1928).

In the late 1880s the first state charters were issued to African-American banks. By 1890, four African-American banks had opened: The Capital Savings Bank of Washington, D.C., the True Reformers Bank in Richmond, Virginia, the Mutual Bank and Trust Company of Chattanooga, Tennessee, and the Alabama Penny Savings Bank of Birmingham, Alabama (Work, 1912). By 1907, thirty African-American banks were operating.

From 1907 to 1937, 125 African-American banks operated in the North, South, and Midwest. Five of the African-American banks established before 1937 are still majority owned by African Americans today: Citizens Bank and Trust of Nashville, TN (established in 1904), Mechanics and Farmers bank of Durham, NC (1908), Movement Bank (formerly Danville Savings Bank) of Danville, VA (1919), Citizens Trust Bank of Atlanta, GA (1921), and the Industrial Bank of Washington, DC (1934) (Federal Reserve Statistical Release, 2017). Figure 2.1 plots the number of banks from 1910 to 2016. The figure shows that the 1920s had the largest number of African-American banks.

African-American banks had a variety of origins. They were organized by fraternal or sororal societies, groups of citizens, or wealthy individuals. African-American banks were chartered as for-profit institutions, but frequently had advocates that promoted the banks' role in community development (Cayton & Drake (1946); Baradaran (2017)). The majority of African-American banks were savings banks, with a mission to safeguard deposits. A few were commercial banks, generally with a mission to provide credit to the business community. However, the strength of these distinctions varied depending on the state that granted a bank's charter. For example, Virginia recognized no difference between these two types of banks. See Chapter 3.

Only six African-American banks operated in rural counties with no African-American urban population, defined as counties with no African-American urban population. The rural banks were located in Boley, Oklahoma, and Mound Bayou, Mississippi, which had two African-American banks each; Kenbridge, Virginia, and Indianola, Mississippi, had one each. The six rural African-American banks represent 4.80 percent of all African-American banks.

During this time period (and in the present day) a bank could pursue a charter from either state or federal authorities. State charters (for state banks) typically had lower barriers to entry than federal charters (for national banks) (E. N. White, 1983). African-American banks were more likely to be state banks than white banks.⁴ While 98.4 percent of African-American banks were state-chartered, only 73.5 percent of white banks held state charters.⁵

Figure 2.2 shows the locations of African-American banks that operated at some time between 1907 and 1937. The larger circles on the map correspond with larger numbers of African-American banks in a city. The map shows a wide spread of African-American banks through the eastern half of the continental United States, with onethird of the African-American banks in the six states of the Cotton South.

Table 2.1 contains a list of all African-American banks operating from 1907 to 1937, verified as described below in Section 2.3.3.⁶ The years listed correspond with the publication dates of the *Negro Year Book*, described in Section 2.3.2, along with some interpolated dates, noted with an asterisk. Table 2.1 shows that 125 African-American banks operated in twenty-one states during this time, though only one of those banks operated for the entire period.⁷ In 1922, 62 African-American banks were operating, the largest number observed. Baltimore, Maryland, had the largest number of African-American banks, with seven operating at some point during this time period. Richmond, Virginia and Savannah, Georgia each had six, while Chicago, Philadelphia, and Jacksonville, Florida each had five.

⁴This research uses twenty-first century notions of whiteness, which were not the same in the pre-WWII period. For examples of the twentieth century evolution of race, see Brodkin (1998) and Ignatiev (2012).

⁵The two African-American national banks were the First National Bank of Boley, Oklahoma, operating from approximately 1922 to 1925, and the Douglass National Bank of Chicago, operating approximately from 1922 to 1931.

⁶This list does not contain seven African-American thrift institutions, defined as firms that include the words "Savings and Loan" or "Building and loan" in their names. Table C1 lists these thrift institutions.

⁷This is the St. Luke's Penny Savings Bank, later Consolidated Bank and Trust, in Richmond, Virginia.

African-American banks operating in the early twentieth century faced an environment both dynamic and precarious. African-American commercial centers arose in New York (Harlem), Chicago (Bronzeville), Durham (Hayti), Richmond (Jackson Ward), and Tulsa (Greenwood). This commercial advancement came at the height of the Jim Crow era, when African Americans were denied opportunities to accumulate wealth via investment, real estate, and high-earning occupations. Moreover, wealth accumulation was also affected by both the lack of political power through disenfranchisement in the South and the racial violence of lynchings and race riots (including the Greenwood area of Tulsa). Cook et al. (2017) use household-level data to show that lynchings are correlated with increased racial segregation. When combining this result with the Baradaran (2017) finding that segregated African-American neighborhoods led to worse economic outcomes for African-Americans, this illustrates some of the effects of white repression of African-Americans during this time.

As state banks, African-American banks could not open without a state charter, and could not operate without permission from the state banking department.⁸ This implies less than complete animosity from state officials towards African-American banking during this time.⁹ Why state officials allowed African-American banks to exist are unknown. Abram Harris attributes the sanctioning to "racial parallelism," the desire for white government and business leaders, especially in Virginia and North Carolina, to enable African-American financial institutions, in order to promote racial segregation and suppress African-American dissent (Harris (1936) p. 102-3). This is just one contribution Harris made to the study of African-American banking.

2.2.1 The Debate about African-American Banks

Abram Harris' monograph, *The Negro As Capitalist* (Harris, 1936) remains the definitive analysis of banks owned and operated by African Americans before World War II. The book argues that early twentieth century African-American banks were

⁸Although, if African-American banks were organized as private banks they could operate without a charter in many states. I thank Eugene White for this insight.

⁹Although some state banking departments, like Virginia, were required to issue charters to any group of residents with sufficient capital from 1903 to the 1920s (Gruchy, 1937).

too small and fragile to provide benefits to African-American communities.

Abram Harris studied African-American labor and finance during the first half of his career while at Howard University. He was the second African-American to earn a PhD in economics.¹⁰ His 1936 book, *The Negro as Capitalist, A Study of Banking and Business among American Negroes*, was unsparing in its assessment of African-American banks:

As things now stand, the Negro bank has no real economic justification. It's *raison d'être* is not economic necessity but race prejudice and, it might be added, a growing racial nationalism among American Negroes which is fed by their poverty and their economic limitations. The Negro banker like the Negro business man is an uneconomic man, and the same circumstances that force the one to carry on his petty trade at the margin of gain, force the other to do likewise in the realm of small finance.

– Harris (1936), p. 175

Harris aimed his argument at nationalists, like the New Negro Alliance, who advocated for African-American banks as a way to strengthen the African-American economy (W. A. Darity Jr., 1989). *The Negro as Capitalist* notes that the wealth of African Americans from 1900 to 1936 was insufficient to create a successful parallel economy. Instead, Harris advocated the use of non-bank loan institutions, the adoption of interstate bank branches, and the establishment of African-American branches by non-minority banks. He asserted that these solutions would provide more banking services to the African-American community than small African-American banks.

Thirty years later, white banks did provide more banking services to the African-American community, most likely due to changes in civil rights law, branching restrictions, and white attitudes towards African Americans. In the 1960s and 70s, a new wave of African-American banks opened along with branches of white banks in African-American communities. Andrew Brimmer, the first African-American governor of the Federal Reserve, expressed skepticism about this second wave of African-American banks.¹¹ Brimmer used balance sheet data to compare the performance of

¹⁰Sadie Mossell Alexander earned her economics PhD in 1921, nine years before Harris (W. A. Darity Jr., 1989).

 $^{^{11}\}mathrm{Lash}$ (2005) has a comprehensive overview the debates regarding African-American banking from 1970 to 2004.

African-American banks to non-minority banks and wrote:

[African American-run] banks may be a source of racial pride, and this is a positive consideration for a rapidly growing segment of the community particularly young people. Moreover, these banks may also render some marginal - although high-cost - financial services.

But under those circumstances, most of the black banks might be viewed primarily as ornaments - that is, as a mark of distinction or a badge of honor which provides a visible symbol of accomplishment. However, they should not be misread as indicating that such institutions - because of the inherent problems faced by small banks in the ghetto - could become vital instruments of economic development.

– Brimmer (1971), p. 402

Both Harris and Brimmer compared African-American banks to the performance of white community banks, but that may be the wrong comparison. Before the 1960s, the alternative to an African-American bank in the community was no bank in the community, although African-Americans did bank at white banks in other parts of the city (Harris (1936), p. 52). Even in 2017, while the overall percentage of unbanked house-holds was 6.5 percent, the rate of unbanked Hispanic and African-American households was more than double that rate, at 14.0 and 16.5 percent (Apaam et al., 2018).¹²

Even with the counterfactual of no bank, were these African-American banks a positive or a negative influence on the African-American community? In an era before nationwide deposit insurance, the small size of most African-American banks put them at an increased risk of failure, freezing customer deposits until resolution years later, when a portion of deposits would be returned to depositors. Additionally, high-profile failures in the 1920s resulted in jail for two prominent African-American banking advocates: Jesse Binga and John Mitchell, Jr., (Harris (1936), Osthaus (1973)).¹³ Both the lack of deposit insurance and the imprisonment of African-American bankers cast further doubt on the welfare-improving nature of African-American banks. Notably, Harris (1936) argues that African-American banks are detrimental to the community.

Discussion of the efficacy of African-American banks continues today, with two

¹²I thank Howard Bodenhorn for this insight.

¹³Jesse Binga, after the failure of his bank in 1930, was convicted of embezzlement in 1935 and served three years in prison (Osthaus, 1973). John Mitchell, Jr. was held for several weeks on charges of fraud after his bank failed in 1922, but was not convicted (A. F. Alexander, 2002).

analyses that depart from the traditional balance sheet method of studying banks. In the study that most closely approaches the analysis in this research, Kashian et al. (2014) use quarterly call reports and American Community Survey data to look at the makeup of communities that modern African-American banks serve. They find that these banks serve communities that are poorer and more unbanked than the average community.

The most recent historical survey of African-American banks is Mehrsa Baradaran's book *The Color of Money: Black Banks and the Racial Wealth Gap* (Baradaran, 2017). Baradaran shows that the wealth gap between African-American and white households is not a result of free market outcomes. Rather, it is due to generations of governmental reluctance to address the gap, combined with government actions that reinforced a nationwide segregated real estate market. These policies enforce race-based wealth inequality and, further, mean that African-American banks could never "perform the magic of banking that is the multiplication of capital through fractional reserve lending" (Baradaran (2017), p. 71).

Thus, the ability of African-American banks to improve economic outcomes has faced skepticism from prominent African-American economists. This skepticism arose for two reasons. First, while banking advocates argued that African-American banks would keep deposited dollars within the African-American community (Cayton & Drake, 1946), this did not correspond to actual African-American bank operations: the connected interbank market and the need for reserves to earn interest meant that any dollar given to an African-American bank would likely be deposited in a white bank. When African-American banks needed to borrow, they pledged loans issued to African-American creditors to these local white banks. Moreover, African-American banks wanted to join local clearinghouses (Osthaus, 1973), becoming closer to, rather than more separated from, the white banking network. Second, decreasing the racial wealth gap would require prolonged government attention. Baradaran (2017) argues that advocating for African-American banking distracted community leaders from pressuring the government to redress discriminatory housing and employment policies.

All of the arguments of Harris, Brimmer, and Baradaran are compelling. However,

in making these arguments against African-American banking, the beneficial aspects of African-American banks are overlooked. While being inadequate to solve the large-scale problems, African-American banks provided credit that increased the number of business owners and improved the rates of white-collar occupations and home ownership.

2.3 Data

I collect a new data set of African-American banks from 1907 to 1937 and combine it with household census data to examine the impact of African-American banks on the rate of African Americans who report employing at least one person in a non-domestic capacity.¹⁴ I also examine the effect of African-American banks on the rates of home ownership, mortgages, and white-collar occupations.

This data is derived from several sources. The variable of interest, the number of African-American banks in a county, comes mainly from the Atlanta University study *Economic Co-operation Among Negro Americans* and the Tuskegee Institute's *Negro Year Book*, with some additions from other works, described below. Control variables for the demographic and economic characteristics of a county, as well as the four dependent variables named above, are obtained from the decennial census of population.

2.3.1 Economic Co-Operation Among Negro Americans

Economic Co-Operation Among Negro Americans was the twelfth in a series of sociological studies headed by W. E. B. Du Bois, called collectively the Atlanta University Studies (or Publications). These studies were linked to an annual conference organized around different aspects of African-American life.

Du Bois said of the conference series:

The object of the Atlanta Conference is to study the American Negro. The method employed is to divide the various aspects of his social conditions into ten great subjects. To treat one of these subjects each year as carefully and exhaustively as means will allow until the cycle is completed.

– Du Bois (1904), quoted in Williams (2012)

¹⁴This analysis uses data from 1907 to 1927, see Footnote 22.

Wright (2002) provides an overview of the Atlanta University Studies, arguing that Atlanta University's sociology department made many contributions that pre-dated the more celebrated "Chicago School" of sociologists at the University of Chicago.

Economic Co-Operation Among Negro Americans contains facts and analyses about African-American businesses and entrepreneurs. On page 135 it provides two lists of African-American banks. The first is a list of banks that are "taken from Bankers' Directories" (Du Bois et al. (1907), p. 135), while the second list is a list of banks that the authors could not independently confirm. I attempt to verify the banks on both lists.

2.3.2 The Negro Year Book

In 1908, sociologist Monroe Work, after contributing to the Atlanta University Studies, accepted a position at the Tuskegee Institute heading the Division (later Department) of Records and Research (Edwards, 1985).¹⁵ In 1912 the Division published the first *Negro Year Book*, an almanac of the news events and other statistics of the previous year relating to African Americans.

The volumes of the Negro Year Book contain much information of interest to researchers, including data on lynching, education, and achievements of African Americans. Importantly for this study, each volume contains a list of African-American banks in a section titled "Directory of Negro Banks" (Figure 2.3). These listings include the city and state of the bank, and change from one volume to the next, allowing for the construction of a panel data set.

The frequency of the Negro Year Book varied: for the first few volumes, the Negro Year Book was published annually, but after the fifth volume, the gap became six years between volumes. The publishing schedule is shown in Table 2.2.

The lists of African-American banks found in *Economic Co-Operation Among Negro Americans* and the first eight volumes of the *Negro Year Book* provide most of the raw

¹⁵Work was the first African American to earn an advanced degree from the University of Chicago, a masters degree in sociology in 1903 (University of Chicago Library, Department of Special Collections, 2008). Additionally, he was one of the few people to work with both W. E. B. Du Bois and Booker T. Washington (Guzman (1949), Edwards (1985), Tucker (1991).

data for the dataset in this research. I add 14 banks that were listed in Abram Harris' *The Negro as Capitalist* but not listed in the Du Bois and Work sources. Additionally, one bank found via bank examinations in Chapter 3 and one found in the Baltimore, Maryland, *Colored Business Directory* (Coleman, 1918) are added.

2.3.3 Verification

Verification of this data is necessary for two reasons. First, curating a nationwide list of African-American financial institutions may have entailed challenges for early twentieth century researchers. Second, the main sources for this data, *Economic Cooperation among Negro Americans* and the first eight volumes of the *Negro Year Book*, have not, to my knowledge, been used previously.¹⁶ I check for the presence of these banks in online city directories provided by ancestry.com's HeritageQuest service (Ancestry.com, 2011). Once banks are confirmed in this way, they are included in the data for this study.

There are four errors that could occur with this raw data:

- 1. An African-American bank is listed when that bank did not exist at that time
- 2. An African-American bank is not listed when that bank did exist at that time
- 3. A bank that was not actually owned and managed by African Americans is listed
- 4. A bank that existed and was owned and managed by African Americans is not listed

I attempt to confirm the raw data to address the first error. Since I do not know the exact dates when the content of the city directories or the other sources were finalized, it's possible that a firm existed by the time the raw data source was published but not when the city directory was published. To account for this, I search for observations in the city directories for the year before and after publication of a source used for the raw data.¹⁷

¹⁶Baradaran (2017) uses data from the Tuskegee Institute, which possibly comes from the same sources used for the published *Negro Year Book*.

 $^{^{17}}$ For example, if the 1922 volume of the Negro Year Book lists a bank, I look for that bank in the 1922 city directory. If that bank is not found, either because the bank isn't listed or the city directory is not available, then I look at the 1921 and 1923 city directories. If the bank is not found in these directories, or these city directories don't exist, I look at the Rand McNally Bankers' Directory, a process described later in this section.

Ancestry.com's Heritage Online database contains city directories for several cities in the United States (Ancestry.com, 2011). For many cities in the South, the directories during this time have a special notation for "colored" residents and businesses. These notations include an asterisk, an italicized c, or a c in parentheses (evidence for this can be seen in Figure 2.4). One example is the Crown Savings Bank, shown with an asterisk to denote the firm as "colored" in the 1922 Newport News city directory (Figure 2.5). For a handful of cities, the African-American directory is entirely separate from the white directory, as seen in Figure 2.6. Thus, the advantage of using city directories to confirm listings is that, for almost every city in the South, the designation of the bank as African-American can be confirmed. If the business appears in the city directory, either in the alphabetical or classified listings, I denote that firm as verified for that year. For Southern cities (except for New Orleans, which does not indicate race or ethnicity in its city directory), even if the name does not match exactly, the existence of an indicated African-American bank counts as confirmation. Thus, the third potential error is addressed in the South (except for New Orleans). In Northern cities and New Orleans, it is not possible to determine the race of the owners of the bank from the city directory, and a name match is required for confirmation.¹⁸

I check over one hundred online city directories. To address the second and fourth potential error, while checking city directories, I look for banks that are listed as "colored," but are not in the raw data. While this is not an exhaustive investigation of all possible city directories for all years, it is a large non-random sample of directory/year pairs. In these directories I find two banks that were not listed in the Negro Year Book, and one that was not listed in Economic Co-Operation Among Negro Americans. One of the city directory listings contradicts other contemporary and historical accounts: in Richmond in 1925, the Mechanics Savings Bank is listed in the city directory, but that bank was closed by regulators in 1922 (Marlowe, 2003). Two other banks are discussed

¹⁸While checking the data in city directories, I noted the advertisements African-American banks placed in the directories. Sometimes these advertisements were co-located with the Bank's listing, sometimes they were cross-referenced in the listing (e.g. "See ad on page"). One representative ad is reproduced in Figure 2.7. In all, 21 advertisements for banks were collected. Only one, the still extant Merchants and Farmers Bank of Durham, NC, noted that they were a "Negro" bank in their advertisements.

below. That there are only four African-American bank listings that are not listed in the *Negro Year Book* and *Economic Co-Operation Among Negro Americans*, out of more than one hundred city directories, is evidence in favor of the comprehensiveness of the data collection of Monroe Work, W. E. B. Du Bois, and their staff.

To address the issue of missing city directories, I check all observations that are not identified in city directories in the *Rand McNally Bankers' Directory* for the appropriate years (American Bankers Association and Rand McNally and Company, 1907-1937). As with the city directories, I check one year before and after the listing of the bank in the raw data, and count any bank appearing in any of these years as a confirmed African-American bank.

The *Rand McNally Bankers' Directory* does not indicate the race of a bank or its officers, which complicates verification. In most cases, the name of the bank in the raw data matches exactly to the name in the *Rand McNally Bankers' Directory*. In a few cases where the name match is more ambiguous, I check the Heritage Online (Ancestry.com, 2011) census records for the president of the bank. If the bank president (or other officer, if the president can not be located) is listed as "colored" or "mulatto" in the census, then I confirm that this was an African-American bank.

Out of the 654 bank-year observations in the dataset, 401 of them are verified using city directories, 80 are verified using the *Rand McNally Bankers' Directory*, and 19 are verified using other historical sources,¹⁹ a verification rate of 76.8%. These 500 observations form a definitive list of all African-American banks and thrifts that appear in two sources for the year specified, and is the list I use for the main specification.²⁰

The high rate of verification is due to the current availability of city directories and other resources online, resources that Ammons (1996) did not have when she created her list of African-American banks for this period. Thus, this dataset is an improvement over previous lists of African-American banks used in the literature. Research such as Baradaran (2017) that uses sources from Monroe Work and W. E. B. Du Bois would

¹⁹These sources are State Corporation Commission (1915-28) Banking Division of the State Corporation Commission (1904-1946), Iles (1925), Osthaus (1973), Marlowe (2003).

²⁰Table C1 lists the seven confirmed thrift institutions not included in the dataset.

not include six banks that are in this new dataset, as well as include 25 banks whose existence I can not confirm. Research that uses the listing of African-American banks in Harris (1936) would not include 22 banks in this new dataset, while including 17 banks whose existence I can not confirm. Studies which use the list that Ammons (1996) verified from Harris would miss 76 banks, as well as include 7 banks I can not confirm).²¹

From this list, several facts are notable. First, only one bank is confirmed as operating for the entire time period of 1907-37: the St. Luke's Penny Savings Bank (later Consolidated Bank and Trust) of Richmond, Virginia. Many banks were only confirmed for one year: 22.0% of banks listed are only observed once. The average lifespan of banks in this list is 7.41 years, with a median of 4 years. These values are censored on both ends of the date range, so these are a lower bound for the lifespans of African-American banks. In Chapter 3, I find that African-American banks in Virginia have a similar average lifespan (28.4 years) to the smallest white banks located in the same city (30.0 years), but a much higher rate of failure.

2.3.4 Decennial Census

Dependent and control variables come from the decennial household census from 1910 to 1930. County totals for the share of the labor force (of all races) in manufacturing and African-American literacy from 1910 to 1930 are from the The Inter-University Consortium for Political and Social Research (Haines & Inter-University Consortium for Political and Social Research, 2010). All other variables come from the full count of the 1910-30 censuses downloaded from the Integrated Public Use Microdata Series (IPUMS) web site (Ruggles et al., 2015).²²

I aggregate these individual records to the county level. This creates a county-level dataset of eleven controls (ten variables and one vector) and four dependent variables, described below.

²¹Ammons lists 58 African-American banks before World War II. One is from a time period prior to this dataset.

 $^{^{22}}$ The IPUMS 1940 100% datafile could not be used for this analysis, since, at the time of this study, African Americans are undercounted in several Southern states (Bloem, 2018).

The first dependent variable of interest in this analysis is the rate of African-American adults in a county that report employing at least one other person (not including domestic service). I refer to this variable as the African-American business ownership rate. This question was asked as part of the questionnaire about employment in the 1910-40 decennial censuses. The question was reformulated in 1950 with the employer option removed (Integrated Public Use Microdata Series, n.d.-a). An advantage of this variable is that it comes directly from the enumerators: it is not imputed at a later time. The disadvantage is that it is a binary measure: it is not possible to distinguish a respondent who employs one person from one that employees a hundred. Nevertheless, it is a useful indicator of the level of business ownership in a county. My hypothesis is that African-American banks improve this rate by providing credit to people to start businesses, which is then reflected in the hiring of employees.

The second dependent variable examines the rate of African Americans in whitecollar occupations.²³ The second hypothesis is that easier access to both deposit and credit services would allow a household to smooth consumption more easily and invest in the human capital needed for household members to acquire white-collar jobs, which would, on average, be higher paying than other job categories. This relationship between banking and human capital is found in current studies of the Freedmen's Bank (Stein & Yannelis, 2019) and the Bank of America (Quincy, 2018). The measure is based on the imputed IPUMS variable occ1950. This variable creates categories of occupations based on the interpretation of text-based occupations listed in the 1910-40 censuses.²⁴ The advantage of this variable is that it shows occupations that would be relatively higher-paying compared to other jobs. The disadvantage is that the occupational codes are based on a 1950 occupational system, and that the answers of respondents were placed into one of these categories at a much later date by IPUMS personnel. Despite this limitation, an increase in this measure would indicate a positive effect of African-American banks on the occupational mix of African Americans in a

²³ "[W]hite-collar occupations include professional, technical, and affiliated workers, managers and administrators (except farm), sales workers, [and] clerical and kindred workers." (United States Department of Commerce, Bureau of the Census, 1973)

²⁴More information on this process can be found at Integrated Public Use Microdata Series (n.d.-b).

county.

The third hypothesis is that African-American banks increased the rate of home ownership and mortgaged home ownership. Two dependent variables are used to investigate this hypothesis. The first is the rate of African-American adults that live in a house that the household owns (instead of rents). As can be seen from the summary statistics in Table 2.3, 34.7% of African Americans in the median county owned their residence, while 54.4% of white adults owned theirs. The means of African-American and white home ownership, at 36.1% and 53.6%, respectively, are in line with the estimates presented in Collins & Margo (2001) (25.7 and 47.1, respectively, in 1910), although the summary statistics presented here are averages across counties, not the average of the population.²⁵ The advantage of this measure is that this is a direct response received during each census. The disadvantage is that this measure does not capture whether the house was mortgaged.

The other dependent variable used to measure home ownership is the rate of African-American adults living in a house with a mortgage. For the 1910 and 1920 decennial censuses, the enumerator noted whether the house was owned, rented, or had a mortgage (Integrated Public Use Microdata Series, n.d.-c). The advantage of this variable is that it allows the analysis to isolate households that owe money on their house. The disadvantage is that this variable is not available for the 1930 census, which means that the sample is limited to two censuses, making it more difficult to identify effects with county and year fixed effects.

Controls include the African-American literacy rate, migration rate (percent of adults born in a different state), urbanization rate (percent of adults living in an urban area), and the share of the adult population in a county that is African American, since these measures may affect the economic activity of African Americans in a county. Additionally, there is a vector of age controls, representing three age groups: African-Americans aged 16 to 33 (who may be more likely to be business owners, and less likely

 $^{^{25}}$ For example, if the dataset contained just two counties, one with 1,000 African-American adults where 50% of them were business owners, and the other county with 500 African-American adults where 10% of them were business owners, the share of business owners would be 550/1500 = 36.67%, while the county mean percentage would be 30%.

to own property), aged 34 to 57 (potentially the group with the highest potential for wealth creation), and 58 and older (who may be less likely to own both businesses, mortgages, and property).

There are three other economic controls: first, the share of white business owners in a county, determined in the same way as the African-American business ownership rate described above; second, the rate of white home ownership in the county, to control for white economic activity increasing African-American economic outcomes through increased hiring or property values.²⁶ and, third, the share of labor force (of all races) engaged in manufacturing, which controls for industrial activity in the county. Additionally, the panel fixed effects regression controls for county- and time-specific economic activity.

2.3.5 Standardization

This dataset must be modified to ensure an appropriate comparison across space and populations. Three transformations are applied, as described below

The first transformation is necessary because the census data used in this study is aggregated at the county level. This provides a reasonable geographic area to measure the impact of African-American banks, but comes with complications. County sizes differ across states, with no standard size of area or population. Therefore, each variable is standardized by population: variables are represented as shares of the adult population of that race in that county. This provides an equitable comparison across counties of differing sizes and populations. The variable of interest, African-American banks per African-American adults, is standardized as banks per ten thousand African-American residents aged sixteen or older. This magnitude is chosen because the number of African-American banks per capita in counties that contain African-American banks is 0.000980.

Second, county borders change over time. To resolve this issue, I use the matrix provided by Horan & Hargis (1995) to generate time-consistent counties through this

 $^{^{26}}$ These controls do not include controls for adults not classified as white or African-American, but the results of this analysis are robust to the inclusion of those adults. See Section 2.5.6.

era. The Horan and Hargis matrix does not perfectly match the counties in the IPUMS data, so I apply 123 additional transformations to ensure consistent counties.

Third, the preferred data sample excludes all counties with an adult African-American population of less than 200. This 200 adult cutoff is chosen to create a large sample while dropping counties that would be extremely unlikely to contain an African-American bank. The smallest county, in terms of African-American adult population, that contains an African-American bank is the independent city of Staunton, Virginia, with 1,284 adult African-Americans in 1930. As a robustness check, I limit the sample to only those counties with at least 1,000 African-American adults in an alternative specification, described in Section 2.5.6.

The summary statistics for the variables used in the analysis are listed in Table 2.3, with the mean, median, standard deviation, minimum, and maximum values for each variable.²⁷ The unit of observation in this data is a county in a certain decennial census, referred to as "counties" from this point for simplicity. Counties, on average, have lower rates of African-American home ownership, white-collar occupations, and migration than white adults. The gap in white-collar occupations is large: the rate of white-collar occupations for African Americans is less than one quarter the rate for white adults nationwide.

To further analyze the data, the dataset is divided in two different ways. In Table 2.4, statistics for counties in the North and South are compared. There are large differences between the regions. Northern counties have fewer African-American banks and fewer African-American banks per ten thousand African-American adults. The rate of business owners is roughly one-quarter as large in the North as in the South. This large gap in business ownership rate may be due to the fact that many of the counties in the South with the highest African-American business ownership rate were rural, so this may indicate an increased number of farmers hiring workers. I perform a robustness check of dropping rural counties in Section 2.5.6.

As expected, the counties in the North have much higher migration rates and shares

²⁷The reported statistics are per-county averages, not overall population averages. See Footnote 25.

of African Americans living in urban areas. White-collar occupation rates for African Americans are about twice as high in the North as in the South, a ratio that is slightly higher than the white-collar rate for white adults, which is approximately thirty percent higher in the North.

Table 2.5 looks at the difference between counties that have African-American banks and counties that do not.²⁸ Just 1.94 percent of the sample contains African-American banks. These counties have 8 to 10 times as many African-American adults in them, as well as a large percentage of urban African-American residents: over 66 percent of African Americans in counties with African-American banks live in urban areas. This urban rate is more than twice as large as the rate of counties without African-American banks. Home ownership and mortgaged ownership are lower in counties with African-American banks, with both rates about two-thirds as large in counties without banks.

2.4 Method

This research uses panel regressions with year and county fixed effects. Four dependent variables are analyzed: the rate of African-American business ownership, home ownership, mortgaged home ownership, and white-collar workers. Some of the findings of this analysis may be sensitive to decisions I made regarding the construction of the dataset. I describe those decisions in more detail below.

2.4.1 Main Specification

I include both rural and urban counties in the main specification because, as mentioned in Section 2.2, six banks operated in counties with an African-American urban population of zero (although the average African-American rural population for these counties was over 15,000), with six more operating in counties with fewer than 1,000 African-American urban residents. Thus, limiting the sample to urban counties would trim the variable of interest by 5 to 10 percent. I present regressions of urban counties at the end of Section 2.5.

²⁸The summary statistics do not include those counties with fewer than 200 African-American adults.

The Negro Year Book lists both bank and thrift institutions in its "Directory of Negro Banks."²⁹ In the main specification, I define thrifts as any institution that has "savings and loan" or "building and loan" in its title, and exclude these firms from the dataset. This leaves many cases where it is unclear whether the firm was a bank or a thrift, such as the Penny Savings Loan & Investment Company of Augusta, Georgia. To check whether results are sensitive to this division of banks and thrifts, I check the robustness of the results when including all institutions and when using a stricter definition of "bank" in Section 2.5.6.

It is possible that, since Jim Crow was implemented differently in the North and the South (Woodward, 1955), that the impact of African-American banks may have differed by region. Therefore I separate states into two regions, following the US Census defining "South" as containing seventeen states, including West Virginia, Delaware, Maryland, Kentucky, and Oklahoma, as well as Washington, DC (United States Department of Commerce, Economics and Statistics Association, Bureau of the Census, 1994). As an alternative, I separate the regions based on their status during the American Civil War (and place Oklahoma in the South). This places West Virginia, Delaware, Maryland, Kentucky, and Washington, DC in the North, but does not lead to different regional results, as discussed in Section 2.5.6. I also analyze a subset of the South, the "Cotton South," in Section 2.5, since the cotton industry may interact differently with African-American banks.

²⁹Surprisingly, the *Negro Year Book* during Work's tenure as editor never lists African-American credit unions, although Shapard & Fruchtman (2013) show that there were such credit unions functioning during that time in North Carolina. After Work's death, African-American credit unions were listed in the final volume of the *Negro Year Book*, published in 1952.

2.4.2 Model

Specifically, the model is:

$$economic_indicator_{cy} = \beta_1 a frican_american_banks_{cy} \\ + \beta_2 a frican_american_banks_{cy}^2 \\ + \beta_3 literacy_{cy} + \beta_4 migration_{cy} + \beta_5 urban_pop_{cy} \\ + age_{cy}\beta_6 + \beta_7 share_a frican_american_{cy} \\ + \beta_8 pct_lab_force_in_manuf_{cy} \\ + white_controls_{cu}\beta_9 + \gamma_u + \delta_c + \epsilon_{cu}$$

Where the variable of interest is the number of African-American banks per 10,000 African-American adults in county c in year y. I choose the quadratic form since it is reasonable to assume that additional African-American banks (or an African-American bank serving a smaller population) would have diminishing marginal returns.

This analysis uses bank data from years prior to the census years. Bank data for this analysis comes from 1907, 1919, and 1927. These years are used for two reasons. First, the effects of African-American banks should persist over time. Second, using data from years before the census mitigates the potential impact of reverse causality, described below.

The results of this analysis are subject to three issues of endogeneity. First, banks are not randomly distributed across counties. Second, reverse causality is possible, since outcome variables are only observed every ten years. Third, there exists the possibility of a county- and time-specific variable, omitted from this model, that could cause the changes in the dependent variables. The first issue is addressed by the panel data model, and the latter two issues require two identifying assumptions. First, I assume that the observed dependent variable is mainly determined by the time period from the bank observation to the dependent variable observation. Second, I assume that there are no factors that vary both across county and across time that disproportionately affect African Americans in a non-random way and are not represented or proxied in the vectors of controls.³⁰

In Appendix 2.A, I document attempts to find an instrumental variable that would relax the identifying assumptions.

2.5 Results

The marginal effects reported below are reported in terms of African-American banks per ten thousand African-American adults in a county. The mean value of all counties that have African-American banks is 0.980 per ten thousand.

2.5.1 National Results

The analysis shows a positive effect of African-American banks on the share of African Americans who reported employing at least one person. Table 2.6 shows that the effect of an additional African-American bank per ten thousand African-American adults on the rate of African-American business ownership is positive and significant, both statistically and economically. Specifically, for a county without an African-American bank, an additional African-American bank per ten thousand adults would have resulted in a 1.94 percentage point increase in the business ownership rate. This is 1.48 times higher than the median rate of 1.31 percent, and 37.4 percent of a standard deviation.

I predict the number of business owners based on these results. The linear and quadratic coefficients estimated in Table 2.6 imply that the existing African-American banks increased the number of African-American business owners by approximately 14,100, with a 95% confidence interval of between 8,430 and 19,800 business owners added. These results are shown in Table 2.7.

One can imagine a wider spread of African-American banks in the US, brought about

³⁰An example of an effect that would bias these results: suppose that, in 1913, a new business opportunity arises that affects the economic prospects of African Americans more than whites. This leads to the formation of an African-American bank by 1917, and drives an increase in economic activity observed in the 1920 census. This effect is not due to or proxied by migration, education, industrialization, or an increased African-American share of the population, all of which are addressed by controls. If this 1913 effect was only present in some counties with African-American banks, this would bias the results upward.

by increased advocacy, decreased oppression, or some other mechanism. Consider every county with over 10,000 African Americans but without an African-American bank. If each of these counties had one African-American bank, the number of African-American business owners would have increased by 49,200, with a 95% confidence interval of between 29,400 and 69,000.

White-collar occupations are positive and significant, showing a 0.266 percentage point increase in a county with an additional African-American bank per ten thousand adults. This is 16.4 percent of the median value and 21.0 percent of a standard deviation. Table 2.7 shows that this translates into roughly 1,930 white-collar workers.³¹

There is also a small positive effect found for home ownership. An additional African-American bank per ten thousand African-American adults in a county (with all controls evaluated at their means) would result in a 1.74 percentage point increase in home ownership. This is 5.09 percent of the median value for African-American home ownership in a county and is 9.90 percent of a standard deviation for African-American home ownership. Plugging this result back into the equation in Section 2.4.2 shows that African-American banks created approximately 12,600 new African-American home-owners.

Mortgaged home ownership, as seen in Table 2.6, is not precisely estimated. The lack of mortgage data in the 1930 census reduces the number of observations which likely contributes to the lack of statistical significance.

Thus, African-American banks increased the number of African-American business owners in a county, as well as increasing the rates of white-collar occupations and home ownership.

2.5.2 Southern Results

I divide the sample into Northern and Southern regions, as described in Section 2.4.1, and run separate regressions for each region. Tables 2.8, 2.9, 2.10, and 2.11

 $^{^{31}}$ While we may think that African-American banks themselves contributed a large part of these white-collar jobs, in this era almost all banks were small. In my study of Virginia state banks in Chapter 3, the median number of employees and officers in an African-American bank is 5.

show the regional results for each economic indicator, with the nationwide results for reference.

The Southern results echo the nationwide results. Specifically, an additional African-American bank per ten thousand African-American adults in the South increases the rate of business ownership by 2.23 percentage points. This is 1.07 times the median rate of business owners in the South, which is 2.09 percentage points, and is 39.1 percent of a standard deviation.

The South also shows a small but statistically significant increase in white collar occupations, with a marginal effect of 0.169 percentage points. This is 12.5 percent of the median value and 16.8 percent of a standard deviation.

African-American banks in the South also slightly increased the rate of home ownership. An additional African-American bank per ten thousand African-American adults in a county would have increased African-American home ownership by 0.676 percentage points. This is 2.06 percent of the median rate, and 3.88 percent of a standard deviation.

Finally, African-American banks in the South also have a positive and significant effect on mortgaged home ownership. An additional African-American bank per ten thousand African-American adults in a county results in a 0.395 percentage point increase in mortgaged home ownership. This is 5.98 percent of the median value, and 8.33 percent of a standard deviation.

Thus, analyzing the South separately reveals a positive and significant relationship between African-American banks and each economic indicator. Since 79.2% of African-American banks were located in the South, it follows that many relationships between African-American banks and economic indicators in the South can be precisely estimated.

2.5.3 Cotton South Results

To further isolate differing regional results, I analyze African-American banks in the six states of the Cotton South as defined by Tolnay et al. (1992): Alabama, Arkansas, Georgia, Louisiana, Mississippi, and South Carolina. 42 African-American banks operated in these states from 1907-37.

The results of this analysis are shown in the last columns of Tables 2.8, 2.9, 2.10, and 2.11. The effect of African-American banks on employer rate is positive and significant in the Cotton South. An additional African-American bank per ten thousand adults in a Cotton South county increases the rate of African-American employers by 2.91 percentage points. This is 86.2% of the median employer rate (3.38) and 42.5% of a standard deviation.

However, this relatively small number of African-American banks is not sufficient to precisely estimate the impact of African-American banks on white-collar occupations, home ownership, or mortgaged home ownership.

The presence of this effect in the Cotton South suggests that there is something about the organization of the cotton industry that leads to increased business ownership opportunities for African Americans. It does not seem to be the cotton growing itself, as the effect is of the same magnitude and statistically significant when limiting the sample to counties with more than 1,000 urban African-American adults.

2.5.4 Northern Results

Analyzing the Northern banks separately shows that Northern banks had a positive and statistically significant relationship with two economic indicators: white-collar occupations and home ownership.

For white-collar occupations, the marginal effect in the North is 0.849 percentage points. This result is 32.2 percent of the median white-collar occupation rate, and 59.0 percent of a standard deviation.

The banks located in the North also affected home ownership, as seen in Table 2.10. An additional bank per ten thousand African-American adults led to a 5.29 percentage point increase in the rate of African-American home ownership. This increase is 13.1 percent of the median rate of African-American home ownership in the North, and is 30.8 percent of a standard deviation.

2.5.5 Discussing the Business Ownership Results

In the previous sections, I reported on the effect African-American banks had on the business ownership rate of a county, nationwide, in the South, and in the Cotton South. These new business owners may either be expanding existing (self-employed) businesses or starting new ventures. Moehling & Steckel (2004) show that, through 1910, many occupations previously fulfilled by self-employed artisans transitioned to occupations staffed at larger firms. It is possible that a similar transition in African-American occupations is taking place during this time, as self-employed persons create larger firms or are hired by those firms.

Is the increase in African-American business ownership due to the agricultural sector? That is, is the effect of business ownership due to farms with expanded access to credit hiring additional farm hands? To investigate the source of the business ownership effect, I limit the dataset to counties with more than 1,000 African-American adults living in urban areas. A county with 1,000 urban African-American adults is in the 74th percentile of African-American urban population. Table 2.12 shows the results of this analysis. Limiting the sample to those counties with an urban adult African-American population of at least 1,000 shows similar positive and statistically significant results with the same magnitudes. This result also holds for the Cotton South in urban counties, as seen in Table C2, although the results in the wider South lose their statistical significance.³²

2.5.6 Robustness of Results

To verify that African-American banks increased the rate of African Americans who reported employing at least one person, as well as increasing home ownership and whitecollar ownership, I conduct several tests to determine the robustness of the findings. All results discussed in this Section are shown in Appendix 2.C.

 $^{^{32}}$ Interestingly, limiting the sample to urban counties allows a precise estimation of the effect on business ownership in the North, with an effect similar to the overall magnitude.

Nationwide Robustness Results

As discussed in Section 2.3.5, this analysis drops counties that had fewer than 200 African Americans. It's possible that the results of the main specification may be sensitive to different population cutoffs. Regressions are re-run excluding counties that had fewer than 1,000 African Americans. As seen in Tables C3, C4, and C5, the results are still positive, significant, and of the same magnitude, demonstrating that changing the population cutoff does not change the findings.

To check that the results of the analysis are not sensitive to the bank/thrift separation, I include both banks and thrifts in the dataset, increasing the number of African-American financial institutions to 132. Tables C3, C4, and C5 show that adding thrift institutions to the number of banks does not alter the nationwide results significantly.

It's also possible that the definition of African-American banks used in the main specification is too broad. To check if the results are sensitive to including too many institutions, I create a stricter definition of banks: the name of the institution have must the word "bank," "banker," or "banking" in the title. This reduces the number of African-American banks in the dataset from 125 to 98. The results in Tables C3, C4, and C5 show no significant difference for any of the findings.

Excluded from the main specification are persons who are not identified as white, "colored," or "mulatto." The number of people in the sample not listed in one of these three categories is two orders of magnitude less than the total African-American population of the sample. As a check on validity, the same analysis is completed with people of other races included. Tables C3, C4, and C5 show that this does not affect the results nationwide.

Additionally, this analysis uses a confirmed list of African-American banks from 1907, 1919, and 1927. Are the 1919 banks driving these results? If they are, this increases the chances of reverse causality biasing the results. To test this, I substitute African-American banks from 1916 for the 1919 list of banks. In this test, nationwide results remain positive, statistically significant, and of the same magnitude, as seen in the "1916 Banks" columns of Tables C3, C4, and C5.

Regional Robustness Results

The Southern results are also robust to the specifications listed in the nationwide section. Additionally, the method used to divide the country into regions (taken from the US Census) does not affect the results, as described below

Tables 2.8, 2.9, and 2.10 show that Southern African-American banks increased the rate of business ownership, home ownership, and white-collar occupations. These findings are not sensitive to the division of North and South. To show this, I create two alternative definitions. In the first alternative North/South definition, I define the South as the states that seceded during the American Civil War, plus Oklahoma, which was an unincorporated territory during the Civil War. This definition of the South differs from the census definition by subtracting West Virginia, Delaware, Maryland, Kentucky, and Washington, DC, from the South. The results for this alternative definition, called "SouthPlus," are in Tables C6, C7, and C8. In the second definition, I select the states with the largest African-American population in the 1910 census. This moves West Virginia from the South to the North. These results are found in the column "BigPopSouth" in these three tables.

In both definitions, the Southern results remain positive, statistically significant, and of the same magnitude as those reported in the Southern Results section (Section 2.5.2).

While the Southern results maintain their statistical significance under several robustness checks, the Northern findings lose their statistical significance under some specifications. Specifically, Northern findings lose their significance when using alternative definitions of banks and when using 1916 banks. However, these findings remain positive and of the same magnitude. The loss of statistical significance is most likely due to both the small number of African-American banks in the North and the smaller number of counties in the North. This can be seen in Tables C9 and C10.

The implication of these findings under a modified definition of North and South is that the regional findings in the main specification are robust to changes in the method of North/South division. Southern changes are robust to all specifications, while findings in the North remain positive and of the same magnitude, but lose their statistical significance under some checks.

2.6 Conclusion

This chapter studies African-American banks from 1910 to 1930 using a newlyconstructed dataset. It finds that African-American banks nationwide increased the rate of African-American business owners in a county by 1.94 percentage points, 1.48 times the median business ownership rate. African-American banks also increased the rate of African-American home ownership by 1.74 percentage points and the rate of white-collar employment by 0.288 percentage points. When splitting the sample into North and South, the South also shows a positive and significant effect of African-American banks on business ownership, home ownership, mortgaged home ownership and white-collar employment. The business ownership finding can also be found in the Cotton South. In the North, the presence of an African-American bank had positive effects on the rate of African-American home ownership and white-collar employment.

This study examines the impact of African-American banks on the African-American community. This leaves unanswered questions about the operations of these banks. In Chapter 3 I answer these questions by looking at state bank examinations for Virginia from 1915 to 1928. African-American banks in Virginia were less profitable, likely due to the segregated markets they faced in customers, bank deposits, and mergers.

Economists researching African-American banks focused on what the banks could not do. This chapter, instead, focuses on the positive effects of African-American banks on the African-American community. African-American banks in the early twentieth century provided credit to potential business owners to create or expand businesses.

This work provides the first part of a larger project to identify every African-American bank that ever operated. Coupling this dataset with data on the second wave of African-American banks, starting in the 1960s, will complete this project.

African-American banks are still part of the American banking landscape. The Federal Reserve Statistical Release (2017) reports 23 extant African-American banks. These banks are a larger share of the entire banking system than they were in the 1920s (see Figure 2.8). The "bank black" movement that Abram Harris argued against had a resurgence in 2017 (Jan, 2017). The effects found in this analysis, of African-American banks as business creators, may explain why African-American banks continue to be a part of the banking system.

2.7 Tables and Figures

State	City	Bank	1907	1912	1913	1914	1916	1919	1922	1925	1927*	1929*	1931	1937
Alabama	Anniston	Anniston Penny Savings Bank		x	x	x								
	Birmingham	People's Investment and Savings Bank		x	x	~								
	Diriningnam	Prudential Savings Bank		x	x	x								
		Acme Finance Company		~	~	~							x	
	Mobile	Safety Banking and Realty Company		x									~	
	Montgomery	Montgomery Penny Savings Bank		x	x	x								
	Selma	Alabama Savings Bank												
	Tuskegee	Tuskegee Institute Savings Bank		х	х	х			x	x	x	x	x	x
Arkansas	Tuskegee	Tuskegee Institute Savings Bank							x	x	x	x	A	x
Arkansas	Little Rock	Capital City Savings Bank												
	Pine Bluff		х											
Dist. of Col.	Pine Blun	Unity Savings and Trust Company	х											
Dist. of Col.	Washington	Industrial Savings Bank												
	washington	-			х	х	х	х	х	х	x	x	х	x
		Union Laborers Savings Bank							х					
		Prudential Bank								x	x	x	х	
Florida	T1 11.													
	Jacksonville	Afro-American Industrial and Benefit Association	х											
		Capital Trust and Investment Company	x											
		National Mercantile, Realty and Improvement Company		x	x									
		S H Hart and Son		x	x									
		Anderson, Tucker and Company, Bankers/ Anderson				х	x	x						
		and Company												
	Ocala	Metropolitan Savings Bank				x	x							
		Ocala Savings Bank						x	x	x	х			
Georgia														
	Atlanta	Atlanta State Savings Bank		x	x	x	x	x						
		Citizens Trust Co							х	х	х	х	x	х
		Pioneer Savings Bank and Association												x
	Augusta	Penny Savings Loan & Investment Company			x	x	x	x	x	x	x			
	Macon	Liberty Savings & Real Estate Corporation						x	x	x	x	x	x	
		Middle Georgia Saving & Investment Company							x	x	x	x	x	

Table 2.1: List of confirmed African-American banks

		Wage Earners Realty & Investment Co											x	
	Savannah	Afro-American Investment Co.	x											
		Union Savings Bank	x											
		Wage Earners Loan and Investment Company/ Wage	x	x	x	x	x	x	x	x				
		Earners Savings Bank												
		Mechanics Investment Company/Mechanics' Savings			x	x	x	x	x	x	x			
		Bank												
		Savannah Savings & Real Estate Corporation					x	x	x	x				
		Fidelity Savings Bank						x	x	x				
Illinois														
	Chicago	Jesse Binga Bank/Binga State Bank		x	x	x	x	x	x	x	x	x		
		American Bank			x	x	x							
		R W Hunter Banking and Industrial Co						x						
		R W Woodfolk and Co Bank						x						
		Douglass National Bank of Chicago							x	x	x	x	x	
	Springfield	Enterprise Savings Bank		x	x	x	x							
Indiana														
	Indianapolis	Pythian Bank and Loan Association			x	x	x							
Kentucky														
	Louisville	American Mutual Savings Bank							x	x	x	x	x	
		First Standard Bank							x	x	x	x	x	
Massachusetts														
	Boston	Eureka Co-operative Bank		x	x	x	x	x	x	x	x	x	x	
		South End Cooperative Bank							x	x	x	x	x	x
Maryland														
	Baltimore	Mutual Benefit Society Bank					x							
		Taylor and Jenkins Bankers						x						
		Wingate and Brown Bankers						x	x					
		Hatchett and Lewis Bankers							x					
		Harry O Wilson Bank						x	x	x				
		J Winfield Thomas Bank							x	x	x			
		Metropolitan Finance Corporation												x
Michigan														
	Detroit	D C Northcross & Co, Bankers							x	x	x			
		Peoples' Finance Corporation								x	x	x	x	
Missouri														

	Kansas City	Peoples' Finance Corporation									x	x	x	
	St. Louis	Peoples' Finance Corporation									x	x	x	
Mississippi														
	Columbus	Penny Savings Bank	x	x	x	x								
	Greenville	Delta Savings Bank		x	x	x								
	Indianola	Delta Penny Savings Bank	x	x	x	x	x	x	x	x	x			
	Jackson	American Trust and Savings Bank	x											
		Southern Bank	x											
	Mound Bayou	Bank of Mound Bayou	x	x	x	x								
		Mound Bayou State Bank						x	x					
	Natchez	Bluff City Savings Bank	x	x	x									
	Shaw	People's Home Savings Bank		x										
	Vicksburg	Lincoln Savings Bank	x											
		Union Savings Bank	x	x										
	Yazoo City	People's Penny Savings Bank		x										
North Carolina														
	Durham	Mechanics' and Farmers' Bank/Mechanics & Farmers		x	x	x	x	x	x	x	x	x	x	x
		Bank												
		Fraternal Bank and Trust							x					
	Elizabeth City	Albemarle Bank							x	x				
	Kinston	Dime Bank		x	x	x	x	x	x	x	x			
		Holloway, Borden, Hicks & Company, Bankers/ Hal-		x	x	x	x	x	x	x	x	x		
		loway, Murphy & Company/ People's Bank												
	Raleigh	Mechanics & Farmers Bank								x	x	x		
	Wilson	Commercial Bank of Wilson							x	x	x	x		
	Winston-Salem	Forsyth Savings & Trust Co	x	x	x	x	x	x	x	x	x	x		
		Citizens' Bank and Trust Company							x	x	x			
Ohio														
	Cleveland	Cleveland's Peoples Finance Corporation										x	x	
Oklahoma														
	Boley	Boley Bank and Trust	x											
		Farmers and Merchants Bank/ Merchants and Farmers	x	x	x	x	x	x	x	x	x	x	x	x
		Bank												
		First National Bank of Boley							x	x	x			
	Muskogee	Creek Citizens' Bank	x											
		Gold Bond Bank	x											

		People's Bank and Trust Company	x	x	x	x								
	Tulsa	Inter City Finance Corporation										x	x	
Pennsylvania														
	Philadelphia	People's Savings Bank and Trust Company/ People's	x	x	x	x	x	x						
		Savings Bank												
		Brown & Stevens Banking Co/Cosmopolitan Bank					x	x	x	x				
		Citizens & Southern Banking Co							x	x	x	x	x	x
		Keystone Bank								x	x			
	Pittsburgh	Modern Savings & Trust Co/Modern State Bank							x	x	x			
		The Steel City Banking Company							x	x				
South Carolina														
	Bennettsville	Workers Enterprise Bank							x	x				
	Charleston	Mutual Savings Bank						x	x	x	x	x	x	
		People's Federation Bank							x	x	x			
	Columbia	Victory Bank/Victory Savings Bank							x	x	x	x	x	x
Tennessee														
	Memphis	Solvent Savings Bank & Trust Company	x	x	x	x	x	x	x	x	x			
		Fraternal Savings Bank and Trust Company		x	x	x	x	x	x	x	x			
	Nashville	One Cent Savings Bank	x	x	x	x	x	x						
		People's Savings Bank and Trust Company		x	x	x	x	x	x	x	x	x		
		Citizens' Savings Bank & Trust Co							x	x	x	x	x	x
Texas														
	Dallas	Penny Savings Bank of Dallas		x										
	Fort Worth	Provident Bank and Trust Company	x	x										
		Fraternal Bank & Trust Company			x	x	x	x	x	x	x	x	x	x
	Houston	Orgen Savings Bank		x	x	x								
	Palestine	Farmers & Citizens' Savings Bank		x	x	x				x				
	Tyler	Farmers' and Mechanics' Bank		x	x	x								
	Waco	Farmers' Improvement Bank		x	x	x	x	x	x	x	x	x	x	
Virginia														
	Courtland	American Home & Missionary Banking Assoc	x											
	Danville	Savings Bank of Danville/Savings Bank and Trust Com-						x	x	x	x	x	x	x
		pany												
	Hampton	Galilean Fishermen	x											
	Hare Valley	Brickhouse Savings Bank		x	x	x	x							
	Kenbridge	Peoples Bank						x						

Newport News	Sons & Daughters of Peace Penny, Nickel & Dime Bank	x	x	x	x	x	x	x	x				
	Crown Savings Bank	x	x	x	x	x	x	x	x	x	x	x	x
Norfolk	Gideon Savings Bank	x											
	Brown Savings Bank/Metropolitan Bank and Trust Co		x	x	x	x	x	x	x	x	x	x	
	Tidewater Bank and Trust Company						x	x					
	Union Commercial Bank							x					
Petersburg	Peoples Bank of Petersburg							x					
Portsmouth	Mutual Savings Bank					x	x						
	Community Savings Bank							x	x				
Richmond	Nickel Bank	x											
	True Reformers Bank	x											
	Mechanics' Savings Bank	x	x	x	x	x	x	x					
	St. Lukes' Savings Bank/St. Luke's Penny Savings	x	x	x	x	x	x	x	x	x	x		
	$\operatorname{Bank}^{\dagger}$												
	Commercial Bank & Trust Co^{\dagger}							x	x	x	x		
	Second Street Savings $\operatorname{Bank}^{\dagger}$							x	x	x	x		
	Consolidated Bank and Trust Company (merger of †)											x	x
Roanoke	Acorn Bank								x	x			
Staunton	People's Dime Savings Bank Trust Company		x	x	x	x	x	x	x	x	x	x	
Suffolk	Phoenix Bank of Nansemond						x	x	x	x	x	x	
	125	30	45	45	42	35	45	62	58	50	36	32	15

Notes: The five banks in italics are currently African-American owned (Source: Federal Reserve Statistical Release (2017)). This list does not include 7 thrift institutions listed in the Negro Year Book. This list is shown in Table C1.

Totals

^{*} 1927 and 1929 data are generated by verifying 1925 and 1931 volumes of the *Negro Year Book*. If there were any African-American banks that began operations after 1926, ceased operations before 1931, and are not listed in Harris (1936), they would not be counted (Virginia banks are verified for this time period from the bank examinations used in Chapter 3.

[†] Three banks: St. Luke's Savings Bank, Second Street Savings Bank, and Commercial Bank and Trust merged to become Consolidated Bank and Trust (Marlowe, 2003).

Volume	Title date	Copyright date
1	1912	1912
2	1913	1913
3	1914 - 1915	1914
4	1916 - 1917	1916
5	1918 - 1919	1919
6	1921 - 1922	1922
7	1925 - 1926	1925
8	1931 - 1932	1931
9	1937 - 1938	1937
10	1941 - 1946	1947
11	1952	1952

Table 2.2: Title and Copyright Dates for Volumes of the Negro Year Book

Note: The section "Directory of Negro Banks," in volumes 5, 7, and 8, are used in this study. This study uses the listings from volumes 7 and 8 to create a list of banks for 1927 that are then verified using city directories and the *Rand McNally Bankers' Directory and List of Attorneys*.

			All		
	Mean	Median	St. Dev.	\min	max
Afr. Am. banks per county	0.0282	0	0.2267	0	4
Banks/10,000 pop in county	0.0188	0	0.2183	0	7.788
Population (Total)	37585	14761	119563	1590	2930183
Adult population (White)	32904	10771	113507	389	2733112
Adult Population (Afr. Am.)	4556	2157	9290	200	192063
Percent bus. owners (Afr. Am.)	3.654	1.31	5.181	0	28.99
Percent bus. owners (White)	5.875	4.352	4.776	0	26.53
Percent white collar (Afr. Am.)	1.921	1.626	1.266	0	14.08
Percent white collar (White)	9.073	8.185	4.254	0	30.78
Percent own home (Afr. Am.)	36.05	34.69	17.53	0.2861	89.5
Percent own home (White)	53.64	54.4	11.35	4.706	92.93
Percent mortgaged home (Afr. Am.)	9.773	8.096	6.935	0	50
Percent mortgaged home (White)	42.39	17.36	41.28	0.3672	100
Percent migrated (Afr. Am.)	29.89	16.43	29.51	0.1370	99.88
Lit. Rate (Afr. Am.)	78.99	79.71	11.63	20.12	99.62
Percent in urban areas (Afr. Am.)	31.82	18.76	34.81	0	100
Manuf. share (all races)	0.2169	0.1899	0.0935	0.0748	0.5888
No. Obs.	4426				

Table 2.3: Summary statistics for the data set

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		ЧI			North			South	
	Mean	Median	St. Dev.	Mean	Median	St. Dev.	Mean	Median	St. Dev.
Afr. Am. banks per county	0.0282	0	0.2267	0.0142	0	0.1603	0.0335	0	0.2467
Banks $/10,000$ pop in county	0.0188	0	0.2183	0.0042	0	0.0634	0.0242	0	0.2525
Population (Total)	37585	14761	119563	91130	34397	216365	17713	12317	27896
Adult population (White)	32904	10771	113507	87661	33376	205495	12582	8219	21837
Adult Population (Afr. Am.)	4556	2157	9290	3123	723.5	12124	5088	3059	7924
Percent bus. owners (Afr. Am.)	3.654	1.31	5.181	1.152	0.6497	1.65	4.583	2.091	5.711
Percent bus. owners (White)	5.875	4.352	4.776	3.879	3.084	2.738	6.615	5.203	5.145
Percent white collar (Afr. Am.)	1.921	1.626	1.266	2.825	2.639	1.438	1.585	1.358	1.008
Percent white collar (White)	9.073	8.185	4.254	10.98	10.21	3.685	8.363	7.336	4.233
Percent own home (Afr. Am.)	36.05	34.69	17.53	40.24	40.35	17.17	34.49	32.88	17.41
Percent own home (White)	53.64	54.4	11.35	54.75	56.13	10.51	53.23	53.42	11.62
Percent mortgaged home (Afr. Am.)	9.773	8.096	6.935	15.92	15.12	8.063	7.48	6.614	4.739
Percent mortgaged home (White)	42.39	17.36	41.28	46.31	23.53	38.27	40.93	13.92	42.26
Percent migrated (Afr. Am.)	29.89	16.43	29.51	60.36	65.58	25.7	18.58	9.537	21.83
Lit. Rate (Afr. Am.)	78.99	79.71	11.63	90.49	92.04	5.967	74.74	75.86	10.26
Percent in urban areas (Afr. Am.)	31.82	18.76	34.81	66.06	76.04	30.43	19.11	0	26.85
Manuf. share (all races)	0.2169	0.1899	0.0935	0.3265	0.3379	0.0922	0.1762	0.1728	0.0523
No. Obs.	4426			1198			3228		

Table 2.4: Summary statistics by Region

II

		All			Bank			NotBank	ч
	Mean	Median	St. Dev.	Mean	Median	St. Dev.	Mean	Median	St. Dev.
Afr. Am. banks per county	0.0282	0	0.2267	1.453	1	0.7617	0	0	0
$\operatorname{Banks}/10,000$ pop in county	0.0188	0	0.2183	0.9669	0.6274	1.247	0	0	0
Population (Total)	37585	14761	119563	224251	57012	467292	33886	14577	97963
Adult population (White)	32904	10771	113507	190003	32147	439533	29791	10577	94105
Adult Population (Afr. Am.)	4556	2157	9290	33957	22329	34737	3974	2074	6849
Percent bus. owners (Afr. Am.)	3.654	1.31	5.181	2.773	0.4672	5.172	3.671	1.331	5.181
Percent bus. owners (White)	5.875	4.352	4.776	3.457	2.304	2.965	5.922	4.423	4.793
Percent white collar (Afr. Am.)	1.921	1.626	1.266	3.274	3.336	1.336	1.894	1.607	1.25
Percent white collar (White)	9.073	8.185	4.254	18.11	18.07	4.98	8.894	8.09	4.04
Percent own home (Afr. Am.)	36.05	34.69	17.53	25.41	23.65	11.79	36.26	35.12	17.56
Percent own home (White)	53.64	54.4	11.35	42.32	41.78	9.696	53.87	54.62	11.27
Percent mortgaged home (Afr. Am.)	9.773	8.096	6.935	6.881	6.436	3.006	9.823	8.15	6.973
Percent mortgaged home (White)	42.39	17.36	41.28	49	15.69	43.69	42.26	17.37	41.23
Percent migrated (Afr. Am.)	29.89	16.43	29.51	34.02	27.62	27.46	29.81	16.21	29.55
Lit. Rate (Afr. Am.)	78.99	79.71	11.63	82.23	82.83	9.204	78.93	79.61	11.67
Percent in urban areas (Afr. Am.)	31.82	18.76	34.81	66.07	79.85	33.23	31.14	17.95	34.5
Manuf. share (all races)	0.2169	0.1899	0.0935	0.2134	0.2104	0.0874	0.2170	0.1899	0.0937
No. Obs.	4426			86			4340		

Table 2.5: Summary statistics for counties with and without African-American banks

Linear	2.269	0.2888	2.138	0.4477
	(0.6181)	(0.1053)	(0.7659)	(0.5184)
Quadratic	-0.3299	-0.02283	-0.4016	-0.03433
	(0.07947)	(0.01360)	(0.1014)	(0.06686)
F-Test	20.56	32.44	80.62	2.131
	[1.5e-09]	[1.6e-14]	[4.4e-34]	[0.1191]
Effect of $0 \rightarrow 1$ bank	1.939	0.2660	1.736	0.4134
	(0.5390)	(0.09190)	(0.6650)	(0.4528)
Critical point	3.439	6.324	2.661	6.520
	(0.1368)	(1.514)	(0.2915)	(5.439)
R-squared	0.7210	0.1489	0.2622	0.08245
Num Obs	4420	4420	4420	2936

Table 2.6: Nationwide Effect of African-American Banks

per ten thousand African-American adults in a county.

		Actual	Cou	nterfactual
	Estimate	95% Conf. Int.	Estimate	95% Conf. Int.
Business ownership	14116	8425 - 19807	49189	29359 - 69019
White-collar occupations	1936	1803 - 2069	6747	6283 - 7210
Home ownership	12638	6352 - 18923	44037	22134 - 65939
Mater The constant of storel in the	- +	A.C.:	·	··· 1····1· 1···········

Table 2.7: Estimate of African-American economic outcomes from African-American banks

Note: The counterfactual is that every county without an African-American bank but with at least 10,000 African-Americans has one African-American bank.

	Nationwide	North	South	Cotton South
Linear	2.269 (0.6181)	$\begin{array}{c} 0.2182 \\ (0.3442) \end{array}$	2.615 (0.6778)	$7.721 \\ (3.610)$
Quadratic	-0.3299 (0.07947)	-0.1560 (0.2275)	-0.3832 (0.08685)	-4.813 (3.431)
F-Test	20.56 $[1.5e-09]$	$0.2349 \\ [0.7908]$	23.62 [8.9e-11]	5.722 [0.003519]
Effect of $0 \rightarrow 1$ bank	$\frac{1.939}{(0.5390)}$	$\begin{array}{c} 0.06220 \\ (0.1603) \end{array}$	$2.232 \\ (0.5914)$	$2.908 \\ (0.9187)$
Critical point	3.439 (0.1368)	$0.6994 \\ (0.4248)$	3.412 (0.1389)	0.8021 (0.2296)
R-squared	0.7210	0.3785	0.7448	0.8291
Num Obs	4420	1193	3227	1308

Table 2.8: Regional Effects of African-American Banks on Business Ownership

Standard errors in parentheses, p-values in brackets. The third row is the estimate of the effect of going from zero to one African-American bank per ten thousand African-American adults in a county.

	Nationwide	North	South	Cotton South
Linear	0.2888 (0.1053)	$0.9056 \\ (1.383)$	$\begin{array}{c} 0.1829 \\ (0.09963) \end{array}$	$0.3078 \\ (0.3629)$
Quadratic	-0.02283 (0.01360)	-0.05669 (0.9709)	-0.01345 (0.01246)	-0.2919 (0.3144)
F-Test	32.44 [1.6e-14]	3.018 [0.04985]	24.78 [2.9e-11]	$0.4335 \\ [0.6485]$
Effect of $0 \rightarrow 1$ bank	$0.2660 \\ (0.09190)$	$0.8489 \\ (0.5005)$	$0.1694 \\ (0.08726)$	$0.01588 \\ (0.1271)$
Critical point	$6.324 \\ (1.514)$	7.987 (125.0)	$6.799 \\ (2.648)$	$0.5272 \\ (0.2135)$
R-squared	0.1489	0.1469	0.2755	0.2970
Num Obs	4420	1193	3227	1308

Table 2.9: Regional Effects of African-American Banks on White Collar Occupations

Standard errors in parentheses, p-values in brackets. The third row is the estimate of the effect of going from zero to one African-American bank per ten thousand African-American adults in a county.

	Nationwide	North	South	Cotton South
Linear	2.138 (0.7659)	-0.6358 (5.635)	$0.9059 \\ (0.4815)$	-0.7686 (3.378)
Quadratic	-0.4016 (0.1014)	5.927 (4.169)	-0.2297 (0.06446)	-0.2104 (3.360)
F-Test	80.62 [4.4e-34]	3.904 [0.02083]	46.32 [4.6e-20]	$0.6366 \\ [0.5296]$
Effect of $0 \rightarrow 1$ bank	$1.736 \\ (0.6650)$	$5.291 \\ (2.784)$	$0.6762 \\ (0.4183)$	-0.9790 (0.8689)
Critical point	2.661 (0.2915)	$\begin{array}{c} 0.05364 \\ (0.4425) \end{array}$	1.972 (0.5139)	-1.826 (36.98)
R-squared	0.2622	0.4241	0.1944	0.2198
Num Obs	4420	1193	3227	1308

Table 2.10: Regional Effects of African-American Banks on Home Ownership

Standard errors in parentheses, p-values in brackets. The third row is the estimate of the effect of going from zero to one African-American bank per ten thousand African-American adults in a county.

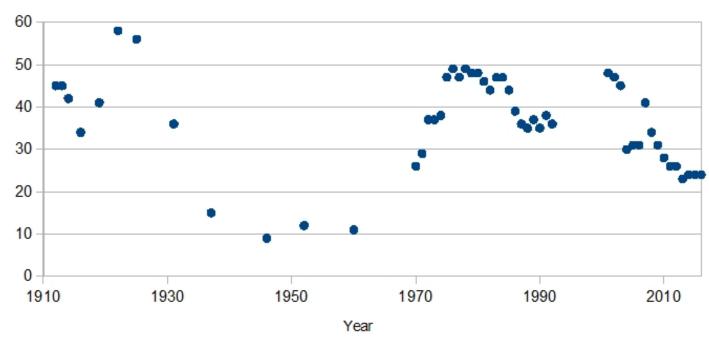
	Nationwide	North	South	Cotton South
Linear	0.4477 (0.5184)	-0.5053 (2.723)	$0.4109 \\ (0.5380)$	3.988 (2.242)
Quadratic	-0.03433 (0.06686)	1.871 (3.092)	-0.01571 (0.06958)	-3.180 (2.277)
F-Test	$2.131 \\ [0.1191]$	1.793 [0.1678]	4.460 $[0.01177]$	2.325 [0.09897]
Effect of $0 \rightarrow 1$ bank	$\begin{array}{c} 0.4134 \\ (0.4528) \end{array}$	$1.366 \\ (0.7545)$	$\begin{array}{c} 0.3952 \ (0.4698) \end{array}$	$0.8080 \ (0.5998)$
Critical point	$6.520 \\ (5.439)$	$\begin{array}{c} 0.1350 \ (0.5125) \end{array}$	13.08 (41.20)	$\begin{array}{c} 0.6271 \ (0.1430) \end{array}$
R-squared	0.08245	0.1414	0.05655	0.06137
Num Obs	2936	795.0	2141	872.0

Table 2.11: Regional Effects of African-American Banks on Mortgages

Standard errors in parentheses, p-values in brackets. The third row is the estimate of the effect of going from zero to one African-American bank per ten thousand African-American adults in a county.

	Bus. Owner rate	White Collar rate	Home Own rate	Mortgaged Home rate
Linear	1.759 (0.4645)	0.2956 (0.09436)	1.721 (0.7773)	-0.02602 (0.4835)
Quadratic	-0.2790 (0.06253)	-0.02974 (0.01240)	-0.3715 (0.1035)	0.02657 (0.06603)
F-Test	$\begin{array}{c} 17.16\\ [6.5e-08]\end{array}$	10.73 $[0.00002800]$	45.28 [1.1e-18]	0.9642 $[0.3822]$
Effect of $0 \rightarrow 1$ bank	1.480 (0.4029)	$0.2658 \ (0.08224)$	$1.350 \\ (0.6752)$	0.0005484 (0.4199)
Critical point	3.151 (0.1775)	4.969 (0.6031)	2.317 (0.4198)	0.4897 (7.928)
R-squared	0.7220	0.3089	0.4853	0.2895
Num Obs	1128	1128	1128	694.0

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Number of African American Banks

Figure 2.1: African-American banks, 1910-2015

Sources: 1912-52: Work (1912), Ancestry.com (2011), American Bankers Association and Rand McNally and Company (1907-1937) 1960, 1970: Irons (1971) 1962: Doctors et al. (1975) 1971: Brimmer (1971) 1972-74, 1976-92: Black Enterprise (1973-1993) 1975: Summers & Tucker (1977) 2001-03: Federal Deposit Insurance Corporation (2016a) 2004-16: Federal Reserve Statistical Release (2017)

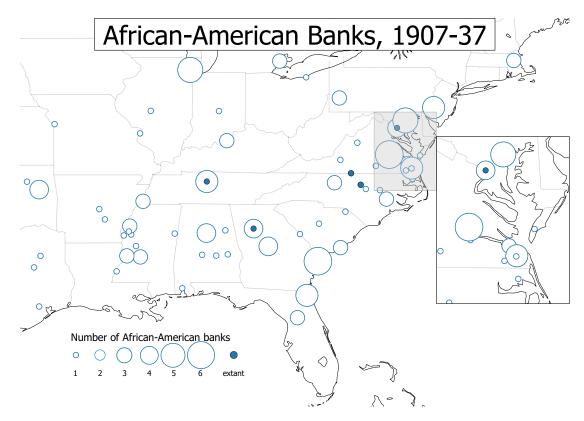


Figure 2.2: Map of African-American Banks, 1907-37

Sources: Work (1912), Ancestry.com (2011), American Bankers Association and Rand McNally and Company (1907-1937)

DIRECTORY OF NEGRO BANKS Alabama President Place Name Tuskegee Institute Savings Bank_____Tuskegee Institute_____R. R. Moton **District of Columbia** Industrial Savings Bank______Washington_____J. R. Hawkins Florida 0 Progress Savings Bank______Key West_____F. P. Gadson Georgia Penny Savings Loan & Invest. Co____Augusta_____R. S. Williams

 Penny Savings Loan & Invest. Co____Augusta______R. S. Williams

 Fidelity Savings Bank______Savannah_____E. H. Quo

 Mechanics' Savings Bank______Savannah_____P. E. Perry

 Savannah Savings & Real Estate Corp_Savannah______W. S. Scott

 Wage Earners Savings Bank______Savannah______L. E. Williams

 Liberty Savings & Real Estate Corp___Macon______R. E. Harlety

 Middle Georgia Saving & Invest. Co___Macon______C. H. Douglass

 Laborers' Savings & Loan Co_____Columbus______J. L. Scanins

 Citizens Trust Co______Atlanta______A. M. Wilkins

 Illinois Binga State Bank_____Chicago____Jesse Binga Douglas National Bank of Chicago____Chicago_____Anthony Overton Kentucky First Standard Bank____Louisville____ American Mutual Savings Bank____Louisville_____ Wilson Lovett W. H. Wright

Figure 2.3: Directory of Banks in the 1925 Negro Year Book

Source: Work (1912)

(*) Purpose of star (*) in front of name is to denote colored person or firm, but we assume no responsibility for it's wrong use, errors often creep in.

Figure 2.4: Explanation for star indicator on persons and businesses, Elizabeth City, North Carolina

Source: Ancestry.com (2011)

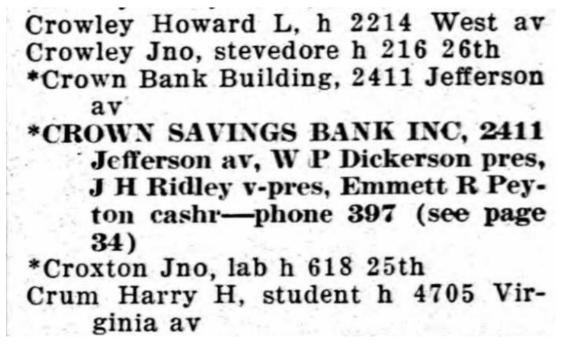


Figure 2.5: Newport News city directory, 1922, showing "colored" indicator for the African-American Crown Savings Bank

Source: Ancestry.com (2011)



Figure 2.6: Separate listings for "colored" residents of Savannah, Georgia, 1914 Source: Ancestry.com (2011)

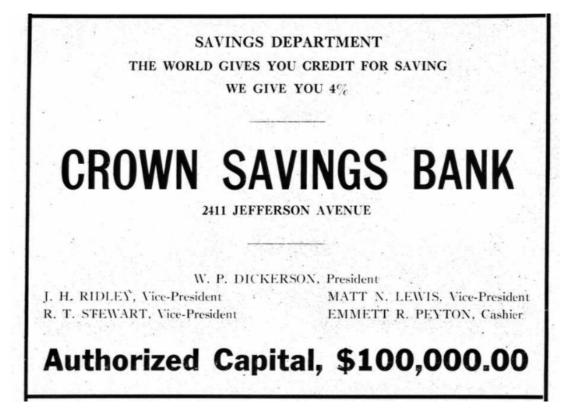
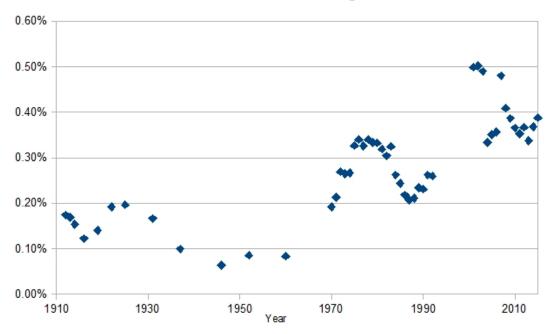


Figure 2.7: Advertisement for Crown Savings Bank in the 1923 Newport News, Virginia, city directory

Source: Ancestry.com (2011)



African American Banks as Percentage of All Banks

Figure 2.8: Share of African-American banks as a percentage of all banks

Sources (African-American banks):

1912-52: Work (1912), Ancestry.com (2011), American Bankers Association and Rand McNally and Company (1907-1937)
1960, 1970: Irons (1971)
1962: Doctors et al. (1975)
1971: Brimmer (1971)
1972-74, 1976-92: Black Enterprise (1973-1993)
1975: Summers & Tucker (1977)
2001-03: Federal Deposit Insurance Corporation (2016a)
2004-16: Federal Reserve Statistical Release (2017)
(All banks): 1910-55: Bodenhorn & White (2005b), Bodenhorn & White (2005a)
1956-2015: Federal Deposit Insurance Corporation (2016a)

2.A Instrumental Variable

In an attempt to further address the endogeneity issues that may be present in the analysis, I explore possible instrumental variables. A valid instrument would need to vary by time and geography, and predict the presence of African-American banks in a county. However, African-American bank formation seems to be idiosyncratic, at least based on information gathered from county level household census data.

I constructed a candidate instrument, the reserve requirements of state banks. This was defined as the percentage of a bank's demand deposits that must be kept in liquid form. This percentage varied from state to state and across time, as documented on page 146 of E. N. White (1983). A change in reserve requirements would change incentives: a lower reserve requirement would allow a bank to lend out or invest a larger percentage of their assets at a higher interest rate than the bank would earn on required reserves.

This instrument is valid if the reserve requirements affected the establishment and survivability of African-American banks, while not directly affecting the dependent variables regarding African-American business ownership, occupations, and ownership. This second condition seems to be satisfied in this case.

The instrument comes with a limitation, however. Until 1928, the District of Columbia allowed banks to charter under any state's charter (Cole, 1959), so observations from the District are excluded.

I perform a panel instrumental variable analysis using the Stata add-on xtivreg2. The instrument, however, is weak. The first-stage F-test reported is approximately 4.8, under the standard rule-of-thumb of 10. Thus, this instrument is too weak to provide an unbiased solution to any leftover endogeneity issues.

Any state-level instrument may suffer from the same issue, due to both the need to cluster standard errors by state, and by the fact that African-American banks in this time period only operated in twenty-one states. One candidate instrument would be the minimum capital requirements for banks in a state, that is, the amount realized from sales of shares of stock, as well as a surplus fund and undivided profits. This may be a good predictor of African-American banks since these banks were typically small. However, this too is too weak to be valid as an instrument.

2.B Full regression results

The regression results, summarized in Tables 2.6 to 2.12, are presented in full here.

	Bus. Own. rate	White-Collar rate	Home Own. rate	Mort. Home rate
Banks/10,000 pop in county	2.269 (0.6181)	0.2888 (0.1053)	2.138 (0.7659)	0.4477 (0.5184)
Quadratic	-0.3299 (0.07947)	-0.02283 (0.01360)	-0.4016 (0.1014)	-0.03433 (0.06686)
Percent migrated (Afr. Am.)	$0.03750 \\ (0.009121)$	-0.02156 (0.005141)	-0.2215 (0.02656)	-0.02692 (0.02157)
Lit. Rate (Afr. Am.)	-0.04910 (0.01407)	0.01417 (0.003044)	$0.05660 \\ (0.02146)$	-0.04706 (0.02207)
Percent in urban areas (Afr. Am.)	0.02670 (0.006132)	$\begin{array}{c} 0.008410 \\ (0.002239) \end{array}$	$0.04747 \\ (0.01760)$	$0.03518 \\ (0.01395)$
Afr. Am. aged 16-33	-0.07159 (0.05230)	-0.02407 (0.01524)	-0.4445 (0.1361)	-0.1074 (0.1139)
Afr. Am. aged 34-57	-0.01152 (0.05417)	$\begin{array}{c} 0.02622 \\ (0.01723) \end{array}$	-0.1746 (0.1345)	-0.05498 (0.1253)
Afr. Am. aged 58+	$\begin{array}{c} 0.4121 \\ (0.06899) \end{array}$	$0.01402 \\ (0.02287)$	$1.101 \\ (0.1759)$	$0.1383 \\ (0.1696)$
Manuf. share (all races)	-10.08 (2.912)	1.281 (0.7563)	$3.678 \\ (5.514)$	-4.669 (7.229)
censusyear 1910	$\begin{pmatrix} 0\\(0) \end{pmatrix}$	$\begin{pmatrix} 0\\(0) \end{pmatrix}$	$\begin{pmatrix} 0\\(0) \end{pmatrix}$	$\begin{pmatrix} 0\\(0) \end{pmatrix}$
censusyear 1920	-0.4601 (0.1819)	-0.2631 (0.05107)	-1.032 (0.3540)	$0.9976 \\ (0.3360)$
censusyear 1930	-0.2620 (0.2192)	-0.01783 (0.06427)	0.9373 (0.4751)	-
Percent bus. owners (White)	$0.7805 \\ (0.02249)$	-0.005065 (0.003284)	$\begin{array}{c} 0.02900 \\ (0.03081) \end{array}$	$0.05332 \\ (0.02729)$
Percent own home (White)	0.08134 (0.01442)	0.004918 (0.002802)	0.4512 (0.02766)	$0.1629 \\ (0.02668)$
Constant	-1.417 (1.838)	0.7481 (0.4372)	13.82 (3.432)	5.381 (3.198)
R-squared	0.7210	0.1489	0.2622	0.08245
Num. Obs.	4420	4420	4420	2936

Table B1: Nationwide Effect of African-American Banks

Standard errors in parentheses, p-values in brackets. The third row is the estimate of the effect of going from zero to one African-American bank per ten thousand African-American adults in a county.

		N7 . 1	G	
	Nationwide	North	South	Cotton South
Banks/10,000 pop in county	$2.269 \\ (0.6181)$	$\begin{array}{c} 0.2182 \\ (0.3442) \end{array}$	2.615 (0.6778)	$7.721 \\ (3.610)$
Quadratic	-0.3299 (0.07947)	-0.1560 (0.2275)	-0.3832 (0.08685)	-4.813 (3.431)
Percent migrated (Afr. Am.)	$0.03750 \\ (0.009121)$	-0.01326 (0.006942)	0.06537 (0.01372)	-0.04706 (0.04296)
Lit. Rate (Afr. Am.)	-0.04910 (0.01407)	-0.005208 (0.01694)	-0.04303 (0.01592)	0.04435 (0.02316)
Percent in urban areas (Afr. Am.)	0.02670 (0.006132)	$\begin{array}{c} -0.003240 \\ (0.004919) \end{array}$	0.04391 (0.007966)	$0.08806 \\ (0.02211)$
Afr. Am. aged 16-33	-0.07159 (0.05230)	$\begin{array}{c} 0.02951 \\ (0.03624) \end{array}$	-0.07367 (0.07834)	-0.08468 (0.1862)
Afr. Am. aged 34-57	-0.01152 (0.05417)	-0.01334 (0.03527)	$\begin{array}{c} 0.04471 \\ (0.08583) \end{array}$	$0.1362 \\ (0.1873)$
Afr. Am. aged 58+	$\begin{array}{c} 0.4121 \\ (0.06899) \end{array}$	-0.02976 (0.05552)	0.6177 (0.1162)	$0.01029 \\ (0.2299)$
Manuf. share (all races)	-10.08 (2.912)	-1.187 (2.436)	-16.32 (4.663)	24.42 (7.433)
censusyear 1910	$\begin{array}{c} 0 \\ (0) \end{array}$	$\begin{array}{c} 0 \\ (0) \end{array}$	$\begin{pmatrix} 0\\(0) \end{pmatrix}$	$\begin{array}{c} 0 \\ (0) \end{array}$
censusyear 1920	-0.4601 (0.1819)	-0.07321 (0.1553)	-0.6772 (0.2943)	-4.761 (0.6008)
censusyear 1930	-0.2620 (0.2192)	$0.1480 \\ (0.3006)$	-0.2735 (0.3832)	-6.143 (0.8863)
Percent bus. owners (White)	$0.7805 \\ (0.02249)$	$\begin{array}{c} 0.3370 \ (0.06855) \end{array}$	0.7779 (0.02402)	0.8295 (0.03509)
Percent own home (White)	$0.08134 \\ (0.01442)$	-0.008571 (0.01416)	$0.1104 \\ (0.01823)$	$0.1037 \\ (0.03105)$
Constant	-1.417 (1.838)	$2.130 \\ (2.130)$	-3.420 (2.191)	-8.574 (3.563)
R-squared	0.7210	0.3785	0.7448	0.8291
Num. Obs.	4420	1193	3227	1308

Table B2: Regional Effects of African-American Banks on Business Ownership

	Nationwide	North	South	Cotton South
Banks/10,000 pop in county	$0.2888 \\ (0.1053)$	$\begin{array}{c} 0.9056 \ (1.383) \end{array}$	$\begin{array}{c} 0.1829 \\ (0.09963) \end{array}$	$0.3078 \\ (0.3629)$
Quadratic	-0.02283 (0.01360)	-0.05669 (0.9709)	-0.01345 (0.01246)	-0.2919 (0.3144)
Percent migrated (Afr. Am.)	-0.02156 (0.005141)	-0.04226 (0.01082)	$\begin{array}{c} 0.0003630 \\ (0.002859) \end{array}$	0.005971 (0.004007)
Lit. Rate (Afr. Am.)	$\begin{array}{c} 0.01417 \\ (0.003044) \end{array}$	$0.03631 \\ (0.01378)$	0.005327 (0.002828)	0.006286 (0.003877)
Percent in urban areas (Afr. Am.)	$\begin{array}{c} 0.008410 \\ (0.002239) \end{array}$	0.005093 (0.005500)	$\begin{array}{c} 0.01111 \\ (0.002034) \end{array}$	0.005199 (0.002377)
Afr. Am. aged 16-33	-0.02407 (0.01524)	$\begin{array}{c} -0.002942 \\ (0.02951) \end{array}$	-0.01265 (0.01568)	-0.009975 (0.02698)
Afr. Am. aged 34-57	$\begin{array}{c} 0.02622 \\ (0.01723) \end{array}$	0.06908 (0.03162)	$\begin{array}{c} 0.004428 \\ (0.01690) \end{array}$	-0.006522 (0.03118)
Afr. Am. aged 58+	$\begin{array}{c} 0.01402 \\ (0.02287) \end{array}$	-0.04993 (0.04025)	0.04050 (0.02417)	-0.02641 (0.02997)
Manuf. share (all races)	$1.281 \\ (0.7563)$	-2.294 (2.171)	-0.9864 (0.7298)	-0.09254 (0.9873)
censusyear 1910	$\begin{pmatrix} 0\\(0) \end{pmatrix}$	$\begin{array}{c} 0 \\ (0) \end{array}$	$\begin{array}{c} 0 \\ (0) \end{array}$	0 (0)
censusyear 1920	-0.2631 (0.05107)	-0.3813 (0.1156)	0.04495 (0.04637)	0.06288 (0.06679)
censusyear 1930	-0.01783 (0.06427)	-0.2487 (0.1551)	0.4347 (0.06675)	0.4272 (0.1015)
Percent bus. owners (White)	-0.005065 (0.003284)	-0.009553 (0.02072)	0.002035 (0.002917)	0.002849 (0.003874)
Percent own home (White)	0.004918 (0.002802)	$\begin{array}{c} 0.007764 \\ (0.01023) \end{array}$	$\begin{array}{c} 0.01132 \\ (0.002691) \end{array}$	$0.01050 \\ (0.003265)$
Constant	0.7481 (0.4372)	$1.948 \\ (1.761)$	$\begin{array}{c} 0.3442 \\ (0.3484) \end{array}$	$0.08340 \\ (0.4447)$
R-squared	0.1489	0.1469	0.2755	0.2970
Num. Obs.	4420	1193	3227	1308

Table B3: Regional Effects of African-American Banks on White Collar Occupations

	Nationwide	North	South	Cotton South
Banks/10,000 pop in county	$ 2.138 \\ (0.7659) $	-0.6358 (5.635)	$ \begin{array}{r} 0.9059 \\ (0.4815) \end{array} $	-0.7686 (3.378)
Quadratic	-0.4016 (0.1014)	5.927 (4.169)	-0.2297 (0.06446)	-0.2104 (3.360)
Percent migrated (Afr. Am.)	-0.2215 (0.02656)	-0.4503 (0.03762)	-0.08625 (0.03804)	$0.02595 \\ (0.04666)$
Lit. Rate (Afr. Am.)	$0.05660 \\ (0.02146)$	$0.01539 \\ (0.09763)$	0.07488 (0.02176)	$0.07830 \\ (0.02402)$
Percent in urban areas (Afr. Am.)	0.04747 (0.01760)	$\begin{array}{c} 0.02959 \\ (0.03354) \end{array}$	$\begin{array}{c} 0.06198 \\ (0.02151) \end{array}$	0.1000 (0.02300)
Afr. Am. aged 16-33	-0.4445 (0.1361)	-0.2891 (0.2301)	-0.4461 (0.1548)	-0.09861 (0.2511)
Afr. Am. aged 34-57	-0.1746 (0.1345)	-0.08499 (0.2051)	-0.1635 (0.1725)	$0.06359 \\ (0.2279)$
Afr. Am. aged 58+	$1.101 \\ (0.1759)$	$0.5950 \\ (0.2622)$	$1.222 \\ (0.2229)$	$1.080 \\ (0.3161)$
Manuf. share (all races)	$3.678 \\ (5.514)$	17.74 (11.16)	$15.80 \\ (6.906)$	$12.02 \\ (8.258)$
censusyear 1910	$\begin{array}{c} 0 \\ (0) \end{array}$	$\begin{array}{c} 0 \\ (0) \end{array}$	$\begin{array}{c} 0 \\ (0) \end{array}$	$\begin{array}{c} 0 \\ (0) \end{array}$
censusyear 1920	-1.032 (0.3540)	-0.9582 (0.7560)	-1.244 (0.4657)	-1.319 (0.6654)
censusyear 1930	$\begin{array}{c} 0.9373 \ (0.4751) \end{array}$	2.894 (1.134)	-0.1830 (0.6431)	$0.3022 \\ (0.9957)$
Percent bus. owners (White)	$0.02900 \\ (0.03081)$	-0.01200 (0.1917)	$0.03545 \\ (0.03027)$	$0.01962 \\ (0.04075)$
Percent own home (White)	$0.4512 \\ (0.02766)$	$0.5756 \\ (0.06702)$	$\begin{array}{c} 0.3876 \ (0.03061) \end{array}$	0.3715 (0.04000)
Constant	13.82 (3.432)	27.13 (11.21)	$8.422 \\ (3.501)$	-5.299 (4.752)
R-squared	0.2622	0.4241	0.1944	0.2198
Num. Obs.	4420	1193	3227	1308

Table B4: Regional Effects of African-American Banks on Home Ownership

	Nationwide	North	South	Cotton South
Banks/10,000 pop in county	0.4477 (0.5184)	-0.5053 (2.723)	$\begin{array}{r} 0.4109 \\ (0.5380) \end{array}$	3.988 (2.242)
Quadratic	-0.03433 (0.06686)	1.871 (3.092)	-0.01571 (0.06958)	-3.180 (2.277)
Percent migrated (Afr. Am.)	-0.02692 (0.02157)	-0.08342 (0.04190)	-0.01187 (0.02564)	-0.02465 (0.05663)
Lit. Rate (Afr. Am.)	-0.04706 (0.02207)	-0.03198 (0.1011)	-0.03429 (0.02227)	-0.01692 (0.02972)
Percent in urban areas (Afr. Am.)	$\begin{array}{c} 0.03518 \ (0.01395) \end{array}$	0.04278 (0.02603)	0.02665 (0.01667)	0.02626 (0.02323)
Afr. Am. aged 16-33	-0.1074 (0.1139)	$\begin{array}{c} 0.07153 \ (0.2259) \end{array}$	-0.1887 (0.1292)	-0.07379 (0.2275)
Afr. Am. aged 34-57	-0.05498 (0.1253)	-0.06328 (0.2250)	-0.02806 (0.1354)	-0.3115 (0.2947)
Afr. Am. aged 58+	$\begin{array}{c} 0.1383 \ (0.1696) \end{array}$	0.2497 (0.2597)	-0.005173 (0.2025)	-0.7340 (0.3539)
Manuf. share (all races)	-4.669 (7.229)	$11.73 \\ (14.69)$	-6.126 (7.485)	-11.83 (14.16)
censusyear 1910	$\begin{array}{c} 0 \\ (0) \end{array}$	$\begin{array}{c} 0 \\ (0) \end{array}$	$\begin{array}{c} 0 \\ (0) \end{array}$	$\begin{array}{c} 0 \\ (0) \end{array}$
censusyear 1920	$\begin{array}{c} 0.9976 \ (0.3360) \end{array}$	1.229 (0.7597)	$0.6360 \\ (0.4071)$	0.5419 (0.7142)
Percent bus. owners (White)	$0.05332 \\ (0.02729)$	0.1406 (0.2000)	0.02632 (0.02716)	-0.001736 (0.03575)
Percent own home (White)	$0.1629 \\ (0.02668)$	0.2863 (0.1041)	0.1266 (0.02497)	0.07815 (0.03223)
Constant	5.381 (3.198)	-0.3824 (12.63)	5.411 (2.841)	9.304 (4.702)
R-squared	0.08245	0.1414	0.05655	0.06137
Num. Obs.	2936	795.0	2141	872.0

Table B5: Regional Effects of African-American Banks on Mortgages

Table B6: Nationwide	Effect of	African-	American	Banks in	urban	counties
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	Bus. Owner rate	White Collar rate	Home Own rate	Mortgaged Home rate
Banks/10,000 pop in county	1.759	0.2956	1.721	-0.02602
	(0.4645)	(0.09436)	(0.7773)	(0.4835)
Quadratic	-0.2790	-0.02974	-0.3715	0.02657
	(0.06253)	(0.01240)	(0.1035)	(0.06603)
Percent migrated (Afr. Am.)	0.04998	-0.008227	-0.1177	-0.002353
	(0.02352)	(0.006460)	(0.03450)	(0.03438)
Lit. Rate (Afr. Am.)	-0.03245	0.02315	0.09852	-0.09513
	(0.02983)	(0.005347)	(0.04083)	(0.03728)
Percent in urban areas (Afr. Am.)	0.04929	0.01113	0.06700	-0.007426
	(0.01925)	(0.004470)	(0.03278)	(0.03309)
Afr. Am. aged 16-33	-0.1902	-0.06501	-1.156	-0.3683
	(0.2130)	(0.04395)	(0.2704)	(0.2796)
Afr. Am. aged 34-57	0.04192 (0.1809)	$0.07475 \\ (0.04691)$	0.2577 (0.3242)	-0.1960 (0.2452)
Afr. Am. aged 58+	$0.6722 \\ (0.2144)$	$0.1026 \\ (0.07419)$	$0.7428 \\ (0.3655)$	-0.5576 (0.3628)
Manuf. share (all races)	-2.671	1.256	11.73	-8.235
	(4.237)	(1.478)	(6.702)	(10.09)
censusyear 1910	$\begin{pmatrix} 0\\(0) \end{pmatrix}$	$\begin{pmatrix} 0\\(0) \end{pmatrix}$	$\begin{pmatrix} 0\\(0) \end{pmatrix}$	$\begin{pmatrix} 0\\(0) \end{pmatrix}$
censusyear 1920	-1.020	-0.2754	-2.081	1.969
	(0.4013)	(0.09843)	(0.5231)	(0.4705)
censusyear 1930	-1.464 (0.5203)	$\begin{array}{c} 0.0008524 \\ (0.1236) \end{array}$	-0.2173 (0.6876)	-
Percent bus. owners (White)	0.8577 (0.05940)	0.001346 (0.008379)	-0.007307 (0.05865)	$0.05208 \\ (0.05909)$
Percent own home (White)	0.1081 (0.02671)	0.005329 (0.005493)	0.4249 (0.03405)	$0.2086 \\ (0.04046)$
Constant	-6.870	-0.3696	6.733	14.00
	(5.369)	(0.9948)	(5.914)	(5.808)
R-squared	0.7220	0.3089	0.4853	0.2895
Num. Obs.	1128	1128	1128	694.0

2.C Additional tables

The regional urban employer results, the list of thrifts, and all of the robustness checks are presented here.

Table C1: (Confirmed	thrift	institutions
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State Alabama	City	Name	From	То
Georgia	Birmingham	Alabama Penny Savings and Loan	1907	1914
Ohio	Waycross	Laborers' Penny Savings Loan Co	1919	1924
Unio	Cleveland	Central Ave Building and Loan Assoc	1919	1919
		Empire Savings and Loan	1922	1938
	Columbus	Adelphi Building, Loan & Savings Co	1922	1937
	Toledo	Star Building and Loan Assoc	1918	1928
South Carolina				
	Charleston	Mutual Savings and Loan	1920	1938

Table C2: Regional Effect on Employment by African-American Banks in urban counties

	Nationwide	North	South	Cotton South
Linear	$1.759 \\ (0.4645)$	2.018 (0.5406)	$0.2532 \\ (0.2495)$	$7.911 \\ (3.975)$
Quadratic	-0.2790 (0.06253)	-0.3177 (0.07305)	-0.2055 (0.1666)	-5.458 (3.697)
F-Test	17.16 [6.5e-08]	13.65 [2.0e-06]	0.8272 [0.4394]	4.262 [0.01581]
Effect of $0 \rightarrow 1$ bank	$1.480 \\ (0.4029)$	$1.700 \\ (0.4690)$	$0.04762 \\ (0.1126)$	2.454 (0.8862)
Critical point	3.151 (0.1775)	3.176 (0.1906)	$0.6158 \\ (0.2322)$	0.7248 (0.1572)
R-squared	0.7220	0.7399	0.5121	0.8047
Num Obs	1128	797.0	331.0	383.0

	Pop > 1000	All Banks	Only Banks	All Races	1916 Banks
Linear	2.349 (0.6073)	$2.041 \\ (0.5379)$	$2.494 \\ (0.6700)$	$2.246 \\ (0.6253)$	$1.664 \\ (0.4562)$
Quadratic	-0.3444 (0.07716)	-0.3000 (0.06888)	-0.3597 (0.08623)	-0.3273 (0.08027)	-0.2651 (0.06562)
F-Test	$\begin{array}{c} 23.24 \\ [1.3e\text{-}10] \end{array}$	22.09 [3.5e-10]	20.47 [1.7 e -09]	20.00 [2.6e-09]	$8.664 \\ [0.0001810]$
Effect of $0 \rightarrow 1$ bank	2.004 (0.5307)	$1.741 \\ (0.4695)$	$2.135 \\ (0.5842)$	1.918 (0.5455)	1.399 (0.3931)
Critical point	3.410 (0.1486)	3.402 (0.1459)	3.468 (0.1271)	$3.431 \\ (0.1432)$	3.139 (0.2272)
R-squared	0.7785	0.7209	0.7211	0.7211	0.7205
Num Obs	3011	4420	4420	4420	4420

Table C3: Nationwide Employer Robustness

im zero to one African-American bank per ten thousand African-American adults in a county.

	Pop > 1000	All Banks	Only Banks	All Races	1916 Banks
Linear	0.2245 (0.09672)	0.2852 (0.1135)	0.2710 (0.1031)	0.2880 (0.1051)	0.2760 (0.09813)
Quadratic	-0.01890 (0.01224)	-0.02241 (0.01495)	-0.02053 (0.01325)	-0.02275 (0.01357)	-0.02289 (0.01325)
F-Test	21.65 [$6.0e-10$]	$\begin{array}{c} 31.53\\ [3.7e-14]\end{array}$	$32.84 \\ [1.1e-14]$	32.14 [2.1e-14]	$\begin{array}{c} 10.11 \\ [0.00004351] \end{array}$
Effect of $0 \rightarrow 1$ bank	0.2056 (0.08459)	0.2628 (0.09865)	$0.2504 \\ (0.09002)$	0.2652 (0.09169)	0.2531 (0.08548)
Critical point	5.939 (1.344)	6.364 (1.769)	6.599 (1.804)	6.330 (1.522)	6.029 (1.549)
R-squared	0.2916	0.1491	0.1487	0.1489	0.1489
Num Obs	3011	4420	4420	4420	4420

Table C4: Nationwide White Collar Robustness

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zero to one African-American bank

Linear 1 (0 Quadratic -0	$ 0 < uo_{1}$	All Banks	Only Banks	All Races	1916 Banks
atic					
	1.897 (0.7304)	$2.016 \\ (0.7860)$	1.303 (0.5274)	2.043 (0.7572)	2.120 (0.7240)
(0.	-0.3633 (0.09735)	-0.3827 (0.1048)	-0.2886 (0.06872)	-0.3931 (0.1006)	-0.4065 (0.09948)
F-Test 6 [1.	68.14 [1.3e-28]	63.87 $[2.1\mathrm{e}\text{-}27]$	60.02 [7.4e-26]	90.93 [4.0e-38]	41.37 [3.1e-18]
Effect of $0 \to 1$ bank (0)	$1.534 \\ (0.6336)$	$1.634 \\ (0.6818)$	$1.014 \\ (0.4597)$	$1.650 \\ (0.6571)$	1.713 (0.6256)
Critical point 2 (0	$2.611 \\ (0.3170)$	$2.634 \\ (0.3174)$	2.257 (0.3937)	2.599 (0.3069)	2.607 (0.2731)
R-squared 0	0.2872	0.2622	0.2617	0.2687	0.2622
Num Obs	3011	4420	4420	4420	4420

Table C5: Nationwide Ownership Robustness

om zero to one African-American bank per ten thousand African-American adults in a county.

	Pop > 1000	All Banks	Only Banks	All Races	1916 Banks	Big Pop South	South Plus
Linear	2.594 (0.6683)	$2.511 \\ (0.6193)$	2.684 (0.7068)	2.584 (0.6900)	2.078 (0.5734)	2.620 (0.6760)	2.605 (0.6702)
Quadratic	-0.3760 (0.08500)	-0.3689 (0.07906)	-0.3919 (0.09063)	-0.3800 (0.08825)	-0.3187 (0.07610)	-0.3824 (0.08659)	-0.3697 (0.08581)
F-Test	20.00 $[3.2e-09]$	$\begin{array}{c} 25.98\\ [9.3e{-}12] \end{array}$	23.55 $[9.5e-11]$	22.96 $[1.7e-10]$	$\begin{array}{c} 15.32 \\ [2.7\mathrm{e}\text{-}07] \end{array}$	22.53 $[2.6e{-10}]$	$\begin{array}{c} 16.35 \\ [1.0e{-}07] \end{array}$
Effect of $0 \rightarrow 1$ bank	2.218 (0.5839)	$2.142 \\ (0.5408)$	2.293 (0.6166)	$2.204 \\ (0.6023)$	$1.759 \\ (0.4982)$	2.238 (0.5900)	$2.236 \\ (0.5850)$
Critical point	3.449 (0.1444)	3.403 (0.1382)	3.425 (0.1359)	3.400 (0.1470)	3.260 (0.1710)	3.426 (0.1376)	3.524 (0.1270)
R-squared	0.7857	0.7448	0.7448	0.7450	0.7442	0.7467	0.7682
Num Obs	2539	3227	3227	3227	3227	3143	2806

Table C6: Southern Employer Robustness

per ten thousand African-American adults in a county.

	Pop > 1000	All Banks	Only Banks	All Races	1916 Banks	Big Pop South	South Plus
Linear	0.1671 (0.09912)	0.2195 (0.1156)	0.2037 (0.1056)	0.1806 (0.09874)	0.2381 (0.09344)	0.1792 (0.09840)	0.1402 (0.09421)
Quadratic	-0.01208 (0.01236)	-0.01837 (0.01492)	-0.01632 (0.01327)	-0.01326 (0.01236)	-0.02016 (0.01196)	-0.01247 (0.01234)	-0.006578 (0.01172)
F-Test	21.88 [5.3e-10]	20.98 $[1.1e-09]$	23.22 $[1.3e-10]$	24.28 [4.7e-11]	33.34 $[8.5e-15]$	27.03 [$3.5e-12$]	32.38 $[2.4e-14]$
Effect of $0 \rightarrow 1$ bank	0.1551 (0.08684)	0.2011 (0.1008)	0.1874 (0.09237)	0.1673 (0.08647)	0.2179 (0.08157)	0.1667 (0.08615)	0.1336 (0.08258)
Critical point	6.918 (3.035)	5.974 (1.754)	6.240 (1.891)	6.809 (2.676)	5.903 (1.224)	7.182 (3.218)	10.66 (11.90)
R-squared	0.3908	0.2761	0.2757	0.2758	0.2761	0.2727	0.2679
Num Obs	2539	3227	3227	3227	3227	3143	2806

Table C7: Southern White Collar Robustness

per ten thousand African-American adults in a county.

	Pop > 1000	All Banks	Only Banks	All Races	$1916 \mathrm{Banks}$	Big Pop South	South Plus
Linear	0.8827 (0.4859)	0.5183 (0.6086)	0.6339 (0.5214)	0.8240 (0.4617)	1.091 (0.5215)	0.8566 (0.4849)	0.6761 (0.4815)
Quadratic	-0.2133 (0.06522)	-0.1770 (0.08160)	-0.1917 (0.06984)	-0.2236 (0.06216)	-0.2539 (0.06896)	-0.2253 (0.06494)	-0.1998 (0.06492)
F-Test	38.42 $[9.9e-17]$	$33.12 \\ [1.1e-14]$	33.59 $[6.7e-15]$	54.88 $[1.8e-23]$	49.79 $[1.9e-21]$	44.43 [2.8e-19]	32.43 $[2.3e-14]$
Effect of $0 \rightarrow 1$ bank	$0.6694 \\ (0.4218)$	0.3413 (0.5282)	0.4422 (0.4531)	0.6003 (0.4007)	$0.8368 \\ (0.4536)$	0.6313 (0.4213)	0.4763 (0.4183)
Critical point	2.069 (0.5271)	1.464 (1.059)	1.653 (0.7774)	1.842 (0.5362)	2.148 (0.4619)	1.901 (0.5476)	1.692 (0.6785)
R-squared	0.2167	0.1942	0.1942	0.2028	0.1944	0.1850	0.1787
Num Obs	2539	3227	3227	3227	3227	3143	2806

Robustness
Ownership
Southern
Table C8:

per ten thousand African-American adults in a county.

	Pop > 1000	All Banks	Only Banks	All Races	1916 Banks	$\operatorname{BigPopSouth}$	SouthPlus
Linear	-1.609 (4.820)	7.317 (5.625)	-0.4625 (6.832)	-0.6427 (5.640)	9.700 (4.910)	-0.08492 (5.758)	0.5527 (3.897)
Quadratic	6.726 (3.325)	-0.9140 (2.653)	1.061 (5.014)	5.932 (4.169)	-2.247 (1.167)	5.651 (4.238)	5.179 (3.447)
F-Test	10.27 $[0.00005722]$	6.422 $[0.001773]$	0.5843 $[0.5579]$	$3.924 \\ [0.02043]$	3.185 $[0.04227]$	3.725 $[0.02479]$	3.737 $[0.02436]$
Effect of $0 \rightarrow 1$ bank	5.117 (2.151)	6.403 (3.155)	$0.5983 \\ (1.981)$	5.290 (2.783)	7.452 (3.744)	5.566 (2.899)	5.732 (2.328)
Critical point	$0.1196 \\ (0.3044)$	4.003 (8.698)	$0.2180 \\ (2.204)$	0.05417 (0.4422)	2.158 (0.04396)	0.007513 (0.5046)	-0.05336 (0.4054)
R-squared	0.5772	0.4250	0.4205	0.4243	0.4234	0.4312	0.4169
Num Obs	472.0	1193	1193	1193	1193	1277	1614

Table C9: Northern Ownership Robustness

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	Pop > 1000	All Banks	Only Banks	All Races	$1916 \mathrm{Banks}$	$\operatorname{BigPopSouth}$	SouthPlus
Linear	0.4050 (1.166)	$1.131 \\ (0.8774)$	0.4514 (1.014)	0.9073 (1.383)	1.042 (0.5440)	0.8154 (1.374)	2.065 (1.056)
Quadratic	0.1282 (0.8280)	-0.4155 (0.4515)	-0.2865 (0.7533)	-0.05756 (0.9707)	-0.2392 (0.1298)	-0.005024 (0.9650)	-0.8909 (0.7384)
F-Test	3.737 $[0.025555]$	1.805 $[0.1656]$	0.1593 $[0.8528]$	3.020 $[0.04975]$	3.302 $[0.03769]$	$3.231 \\ [0.04035]$	3.968 $[0.01939]$
Effect of $0 \rightarrow 1$ bank	$0.5332 \\ (0.3831)$	0.7153 (0.4517)	$0.1649 \\ (0.2995)$	0.8497 (0.5007)	0.8029 (0.4144)	$0.8104 \\ (0.4888)$	$1.174 \\ (0.4270)$
Critical point	-1.580 (14.70)	1.361 (0.5177)	0.7877 (0.4435)	7.881 (121.3)	2.178 (0.06503)	81.14 (15452)	1.159 (0.4418)
R-squared	0.2031	0.1463	0.1446	0.1468	0.1465	0.1477	0.1534
Num Obs	472.0	1193	1193	1193	1193	1277	1614

Table C10: Northern White Collar Robustness

 bank per ten thousand African-American adults in a county.

Chapter 3

Triple Segregation: Virginia African-American Banks, 1915-28

3.1 Introduction

"[W]hat distinguishes Afro-Americans from other groups is the reality of total segregation in the marketplace." Butler (1991), p. 142

Chapter 2 identifies 125 banks owned and managed by African-Americans that existed at some point from 1907 to 1937. In that chapter, I argued that these banks had a positive effect on African-American rates of business ownership, home ownership, and white-collar occupations. Those economically and statistically significant results led me to investigate the operations of African-American banks in detail.

I perform this investigation by creating a dataset of bank metrics from declassified Virginia bank examinations from 1915 to 1928. I compare African-American banks to two samples of white banks. Compared to these samples, African-American banks are less profitable, as measured by two metrics found exclusively in this dataset: the dividend rate and annualized profit.

Specifically, without controlling for age of the bank and year of exam, the average percentage of profits annually returned to stockholders of African-American banks (2.77 percent) was 51 percent of the average rate of the smallest white banks located in the same cities (5.46 percent) and 43 percent of the average rate of a random sample of white banks (6.46 percent). Annualizing year-in-progress data on profitability shows that, again without controls, African-American banks averaged a loss of \$60 each year, while the smallest white banks located in the same cities averaged a profit of \$9,260 and a random sample of white banks averaged a profit of \$3,090. When controlling for the age of the bank and the year of the exam, dividend rates and annual profit are even lower for African-American banks relative to white banks.

Comparing these profit numbers without context could lead to conclusions regarding the performance of African-American banks and the managers and directors of these banks: for example, that African-American bankers were uninformed about best banking practices or that they did not adequately supervise the banking operations. Both of these ideas are collected under the umbrella of "mismanagement," and have been cited by researchers as an issue with African-American banking.

However, these profit comparisons are missing an important context: African-American banks in Virginia faced three segregated markets. The lack of access to white customers in these markets is a more likely explanation of the difference in profits observed than assertions of mismanagement.

This chapter compares the African-American banks of Virginia from 1915 to 1928 to two samples of white Virginia banks to demonstrate that African-American banks faced segregated markets in consumers, bank deposits, and mergers. In each of these cases the market facing African-American banks was smaller and consisted almost entirely of African Americans.

I show that African-American banks faced a segregated consumer market by linking the names in one bank examination to the US Census and Richmond city directories to determine the race of the customers, and by showing a difference in the deposit mix of African-American banks. I show that African-American banks faced a segregated market for bank deposits by directly referencing bank examination data, which shows that only African-American banks were willing to deposit funds in other African-American banks. I show that African-American banks faced a different market for mergers by tracing the history of each bank in the dataset, showing that there were no mergers between African-American and white banks in Virginia until 2005.

This is the first research to detail the segregated interbank and merger markets for African-American banks. Prior work by Harris (1936), Stuart (1940), Butler (1991), and Baradaran (2017) showed the segregated consumer market indirectly, through the actions of African-American business owners and home buyers. I augment this work by showing directly that the customers of one African-American bank were almost entirely African American.

These segregated markets for African-American banks affected profitability in two ways. First, these markets were smaller, providing fewer opportunities. Second, these segregated markets may have led African-American banks to follow a relatively riskaverse strategy, due both to these segregated markets and to other cultural, political, and economic factors.

Although all of the banks in the dataset were located in the same state geographically, and subject to the same regulations, this chapter shows that the white and African-American banks existed in separate worlds. Any performance comparisons between white and African-American banks or bankers must account for this to be valid.

3.2 Historical background

3.2.1 Bank regulation and supervision in Virginia

The dataset constructed to test the markets African-American banks faced relies on bank examinations from the state banking regulators. This background on the regulatory environment in Virginia will inform the method used for the analysis of the data.¹

In 1903, the legislature in Virginia liberalized bank chartering by changing the process from requiring legislative approval to granting any group with the requisite capital and directors a charter.² While the statutes distinguished between savings and commercial banks, there was no actual difference in the regulation of these banks (Garrett-Scott, 2019).

From 1908 to 1920, each bank charter required a minimum of \$10,000 capital, but banks were allowed to start operating with only \$2,000 of this capital paid in, as long as they made progress towards meeting this minimum. In the dataset, the only banks under the \$10,000 limit during this time were two African-American banks, including the People's Dime Savings Bank of Staunton (discussed in more depth in Appendix 3.A).

This minimum capital requirement for new banks was raised twice in the 1920s, and

¹The discussion in this section relies heavily on Gruchy (1937).

 $^{^{2}}$ This was most likely in response to the federal Gold Standard Act of 1900, which liberalized the requirements for national bank charters. This is discussed in E. N. White (1983).

indexed to the population of the town or city. However, as with the national banks studied in Carlson et al. (2019), these raised capital requirements did not apply to banks that were already chartered.

Between 1910 and 1914, banks were advised to maintain a reserve of 15% of demand deposits and 5% of time deposits, but there was no statutory reserve requirement. Once the Federal Reserve system was created, Virginia law established the same reserve requirements of 10% of demand deposits and 3% of time deposits (E. N. White, 1983).³

Branching was restricted. Initially, banks were allowed to open branches if they had the capital to organize separate banks (*e.g.* a bank with 30,000 capital could open two branches in addition to their main office). In 1923, this was relaxed to a minimum of 25,000 capital, but in 1928, branches were restricted to the same city or town.

There was no restriction on bank ownership of stocks and bonds. Real estate ownership was only allowed for banking offices or taken in lieu of payment. Property acquired in lieu of payment had to have been disposed of within ten years. Since the amount of this real estate was publicly available, banks usually sold the property quickly.

Beginning in June, 1910, state examiners in Virginia periodically visited every chartered bank, examined the bank's ledgers, and asked questions about that bank's operation and portfolio.⁴ Examiners then wrote their findings on a fifteen page form that contained information not found elsewhere, including the examiner's judgment of the bank's officers.

Starting on July 1, 1920, most banks were examined twice a year (Gruchy, 1937). Examinations typically took a day to complete, although some exams lasted as long as three days. The forms changed over the years studied, but similar information was gathered throughout.

In general, Gruchy (1937) finds that Virginia banking supervision was more lax than that of New York State, and also more lax than that of national banking supervision, in

³Holding reserves below the legal limit did not result in any immediate repercussions. A letter was dispatched by the Chief Examiner of the Banking Division (after 1928, by the Commissioner of Insurance and Banking).

⁴These examinations were supposed to occur annually. However, low staffing levels and, later, the Spanish Flu epidemic meant that some banks were only examined every two years until 1920.

concordance with E. N. White (1983). However, there is one area in which Virginia was more rigorous than New York: official letters from the banking supervisors required a pledge from the bank that all directors had read the letter.⁵

3.2.2 Virginia banks

In 1915, Virginia had 271 banks operating that were chartered by the state (state banks), and an additional 133 banks chartered by the federal government (national banks).⁶ The national banks were members of the Federal Reserve system, which gave them the right to borrow from the Federal Reserve Bank of Richmond's discount window in the event that they needed funds that other banks were not willing to loan them. Banks that had relationships with these national banks could gain indirect access to the discount window.⁷

State banks in Virginia can be grouped into three categories: rural banks, which mainly served the local farmers; commercial banks, which catered to business interests; and savings banks, which were ostensibly focused on taking consumer deposits and safeguarding them. All rural banks (with one exception) were white.⁸ The majority of savings banks in Virginia were African-American.

Appendix 3.A details the history of four Virginia banks, two white and two African-American, to illustrate how white and African-American banks operated in this regulatory environment.

⁵This regulation would have been useful for New York in the Bank of United States failure (Werner, 1933), as the directors of that bank claimed that they had not seen any of the dire warnings from state banking regulators.

⁶These totals come from the following two sources: Banking Division of the State Corporation Commission (1904-1946) and American Bankers Association and Rand McNally and Company (1907-1937).

⁷In 1915 only one state bank in Virginia had joined the Federal Reserve system, which also gave it the right to borrow at the discount window. This bank, The Savings Bank of Richmond, is not mentioned in this dataset. By 1928 12 state banks had joined the Federal Reserve system, but, again, they do not feature in the interbank data of this dataset.

⁸The 1922 examination of the African-American Danville Savings Bank mentions loans to African-American farmers (Sallum & Leake, 1922). African-American farmers in Virginia who were not near Danville likely relied on merchants and property owners for credit (Ransom & Sutch, 2001), as well as white rural banks.

3.2.3 African-American banks in Virginia

One of the first four banks owned and operated by African Americans in the US opened in 1890 in Richmond, Virginia. The True Reformers Bank⁹ was formed by a fraternal society to expand the financial services it offered to their members, as well as offering those services to the general public. Later African-American banks in Virginia were formed from similar organizations, as well as groups of local investors, or, in two cases, a traveling entrepreneur.

The True Reformers Bank became the largest African-American bank in the country by the early 1900s (Du Bois et al., 1907). It, along with four other African-American banks in Virginia (the Nickel Savings Bank of Richmond, the Galilean Fishermen's Bank of Hampton, the Gideon Savings Bank of Norfolk, and the American Home and Missionary Bank of Courtland) was closed by examiners in 1910, the first year of bank examinations (Banking Division of the State Corporation Commission, 1904-1946). Only one white bank was similarly closed. The issues discovered at the True Reformers Bank and the Gideon Savings Bank were so grave that a differential standard for African-Americans can not be inferred by this high number of closures (Harris (1936), pp. 62-74; Garrett-Scott (2019), pp. 104-5).

Virginia had seventeen African American banks that operated at some point between 1915 and 1928, the largest number of any state. In addition to the large number, Virginia was home to two of the most long-lived African American banks: St. Luke's Penny Savings Bank, later Consolidated Bank and Trust, which operated under African American ownership until 2005, and Danville Savings Bank, which is still under African-American ownership (and changed its name in 2017 to Movement Bank). Virginia was also home to an African American bank that opened a branch office during this time, when branching was subject to strict limitations (see Section 3.2.1): Second Street Savings Bank of Richmond. Basic questions remain about African-American banks before World War II. Financial information about African-American banks outside of

⁹The full name of the bank was the Savings Bank of the Grand Fountain, United Order of True Reformers in Virginia.

simple balance sheets, such as their profitability, have not been observed previously. Information about how African-American banks fit into the larger banking network, or even about the stocks and bonds held by African-American banks, were not available prior to this dataset. These details allow for inferences about the segregated consumer and interbank markets. This benefit, as well as other advantages, are discussed in Section 3.3.1.

The most detailed prior source of information on African-American banks of this era is Harris (1936). Harris delved into the operation of 20 African-American banks nationwide, including 5 in Virginia. Harris examined their balance sheets and provided qualitative evidence of their operation, providing useful narratives on the operation and failure of African-American banks. Even so, there are three reasons to augment Harris' research. First, Harris did not examine any African-American banks that were still in operation after 1932, omitting what may have been the most successful banks. Second, Harris chose to focus on the largest banks (p. 61), which would also non-randomly exclude some banks from his sample. Third, Harris' data sources were balance sheets published by states, bankruptcy records, and voluntary disclosures from some of the banks in his sample. This could bias his sample by omitting banks that did not respond but were successful.

Why did Virginia have so many African-American banks relative to other states? As mentioned in Section 3.2.1, state law from 1903 to 1928 stated that any group of people who raised \$2,000 (and had plans to raise at least \$10,000) could open a bank (Gruchy (1937), pp. 50-76). This leaves open the question of how state officials and regulators treated African-American banks and bankers. This interaction between banking officials and African-American bankers has been characterized in two opposite ways by researchers. Certainly the African-American bankers, like all bankers from all periods, felt that state regulation was excessive:

White people have been running Banking and Insurance for more than a thousand years: you imagine that they ought to know something about the business by this time? THEN WHOM ARE THEY AFTER? They are after the Negro banks, which have come into existence in Richmond, Hampton, Norfolk, Newport News and all over the Southland. The white man doesn't intend to wait until the Negro becomes a financial giant, he intends to attack him and fetter him now, while he is an infant in his swaddling clothes, helpless in his cradle. Walker (1906), quoted in Sowinski (2014), p. 20. Emphasis in original.

Garrett-Scott (2019) asserts that regulators were especially tough on African-American banks. Harris (1936), however, argues the opposite, that regulators were too easy on African-American banks, letting them slide out of either paternalism or neglect. The quote and findings in Section 3.4.2 support Harris' assertion of paternalism.

There were other formal African-American financial institutions operating during this time. African Americans operated building and loan societies, and African-American life insurance companies also invested in real estate while providing a death benefit to customers. There was a class of institutions called "small loan companies" in Virginia, which had at least one African-American participant.¹⁰ Additionally, African-American credit unions may have existed in Virginia, as many did in North Carolina (Shapard & Fruchtman, 2013).¹¹

Assets of African-American banks

The African-American building and loan societies and life insurance companies shared one quality with African-American banks: much of their assets depended on real estate. The reliance of African-American financial institutions on the real estate market is one of the important manifestations of the segregated consumer market facing African-American banks. This and other differences in the assets held by African-American banks are discussed in general terms in this section. The exact magnitude of these differences will be discussed in Section 3.4.2.

The reliance on real estate has often been noted in the literature (Harris (1936), Butler (1991), Baradaran (2017)). These researchers note that, because of the relative lack of capital-intensive industries among African-Americans, along with the reality of the segregated consumer market, African-American banks could not achieve the same

¹⁰The African-American Acorn Bank of Roanoke gave up its banking charter to become a small loan company in 1927. The Banking Division of the State Corporation Commission continued to include it in the list of small loan companies until 1932 (Banking Division of the State Corporation Commission, 1904-1946).

¹¹Garrett-Scott (2019) also details some of less formal institutions for loans and investment, such as pawn shops, savings clubs, and the numbers (lottery).

mix of assets as white banks. It is echoed in several bank examiner comments, such as the one below:

"Most of their loans are secured by real estate which is looked upon as a good class of paper for a Negro bank, particularly when they are conservative." Turner (1925)

Coupled with the lack of investment in capital-intensive industry, African-American banks held fewer securities (both stocks and bonds) than white banks during this time. Except for cash on hand, and other small items, the asset part of the balance sheet of African-American banks was almost entirely tied to the real estate market.

An undiversified portfolio is inherently risky, and reliance on real estate carried additional risk. Nationwide, real estate during this time period was an asset subject to rapid price changes. This was characterized in the 1915-28 period by a postwar bust followed by an extended housing boom (Brocker & Hanes (2014), E. White (2014)). Figure 3.1 provides a rough estimate of these price changes using data from Knoll et al. (2017) to show a nationwide price index assembled from urban sources. Moreover, real estate in African-American neighborhoods was a less liquid asset, as the redlining maps of the Home Ownership Loan Corporation made clear in 1935 (Hillier (2003), Baradaran (2017)). Because of this, white banks were unlikely to extend credit to African-Americans to purchase real estate in African-American neighborhoods, and the segregated housing market meant that African-Americans were unlikely to purchase property in white neighborhoods (Baradaran, 2017).

This dependence of African-American banks on real estate manifested in three ways: first, many of the loans that African-American banks issued used real estate as collateral. Second, many of these loans may have been used to purchase income properties. Third, a bank's own real estate, the building housing the bank and the land the building was on, were part of the asset sheets of all banks that owned their banking offices. A downturn in the local real estate market would cause losses to African-American banks from all three of these channels.¹² Section 3.4.5 shows that the banking house and lot

 $^{^{12}}$ Like many white banks, some African-American banks had even more exposure to the real estate business, as they were used to leverage the real estate investments of their directors. Metropolitan Bank and Trust and Mechanics Savings Bank failed, in part, due to large amounts of real estate speculation (Harris (1936), A. F. Alexander (2002)).

were an outsized part of African-American balance sheets.

That the asset mix of African-American banks was different is not, on its own, enough to demonstrate a segregated market: one might argue that it was the preference for African-American bankers to not invest in securities or capital-intensive industries. By showing that the customers of one African-American bank were almost solely African-American, and by showing an additional difference in the deposit mix of African-American banks, the weight of evidence tilts towards concluding that the consumer market was segregated.

3.3 Data and methods

The dataset I use in this chapter is collected from Virginia state bank examination data. This data is declassified in Virginia since more than 75 years has passed since the examinations.

3.3.1 Advantages of bank examination data

Oft-used sources for early twentieth-century banking offer less detail than the bank examinations used in this dataset. One alternative data source, the call report summary for each bank, contains roughly 40 variables regarding bank operation. Another, data from the Bankers Encyclopedia, contains approximately 20 variables. In contrast, the bank examinations used in this dataset contain over 500 variables, providing the most complete picture of bank operations.

Importantly for this chapter, bank examinations alone contain information about the dividend rate paid to stockholders. This rate is reported by some profitable banks in bankers' directories, but examinations contain an exhaustive list, including banks that did not issue a dividend in the previous period. Moreover, bank examinations list the income and expenses for the year to date, which allow me to estimate the annual profit of a bank. Additionally, examinations contain information on the directors and customers of the bank. Finally, information about interbank relationships are more detailed in Virginia bank examinations than can be found elsewhere (including national bank examinations from this period). I would not be able to show the segregated consumer and interbank markets as conclusively without the information that is only available in bank examinations.

An additional benefit of bank examination data is that the financial information was verified by the bank examiner(s), who were paid by the state and thus were independent from the bank they were examining. As part of their responsibilities, examiners counted the cash on hand and verified as many as nine ledgers that may be kept in a state bank (Millet, 1927).¹³ This can prevent misreporting, although, since the examiners are only at a bank for one to three days, complicated deceptions can still be maintained.¹⁴ The examiners also made comments about the management, bookkeeping, and loan portfolio quality of each bank, providing a contemporary outside opinion of a bank's operations.

There are two disadvantages of this extra information: first, the scope of the data is smaller. This chapter contains data on 43 banks in one state, Virginia. Second, the efforts of the examiners might be suspect. A check of data consistency when entering the bank examination data uncovered several errors by bank examiners, where individual entries did not add up to the correct total. Eleven of the 150 bank examinations in this dataset contained verifiable math errors. Gruchy (1937) on page 282 notes that Virginia examiners were paid between 37 and 71 percent of the salaries of national bank examiners. This may have meant that Virginia could not attract or retain the highest-quality examiners.¹⁵

¹³These ledgers were: Individual account ledgers, savings ledgers, general ledgers, certificates of deposit, cashier's checks, certified checks, loans and discounts, stocks and bonds, and the capital stock ledger (State Corporation Commission, 1915-28).

¹⁴ "Much of the information in regard to the assets of the banks is of such a character as to make it necessary for the Examiner to rely upon the good faith and assurances of his informants, and while the Examiner regards the statements so accepted by him as correct, he is, necessarily, not in a position to guarantee the accuracy of such part of the information as may not have been obtained at first hand." – Disclaimer at bottom of national bank examination form (Office of the Comptroller of the Currency, 1925).

¹⁵The examiner salaries were also not subject to regular civil service raises, with their salaries allocated by the legislature directly (Gruchy, 1937), p. 282.

3.3.2 Collecting bank data

I collected the bank examinations for fourteen African-American banks from 1915 to 1928, in three year intervals. Three additional African-American banks were discovered after data collection: the Union Commercial Bank of Norfolk, Virginia, opened in January, 1922, and closed in April, 1922. The Acorn Bank of Roanoke opened in 1925 and modified its charter to change from a bank to a small loan company in 1927. Finally, the Mutual Savings Bank of Portsmouth operated from 1916 to 1920 or 1921 (Banking Division of the State Corporation Commission (1904-1946), Ancestry.com (2011)).

The list of African American banks in Virginia was taken from Work (1912), confirmed by Ancestry.com (2011) and American Bankers Association and Rand McNally and Company (1907-1937) through the process described in Chapter 2.

To provide a comparison to these African American banks, a random sample of non-African American banks was selected. To select the random sample, I used the fact that the State Corporation Commission issues a bank number to each bank, and this number is entered on the bank examinations.¹⁶ The archives staff at the Library of Virginia identified the bank numbers of African American banks: I took the largest number on their list (592) and selected 23 numbers between 1 and 592 at random, discarding one that was the bank number of an African-American bank. Five of these charter numbers never appeared in the years studied, which leaves a sample of seventeen banks.¹⁷

A map of Virginia including African American banks and the non-African American random sample can be seen in Figure 3.2. With two exceptions (The Jefferson Bank and Newport News Bank and Trust, both in Newport News), the randomly-selected banks were located in rural areas, and in different parts of Virginia from the locations of African-American banks. Comparisons with this group of banks, although from a random sample, may not have been informative about the differences between African-American banks and white banks.

¹⁶This is likely the Charter number for each bank, but I cannot confirm that.

¹⁷These missing banks could be due to these banks never selling enough stock to open or opening and closing outside of the observed years. Additionally, it's possible that these were charter numbers assigned to national banks, which were only infrequently examined by state examiners and did not appear in the annual summaries of banking operations in the state.

To address this concern, I created another sample. This sample consisted of non-African American banks located in the same cities and towns as African American banks (which I call the co-located sample). I chose the smallest banks in these cities in 1922 to make the sample as comparable as possible. This sample contains fourteen banks with assets under one million dollars in 1922, including both The Jefferson Bank and Newport News Bank and Trust from the random sample. The map of banks in this sample from Norfolk/Portsmouth and Richmond are shown in Figures 3.3 and 3.4.

I photographed bank examinations at three-year intervals, to provide coverage for different macroeconomic environments. This chapter uses the reports from five periods: 1915-16, 1918-19, 1922, 1925, and 1928 (examinations prior to 1920 occurred annually or biennially).¹⁸

To compare African-American banks to the random and co-located samples, I select 32 variables and ratios that relate to banking performance. The summary statistics of these variables and ratios are listed in Table 3.1. The mean and the standard deviation for each variable and ratio is listed for the whole sample, as well as the mean and standard deviation for African-American banks, banks in the random sample, and banks in the co-located sample.

I perform t-tests on the variables and ratios in the sample, testing whether the African-American banks were statistically different from the random sample, the colocated sample, or both, or if the difference could not be precisely measured. The variables and ratios are classified by the results of this t-test, with a p-value of less that 0.100 indicating statistical significance.

Variables that are statistically different between African-American banks and both samples of white banks include the dividend rate, annual profits, total deposits, the share of deposits that are time deposits, the ratio of stocks and bonds owned by the bank to all assets, the number of directors, the number of directors per 100,000 in assets, and the number of accounts in other local banks. The ratio that is statistically

¹⁸The examinations were photographed at the Library of Virginia State Records Center in Richmond, Virginia, over three different visits in August and October 2017 and May 2018. These photos were then input by hand into a spreadsheet by research assistant Amy Nguyen and me. Several checks were made of the data to ensure consistency (for example, that the assets and liabilities were in balance).

different from both samples is the ratio of fixed assets to all capital (which includes capital, surplus, and undivided profits).

Variables that are statistically different between African-American banks and the co-located sample (but not measurably different from the random sample) include total assets, capital stock, and the examiner's opinion of management. The ratio that is statistically different is the cash to demand deposits ratio. These differences may indicate that many of the co-located white banks were doing a commercial business, while the African-American banks were doing more of a savings bank business.

Additionally, there are five variables and ratios that are statistically different between African-American banks and the random sample of banks, but not measurably different from the co-located sample. These differences may be due to the rural nature of most of the random sample.

Finally, seven variables and six ratios are not statistically different between African-American banks and the two samples of white banks. This may be due to no difference between African-American banks and the overall population of white banks, or to the difference not being distinguishable due to the small sample size. If it's due to no difference in the populations, this would mean that African-American banks had similar performance in terms of cash on hand, capital, amount of loans, amount of overdrafts, and the comments of examiners regarding the management of African-American banks. However, this final variable may be due to paternalism, explained below.

3.3.3 Paternalism by regulators

In the bank examinations collected for the data in this chapter, there is evidence of paternalism in the attitudes of white politicians and regulators towards African-Americans. The evidence is particularly strong in earlier bank examinations, such as this one from 1913:

The general condition of this little bank is good.... Examiner cannot help being impressed by the earnest efforts these people are making to conduct their business aright; and I am persuaded that as at present constituted, we can safely consider this as what is called 'a good moral risk.' ... Clearly they want to do everything the Office suggests; and they express much gratitude for assistance already given.

Hunter (1913)

Garrett-Scott (2019), while disagreeing that any leniency existed, shows that other officials saw African-American banks as vehicles to improve the moral standing of African-Americans.

This corresponds with the general attitude of state bank examiners. For both African-American and white banks, bank examiners advocated for stability rather than competition. This meant advocating for mergers and against competition, and this attitude is also found in examinations of African-American banks. However, arguments in favor of protecting banks are hard to distinguish from paternalism.

3.3.4 Methods

The differences noted in the summary statistics of Table 3.1 are analyzed with an ordinary least-squares regression to control for the age of a bank and the year of the exam.¹⁹ The purpose of this analysis is to verify differences across groups. To determine causality, that is, to determine that the fact that a bank was African-American led to a change in the dependent bank characteristics, would require accounting for omitted variable bias, reverse causality (for some performance indicators), and the non-random assignment of both African-American banks and the co-located sample of white banks. Demonstrating this causality would not add weight to the hypothesis of this paper that African-American banks faced three segregated markets, as this causal relationship would prove only that African-American banks behaved differently from white banks.

The model used to analyze the differences between African-American and the two samples of white banks is:

 $bank_performance_metric = \alpha + \beta_1 bank_type + \beta_2 exam_u ear + \beta_3 bank_age + \epsilon$

Where the variable of interest is an indicator variable with different values for African-American, randomly-sampled white banks, and co-located white banks.

¹⁹Since early exams occurred annually or biennially, 1915 and 1916 are grouped together, as are 1918 and 1919. See Section 3.2.1.

Controlling for the year of the bank exam is necessary due to the macroeconomic fluctuations during this period (an early World War I boom period followed by a brief, intense recession in 1920, and then more expansion through the rest of the 1920s). Controlling for the age of the bank is important because newer banks tend to be less profitable and have a different asset mix (Boorman & Kwast (1974) discuss this for post-1960 African-American banks). Due to the relatively small sample size, accounting for other factors, such as location, population density, or localized economic indicators would be problematic. Controlling for bank-specific factors would provide unacceptably few degrees of freedom, and panel data analysis would not be appropriate since the type of bank is not time-varying. Bank type could be interacted with year and a panel data analysis performed separately for the different bank types, but this would capture only the time-varying differences between the bank types, and I assert that the important differences discussed below are time-invarying.

This analysis clusters standard errors by bank and year of the exam, since both serial correlation and common macroeconomic shocks are likely.²⁰ However, this may give biased standard errors, since there are only five bank-year clusters. The regressions are therefore re-run, clustering standard errors by bank only. Results used in this analysis remain statistically significant (or insignificant) under either specification.²¹

3.4 Results

3.4.1 The lower profits of African-American banks

To observe the profit of banks in this dataset, I would ideally observe the end-ofyear accounts of banks. This would show the actual money gained or lost over the prior year, but this data is not available. Some of the profit data can be deduced from the

 $^{^{20}}$ The analysis uses the user-programmed Stata command reghtfe (Correia, 2014), which allows for clustering by more than one variable.

 $^{^{21}}$ The following four differences were observed: Demand deposits are significantly different from both groups, rather than only the co-located sample; loan to asset ratio is significantly different for both groups, rather than not statistically significant; cash to demand ratio is significant for co-located banks rather than not statistically significant; directors per 100k is significant for both, rather than only the co-located sample.

additions to surplus and undivided profits, along with dividends distributed. I do this in Section 3.4.6, but this exercise does not include the charging off of bad loans or other off-balance-sheet transactions, and the conditions necessary for this deduction limit the number of observations.

Instead, I use two close approximations for profit. The first is the dividend rate, the percentage of capital paid to the stockholders each year. This percentage is a good proxy for profit since it represents the profit the investors in the bank receive, but does not include the profits the bank might direct to other purposes. Section 3.4.6 shows that the rate of retained profits is higher for African-American banks; this could overstate the difference in overall profit between the types of banks. Because of this, I calculate a second measure of profit: the annualized rate of profit and loss. Examiners entered the expenses and income of banks since the last time the books were closed (typically the end of June or December).²²

By these two measures, dividend rate and annual profit, African-American banks generated lower profits than white banks. The results of controlling for age of the bank and year of the exam on these profitability measures are graphed in Figure 3.5.²³

African-American banks issued fewer dividends than white banks. 64.1% of African-American bank exams show no dividend issued for the previous period, versus 28.8% of the randomly-selected sample and 26.7% of the co-located sample of white banks. Moreover, when dividends were issued, they were, on average, a lower percentage of capital. The dividend rate of African-American banks is significantly lower than both white samples after adding controls. The estimate for the dividend rate for a new African-American bank in 1928 is censored at zero (with a linear prediction of -1.13

 $^{^{22}}$ Running totals less than 37 days (10% of the year) from the book closure date are dropped, as these generate unreliable annual totals. This estimate of annual profit estimate is affected by the seasonal nature of all banks during this time period. For data consistency reasons, in years with two examinations (*i.e.*, post-1920), the earliest examinations in the year were collected. This, however, would increase the error in estimating the annual profit rate.

²³Results are presented as coefficient plots. Regression results in table format can be found in Appendix 3.B.

percent).²⁴ The banks in the random sample have an estimated dividend rate 3.62 percentage points higher, on average, than African-American banks, while the co-located sample has estimated dividend rates 2.94 percentage points higher. This shows a different level of profitability for these groups of banks.

The results of the annual profit estimation agree with the dividend results above. Looking at the estimated annual profit rate, African-American banks, on average, show a projected annual loss of \$2,396. The random sample of banks show a projected annual profit \$3,413 higher, while the co-located banks show an average annual profit \$10,075 higher than African-American banks. This measure confirms the dividend rate measure, that African-American banks were much less profitable.

This lower profit was likely due to African-American banks facing segregated markets from white banks.²⁵ They faced a segregated market in their customers, in the interbank market, and in the merger market. These segregated markets were smaller and held less capital than the larger white markets.

3.4.2 The segregated consumer market

Previous work on the segregated consumer market

Merah Stuart, in his monograph on the African-American insurance business, described the segregated consumer market (what he called "An Economic Detour"):

Of all the cruel mockeries to which... the American Negro has been subjected, the 'opportunity' to operate a successful business... confined to that small fraction of the population of his own people which he may attract and hold in competition... is perhaps the most ironical and obviously difficult.

...[I]n business... the untenable, unprofitable viciousness of racial prejudice bares the nakedness of its evil purpose more flagrantly than in other fields. In this

 $^{^{24}}$ In other words, the dividend rate can't actually be lower than zero (except for some extremely rare exceptions that do not apply to this chapter), so the dividend rate is effectively zero.

²⁵Brimmer (1971) finds that higher salary costs for African-American banks in the 1960s are one reason for their underperformance relative to white banks. This is echoed in Sprague (2000), who said that the bailout of the African-American Unity Bank in Roxbury, MA, was partially due to high salary costs. More generally, Hughes & Moon (2018) shows that smaller community banks (assets of less than \$1 billion) perform worse than larger ones (less than \$10 billion), and suggest fixed costs as one possible cause. I compare the ratio of salary costs to earning assets (all assets except cash, cash-like items, and fixed assets) and find that the difference between African-American banks and the two samples of white banks is not statistically significant. Thus, the difference in profitability is unlikely to be due to differing salary expenses.

scheme the Negro, admittedly the weakest of all American groups, economically naked just three-quarters of a century ago, is expected to establish a separate economy... without the protection of any distinct political autonomy.

Stuart (1940), pp. xix-xx

Stuart listed seven industries that African Americans could pursue with relatively few institutional obstacles: "[B]arber shops and beauty parlors, food service establishments, journalism, hotels, undertaking and life insurance businesses" (Stuart (1940), p. xxv). Stuart did not include banking in his list.

This segregated consumer market was likely not limited to Virginia, and not limited to banking. Previous research has shown that the customers of African-American businesses were overwhelmingly (often exclusively) African American. Pierce (1947) conducts a survey of urban African-American businesses and finds that, of the 325 responses of African-American business owners, 272 (83.7 percent) report their customer base was over 80 percent African-American. 44 percent of African-American business owners reported serving only African-American customers. I confirmed this result when I looked at the customers of the St. Luke's Penny Savings Bank.

One bank's customers and employees

To show the segregated consumer market, I collected all of the names and firms listed in the 1922 examination of St. Luke's Penny Savings Bank. This bank in 1922 is a good candidate for name collection since it was a large African-American bank, with \$524,000 in assets. Additionally, its president, Maggie Walker, was known as a relatively moderate African-American public figure, so if the market were not segregated, it would be more likely that white customers would patronize the bank (Marlowe, 2003).

The names collected from the St. Luke's Penny Savings Bank appeared in five parts of the examination form: in the list of past due loans, in the list of borrowers who used St. Luke's stock as all or part of their collateral, in the list of large borrowers, in the one person who held an overdrawn account, and in a list that the examiner attached to the exam entitled "DT not on file," which refers to loans issued by the bank where the bank did not actually have the Deed of Trust (i.e., the collateral) in their possession. There are 44 people and 4 firms listed in the 1922 exam as customers (two of the four firms were churches). Additionally, there are 16 directors and 6 employees listed.²⁶

I check for these people in the Richmond city directories of 1919, 1922, and 1925. The city directory has two advantages over the census of population: the city directory for Richmond is available every year and the city directory contains fewer names, so matching on rare-but-not-unique names is more likely. One disadvantage is that the city directories don't always include spouses or children. I then check the 1920 and 1930 censuses of population, giving five possibilities to match to the bank examination.

A match is declared when a name is found in the city directory with no other name or initial possible. For example, a match on Walter J. Haskins (an overdrawn customer) means that there was exactly one of Walter J. Haskins, Walter Haskins, W J Haskins, or W Haskins listed in the Richmond city directory. A match is also declared if the name is unique in the census for Richmond and the surrounding counties. Matching is done by hand. A match is also declared when the name is spelled differently but sounds the same (e.g. Clark would be a match for Clarke). While this allows for many matches, it may generate false positives. The matching of employees is robust to stricter matching rules, as the employees can be matched by name and occupation, and many officers paid for a bold listing in the city directory which included their full name. The matching of customers is not robust to a more conservative matching method.

Matching results are found in Table 3.2. Twenty customers are matched, for a match percentage of 42%. In comparison, 15 of the 22 employees and directors are matched, for a match percentage of 68%. Overall, half of the people listed in the 1922 examination of St Luke's Penny Savings Bank are matched.

Of these twenty customers, 19 are marked in the city directory as "colored" and/or listed in the census as "black." The one exception, spelled "Earnest Clarke" on the exam and "Ernest Clark" in the city directory, is also the second furthest away from the bank. All of the directors and employees of the bank are marked as African-American. This shows the segregated customer base facing the St. Luke's Penny Savings Bank,

²⁶Some people had multiple roles. The President, Vice President, and Cashier are classified as employees. Some directors had past due loans, loans on stock, and loans where the deed was not present. These directors are not counted in the list of customers.

and lends weight to the segregated market hypothesis.

Deposit mix

More evidence for this segregated consumer market is found in the different mix of deposits of African-American and white banks. In general, bank deposits are characterized as either demand or time deposits. Demand deposits mostly consisted of checking accounts, but also included the deposits of other banks, lines of credit, and bank checks. Time deposits consisted of certificates of deposit (CDs), Christmas clubs (in which customers deposit a fixed amount each week to receive a payout before Christmas) and savings accounts. Time deposits were (and are) thought to be safer for banks to hold, because customers either incur a penalty for withdrawing time deposits early (for CDs and Christmas Clubs) or the bank could require up to 30 days notice for withdrawals (for savings accounts). These limitations reduce both the likelihood and the magnitude of bank runs. This was reflected in the bank regulations of the time, which required a reserve fund of 15 percent of demand deposits but only 5 (later 3) percent of time deposits.²⁷

African-American banks held more time deposits as a fraction of all deposits. Controlling for the age of the bank and the year of exam, African-American banks held a 19.3 percentage point higher share of time deposits than the random sample of banks, and an 13.1 percentage point higher share of time deposits than the co-located sample. A new African-American bank in 1928 held 53.5 percent of all deposits as time deposits, with the rest as demand deposits. This result is illustrated in Figure 3.6.

The deposit mix of a bank is a function of both the bank's and the customers' preferences. It may have been the case that the customers of African-American banks exhibited different deposit behavior, or that African-American banks, facing different customers, desired a safer mix of deposits. In either case the differences in the mix of demand and time deposits provide further evidence that African-American banks

²⁷One African-American bank had an issue with time deposits rather than demand deposits: The Sons and Daughters of Peace Penny, Nickel, and Dime Savings bank did not pay out the Christmas Club in 1921, owing depositors \$32,000 for at least two weeks.

operated in a segregated market.

Other liability measures are not statistically different between African-American and white banks in this dataset, except for bank deposits (that is, deposits in the bank from other banks), noted below. Differences in such measures as the deposit-to-liability ratio, the capital-to-asset ratio, the ratio of money borrowed from other banks to both capital and total liabilities are not precisely measured.

3.4.3 The segregated interbank market

The functioning of the American banking system is built on relationships between banks. Calomiris et al. (2019) estimates that banks in the US had \$2.5 billion (in 1900 dollars) on deposit at other banks (or the Federal Reserve) in 1929. The Banking Division of the State Corporation Commission in Virginia reported in 1922 that \$17 million of assets of Virginia state banks were on deposit at other national and state banks (Banking Division of the State Corporation Commission, 1904-1946). The interbank market was an important source of stability and relationship-building among banks.

Banks could place deposits at other banks. Deposits at certain large banks and trust companies could count towards the required reserve amount and earn interest as well. Deposits also could be used to reconcile frequent transactions between banks. Deposits could be part of a clearing relationship, where the depositor asks the bank to handle payments for them for a certain region or group of banks (sometimes a clearinghouse). Deposits would also create a relationship between banks, making future transactions, such as borrowing, more likely between them.

Receiving bank deposits was attractive not only for the relationship-building mentioned above, but also because bank deposits were relatively stable and therefore required fewer administrative costs. Additionally, bank deposits would enlarge the deposit base, and thereby the amount of liabilities, allowing the bank to lend more and attempt to generate a higher profit.

African-American banks both were and weren't part of this interbank network. Table 3.3 summarizes the interbank market observed from this dataset: both deposits of banks within a certain type of bank (African-American, random sample, or co-located sample) and deposits of this type of bank in other banks. The bank examinations track both money owed to other banks and money owed by other banks to the examined bank. While this may, at times, include items that are sent for collection, I exclude all owed amounts under \$500, isolating what are mostly deposits.²⁸

The top panel lists the money owed to other banks. White banks in the random sample owed over \$500 to other banks 26 times (6 national banks and 20 state banks), including 5 African-American banks. White banks in the co-located sample owed over \$500 to other banks 109 times (12 national and 97 state banks), including 5 African-American banks. However, African-American banks owed over \$500 to other banks only 5 times, and those 5 were all African-American banks. This shows a stark separation in the market for bank deposits.

The bottom panel of Table 3.3 shows that African-American banks were due \$500 from other banks (that is, deposited in other banks) 101 times. Of these 101 instances, 8 were due from other African-American banks, with 93 due from white banks. These were held in a mix of national and state banks. African-American banks were owed money from 56 national banks and 45 state banks (including the 8 African-American banks). White banks in the random sample were owed over \$500 from other banks 203 times (156 national banks and 47 state banks). White banks in the co-located sample were owed over \$500 from other banks and 37 state banks). Dividing by the number of banks in the sample shows that African-American banks had an average of 7.2 deposits in other banks, while the random sample had an average of 13.3.²⁹

²⁸The number of interbank relationships that I find is much higher than that found in Calomiris et al. (2019). Jaremski et al. report in 1919 that banks averaged 2.8 correspondents (roughly equivalent to what I'm calling deposits in other banks), and a much lower number of average bank deposits in each bank (less than one of what I'm calling banks depositing in this bank). This difference is likely due to a combination of my count overstating the number of deposits (rather than temporary payments), my count not requiring public declarations of the relationships (as would be the case in the Jaremski et. al. data), and my count based on requiring disclosure of the relationships (as opposed to the voluntary disclosure in the Jaremski et. al. data).

²⁹The high ratio of national banks to state banks may indicate a desire for state banks to be correspondents with national banks who had access to the Federal Reserve discount window and the pass-through liquidity that relationship would enable (although Mitchener & Richardson (2019) argue that many Federal Reserve banks would not permit this pass-through.)

Thus, African-American banks were depositors in white banks, but we do not observe the opposite in the data. A lack of bank deposits, for the reasons mentioned above, would hinder the profitability of African-American banks.

3.4.4 The segregated merger market

The full lifespan of all the banks in the dataset are in Table 3.4. This table shows the opening year for the banks in this dataset, along with the closing year. Additionally, it shows the total lifespan of the bank and how the bank ceased operations: whether the bank was acquired, entered receivership (failed), or liquidated voluntarily (closed and refunded all deposits). Table 3.4 also shows the current bank that these banks are a part of, in the sense that the bank's assets may have been acquired by another bank, which may have been acquired by another bank, which may eventually be acquired by a bank that is operating today.

The average Virginia African-American bank had a lifespan of 28.4 years, with a median span of 16 years. This is shorter than the average lifespan of the random sample of white banks, which is 45.4 years, with a median of 44 years. This difference is significant. However, the difference between African-American banks and the white sample located in the same city is not statistically significant, since the average lifespan of the co-located banks is 30.0 years, with a median of 15 years.

While the lifespan of a bank is one important metric of its success, the method of closure is also important. For a bank that is acquired by another bank via merger, a depositor's money is secure and customers can continue doing business with the new bank. For a bank that chooses to liquidate, the depositors must find a different bank to patronize, but are refunded all of their money. For a bank that enters receivership, or fails, depositors before the establishment of the FDIC in 1935 likely lost a fraction of their deposits, and it may have taken several years before the recovered portion of their deposit was returned to them.³⁰ Receivership was the only method of closing a

 $^{^{30}}$ See Mason (2005) for a model of the length of time required for asset liquidation (predicted, in the latter part of the twentieth century, to be approximately six years), and Anari et al. (2005) for an application of this model to banks during the Great Depression: the delay in returning money to depositors exacerbated the effects of the Great Depression.

bank in which depositors may not receive all of their deposits.³¹

The difference in the types of bank closures in Table 3.4 is striking. For African-American banks, eight of the fourteen banks failed, or 57.1%. In comparison, for white banks whose final fate can be determined, only one of the thirteen co-located banks enters receivership (7.69%), and only three of the sixteen randomly-selected banks fail (18.8%).³² Instead, 19 of the 28 white banks in the dataset are acquired by other banks via merger.

While only five of the 19 white mergers took place from 1915 to 1928, a merger between two banks was not an uncommon event during that time. E. N. White (1985) shows that from 1919 to 1925, at least 1,837 banks across the country merged. Moreover, as noted in Section 3.3.3, the comments of bank examiners show that their primary focus was on creating and maintaining banks that were stable and profitable. Thus, they frequently commented that banks in the same market should merge. A review of the examiner comments in the dataset shows that three mergers between white banks were discussed. Additionally, two mergers between African-American banks discussed. One merger, between the African-American Tidewater Bank and Trust and the African-American Brown Savings Bank, was arranged by examiners on the day of the examination of Tidewater Bank and Trust. However, no mergers between white and African-American banks were ever mentioned, and no Virginia African-American bank was acquired by a white bank until Consolidated Bank and Trust, the bank created from three Richmond African-American banks in 1930-31, was acquired by Abigail Adams National Bank in 2005. While it's difficult to know what financial condition white banks were in before they were acquired by other white banks, and it's even more difficult to know if merger talks ever happened between banks, I believe it is fair to conclude that African-American banks operated knowing that, before the 2000s, a

³¹While it's important in many pre-FDIC contexts to note the difference between temporary suspensions and permanent closures (receivership), the annual reports of the Banking Commission leave no doubt about the ultimate fate of these institutions (State Corporation Commission, 1915-28).

³²The Brambleton State Bank in the co-located sample stops appearing in the Virginia Banking Commission report in 1932 with no explanation. The Bank of Louisa is mentioned as late as the 1946 Virginia Banking Commission report, but is not found in the Federal Financial Institutions Examination Council National Information Center database (Banking Division of the State Corporation Commission, 1904-1946).

merger with a white bank would not be possible should their business falter.³³

The modern result of this segregation is clear. Fifteen of the 29 white banks in the dataset are now part of the twenty largest banks in the United States. None of the African-American banks became part of a large white bank, and none merge with a white bank until Consolidated Bank and Trust, the bank created from three Richmond African-American banks, was acquired by Abigail Adams National Bank in 2005.

3.4.5 How African-American banks responded to the segregated markets

In the face of these three segregated markets, it is likely that African-American banks made different choices about which assets to hold. Some of these choice sets were limited by white repression of African-Americans and the resulting lower level of economic output.

As described in Section 3.2.3, there was a lower level of industrial capital investment in the African-American community (Harris, 1936). Therefore, there was a greater reliance on real estate. Figure 3.7 shows the large difference in the ratio of the fixed assets of the bank (the bank building, the land underneath the bank building, and the furniture and equipment in the bank) to the sum of all capital in the bank (the capital stock, the surplus, and the undivided profits). A new African-American bank in 1928 would have a 61.6 percent fixed-asset-to-capital ratio. The random sample averaged a fixed assets to capital ratio 37.6 percentage points lower. The co-located sample averaged 41.7 percentage points lower. Harris (1936) states that 21% is the recommended ratio. This statistic shows, starkly, one channel of the dependence of African-American banks on high real estate values.³⁴

³³However, there are anecdotes in which the white banking structure assisted African-American banks in other ways short of acquisition. The merger discussed in this paragraph between Tidewater Bank and Trust and Brown Savings Bank happened, in part, because the local clearinghouse was willing to assume some of the nonperforming assets of Tidewater Bank and Trust. A. F. Alexander (2002), p. 179, describes when the head of the Banking Commission issued a statement of support, and local white bankers arranged for a cash infusion, so that the African-American Mechanics Savings Bank could stave off a run in 1912. In Illinois, Osthaus (1973) shows that white bankers provided Jesse Binga, the leading African-American banker in Chicago, with liquidity and support.

³⁴This finding is echoed in the ratio of fixed assets to all assets, which shows a similar difference.

African-American banks held fewer securities (stocks and bonds) than white banks, as a percentage of assets. Banks in the random sample are predicted to own \$23,683 more in securities, while those in the same cities are predicted to own \$48,334 more. The results of this regression are shown in Figure 3.8.

Why African-American banks held fewer securities than white banks is a question I will address in future research. A first look at the examination data shows that African-American banks limited their investments to land companies and US Treasury and War bonds, while white banks held a more diversified portfolio with blue-chip corporate stocks and bonds, as well as investments in local manufacturing companies. It's possible that African-American banks were restricted in the assets they could hold, or it's possible that this limited portfolio reflected a desire for African-American banks to pursue a safer strategy.

3.4.6 Choosing safety

The three segregated markets may have led to African-American bankers to choose safety. This would be consistent with directors and management reacting rationally to their environment, one where their consumer market was smaller, their market for bank deposits was smaller, and entering receivership (rather than merging) in the event of distress was more likely. Additionally, the role of African-American banks was different, their asset mix was constrained, and they were advised to pursue a safer course.³⁵

Brimmer (1992), noting that African-American banks after 1964 invested more in US Treasuries than in loans to the African-American community, called this "the dilemma of Black banking": the need for African-American bankers to stay in business as a minority-owned institution leads them to make safer choices, which may include fewer loans to the African-American community. This chapter shows that this dilemma was likely present in the African-American banks of an earlier era.

³⁵I know, from Harris' narrative histories, some exceptions to this general move towards safety. Some African-American banks took more risks in order to facilitate leveraged investments by managers and directors in real estate (Harris (1936), pp. 74-89). However, this choice of safety holds for most African-American banks in this study.

The likely emphasis on safety was further exacerbated for several reasons. African-American banks were influenced by legal and race-based restrictions, as well as advice from others and the role of African-American banks during this time. In Section 3.4.6, I show that African-American banks retained more of their profits, indicating a desire for increasing reserves over distributing profits. If African-American bankers did pursue a safer strategy, there are six reasons that they may have done so.

In Sections 3.4.2, 3.4.3, 3.4.4, I demonstrate the three segregated markets. These smaller markets led to lower profits directly. However, they also may have influenced the decision-making of the African-American bank. A bank facing a smaller market, with fewer interbank resources available should a banking downturn hit, could rationally choose a safer strategy.

Additionally, African-American bankers were most likely aware of their overexposure to the real estate sector. This overexposure, necessitated by the constraints of the segregated market, could have led bankers to more risk-averse policies to balance the riskiness of African-American real estate from 1915-28.

Moreover, African-American banks held less capital than the co-located sample of white banks. The sum of capital, surplus, and undivided capital (called "All capital"), is significantly larger for white banks in the same city relative to African-American banks. The sum of all capital is \$104,820 more for white co-located banks than for African-American banks. This result is illustrated in Figure 3.9.

This lack of capital is coupled with a much larger number of directors when scaled by the size of the bank. The number of directors per 100,000 of assets is larger for African-American banks, as shown in Figure 3.10. African-American banks had to rely on a larger number of directors to provide the financial backing for the bank. Their boards had an estimated 11.5 more members per 100,000 in assets than the co-located banks, which is a testament both to the larger boards and to the much smaller size of African-American banks.³⁶

³⁶Calomiris & Carlson (2016) finds that national banks in 1893 that had a higher share of managerial ownership pursued less risky strategies. In my dataset I find no statistically significant difference in the percent of capital owned by managers between African-American banks and the two samples of white banks.

African-American banks may have required larger boards of directors because the lower amount of wealth in the African-American community would require more investors, and the role in decision-making that would come from membership on the board of directors would attract more investors. Table 3.5 lists the occupations of directors of co-located white banks and African-American banks that appeared five or more times. Examiners did not always record the occupations of directors, especially in later exams, so this tally is incomplete and weighted towards the occupations of directors in 1915-1919. From that table, these ten occupations are frequently occupations of directors of co-located white banks, but do not appear in the list of occupations of directors of co-located white banks: preacher, barber, porter, laborer, undertaker, minister, chauffeur, bricklayer, postman, and stevedore. These occupations, while relatively high-earning when compared to the occupations of African-American banks' reliance on the financial means of men and women in the occupations listed above indicates why larger boards may have been necessary.

Both the smaller capital and larger number of directors points to the limited cushion African-American banks had in the event of a downturn. While banks with wealthy directors could sell more stock, pledge personal bonds, or inject more capital into the bank, those banks without resources quickly faced receivership if their surplus was depleted. Faced with this lower level of cushion, African-American banks may have pursued a less risky course.

Adding to these reasons, the comments made by the state bank examiners show that their primary focus was on increasing the stability of banks. Thus, examiners frequently commented that banks in the same market should merge, or that banks in unlikely areas should close. Examiners specifically directed African-American banks to pursue safer policies.

"As usual among these classes of banks there is entirely too much optimism" Smart & Justis (1928)

"A great danger with their race is to go to extremes. On last examination, they were very much discouraged, but as soon as the outlook is a little brighter, they become too optimistic and if they are not watched carefully, will again become deeply involved.... With the money in the hands of the Negro population in Newport News at present, this Bank, under careful and conservative management, should make good, but the recent activities of the management, as enumerated above, show how completely they have lost their heads."

Garrett (1918)

These two banks survived for 91 years (and counting) and 56 years, respectively, following these examiner comments. Whether the banks followed the advice of these examiners is unknown.

Another reason African-American banks may have desired safety is that African-American banks had a higher percentage of loans that were past due: that is, loans where the last interest payment was overdue, when compared with the co-located sample of white banks. The co-located sample shows a 5.02 percentage point lower past due loan rate, a 59.5% reduction, in Figure 3.11.

Banks experiencing a higher percentage of past-due loans would typically want to raise the interest rates for problematic loans. However, Virginia banks at this time had a legal limit on the interest rate for loans, which was 6%. This cap on the interest rate limited the risk pricing that banks could do to accurately account for risky loans. However, this legal limit was frequently ignored: examiners reported in 59 of the 150 exams in the dataset that at least one loan was made in excess of the legal rate. Both white and African-American banks exceeded this rate. Quoted rates were as high as 10% for loans. Much like the legal reserve amount, the *de jure* legal interest rate did not always match the loans that banks were issuing.

Finally, another possible reason for African-American banks to choose safety is that African-American banks were seen by the community as achievements for the community as a whole. If the directors saw themselves as stewards of a cultural institution rather than as profit-maximizing actors, this may have decreased the amount of risk that African-American banks assumed and thereby lowered their profitability over time.

Thus, there were several reasons that African-American banks and bankers would choose a safe strategy. If this desire for safety was also present in African-American banks outside of Virginia, the results of Chapter 2 are even more remarkable: African-American banks were able to empower business owners, home owners, and white-collar workers even while segregation forced them to forge a safer course.

It would be hard, outside of direct correspondence or minutes of board meetings, to confirm that African-American bankers chose safety as a consistent strategy. However, it is important to note that even if African-American banks of the Jim Crow era chose the same level of risk (or more) as white banks, the three segregated markets would still hinder the profitability of African-American banks.

Evidence for choosing safety

Was there a greater desire for safety? One piece of evidence is the way that African-American banks allocated profits. When a bank earns a profit, it can distribute those profits to shareholders in the form of dividends. It can also retain the profits, adding the profits to the bank's liabilities, under the categories of Surplus or Undivided Profits.³⁷ A bank that retains more profits is relatively safer, while a bank that distributes more profits is making a relatively riskier choice.

To test whether this decision is different between African-American and white banks, I look at all banks where the dividend rate does not change between exams (that is, that the dividend rate in, say, 1922 and 1925 are the same). I classify a bank that earned a profit of more than one percent of its capital as safer if it retained more profits than it distributes. If a bank distributed more profits than it retained, it was making a relatively riskier decision.

As Table 3.6 shows, there are few observations that meet the criteria of a constant dividend rate and an annual profit above one percent.³⁸ However, of those observations, less than half of the white banks in the two samples made a relatively safer profit allocation (11/23), while 7 of the 9 African-American banks made this safer allocation. While a much larger sample would be required to determine if this difference is statistically significant, this is suggestive evidence that African-American banks made safer

³⁷A bank can do other things, such as charge off bad loans, reduce the book value of its banking house and lot, or set up a reserve fund for an upcoming purchase or debt. These options are not frequently seen in the dataset, and are not covered in this comparison.

 $^{^{38}}$ For example, of the 42 co-located observations, 11 were from 1916, and don't have an earlier dividend rate in this dataset. Of the 31 observations remaining, 20 did not earn a profit of at least 1% of capital, leaving 11 observations for this comparison.

decisions.

3.5 Mismanagement

Mismanagement has been cited as a factor in poor African-American bank performance. One example of this comes from Light (1973).

The Negro-owned banks experienced a chronic inability to recruit highly trained and qualified officials.... Banking tended to recruit the uneducated or the less competent graduates of inferior educational institutions. Consequently, "abject ignorance of elementary banking principles" among officials of Negroowned banks was closer to the norm than the exception.

In... Negro banks, official venality and misappropriation of funds proved another recurrent problem. Because of the pervasive incompetence of most bank officials, the line between incompetence and venality is hard to draw in practice.... Embezzlement was all the harder to detect because of the prevailing incompetence of bankers....

Light (1973), p. 49

Brimmer (1971) and Lawrence (1997) cite mismanagement as the reason for the lesser performance of African-American banks in the latter half of the twentieth century.

Mismanagement would include mistakes due to inexperience or ignorance: if African-American bankers were well-meaning but did not have the skills or education to conduct the most efficient business possible, this would be mismanagement. Additionally, mismanagement would include dereliction of responsibilities: if African-American bankers did not invest the required time and effort into supervising the intricacies of the banking business, this would also be mismanagement.

Rather than mismanagement, however, evidence from bank examinations and the merger market explain the lower profit more plausibly. Harris (1936) argues that the character of the segregated consumer market is more important than mismanagement:

Lack of experience and technical bank training, dishonesty, fraud, and speculation, are all too prevalent among Negro banks... but they are not the primary causes of their failure and weakness. Given sound and honest management, the Negro bank would still face one fundamental and perhaps insuperable obstacle to successful operation, namely, the inherent characteristics of Negro business enterprise.

Harris (1936), p. 173

While thousands of white banks failed during this period, mismanagement is not often cited as the cause of their failure.³⁹

Between 1865 and 1920, 3,018 banks operated by whites experienced failure.... We will not make the theoretical leap... and say that white banks failed because the whites who were in charge of them had inferior education and lacked managerial skills.

Butler (1991), p. 125

Did the white withholding of adequate education resources to African Americans during Jim Crow lead to mistakes in bank management? By 1940, only 6.9 percent of African-American men had completed twelve years of schooling (Wirt et al. (2002), cited in Walton & Rockoff (2013)). However, the gap between the schooling received and the schooling necessary may be smaller than one might guess. Edward Irons, one of the founders of the Unity National Bank in Houston in 1964, states that a high school education is enough to run a bank:

I did a study of the educational level of people who work for banks, and only six percent of them had finished college. This was 1959. Only six percent of the employees who worked for banks in those days had finished college. And banking is a simple business, it's a simple business: you get the deposit from the public, you invest those deposits and other income generating assets. You pay up, interest rate on time deposit, you didn't pay anything on demand deposit, and the expenses you take from the total operating function, and the balance is your profit. It's simple... you don't need a Ph.D. to run a bank; you can run a bank with a high school education.

Irons (2004)

One way to isolate the possible presence of mismanagement is to look at the comments that bank examiners made regarding the management of the banks. Half of all of the examinations in the dataset contained some comment on the capability of the bank's management. I scored these comments as positive or negative. For example, "Affairs of this bank were found to be in very unsatisfactory condition, due... partly to poor management of directors in not providing properly for payments of bank's Xmas club deposits...." (Tudor, 1922) would be scored as a negative comment, while "The Cashier seems to be well informed as to the standing of the bank's customers, and

³⁹Two exceptions are studies made during the Great Depression: Robb (1934) and Weidenhammer (1934) both attribute the reason for bank failures to mismanagement.

due care apparently is exercised in granting credit." (Sallum & Leake, 1922) would be scored as a positive comment. An overall comment can only be positive or negative, not both.

I score 45 positive and 29 negative comments. After controlling for the identity of the lead examiner, while African-American banks have a lower average score, the difference between white and African-American banks is not statistically significant, as seen in Figure 3.12.

However, even if this lack of statistical significance indicates no true difference between African-American and white banks, it is also true that, from the context of the comments, examiners likely used a different framework to assess the management capabilities of African-American banks (see Section 3.3.3). Even so, a difference in negative management comments is not found.

3.6 Conclusion

This chapter describes the most likely reason for lower profits of African-American banks: they operated in three segregated, smaller markets than white banks. The consumer market was segregated, as shown by the customers observed in one African-American bank. The market for bank deposits was segregated, as shown by the observed bank deposits in the bank examinations. The merger market was segregated, as shown by the lack of interracial bank mergers. Rather than mismanagement, these segregated markets restricted the strategies African-American bankers could pursue and likely caused lower profits in African-American banks in Virginia.

Moreover, a desire for safety may have been behind the different asset allocation of African-American banks. This desire would have made sense given the segregated environment in which the African-American banks operated.

Why did later African-American banks, after the incorporation of the FDIC, still face the dilemma discussed in Brimmer (1992)? Moral hazard would predict that African-American bankers would engage in more risky behavior if they knew that depositors were insured. It may be that the cultural arguments are still operative: if bankers feel they have a responsibility to the African-American community, they may value stability over risky returns and the possibility of acquisition by a non-minority bank. In light of the findings of this chapter, it would be interesting to know the modern merger and interbank markets facing minority-owned banks.

Since African-American banks faced three segregated markets, comparing their performance to white banks is not informative regarding the management quality of each. Instead, the difference in profits is a measure of the economic harm done by the white oppression of the Jim Crow era.

3.7 Tables and Figures

Table 3.1: Summary statistics for dataset

Full dataset		African-American banks		Randomly sampled white banks		Co-located white banks			
	Mean	St Dev	Mean	St Dev	Mean	St Dev	Mean	St Dev	
African-American banks are significantly different from both white bank samples									
Dividend rate	0.053	0.045	0.028	0.030	0.068	0.049	0.054	0.038	
Annual profit (est)	4533	7925	-60	6429	3970	6012	9459	9766	
Total deposits	289024	281631	172011	166700	268721	266111	420212	331097	
Share of time deposits	0.486	0.232	0.612	0.163	0.418	0.258	0.472	0.202	
Securities/assets	0.064	0.085	0.032	0.051	0.074	0.087	0.077	0.100	
Fixed assets/cap, surp, und p.	0.345	0.300	0.627	0.374	0.272	0.152	0.206	0.225	
Number of directors	12.633	5.685	16.949	5.206	9.348	3.237	13.711	6.055	
Directors/100k assets	7.81	10.28	15.47	15.78	6.26	6.04	3.42	3.71	
Accounts in other local banks	0.800	1.010	1.821	0.942	0.121	0.412	0.911	0.900	
African-American banks are s	gnificant	v differe	nt from t	the co-located s	ample on	lv			
Total assets	427083	422730	238309	223976	332852	306627	728892	533726	
Capital stock	58041	86313	37921	35306	29452	25400	117409	134198	
Cash/demand ratio	0.474	0.489	0.625	0.714	0.443	0.420	0.386	0.269	
Annual earnings (est)	21541	21442	14327	14318	17873	17598	34969	27397	
Capital, surplus, und. prof.	79115	99906	48175	47511	46806	40032	153314	146419	
African-American banks are si	ignificantl	y differe	nt from t	the random sam	ple only				
Banking house value	15353	26184	23854	33331	7957	8421	18831	33151	
Furniture and fixtures	4625	3861	5058	4950	3537	2504	5847	4072	
Other real estate	5984	21218	13763	38818	2246	6238	4726	9462	
Capital/asset ratio	0.160	0.121	0.186	0.112	0.133	0.109	0.176	0.139	
Earnings/capital ratio	0.516	0.341	0.365	0.225	0.601	0.379	0.477	0.298	
African-American banks are n	ot signific	antly dif	fferent fr	om either samp	le				
Examiner opinion of management	0.107	0.697	-0.077	0.703	0.106	0.682	0.267	0.688	
Amt past due	14958	22741	13458	31668	10390	10272	23142	25131	
Cash/deposit ratio	0.223	0.281	0.217	0.179	0.193	0.106	0.272	0.472	
Debt/capital ratio	0.332	0.576	0.343	0.654	0.301	0.505	0.368	0.611	
Deposit/liability ratio	0.703	0.189	0.706	0.147	0.746	0.152	0.637	0.247	
Percent of loans for directors	0.137	0.093	0.132	0.075	0.150	0.110	0.122	0.076	
Loan/deposit ratio	3.98	34.96	0.93	0.32	1.01	0.43	11.13	64.28	
Loan/asset ratio	0.684	0.154	0.620	0.150	0.707	0.125	0.706	0.181	
Net worth/deposit ratio	2.61	27.81	0.32	0.35	0.25	0.45	8.18	51.15	
Overdrafts/liability ratio	0.0020	0.0050	0.0023	0.0088	0.0024	0.0036	0.0011	0.0012	
Obs. under legal reserve	0.067	0.250	0.051	0.223	0.091	0.290	0.044	0.208	
Percent past due	0.066	0.087	0.095	0.139	0.059	0.055	0.051	0.057	
Number of years open	11.41	7.77	10.85	6.22	12.17	7.44	10.80	9.38	
Number of observations	150		39		66		45		

Customers	Role	Total	Matched	Fraction matched
	Past Due	18	8	0.44
	Collateral not on file	17	7	0.41
	Endorser	8	1	0.13
	Large Depositor	2	2	1.00
	Overdrawn	1	1	1.00
	Loans on Stock	1	1	1.00
	Large Loan	1	0	0.00
	All customers	48	20	0.42
Management/Staff	Role	Total	Matched	Fraction matched
	Director	16	9	0.56
	Employee	6	6	1.00
	All employees	22	15	0.68
	All named persons	70	35	0.50

Table 3.2: Persons matched from the 1922 St. Luke's Penny Savings Bank examination to the Richmond 1922 city directory and the 1920 household census

Table 3.3: Interbank deposits

Banks depositing in this bank type (due to other banks >\$500)

	National	State (white	African-	Total	No. in dataset	Banks
	(white only)	only)	American			depositing in
						this bank per
						bank
African-	0	0	5	5	14	0.4
American						
Random	6	15	5	26	16	1.6
Co-located	12	92	5	109	14	7.8

Deposits of this bank type in other banks (due from other banks >\$500)

	National	State (white	African-	Total	No. in dataset	Deposits in
	(white only)	only)	American			other banks
						per bank
African-	56	37	8	101	14	7.2
American						
Random	156	47	0	203	16	12.7
Co-located	149	37	0	186	14	13.3

African-American	Mechanics Savings Bank						
		Richmond	1902	1922	20	Receivership	
A C *	St Luke's Penny (Consolidated Bank & Trust)	Richmond	1903	2005	102	Merger	Premier Bank
	Sons & Daughters of Peace	Newport News	1905	1925	20	Merger	Receivership (1964)
	Crown Savings Bank	Newport News	1908	1964	56	Receivership	
	People's Dime Savings Bank	Staunton	1908	1931	23	Receivership	
	Metropolitan Bank & Trust (Brown Savings Bank)	Norfolk	1909	1933	24	Receivership	
	Brickhouse Banking Co.	Exmore	1910	1917	7	Receivership	
	People's Bank of Petersburg	Petersburg	1919	1924	5	Receivership	
African-American	Tidewater Bank & Trust	Norfolk	1919	1922	3	Merger	Receivership (1933)
	Phoenix Bank of Nansemond	Suffolk	1919	1931	12	Receivership	
African-American	Savings Bank of Danville	Danville	1919		100	Extant	Movement Bank
African-American	Community Savings Bank of Portsmouth	Portsmouth	1920	1924	4	Receivership	
	Commercial Bank & Trust Co	Richmond	1920	1931	11	Merger	Premier Bank
African-American	Second St Savings Bank	Richmond	1920	1930	10	Merger	Premier Bank
Co-located	Farmers and Merchants Bank	Staunton	1891	1963	72	Merger	Bank of America
Co-located	Planters Bank	Staunton	1911	1977	66	Merger	Bank of America
Co-located	American Bank and Trust	Suffolk	1912	1967	55	Merger	Wells Fargo
Co-located	South Richmond Bank	South Richmond	1913	1976	63	Merger	BB&T/Suntrust
Co-located	American Exchange Bank	Norfolk	1915	1924	9	Merger	Bank of America
Co-located	Bankers Trust Co	Norfolk	1918	1923	5	Merger	Unknown
Co-located	State Bank of Portsmouth	Portsmouth	1919	1929	10	Receivership	
Co-located	Grace Street Bank and Trust	Richmond	1922	1925	3	Merger	Receivership (1933)
Co-located	Federal Trust Co	Richmond	1919	1925	6	Merger	Union Bank and Trust
Co-located	Citizens Trust Co	Portsmouth	1919	1985	66	Merger	Wells Fargo
Co-located	Guaranty Trust	Richmond	1922	1941	19	Merger	Bank of America
Co-located	Brambleton State Bank	Norfolk	1921	1932	11	Unknown	Unknown
Both samples	Jefferson Bank	Newport News	1902	1932	30	Merger	Suntrust/BB&T
Both samples	Newport News Bank & Trust	Newport News	1919	1924	5	Merger	Suntrust/BB&T
Random	Bank of Louisa	Louisa	1898	1960	62	Unknown	Unknown
Random	Union Bank & Trust (Caroline County Bank)	Bowling Green	1902		117	Extant	Union Bank and Trust
Random	Bank of Speedwell	Speedwell	1907	1991	84	Merger	BB&T/Suntrust
Random	Bank of Warm Springs	Warm Springs	1908	1931	23	Receivership	,
Random	Bank of Madison	Madison	1908	1963	55	Merger	Wells Fargo
Random	Bank of Branchville	Branchville	1910	1932	22	Receivership	
Random	People's Bank of Montross	Montross	1913		106	Extant	People's Community Bank
	Bank of Westmoreland	Colonial Beach	1904	1984	80	Merger	BB&T/Suntrust
Random	Citizens Bank of Wise	Wise	1917	1928	11	Receivership	,
	First State Bank of Monroe (People's Exchange Bank)	Monroe	1910	1920	10	Liquidation	
	Bank of King George	King George	1920	1933	13	Merger	BB&T/Suntrust
	Bank of St Charles	St Charles	1920	1932	12	Merger	Lee Bank and Trust
	Chesapeake Banking Co	Lively	1920	1968	48	Merger	Chesapeake Bank
	Citizens Bank of Clarksville	Clarksville	1922	1966	44	Merger	Wells Fargo

Table 3.4: Final or current status of all banks in dataset

Sources: Office of the Comptroller of the Currency (1925), Federal Financial Institutions Examination Council (2019)

Co-located		African-Ame	erican
occupation	freq	occupation	freq
merchant	40	insurance	61
farmer	30	merchant	19
attorney	24	$preacher^{\dagger}$	17
none	18	real estate	17
real estate	15	physician	15
retired	14	farmer	15
insurance	12	dentist	14
physician	10	teacher	13
hardware	9	$barber^{\dagger}$	12
dentist	8	$\mathrm{porter}^{\dagger}$	12
wholesale	8	retired	10
lumber	7	$laborer^{\dagger}$	9
lawyer	7	$undertaker^{\dagger}$	8
manufacturing	6	$minister^{\dagger}$	7
president	6	clerk	6
doctor	6	$chauffeur^{\dagger}$	6
banker	6	$bricklayer^{\dagger}$	6
broker	5	grocer	5
		attorney	5
		$\mathrm{postman}^\dagger$	5
		$stevedore^{\dagger}$	5

Table 3.5: Most frequent occupations of directors

[†]: Occupation does not appear in occupations of co-located directors.

Note: Table lists all occupations appearing five or more times in bank examinations. Not all examiners listed occupations of directors. Unrecognizable occupations removed, including "llr." Word frequency table generated with the user-written Stata command wordfreq (Dicle & Dicle, 2018).

All observations (-) From 1916	Co-located 42 11	Random 60 12	African-American 37 9
Eligible observations (-) Don't meet criteria	$31 \\ 20$	$\frac{48}{36}$	$28\\19$
Observations of interest Safer profit allocation Percentage Standard deviation	$11 \\ 5 \\ 45.45\% \\ 0.522$	$12 \\ 6 \\ 50.00\% \\ 0.522$	$9 \\ 7 \\ 77.78\% \\ 0.441$

Table 3.6: Banks making safer profit distribution decisions

1916 exams excluded because the difference between exam years is needed for the surplus calculation. "Don't meet criteria" indicates that either the dividend rate was not constant across exams or that the annual profit of the bank was less than 1 percent of the paid-in capital stock of the bank.

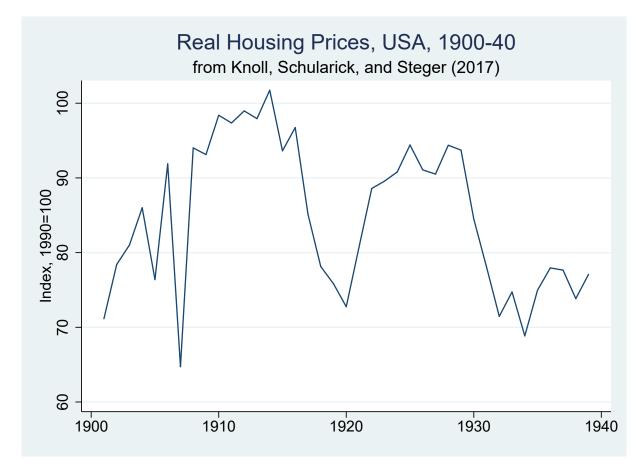


Figure 3.1: An estimate of real housing prices, 1900-1940

Source: Knoll et al. (2017)

Banks in this sample

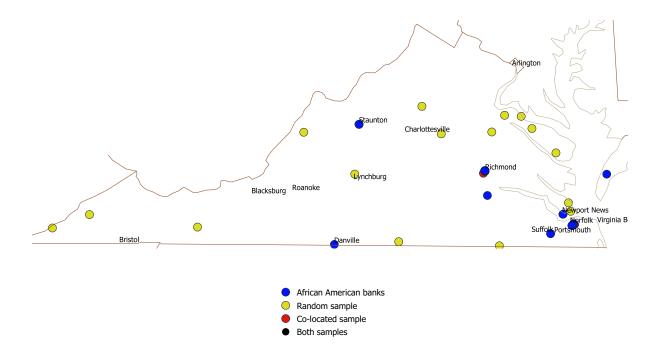


Figure 3.2: Banks in random sample of Virginia state banks

Source: State Corporation Commission (1915-28)



Figure 3.3: Banks in Norfolk and Portsmouth in co-located sample of banks

Note: Yellow dot appears accidentally. No actual bank there. Source: State Corporation Commission (1915-28)

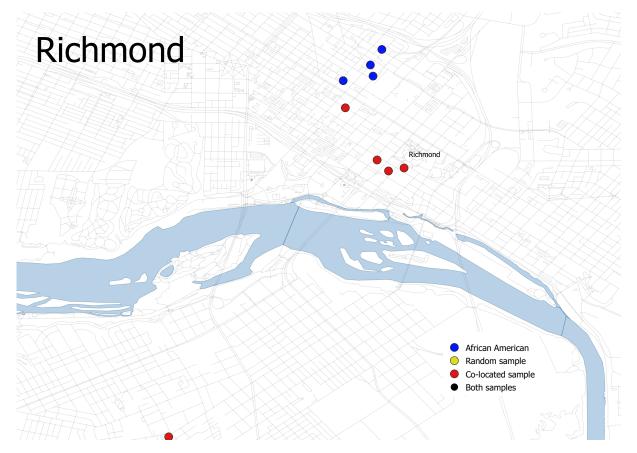


Figure 3.4: Banks in Richmond in co-located sample of banks

Source: State Corporation Commission (1915-28)

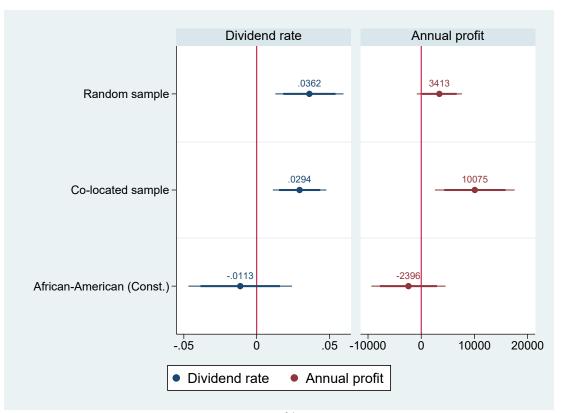


Figure 3.5: Profitability of white banks relative to African-American banks

Note: The base level is a new bank in 1928. Thick bars indicate 90% confidence interval. Thin bars indicate 95% confidence interval. 24/37 African-American bank examinations report no dividend in the prior period, compared to 19/60 in the random sample and 11/42 in the co-located sample. Control variables dropped from this graph for simplicity. The full regression results can be seen in Table B1 and B8. Data from encoded Virginia bank examinations.

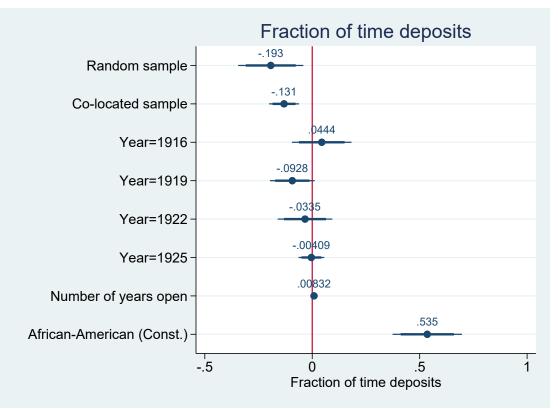


Figure 3.6: Fraction of time deposits in white banks relative to African-American banks

Note: The base level is a new bank in 1928. Thick bars indicate 90% confidence interval. Thin bars indicate 95% confidence interval. Data from encoded Virginia bank examinations.

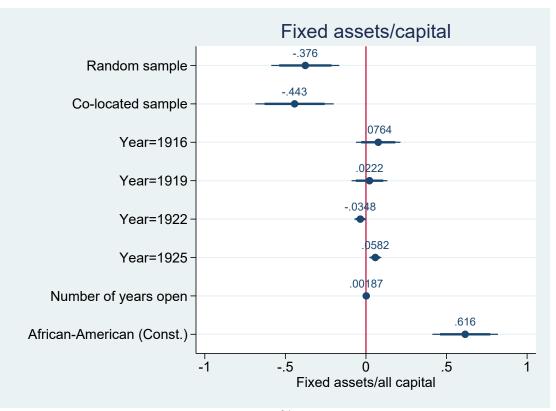


Figure 3.7: Ratio of fixed assets to capital of white banks relative to African-American banks

Note: The base level is a new bank in 1928. Thick bars indicate 90% confidence interval. Thin bars indicate 95% confidence interval. Data from encoded Virginia bank examinations.

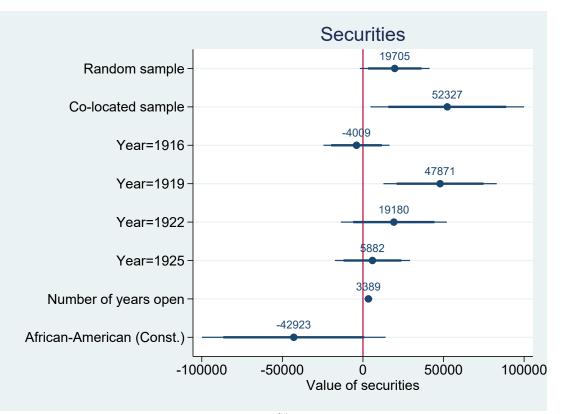


Figure 3.8: African-American banks held fewer securities

Note: The base level is a new bank in 1928. Thick bars indicate 90% confidence interval. Thin bars indicate 95% confidence interval. Data from encoded Virginia bank examinations.

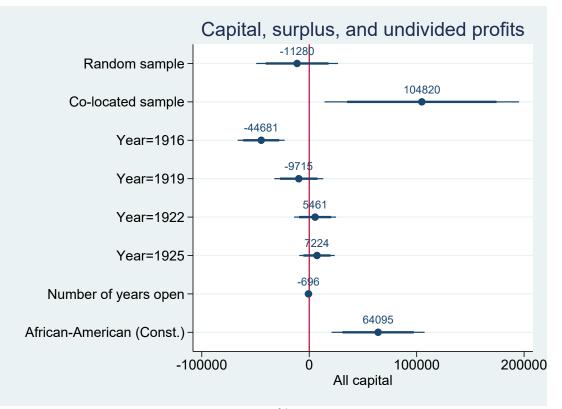


Figure 3.9: Capital, surplus, and undivided profit higher for co-located white banks

Note: The base level is a new bank in 1928. Thick bars indicate 90% confidence interval. Thin bars indicate 95% confidence interval. Data from encoded Virginia bank examinations.

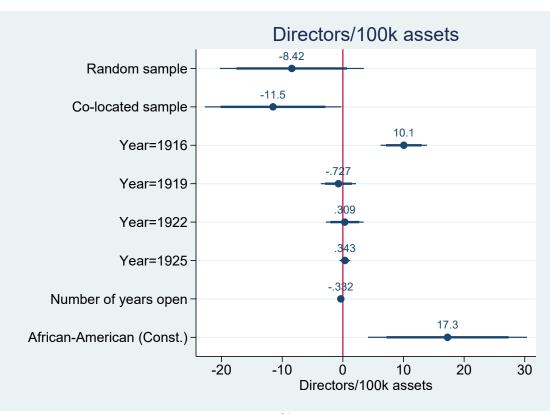


Figure 3.10: More directors per 100,000 in assets in African-American banks

Note: The base level is a new bank in 1928. Thick bars indicate 90% confidence interval. Thin bars indicate 95% confidence interval. Data from encoded Virginia bank examinations.

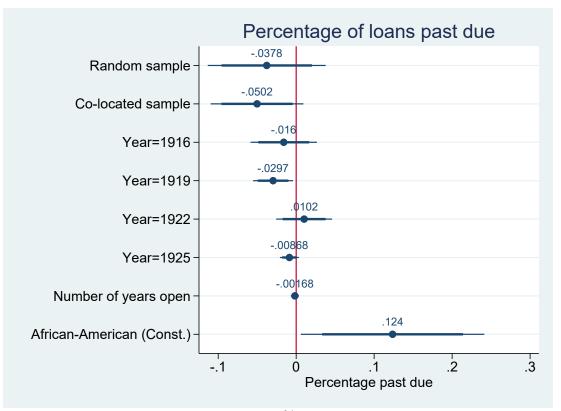


Figure 3.11: African-American banks had a higher share of past due loans than co-located banks

Note: The base level is a new bank in 1928. Thick bars indicate 90% confidence interval. Thin bars indicate 95% confidence interval. Data from encoded Virginia bank examinations.

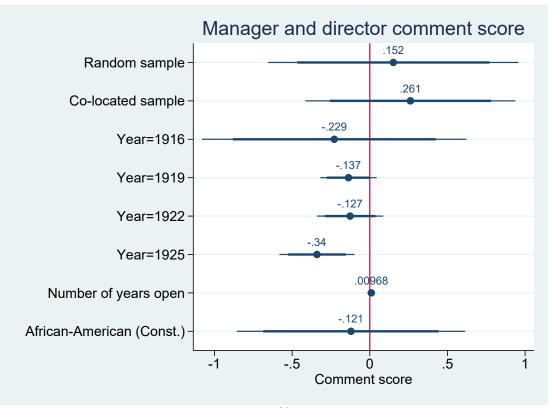


Figure 3.12: Manager and director comment score

Note: The base level is a new bank in 1928. Thick bars indicate 90% confidence interval. Thin bars indicate 95% confidence interval. Regression controls for first examiner on exam. Data from encoded Virginia bank examinations.

3.A Four banks in focus

To provide a more concrete context for the results in this chapter, I select four banks from the dataset for detailed analysis. In Richmond, I focus on one of the most famous African-American banks, the St. Luke's Penny Savings Bank, as well as the white South Richmond Bank. In Staunton, I focus on the lesser-known African-American People's Dime Savings Bank and the white Planter's Bank of Staunton. Due to the relative size of these banks, it makes more sense to compare them across cities: the Planter's Bank is more like the St. Luke's Penny Savings Bank and the People's Dime Savings Bank is more like the St. Luke's Penny Savings Bank and the People's Dime savings Bank is more like the St. Luke's Penny Savings Bank and the People's Dime Savings Bank is more like the South Richmond Bank. These four banks will illustrate the differences between African-American and white banks during this time. Before I address the results above, I provide details on these two cities and four banks prior to the start of the dataset in 1915.

3.A.1 Richmond

In 1910, Richmond was the second largest city in Virginia, with 91,877 adults aged 16 and older. Of these, 34,351 (37.4%) were African-American. Richmond was (and is) the capital of Virginia.

3.A.2 St. Luke's Penny Savings Bank

The African-American St. Luke's Penny Savings Bank (also called the St. Luke Penny Savings Bank and St. Luke Bank and Trust) was organized in 1903. The Independent Order of St. Luke was a fraternal organization started by African Americans around 1867. Once Maggie Lena Walker was appointed Secretary and Treasurer in 1897, the group began a rapid expansion.⁴⁰ One reason for the expansion was a burial insurance benefit in which members could enroll (Marlowe, 2003).

The Independent Order of St. Luke was one of the bank's largest depositors, and having the person in charge of the order also be President of the bank allowed additional

⁴⁰https://www.nps.gov/museum/exhibits/maggie_walker/exb/Economic%20Empowerment/IOSL/ MAWA00000099_1038.html

financial resources to be provided when necessary, especially in the early days of the bank.

Walker was a community leader, as well as recognized nationally for being the first African-American female bank president. She is featured in two monographs, Marlowe (2003) and the upcoming Garrett-Scott (2019). In 2017, her statue was unveiled in Richmond.

By 1915 the St. Luke's Penny Savings Bank held \$196,000 in assets, with a capitalization of \$50,000.

3.A.3 South Richmond Bank

The white South Richmond Bank is chosen as illustrative for two reasons. First, it is the closest bank to a community bank in Richmond during this time. Second, the other Richmond banks under one million dollars in assets in 1922 merged so quickly that none of them existed for more than three of the five possible examination dates.

The South Richmond Bank opened in 1913, three years after the area of South Richmond was incorporated into the city of Richmond. F. P. McConnell was the first president, while being a director of the Manchester National Bank, also located in South Richmond.

By 1915 the South Richmond Bank held \$32,000 in assets, with a capitalization of \$10,000.

3.A.4 Staunton

Staunton became an independent city in 1902 and was a city of 7,993 adults aged 16 and older in 1910, 1,775 (22.2%) of them African-Americans. It is the smallest city in Virginia with an African-American bank (see Chapter 2).⁴¹

⁴¹Independent cities in Virginia are not associated with counties, however IPUMS assigns them county codes (Ruggles et al., 2015).

3.A.5 People's Dime Savings Bank

The African-American People's Dime Savings Bank was organized in Staunton, Virginia in 1908. The President was Samuel Lindsay, a grocer, and the Cashier was Thomas E. Jackson, a newspaper editor.

The People's Dime Savings Bank, in contrast to the St. Luke's Penny Savings Bank, is not very well known, missing from the list of African-American banks in Ammons (1996), although Garrett-Scott (2019) mentions it briefly.

By 1915 the People's Dime Savings Bank had \$18,000 in assets, with a capitalization of \$2,700, below the statutory minimum of \$10,000. It was one of the smallest banks in the state of Virginia.

3.A.6 Planter's Bank of Staunton

The white Planter's Bank of Staunton began operations in 1911 with an initial capitalization of \$50,000. The President was C. Russell Caldwell and the Cashier was W. N. Hilleary. The Planter's Bank was competing with both the Staunton National Bank (founded in 1903) and the state Farmers and Merchants Bank, which were both large banks in the small independent city (State Corporation Commission, 1915-28).

Despite this competition, the Planter's Bank grew quickly. By 1915 the bank had \$302,000 in assets, with a capitalization of \$75,000.

3.A.7 Results of analysis of four banks

The four banks can be contrasted in terms of dividend rate, profit rate, local correspondent banks, and the fixed asset ratio.

The St. Luke Penny Savings Bank paid three percent dividends in 1916 and 1919, and then five percent dividends for the rest of the period. It was the only African-American bank to pay dividends through this entire period. The People's Dime Savings Bank paid one dividend in 1915 (which may have been illegal, given that the bank's capital was under the required legal amount), but never paid another dividend. In contrast, the white Planter's Bank paid dividends in every period: 4% in 1915, 8% in 1918, 6% after. Note that the Planter's Bank paid higher dividends than the St. Luke's bank in every period. The South Richmond Bank did not pay a dividend until 1922, and paid a 6% dividend thereafter. Thus, the history of these four banks confirm the findings in this chapter that African-American banks paid both fewer dividends and a lower rate of dividends.

For the estimate of annual profit, although 40% of the estimates for the four selected banks are unavailable (due to the examinations happening too early in the year), St. Luke's has both the greatest estimated profit (\$12,500 in 1916) and the greatest loss (-\$1,110 in 1919). The People's Dime Savings Bank estimates three-digit profits and losses. The white banks consistently generate four-figure positive estimated profits.

For securities, all four banks show a wide variation in bonds and stocks held. The St. Luke's Penny Savings Bank held just \$20 of securities in 1916, but \$27,350 in 1922. Similarly, the Planter's Bank held no securities in 1916, but \$91,023 in 1922. The other pair of banks reveals the opposite of the overall findings: the People's Dime Savings Bank kept a minimum of \$1,000 in securities while the South Richmond Bank held no securities in four of the five exams, holding just \$5,175 in 1919.

For interbank deposits, St. Luke's deposited money in three banks, two of them in Richmond. The South Richmond Bank had two banks that are local correspondents. All three of the People's Dime Savings Bank correspondents were local. The Planter's Bank had correspondents in Washington, DC, Richmond, and Harrisonburg, as well as one in Staunton. In 1920, Staunton did not have a clearinghouse, while Richmond had the fifteenth largest in the nation (Office of the Comptroller of the Currency, 1920).

The ratio of fixed assets to all capital for these four banks is shown in Table A1. The fixed asset ratio for both African-American banks is high, with the People's Dime ratio being greater than one. The fixed asset ratios for the white banks are typically much lower (although they increase in later years). This table also breaks the fixed assets down into its component parts and shows the slow assets of other real estate. It finds that the amount of other real estate is not significantly larger. Rather, the increased fixed assets come from the banking house and lot.

The differences in the number of directors, scaled by assets, is echoed in the numbers for these four banks. For an unknown reason, all four had a much higher number of directors per 100,000 in 1916, so I will focus on the directors after that exam. The St. Luke's Penny Savings Bank had a relatively low number of directors per 100,000 for an African-American bank, with a range of 3.25 to 4.08, which was in the bottom quintile for African-American banks. The Planter's Bank ranged from 2.21 to 3.55, mostly above the median for white banks. The People's Dime Savings Bank had a large number of directors per 100,000, due to its small size, with a range of 18.1 to 25.4, above the median for African-American banks. The South Richmond Bank's directors per 100,000 ranged from 4.26 to 9.78, in the top quartile for white banks.

Finally, for past due loans as a percentage of all loans, the St. Luke's Penny Savings Bank had a relatively low ratio of past due loans for this entire period, from 1.89 percent to 5.54 percent, all of which were below the median for African-American banks. The People's Dime Savings Bank also had a low percentage (1.04-6.11 percent) except for 1916, when, even though 19.8 percent of the money loaned out was past due, the examiner was not concerned since this past due amount was only \$1,502. For the white banks, The Planter's Bank had a range of past due percentages from 1.22 to 6.78 percent, much like the People's Dime Savings Bank. For the South Richmond bank, having 10.6 percent of the amount of loans past due in 1916 may have spurred them to tighten their lending standards, as they show no past due loans in 1919 and a very low percentage afterwards.

3.A.8 Lifespans of four banks

The 1931 bank examinations, photographed but not encoded in this dataset, describe the early effects of the Great Depression on banks. Specifically, for three of the four banks closely tracked throughout this chapter, the Depression led to a shrinkage in business.

The one exception was the St. Luke's Bank and Trust. Maggie Walker is credited with lobbying the other two African-American banks to merge with her bank (Marlowe, 2003). The Second Street Savings Bank (in 1930) and Commercial Bank and Trust (in 1931) merged with St. Luke's Bank and Trust to form Consolidated Bank and Trust. It is the only bank of the four detailed here which gets larger, in assets, deposits, and loans, through the Great Depression. It maintains its dividend through 1930, the last time period tracked. Due to the mergers, the board of directors was very large, with 41 members, larger than any bank in the dataset.

The South Richmond Bank and the Planter's Bank both decrease in size, with the South Richmond Bank declining by 18.5% and the Planter's Bank declining by 12.3%. Both banks continued to pay dividends through 1930, the last time period tracked. Examiners commented on the slow loans of both banks, but had no issues with management.

The People's Dime Savings Bank failed in 1931. The death of the longtime cashier, Thomas E. Jackson, in November 1930 left the bank with a \$1,500 unpaid loan that looked uncollectable. Moreover, the President refused to repay an \$1,100 loan issued to him in 1927. Due to the small size of the bank, these two losses were enough to force the bank to close in October of 1931 with \$42,000 in deposits. Efforts by the receiver resulted in depositors receiving 82% of their deposits by 1942.

After the Great Depression, the other three banks were absorbed during the overall drive towards consolidation in the banking industry: the number of banks in the US declined by two-thirds from 1934 to 2018. The South Richmond Bank became a national bank in 1963 and merged with First Virginia Bank in 1976. Through a series of mergers, the bank is part of Branch Banking and Trust (BB&T), currently the 16th-largest bank in the country, and waiting for regulatory approval for its merger with SunTrust, the 17th.

Planters Bank of Staunton eventually passed Farmers and Merchants bank to become the largest state bank in Staunton. In 1977, it merged with Augusta Bank and Trust of Kentucky, and, through a series of mergers, is now a part of Bank of America, the second-largest bank in the US.

Consolidated Bank and Trust, the name of St. Luke's Bank and Trust after 1930,

continued to be African-American majority owned until 2005, when it was acquired by Abigail Adams National Bank, and is now part of Premier Bank, a community bank in the Virginia and Maryland area.

Name	Year	Fixed Assets/Capital	Banking House & Lot	Furniture and Fixtures	Other Real Estate
St. Luke Penny Savings Bank	1916	0.872	42515	6295	9421
	1919	0.750	38050	4589	9331
	1922	0.636	38050	4308	0
	1925	0.553	38050	3215	6886
	1928	0.466	38050	2576	4901
The Peoples Dime Savings Bank	1916	1.620	3383	1000	0
	1919	1.097	2600	1225	0
	1922	0.188	0	1200	1600
	1925	0.564	2600	1400	0
	1928	0.460	2600	1200	0
The Planters Bank of Staunton	1916	0.257	18500	3950	0
	1919	0.021	0	2000	18500
	1922	0.012	0	1279	18500
	1925	0.046	4000	1350	18500
	1928	0.445	38049	14428	2015
South Richmond Bank	1916	0.094	0	979	0
	1919	0.083	0	1005	0
	1922	0.046	0	700	5750
	1925	0.551	9000	600	0
	1928	0.422	9000	570	0

Table A1: Fixed assets of four selected banks

Source: State Corporation Commission (1915-28). The zero for Banking House and Lot for The People's Dime Savings Bank in 1922 is repeated in the Fall 1922 exam, reducing the chance this was an examiner error.

3.B Full regression results

To investigate the performance differences of African-American and white banks, I compared 41 bank performance variables, controlling for the age of the bank and the year of the exam. I present those results below.

	(1)	(2)	(3)	(4)	(5)
	Dividend rate	Banking house value	Furniture and fixtures	Other real estate	Total assets
Random sample	0.0362	-17852.2	-1926.3	-12607.3	18835.6
	(0.00842)	(7018.3)	(1179.5)	(9409.3)	(79837.6)
Co-located sample	0.0294	-5482.5	385.9	-9921.8	484978.3
	(0.00662)	(13331.9)	(1457.0)	(10078.3)	(163969.6)
Year=1916	0.00614	-2838.0	-2824.0	979.4	-267192.0
	(0.00907)	(1872.2)	(427.5)	(3558.3)	(49710.2)
Year=1919	0.0231	-230.2	-2241.5	10373.9	-41151.0
	(0.00617)	(1110.1)	(361.1)	(3869.0)	(38080.4)
Year=1922	0.00591	3604.8	139.5	2937.2	-122099.9
	(0.00768)	(3317.2)	(443.6)	(1863.7)	(57533.5)
Year=1925	0.0000368	4543.9	378.3	4433.0	21505.0
	(0.00375)	(2762.4)	(303.7)	(1683.0)	(48260.6)
Number of years open	0.00286	649.2	-29.94	297.7	11963.9
	(0.000777)	(303.9)	(67.48)	(271.4)	(5725.4)
Constant	-0.0113	16609.9	6225.5	7699.8	197928.6
	(0.0128)	(4181.8)	(1509.7)	(5189.0)	(90422.0)
Observations	139	139	139	139	139

Table B1: Regression results for variables

	(1)	(2)	(3)	(4)	(5)
	Capital stock	Total deposits	Number of directors	% owned by directors	% owned by managers
Random sample	-12637.7	44648.4	-7.962	0.0143	0.0484
	(10988.0)	(62792.7)	(1.606)	(0.0642)	(0.0561)
Co-located sample	78767.5	242769.9	-3.196	-0.00744	0.0271
	(28795.3)	(100674.8)	(2.102)	(0.0581)	(0.0409)
Year=1916	-39427.3	-110632.1	-2.504	0.0834	0.144
	(8057.6)	(27471.0)	(0.721)	(0.0486)	(0.0431)
Year=1919	-8642.4	37972.2	-1.228	0.0684	0.121
	(10691.8)	(20567.0)	(0.570)	(0.0414)	(0.0387)
Year=1922	3329.7	-34728.0	-0.818	-0.00477	0.0536
	(6410.2)	(19863.3)	(0.441)	(0.0173)	(0.0149)
Year=1925	858.0	57411.9	-0.354	0.0383	0.0345
	(4670.3)	(24757.4)	(0.207)	(0.00752)	(0.00437)
Number of years open	-1859.9	16511.0	-0.196	0.000422	0.00454
	(1206.0)	(4322.8)	(0.0804)	(0.00372)	(0.00179)
Constant	67160.6	4516.8	19.69	0.374	0.0635
	(14707.0)	(70907.9)	(1.448)	(0.0676)	(0.0464)
Observations	139	139	139	136	136

Table B2: Regression results for variables

	(1)	(2)	(3)	(4)	(5)
	Accounts at local banks	Securities	Amt past due	Loan/asset ratio	Pct past due
Random sample	-1.730	19705.4	-4946.2	0.0981	-0.0378
	(0.248)	(7788.3)	(6824.6)	(0.0517)	(0.0272)
Co-located sample	-0.927	52326.5	7851.5	0.0849	-0.0502
	(0.262)	(17168.9)	(6779.1)	(0.0692)	(0.0214)
Year=1916	-0.281	-4009.2	-11864.3	-0.0304	-0.0160
	(0.110)	(7379.6)	(3706.8)	(0.0193)	(0.0153)
Year=1919	-0.218	47871.0	-5770.4	-0.139	-0.0297
	(0.0855)	(12658.0)	(2815.1)	(0.0177)	(0.00922)
Year=1922	-0.293	19180.0	3189.8	-0.0281	0.0102
	(0.0852)	(11840.2)	(3155.5)	(0.0252)	(0.0129)
Year=1925	0.0102	5882.5	-1389.2	-0.0194	-0.00868
	(0.0867)	(8408.4)	(1373.7)	(0.0166)	(0.00438)
Number of years open	-0.00750	3388.9	390.4	-0.0000316	-0.00168
	(0.0130)	(894.0)	(484.7)	(0.00258)	(0.00190)
Constant	2.069	-42923.3	12077.7	0.657	0.124
	(0.237)	(20520.7)	(11134.8)	(0.0417)	(0.0424)
Observations	139	139	138	139	138

Table B3: Regression results for variables

	(1)	(2)	(3)	(4)	(5)
	Capital/asset ratio	Cash/demand ratio	Cash/deposit ratio	Debt/capital ratio	Loan/deposit ratio
Random sample	-0.0426	-0.224	-0.0179	-0.0105	0.737
	(0.0177)	(0.163)	(0.0266)	(0.152)	(0.756)
Co-located sample	-0.0103	-0.234	0.0653	0.0334	10.71
	(0.0296)	(0.154)	(0.121)	(0.116)	(9.124)
Year=1916	0.0194	0.329	0.00431	-0.00489	-2.274
	(0.0207)	(0.0881)	(0.0543)	(0.0760)	(1.692)
Year=1919	-0.0489	0.0167	0.0514	0.142	-2.572
	(0.0167)	(0.0607)	(0.0510)	(0.0353)	(1.642)
Year=1922	0.0491	-0.0950	0.0418	0.236	8.472
	(0.0218)	(0.0649)	(0.0274)	(0.0536)	(4.010)
Year=1925	-0.00776	0.0974	0.00350	-0.185	-1.265
	(0.00822)	(0.0270)	(0.0148)	(0.0341)	(1.180)
Number of years open	-0.00804	-0.00968	-0.00772	0.00797	-0.399
	(0.00291)	(0.00663)	(0.00531)	(0.0127)	(0.323)
Constant	0.269	0.688	0.276	0.209	3.957
	(0.0397)	(0.144)	(0.0722)	(0.164)	(2.197)
Observations	139	137	138	139	138

Table B4: Regression results for variables

	$\begin{array}{c} (1) \\ \% \text{ loans to directors} \end{array}$	(2) Deposit/liabilities	(3) Earnings/capital	(4) Directors/100k assets	(5) Net worth/deposits
Random sample	0.0210	0.0320	0.184	-8.423	0.453
	(0.0269)	(0.0254)	(0.0873)	(4.279)	(0.650)
Co-located sample	-0.00743	-0.0702	0.110	-11.52	8.264
	(0.0246)	(0.0540)	(0.0901)	(4.051)	(7.246)
Year=1916	0.0177	-0.0221	-0.0614	10.06	-1.816
	(0.0162)	(0.0254)	(0.0314)	(1.381)	(1.448)
Year=1919	-0.0130	0.0365	0.0894	-0.727	-2.006
	(0.0122)	(0.0238)	(0.0245)	(1.043)	(1.394)
Year=1922	0.0191	-0.0889	-0.00570	0.309	6.773
	(0.0107)	(0.0114)	(0.0244)	(1.119)	(2.936)
Year=1925	-0.00278	0.0306	0.00855	0.343	-1.208
	(0.00189)	(0.00877)	(0.0193)	(0.317)	(1.011)
Number of years open	-0.00303	0.00938	0.0241	-0.332	-0.320
	(0.00146)	(0.00329)	(0.00612)	(0.152)	(0.260)
Constant	0.158	0.615	0.112	17.27	2.782
	(0.0266)	(0.0462)	(0.0811)	(4.725)	(1.887)
Observations	138	139	102	139	138

Table B5: Regression results for variables

	(1) Overdrafts/liabilities	(2) Fixed assets/all capital	(3) SalaryRate	(4) AllCapitaltoAsset	(5) % time deposits
Random sample	0.000204	-0.376	-0.00495	-0.0281	-0.193
*	(0.00184)	(0.0760)	(0.00298)	(0.0239)	(0.0546)
Co-located sample	-0.00129	-0.443	-0.00431	0.00256	-0.131
*	(0.00156)	(0.0875)	(0.00353)	(0.0337)	(0.0251)
Year=1916	0.00283	0.0764	0.00267	0.0341	0.0444
	(0.000361)	(0.0496)	(0.00174)	(0.0183)	(0.0499)
Year=1919	0.000570	0.0222	-0.00335	-0.0442	-0.0928
	(0.000239)	(0.0401)	(0.00101)	(0.0152)	(0.0375)
Year=1922	0.000645	-0.0348	0.00373	0.0679	-0.0335
	(0.000314)	(0.0135)	(0.00175)	(0.0186)	(0.0458)
Year=1925	-0.000140	0.0582	0.000536	-0.000273	-0.00409
	(0.0000754)	(0.0136)	(0.000519)	(0.00582)	(0.0216)
Number of years open	-0.0000442	0.00187	-0.000415	-0.00664	0.00832
ů ž	(0.0000463)	(0.00283)	(0.000176)	(0.00286)	(0.00262)
Constant	0.00224	0.616	0.0260	0.282	0.535
	(0.00173)	(0.0732)	(0.00280)	(0.0384)	(0.0581)
Observations	137	139	139	139	138

Table B6: Regression results for variables

	(1) DemandShare	(2) BillsPayablePercentage	(3) Securities/assets	(4) Examiner opin. of mgmt	(5) Profit rate
Random sample	0.179	0.000906	0.0436	0.152	-0.00126
Random sample	(0.0578)	(0.0205)	(0.0126)	(0.290)	(0.00804)
Co-located sample	0.116	0.00612	0.0469	0.261	0.00943
1	(0.0282)	(0.0118)	(0.0187)	(0.243)	(0.00741)
Year=1916	-0.0440	0.0103	-0.0229	-0.229	0.000746
	(0.0507)	(0.00933)	(0.0127)	(0.307)	(0.00440)
Year=1919	0.108	-0.00105	0.0876	-0.137	0.00565
	(0.0356)	(0.00446)	(0.0164)	(0.0654)	(0.00409)
Year=1922	0.0345	0.0348	0.0145	-0.127	-0.00848
	(0.0449)	(0.00420)	(0.0163)	(0.0768)	(0.00318)
Year=1925	0.00531	-0.0307	-0.0149	-0.340	-0.00259
	(0.0219)	(0.00622)	(0.00815)	(0.0871)	(0.00214)
Number of years open	-0.00807	-0.00111	0.00402	0.00968	0.000403
	(0.00255)	(0.000947)	(0.00127)	(0.00883)	(0.000471)
Constant	0.472	0.0542	-0.0252	-0.121	0.00390
	(0.0612)	(0.00949)	(0.0293)	(0.265)	(0.0102)
Observations	138	139	139	139	134

Table B7: Regression results for variables

	(1)	(2)	(3)	(4)	(5)
	Annual profit	Annual earnings	Number of years open	All capital	Obs. under legal reserve
Random sample	3412.9	-856.1	-0.822	-11280.2	0.0404
	(1528.0)	(4589.6)	(2.044)	(13716.0)	(0.0417)
Co-located sample	10074.6	20537.2	-0.920	104819.9	-0.00968
	(2699.2)	(8585.5)	(3.206)	(32608.9)	(0.0791)
Year=1916	-2787.3	-11225.9	-6.991	-44680.7	-0.0420
	(1380.0)	(3747.5)	(0.357)	(7880.1)	(0.0318)
Year=1919	-637.2	-2248.4	-5.148	-9715.0	0.126
	(930.4)	(2439.4)	(0.390)	(8199.6)	(0.0365)
Year=1922	-801.0	-1404.0	-7.629	5461.0	-0.00828
	(557.8)	(3258.4)	(0.696)	(7024.1)	(0.0430)
Year=1925	548.7	2603.6	-2.865	7224.2	0.0454
	(523.9)	(1566.9)	(0.911)	(5934.8)	(0.0396)
Number of years open	293.2	792.4		-696.2	0.00364
	(169.9)	(547.8)		(1237.4)	(0.00437)
Constant	-2395.9	8935.7	16.13	64094.6	-0.00421
	(2516.5)	(6752.4)	(1.182)	(15592.5)	(0.0699)
Observations	102	102	139	139	139

Table B8: Regression results for variables

	(1)
	EarningAssets
Random sample	51772.0
	(69917.0)
Co-located sample	490876.1
	(155858.2)
Year=1916	-261053.7
	(48952.2)
Year=1919	-57910.5
	(38591.0)
Year=1922	-128410.3
	(57585.0)
Year=1925	8241.7
	(45802.1)
Number of years open	10547.1
	(5565.3)
Constant	165922.6
	(85587.2)
Observations	139

Table B9: Regression results for variables

Chapter 4

The Many, Many Bonds of Newfoundland

4.1 Introduction

The Canadian province of Newfoundland and Labrador, historically called Newfoundland, became a self-governing colony of the United Kingdom in 1855. It became a Dominion of the United Kingdom, with even more devolved responsibility, in 1907. However, in 1934, Newfoundland became a territory with no elected representation, ruled by a commission appointed by the United Kingdom.

From 1880 to 1931, Newfoundland was allowed access to credit markets despite a large (and increasing) amount of debt. As a Dominion, the market priced Newfoundland's debt as if the United Kingdom guaranteed it (Chavaz & Flandreau, 2017). Newfoundland would have defaulted on its debt during the Great Depression if not for outside assistance from Great Britain. In this, it was not unique: Australia and New Zealand needed flexibility from bondholders to avoid default during the Great Depression.

But this profligacy, while destructive to Newfoundland's sovereignty, is useful to economic historians. The debt facing the Dominion of Newfoundland at the moment of reckoning in 1933 was not one monolithic loan. Instead, the debt came in many forms, mainly in 34 bonds marketed in London, Montreal, New York, and Newfoundland itself. This chapter presents a study of the debt that Newfoundland accumulated, in the interest of analyzing both the impacts on Newfoundland itself, as well as the markets and actors that raised or lent the funds to the Dominion.

I do this by first describing the ways in which Newfoundland acquired its debt and the short-term decisions that added up to a long-term debt crisis. Patronage, industrial policy, and poor infrastructure investments all played a part in the lead-up to the crisis.

Then, I outline the outstanding debt that Newfoundland owed in 1933. Results in this chapter show that Newfoundland bonds declined precipitously during World War I. Further additions to this data set will answer more questions. Will the data support, for example, the conclusions of Chavaz & Flandreau (2017), which said that the Colonial Stock Act of 1900 had little effect on the London market for sovereign debt? Will the debt that was not denominated in the local currency support Bordo et al. (2003), which attributed debt crises in foreign currency to macroeconomic shocks (likely) and the lower costs for Dominions to borrow in London? The pre-WWII debt of Newfoundland touches many areas of interest: markets, wars, sovereign debt, territorial integrity. Studying it in depth will reward the field with added insight into some or all of these areas.

The situation of Newfoundland in the Great Depression has parallels to current-day Puerto Rico: a territory that previously had many self-governing powers losing most of those powers to a commission due to an unsustainable level of debt (Braun, 2019).

To indroduce the context around this bond data set, this chapter will explore how the Dominion of Newfoundland started in 1907 as a mostly independent part of the United Kingdom, responsible for its domestic policy but not its foreign policy, and ended 1933 under direct rule by Great Britain, with no say in any policy decisions. I will explore this history in depth by consulting primary and secondary sources, and show that, first, Newfoundland's self-government was a victim of its profligate spending, lack of a domestic currency, and the Great Depression. Second, I will argue that the other Dominions of the United Kingdom, although impacted by the Great Depression, each had advantages that Newfoundland lacked that afforded them the ability to weather the crisis with their sovereignty intact.

4.2 Political and Economic Background, 1804 - 1929

European settlement of Newfoundland¹ began with fishing as its organizing principle in the 1570s. In 1804, the first year that data is available, the colony exported

¹The colony and Dominion included, and the Province includes, the northeasternmost part of the North American landmass, called Labrador. However, during the time period under discussion there were very few Europeans in Labrador (in 1921 the Newfoundland census listed 3,774 persons (Government of Newfoundland, 1923)) and their economic impact was small, while the Innu and Inuit First Nation populations at the time were uncounted and their economic activity disregarded.

30.2 million kilos of salted cod (Economics and Statistics Division, Government of Newfoundland and Labrador, 1970). From 1804-1813, the average exported weight was 34.2 million kilos, but the standard deviation was 5.5 million kilos, indicating from the earliest times that fishery yields were variable and an economy built on fishing would have good and bad years based on environmental and other factors.

However, Newfoundland governments held a longstanding reluctance to provide relief for able-bodied men, dating back to the 1860s. Discussing the 8-year collapse of the cod fishery from 1862-69, the 1933 Amulree Report (a report into the financial and economic situation of Newfoundland, discussed in depth later) mentioned that "Contemporary historians record that by the system of relief, necessary though it was,":

'reckless and indolent habits were engendered; and ere long nearly a third of the entire revenue went in charity. So many were left in a condition of semi-starvation, whenever a failure of the fisheries occurred, that Government found it impossible to distinguish between the applicants for relief. So general was the distribution of relief that a great majority of the industrial population soon learned to disregard the stigma of pauperism. They claimed public assistance as a private right.'

– D. W. Prowse, "History of Newfoundland", quoted in Newfoundland Royal Commission (1934)

In early 1869, the government ended all able-bodied relief. Subsequently the fishing industry rebounded and this decision seemed justified. After this time, the idea of relief became stigmatized, and fishermen would get only meager relief from the government, even through the Great Depression. Relief in 1932 was generally distributed as \$1.80 per person per month in goods: tea, flour, pork, and molasses. Using Canadian CPI data, this would translate to \$319.32 per person per year in 2005 dollars (Bank of Canada, 2016).

Prior to the Great Depression, this policy of able-bodied relief, although meager, was more liberal than the United States, which had no policy of this sort until the Great Depression, when New York State set up a Temporary Emergency Relief Administration in late 1931 (Lundberg, 1932), with the various federal programs of the New Deal starting three years later. Great Britain also had no formal relief services until the Great Depression, relying on religious orders (Orwell, 1933). What caused Newfoundland to have any relief policy at all? One hypothesis is that outmigration was (and remains) a serious issue in Newfoundland, and able-bodied relief was a way to limit migration.²

However, this reluctance for adequate able-bodied relief lasted into the 1950s and beyond. In his memoirs, Joey Smallwood, advocate for joining Canada and subsequent Premier of Newfoundland, states that events in 1949 "confirmed in me my conviction, which strengthened with the years, that direct cash relief to able-bodied men who had no jobs is essentially insulting and debasing" (Smallwood, 1973). Smallwood wanted these men to work on relief projects, rather than receive a cash transfer, and the Newfoundland governments from 1869 to 1934 had similar ideas.³

Faced with the longstanding variance of the Newfoundland fishing industry, the solutions favored by almost every Newfoundland government, from the establishment of the House of Assembly in 1832 until the present day, were market interventions and industrial policy. Newfoundland governments were often eager to ignore the engine of their economy to attempt to diversify into other areas for which the island had found no use during its *laissez-faire* early development, and spent money on infrastructure that would not help the primary industry in any way. Maggie E. C. Jones notes that there is a counterargument to this: Newfoundlanders were aware of overfishing of stocks by this time period, and, if this was topmost in their minds, encouraging non-fishing industries make sense from a long-term perspective (Jones, 2018). However, I have not yet found any evidence that overfishing was worrying the governments of the time. And as the

 $^{^{2}}$ "The price of being a country is willingness to bear a cross. For Germany it is the cross of beastliness; for Russia it is stolidity; the United States must rise above material wealth; and Canada is required to find a national identity. The burden which Newfoundland has carried is to justify that it should have any people." D. Alexander (1980)

³Using Smallwood's memoir, *I Chose Canada*, as a source is problematic. Significant revisionism and whitewashing of history is evident. Neary quoted from the memoir and then called the quote "exaggerated, like much else in this idiosyncratic work, even perhaps including the title" (Neary, 1988). For example, Smallwood's explanation of how he came to support confederation with Canada (see Appendix 4.A) is unbelievable on its face.

Amulree report noted, "In many cases, these [non-fishing] industries have difficulty, in spite of a high protective tariff, in meeting outside competition, and it is a debatable question how far their existence may be said to have served the best interests of the country" (Newfoundland Royal Commission, 1934).

Newfoundland governments persisted in encouraging workers to switch to farming. An observer in 1905 noted "Of the 40,200 square miles comprised in the island, only 135 are cultivated" (Skinner, 1905). The Government began resettlement programs to move fishermen from the coastal towns (called 'outports') to the undeveloped interior in the 1920s and 1930s. However, model communities begun in this fashion withered and failed, even with the full attention and support of the government. In 1921, the closest date for which data is available prior to the crisis, fifty one percent of the Newfoundland labor force were employed as fishermen, while four percent of the population were farmers (D. Alexander, 1980).

The Government also assisted the mining and logging industries. However, these sectors remained small parts of the Newfoundland economy prior to the Great Depression. Men employed as loggers were mostly off-season fishermen looking to augment their pay, while the miners, who extracted iron, copper, lead, and zinc at various small mines, numbered fewer than 2,500 at the pre-World War II peak of the industry. Again using 1921 figures, three percent of the population was employed full-time in the lumber industry and one percent were miners (D. Alexander, 1980). Assistance for these sectors took the form of subsidies, lower tariffs, bailouts, and infrastructure in the guise of a railway. Each of these added, directly or indirectly, to the debt of the government.

Aside from railway debt, discussed in Section 4.3, the first large accumulation of debt for Newfoundland began in the 1890s, due to a banking crisis in December of 1894. Newfoundland in the nineteenth century had little banking regulation, chartering a savings bank for small depositors (that also circulated treasury bills) and legislating the establishment of a Newfoundland commercial bank with liberal lending policies. The latter supplanted the original British commercial bank that was operating in St. John's.⁴ The newly-formed bank, the Commercial Bank of Newfoundland, together with a subsequently-established second commercial bank, the Union Bank of Newfoundland, circulated Newfoundland currency from the mid-1880s. When a British merchant house wanted to redeem notes in the Commercial Bank in 1894, the bank failed to open, and the resulting panic caused the Union Bank to close as well (Chu, 2008). The government-run Savings Bank was saved with a bailout from foreign bankers.

One remarkable note, and a novelty of this chapter, is that the loss of dominion status was discussed in England as early as the Newfoundland Banking Crisis of 1894-95 (The Times (1895), paraphrased in Fretwell (1895)). This early discussion centered around Newfoundland giving up self-government in return for England helping Newfoundland meet its pressing financial needs. In the end, Newfoundland was able to resolve this banking crisis by raising funds via the Railway Act of 1898 (see Section 4.3).

Commercial banking was absent from Newfoundland for a year, along with central banking and any ability to print or issue currency. Commercial banks from Canada began operating in St. John's, Newfoundland's capital, starting in December of 1895. These Canadian banks circulated both Newfoundland dollars and Canadian dollars, which traded at par (held the same value).

With this peg to the Canadian dollar, and the intermingling of the two currencies, Newfoundland lost the ability to easily revalue or devalue in response to monetary shocks. The Canadian dollar was on the gold standard until 1931 (Bernanke & James, 1991).⁵ This commingling of the Canadian dollar was one example of the reliance of Newfoundland on its close, large neighbor.

Newfoundland came close to confederation with Canada twice in the nineteenth century. In 1869, Newfoundland held an election that was essentially a referendum on confederation, but the confederates were soundly defeated, shelving the proposal.

⁴This bank, The Bank of British North America, operated in Canada until it merged in 1918 with the Bank of Montreal (Chu, 2008)

⁵Although Bordo et al. (2003) notes that Canada was not honoring domestic requests for gold redemption prior to this time.

In the 1880s and early 1890s, Canadian wishes for confederation were rebuffed by an economically strong Newfoundland, while during the Newfoundland banking crisis of 1894, Canada did not wish to take on the looming financial obligation that the crisis represented (Hiller, 1998).

Indeed, Canada's motivation for confederation prior to World War II waxed and waned. While confederation with Newfoundland would have been helpful in negotiations with the United States from the late 1890s to 1905, the large financial obligations were troubling. Additionally, Canada understood that the United Kingdom would always side with the larger dominion in any inter-dominion conflicts (Hiller, 2016).⁶

While these were important international political considerations for Newfoundland, the responsibility for the debt crisis of the 1930s arises from the dominion's domestic policies. Newfoundland was granted the right to be self-governing in 1855. Immediately, tensions arose on sectarian grounds. Political organizations of Catholics, the Church of England, and nonconformist Protestant sects became the important political divisions, rather than ideological parties. Two facts briefly illustrate the depth of religious identity in Newfoundland. First, the Harbor Grace Affray in 1883 was a melee between Catholic and Church of England men on Boxing Day which left five people dead. Second, primary and secondary schools were exclusively denominational and supported by public funds.⁷ This religious cleavage led to an accommodation: government jobs would be divided on religious grounds. Thus, governments used patronage as an important tool to keep interdenominational peace.⁸

This patronage dovetailed with a desire for infrastructure spending. As early as 1890, governments started construction projects, especially in election years, to improve the economic activity of the Dominion and the election prospects of the incumbents. Governments financed this election-based infrastructure construction through

⁶Prior to 1904, the territorial integrity of the island of Newfoundland was also compromised by exclusive rights that the French held to settle and fish off of the western coast of the island, as well as the nearby French islands of St. Pierre and Miquelon. This complication to the territory of Newfoundland was another factor in Canada's reluctance to enter confederation.

⁷Denominational schooling continued until 1997.

⁸A more in-depth discussion of this can be found in Noel (1971).

borrowing in London, Montreal, and New York.

In addition to this infrastructure spending, the Newfoundland people sacrificed during World War I. At the beginning of the war, Newfoundland made the patriotically sound but expensive decision to send 6,240 soldiers to Gallipoli and later France, incurring a debt that, by 1933, still amounted to 13 million dollars.

After World War I, the worldwide recession in 1920 forced Newfoundland to borrow to cover a large operating deficit. During the recovery in the 1920s, the government kept borrowing to prop up both capital and operating budgets (Newfoundland Royal Commission, 1934). The Dominion of Newfoundland ran a budget deficit every year from 1920 to the abandonment of self-government in 1934, covering the deficits with a series of bond issues and bank loans (Newfoundland Royal Commission, 1934).⁹

Government and people alike were the victims of an over-confidence, which, in the years following the War, was to blind them to realities, to induce a fatal disregard of the elementary canons of public finance and finally to involve them ever more deeply in financial embarrassment.

Newfoundland Royal Commission (1934)

4.3 The Railway: An Illustration of the Dominion's Ills

The desire to assist the mining, logging, and (nascent) farming industries was the stated reason behind establishing a railway through the island.¹⁰ In 1880, before detailed mining surveys had detected any ore on the island, a government select committee reported the following:

It is evident... that no material increase of means is to be looked for from our fisheries, and that we must direct our attention to other sources to meet the growing requirements of the country. Our Mining industry may now be regarded as an established fact... and there is every reason to believe from recent explorations that a great amount of wealth in copper and other ores

 $^{^{9}}$ This borrowing was coupled with a dramatic exposé of the corruption present in the government of the 1920s by an independent English commission.

¹⁰Due to the small population of Newfoundland, most of it concentrated in the St. John's area, passenger travel was not seen as an important source of revenue (Hiller, 1980).

is waiting the application of enterprise and capital to bring them into profitable use. Our Agricultural industry... is yet susceptible of very enlarged development.

- Newfoundland Journal of the House of Assembly, quoted in Hiller (1980)

As Newfoundland was an island, with all of its population living on the coast, sea travel was the cheapest way to move people and goods.¹¹ While some harbors were icebound during the winter, the largest population centers had year-round harbor service. A proposed railway across the island would have opened up the interior for industrial and agricultural development, but would have provided very little benefit for the fishing industry.¹²

In the 1880s, the Newfoundland government gave a newly-founded corporation an up-front payment and land grants in exchange for the construction of the railway and the future benefit of the railway franchise, as well as other inducements. This up front payment was borrowed from London banks, the first of many railway loans.¹³ This first venture was undercapitalized and was bankrupt within four years, with only 84 miles of a planned 350 constructed.

The second venture was entrusted to entrepreneur Robert Reid, who was closely allied with many of the government officials with whom he was negotiating (and had hired some of them). Companies owned by Reid's family were paid \$15,600 per mile built, and in 1893 another large loan was taken out by the government to construct a branch line. Railway construction was a source of patronage for successive governments, and branch lines were commissioned during election years. Reid finished the railway across the island in 1894.

A revised contract, signed in 1898, provided an upfront payment from Reid to the

¹¹The modern interior population centers of Grand Falls-Windsor and Gander were settled in 1905 and 1936, respectively.

¹²During this time, many economically dubious railways were being built in the United States (Tufano, 1997). A comparison between the Newfoundland railway and others in the US and Canada would be a fruitful area of future study.

¹³This discussion of the implementation of the Newfoundland railway is based on Hiller (1980).

government, which enabled the government to pay back the short-term loans taken during the banking crisis.¹⁴

While the railroad operated at a profit during the First World War, by 1920 the Reid-affiliated company operating the railroad declared it could no longer continue. The government provided a series of bailouts through 1923 before finally assuming operation of the railroad in 1924 (Noel, 1971). These bailouts and the ongoing operation of the railroad were supported through borrowing.

Specifically, the Amulree Report states that, of the 101 million dollars of outstanding debt in 1933, 35 million of it was for the purpose of capital investment in the railway. Another two million was dedicated to ongoing railway operations. By comparison, less than a million of the outstanding debt was for "encouragement of fisheries" (Newfoundland Royal Commission, 1934).

4.4 The Amulree Report and the Loss of Sovereignty, 1933-34

The statistical tale of Newfoundland's 1930s crisis is "disarmingly simple" (Neary, 1973). In 1921, the government owed 43 million (Canadian) dollars. By 1933, that amount had risen to 101 million dollars. Of the 90 million dollars the Dominion owed in loans, Table 4.1 shows that 65.5 percent of the total was denominated in gold, with 30.8 percent denominated in British pounds sterling (sterling went off of the gold standard in 1931). Interest rates on the debt ranged from 3.5 to 6.5 percent. Government revenue for the 1932 fiscal year was just over 8 million dollars. Interest payments were approximately 5.2 million dollars yearly. As the Amulree Report stated of the year

¹⁴In exchange, Reid's companies would receive a grant of 5,000 acres for each mile of track completed, as well as 50 years of control of the dry dock, steamship, telegraph lines of the island, and the railway. For the resulting 638-miles of railway, this would correspond to 11.9% of the land area of the island.

This agreement was seen as one-sided; Joseph Chamberlain, British secretary of state for the colonies, said "such an abdication by the Government of some of its most important functions is without parallel" (quoted in Noel (1971)). The opposition party won the next election campaigning on a revision of the agreement. After the opposition party won, the agreement was revised, Reid no longer receiving the large grant of land. However, the revised agreement allowed Reid's interests control of all of the above except for the land and telegraph. While contemporary commentators discussed how terrible this giveaway of the national interest was, that point of view was based on Reid's potential monopoly power that would be gained from further industrial and agricultural development. However, this development did not occur.

1933, "there is no prospect of the Island being able to pay its way" (Newfoundland Royal Commission, 1934).

It is common to present a debt-to-GDP ratio to illustrate the depth of a polity's debt problems. While the amount of Newfoundland's debt is well-documented during this period, an estimate of GDP is elusive. The closest analogue is the Gross Value of Production, a summing of the mining, lumber, agriculture and fishing sectors constructed by D. Alexander (1978). This is an imperfect substitute for the production method of calculating GDP, because it does not subtract domestic consumption nor add the production of other sectors. Whether the first term is greater than the second determines if this measure is an overestimate or underestimate of GDP. The estimates of debt-to-GVP, which exceed 180%, are presented in Table 4.2.

The fact that the debt-to-GVP ratios are similar in 1921 and 1929 was, in fact, a troubling sign, since 1921 was the depth of the post-WWI recession and 1929 was the end of a boom period. We do not have an estimate for output in 1933, but it was unlikely to be higher than in 1929: the Amulree Commission found that fishing was poor in 1933, that worldwide prices for salted cod had collapsed, that one of the two mines were worked for only two days a week, and that one of the paper mills had cut back to a 4-day workweek (Newfoundland Royal Commission, 1934). Thus, an estimate of GVP equal to the 1929 figure seems reasonable for 1933, giving a debt-to-GVP lower bound of 232%.

The Great Depression accelerated the debt crisis that Newfoundland was facing, both due to devaluation and an increased reluctance for creditors to lend. However, the borrowing that Newfoundland engaged in during the 1920s would have led to an eventual crisis under normal macroeconomic conditions as well. A counterfactual 2.5% annual increase in GVP from 1929 to 1933 would still result in a debt-to-GVP ratio of 211%, which, if we set GVP equal to GDP, would be a higher ratio than every modern country except Japan (International Monetary Fund, 2019).

4.4.1 The final days of the Dominion of Newfoundland

While the main issue prompting default was the burgeoning debt, an additional issue was the manner in which revenue was raised. Desperate for revenue, the government strengthened the tariff regimes in the early 1930s. These regimes included tariffs on the imported goods fishermen needed to ply their trade.¹⁵

"Until recently it was the policy of Newfoundland Governments to admit free of duty those articles such as flour, salt and petrol which were among the essential requirements of the fishermen; today even these articles are taxed, and the resulting increase in the fishermen's costs has proven a severe handicap to the rehabilitation of the industry in the face of foreign competition."

– Newfoundland Royal Commission (1934)

The interest on the debt was payable twice yearly, in June and December. As the crisis worsened, each deadline became a larger hurdle for the Dominion to overcome. The government had to resort to extreme measures to make the debt payment in June 1932. It granted a monopoly on the importing and sale of gasoline to Imperial Oil in return for its purchase of 1.75 million dollars of bonds and an annual payment of 300,000. This method of indirect taxation further harmed the fishermen at the bottom of the income distribution, since gasoline was essential for their boats. In December of 1932 and June of 1933 it relied on payments from the UK (Newfoundland Royal Commission, 1934).¹⁶

As the Great Depression deepened in the early 1930s, extreme ideas were suggested to extract Newfoundland from its difficulties, including the selling of Labrador to Canada. Canada, however, was, first, unwilling to buy at the suggested price (110

¹⁵This discussion is based on Newfoundland Royal Commission (1934), Noel (1971), Neary (1973), D. Alexander (1980), Neary (1988), and Webb (2001).

¹⁶While the railroad was discussed earlier, it was not the only drain on the government's budget. The government also found itself a partner in a failing paper mill (one of two on the island), as well as running a failed luxury hotel that was also incurring losses.

million dollars in 1931), and, second, unwilling to buy when there was a large likelihood that Newfoundland and Labrador would end up in the Canadian confederation anyway (Neary, 1988). Another idea proposed by Newfoundland was the incorporation of Newfoundland directly into the United Kingdom, which was rejected by the British government.

In 1932, public feeling doubting the efficacy of the legislators of Newfoundland can be inferred both by a riot that almost claimed the life of the prime minister and by the elections in June of that year. A unity opposition party won all but two seats in the 27-seat legislature. The party campaigned on introducing a referendum to end representative government and form an unelected Commission of Government for a five- or ten-year time period. This unity party was headed by Frederick Alderdice, a free-market conservative. Despite his conservative credentials, such was the scope and severity of the crisis that Alderdice immediately wanted to reschedule the debt payments that were overwhelming the Dominion's ability to pay, thus placing Newfoundland into default.

However, the United Kingdom was unwilling to set a precedent of any part of their Empire defaulting on their debt, even in the midst of the Great Depression. While the United Kingdom originally hoped for a joint Canadian and UK bailout for Newfoundland, Canada was unwilling to take on any additional burden of supporting Newfoundland's debt while its provinces were running large deficits. Thus, the United Kingdom went ahead with unilateral assistance for the interest payments of December 1932. Alderdice's government avoided default, while Britain avoided a dependency's default.

This December assistance was coupled with the establishment of a Royal commission

to examine the financial crisis in Newfoundland.¹⁷ This commission, led by Lord Amulree, lasted several months, sitting for over a hundred sessions and interviewing dozens of Newfoundlanders. However, it chose to keep all the records of interviews unpublished, giving credence to the idea that the results of the commission were pre-ordained (Noel, 1971).

And it is true that Amulree was instructed by the Colonial Office in London that the royal commission must find a solution that was acceptable to the United Kingdom and Canada, as well as Newfoundland (Neary, 1988). Amulree left England with the proposal of a Commission headed by UK officials already provided to him. His mission, as the colonial office saw it, was to get Newfoundland to accept the establishment of a Commission of Government. Additionally, this would have to be done so that the Newfoundland legislative process would proceed smoothly and the December 1933 debt payment would not be jeopardized. In the meantime, the June 1933 payment was also loaned to Newfoundland by Britain.

However, summaries and transcripts of the unpublished interviews were later released to the public via the papers of the Canadian member of the commission, Charles Magrath. These interviews are summarized in Long (1999). In the interviews that Long mentions, most of the Newfoundland public favored a Commission of Government. In fact, Long notes that the idea of a Commission of Government started with the Fishermen's Protective Union in Newfoundland in 1925. Many Newfoundlanders agreed with the British government on the need for the establishment of the Commission of Government.

The commission's work was done quickly, from establishment in March to a report

¹⁷The Royal Commission consisted of one member each from Newfoundland, Canada, and the United Kingdom. Canada was included both due to its proximity and the Canadian government's holdings of Newfoundland debt. Newfoundland's Prime Minister Alderdice, for reasons that have remained unclear, also nominated a Canadian as the representative from Newfoundland. Alderdice came under criticism from supporters of Newfoundland independence, both for this decision and his perceived unwillingness to negotiate the terms of the governmental commission that the report recommended. However, two points regarding this argument remain unclear: first, what Alderdice could have offered in negotiation; second, whether he should have negotiated at all, given that his electoral mandate was to suspend representative government. While it is true that, following the report, the issue of a changeover to the Commission of Government was not put to the promised referendum, there is little doubt what the result would have been, given the depth of the crisis facing the dominion.

released in November and published in the following year. The Amulree Report was clear on many issues facing Newfoundland, and it was blunt regarding what needed to happen next:

[I]n order that people might be trained anew to a spirit of self-reliance and independence, the existing Legislative machine should be temporarily suspended and the Government of the country placed for a period of years in the hands of a "Commission". Such a "Commission" would be presided over by His Excellency the Governor, and would be able to remodel the administration and to shape its policy without regard to the political considerations which no elected Government could afford to ignore.

– Newfoundland Royal Commission $(1934)^{18}$

Thus, local representative government ended for Newfoundland. Newfoundland would instead be ruled by a British-appointed governor heading a commission of six other members that he appointed, three from Newfoundland and three from Britain. Even though this decision was not put to the promised referendum, there was little opposition shown to this proposal (Long, 1999). On the right, the merchant class believed that it would have great influence on the Commission without worrying about the democratic process electing populist governments. The left, as described by future leader Joey Smallwood, believed that non-sectarian and non-partisan government was required due to the dire financial distress (Smallwood, 1973).¹⁹

To resolve the debt crisis, the British government issued a new bond at a lower interest rate (3 percent) in exchange for Newfoundland's debt. This was understood

- Newfoundland Royal Commission (1934)

¹⁸The report was also blunt regarding the previous governments' lack of support of fishing:

We have already emphasized the fact that the fishery is the mainstay of the country, and shall develop this at length in the following chapter. We make no apology for doing so, since the policies pursed by successive Governments in recent years have tended to obscure this essential and all important consideration.

The Report included fourteen recommendations regarding the fishing industry, more recommendations than on any other matter besides financial and governmental control.

¹⁹However, William Coaker, the leader of the Fishermen's Protective Union who first suggested the idea of a commission in 1925, grew to oppose the idea as it was debated in 1933.

to be a technical default, but the British government believed bondholders would be satisfied with both the substitution of Britain as the guarantor and the end of representative government for Newfoundland. As Neary summarizes Neville Chamberlain, "a rescheduling of debt that would have been anathema while Newfoundland was a selfgoverning Dominion would be perfectly acceptable should she forego that constitutional status" (Neary, 1988).

It may be useful to compare the rise of Commission government with the counterfactual idea of Newfoundland defaulting on its debt. Default was certainly an option for the country - besides a complete bailout, there was no legal way Britain could stand in the way of a Dominion that wished to default. When the United Kingdom broached the subject of a royal commission with Newfoundland, it included the threat that, in the event of default, it would make the offer of the report and the potential bailout public knowledge. That Britain had to make this threat indicates that it did not believe it had the legal right to unilaterally overrule the monetary decisions of its dominions.²⁰

Default would have allowed Newfoundland to reduce or eliminate its crippling interest payments, allowing it to reverse some of the recent tariff increases and other strictures, as well as increasing the ability to provide social and government services. However, it would have become an international pariah, and would have found future borrowing (especially in the light of spurning a British solution for bondholders) difficult, limiting options for the immediate future. Still, if Newfoundland was eager to retain its sovereignty, it could have rejected the British offer and remained a Dominion with its finances in tatters.²¹

- 1. Lower the creditworthiness of the country
- 2. Ruin the export trade
- 3. Make it impossible to refinance loans coming due
- 4. Bring about financial collapse
- 5. Cause a bank run
- 6. "Tarnish the good name of the British Commonwealth"

²⁰One additional complication to simple default, even if British authorities had allowed it to proceed, was the lack of a central bank and a commingled local currency. See Section 4.2.

²¹The argument that the Amulree Report argues from the conclusion of a UK takeover gets the most support from its argument against default. The Report argues that default would:

The historical background for this project ends here. A further history of Newfoundland from 1933 to the present day is presented in Appendix 4.A

4.4.2 Newfoundland compared to the other Dominions

Why was the solution to Newfoundland's crisis different than the solutions in other Dominions? The other Dominions were not unaffected by the Great Depression, but I demonstrate below that the other Dominions, for various reasons, were better able to weather the crisis.

Canada had a large debt burden: about 1/3 of government revenue (Bordo et al., 2003). Still, this is much lower than Newfoundland's 57.2% of government revenue in 1929 and 82.1% of government revenue in 1933. Canada was prescient enough to renegotiate its debt to remove gold clauses, making repayment easier after devaluation (Bordo et al. (2003) don't believe this was prescience, rather just coincidence, based on the lack of debate regarding the gold clause). Newfoundland was not in a strong bargaining position in the late 1920s, and did not have the opportunity to remove its gold clauses. Its ability to devalue is also debatable, given that Canadian and Newfoundland dollars were both circulating on the island at par.

Australia also carried a large amount of debt into the Great Depression (combining the debt of the central government with the debts of the Australian states), over 82 million pounds in 1932. However, Newfoundland had one-third of the debt of Australia, while having less than 4% of Australia's population. Australia's debt-to-GDP ratio was much smaller, reaching a high of 98.2% in 1932 (Abbas et al., 2010). Australia was also able to spend gold reserves early in the crisis to mitigate the first year of the crisis (Copland, 1934). I have not been able to locate information on Newfoundland's gold reserves, if they indeed had any. It is likely that the Newfoundland government would have exhausted their reserves before undertaking the desperate maneuvers of 1932 and 1933.

⁽Newfoundland Royal Commission (1934), para. 506-13). While item 1 is undoubtedly true, the consequences of the remaining items seem fanciful or overblown, especially item 3: it's unclear why defaulting on principal would be effectively more damaging than defaulting on interest payments.

New Zealand might be the closest analogue to Newfoundland among the Dominions, carrying a high debt-to-GDP ratio over 100 from 1909 to 1950, reaching a high of 246.6 in 1933 (Abbas et al., 2010). However, New Zealand had two advantages over Newfoundland: first, it had a strong export market as it devalued its currency, allowing it to keep revenues high. Second, it had a relatively high standard of living, which, as discussed in Bordo & Meissner (2005), might mitigate the danger of default when owing a large amount in a foreign currency ("original sin").²² Newfoundland had neither of these advantages.

Australia and New Zealand both renegotiated their debt during this time, exposing themselves to either requests for immediate payment of principal (in Australia's case) or claims of default (in New Zealand's) (Copland (1934); Hawke (1985)). However, these two Dominions escaped any punishment, much less the loss of constitutional status. A cultural analysis would have to determine whether this was due to more investor confidence in these Dominions, or more respect from the Colonial Office, or some other cultural reason.

Thus, Newfoundland's oversized debt burden, lack of gold reserves, weaker negotiating position, weaker currency, collapsing fishing market, and overall poverty consigned it to a different fate than that of the other British Dominions.

4.5 Disentangling the debt

The amount of the sovereign debt that Newfoundland accumulated up to 1933 provides a research opportunity: many of the outstanding Newfoundland bonds were publicly traded, and their prices may have fluctuated as often as daily. These bonds all had different conditions attached to them. By tracking each and comparing them to each other and to an index of dominion bonds (from Chavaz & Flandreau (2017)), the reactions of the market to the microstructure of the bond market, the macroeconomic shocks, and the political and religious violence in Newfoundland can be measured.

²² "Living standards in New Zealand were among the highest in the world between the late nineteenth century and the 1960s" (Singleton, 2008).

It is a given in business history research that the United Kingdom implicitly guaranteed the debt of its Dominions and Colonies. It was often remarked upon in the business journals, and is the most likely explanation for the relatively low borrowing costs (and higher borrowing abilities) of the Dominions. Investors calculated the risk of default for colonial and dominion securities using a different calculus than they did for territories not under British control. That guarantee, however, was unstated, and The Economist, by 1929, doubted that bailouts would necessarily be forthcoming:

There is a good deal of popular misapprehension as to the terms of the Colonial Stock Act of 1900, which brought loans of Colonial Governments, under certain conditions, into the trustee fold. It is often imagined that the Colonial Stock Act affords real protection for the investor, that all Colonial prospectuses are examined by officials of the Treasury, and that none is allowed to appear until the Treasury has fully assured itself of the necessity of the loan and of the soundness of the security behind it. It is even imagined that, in the event of default, the British Government would be bound to come to the rescue of the investor. All these beliefs are fallacious.

The Economist (1929)

To investigate the worth of this guarantee, what better territory to choose than the Dominion that came closest to default? Yet, the important studies of colonial and interwar debt, such as Chavaz & Flandreau (2017) on Colonial debt and the Trustee List, or Reinhart & Trebesch (2014) on debt restructuring during the Great Depression do not include Newfoundland. Newfoundland does not appear in the exhaustive IMF historic public debt database (Abbas et al., 2010).

This is true despite Newfoundland being a rich source of data. At the time of the Amulree Report in 1934 (Newfoundland Royal Commission, 1934), Newfoundland had 34 outstanding bonds, ranging in interest from 3.5 to 6.5%. This does not include a war loan, emergency funding from Canada and the United Kingdom, and lines of credit from local banks. These bonds were denominated in sterling, Canadian dollars, gold, and Newfoundland funds. The bonds were marketed in London, Montreal, New York, and locally in Newfoundland. Some bonds were on the Trustee List (Chavaz & Flandreau, 2017), some were not. In other words, there is so much variation available with Newfoundland debt that, by studying it in detail, effects of many early twentieth century innovations and events can be measured.

Table 4.1 reproduces Appendix G in Newfoundland Royal Commission (1934). It shows the different maturities, interest rates, date raised, and currencies payable of all of the bonds sold for Newfoundland. Some of the bonds date back to 1888, while some have interest rates as high as 6.5%.

Future research will encode the market price for Newfoundland bonds and debts over time. The various maturities, types, and locations of these securities will provide enough variation that different effects can be disentangled, such as:

- Inclusion on the Trustee List
- The frequency and timing of interest payments
- The macroeconomic environment
- The elections in Newfoundland
- The forgiveness of war debt
- The violence (religious, political) in Newfoundland

I believe that a time series of bond prices can illuminate some or all of these effects, especially if compared with other colonial bond data.

Newfoundland bond prices can be found at least weekly in London, in The Economist archives (until World War I), or daily from other sources, such as the Times of London or the Stock Exchange Daily Official List. I have yet to identify the frequency of data available for the exchanges in Montreal and New York.

Table 4.3 shows prices of four Newfoundland bonds traded on the London Stock Exchange, some of which have the price range over the entire year, while others are a snapshot of one day in that year. The collapse of prices in World War I is remarkable, not echoed in other bonds of the time, and not tied to the economic performance of Newfoundland, which was very solid at the time. Could the large war debts incurred by Great Britain cause investors to think that the implicit guarantee of Dominion bonds might be withdrawn? This is an interesting question for further study.

4.6 Conclusion

Successive Newfoundland governments chose the less painful fiscal decisions for decades, delaying the reckoning until the Great Depression, when the interest payments became crippling. Once that happened, the sovereignty of Newfoundland was doomed, and direct rule by the United Kingdom, followed by membership in the Canadian Federation, were the ultimate effects.

While fatal to the sovereignty of the nation, the history of Newfoundland provides an opportunity to study a nation in a debt crisis, yet its particulars are overlooked by many researchers. The debt that Newfoundland accumulated in 1933 was acquired over fifty years, and its piecemeal nature makes the debt a fruitful area of study for researchers. The reactions to this debt in the marketplace will surely reflect the large and small changes of the early twentieth century.

4.7 Tables

Notes: GVP is the gross value of production, a summation of the estimated output of the manufacturing (not including pulp and paper), forestry, agriculture, and fishing industries. Sources: Debt data from Newfoundland Royal Commission (1934), GVP estimates from D. Alexander (1978)

n Amount \$	\$2,	\$6,000,000	\$973,333	\$60,000	\$480,000	\$320,000	\$50,000	\$218,000	\$408,000	\$6,000,000	\$3,384,473	\$6,000,000	\$2,061,033	\$3,500,000	\$456,980	\$351, 373	\$1,900,433	\$1,581,667	\$4,708,800	\$2,500,000	\$4,000,400	\$2,500,493	\$3,893,333	\$2,263,000	\$4,999,527	\$1,946,667	\$5,000,000	\$10,002,947	\$5,999,627	\$5,000,000	s \$380,000	s \$90,000	s \$384,750 \$90.092.106
Interest payable in Newfoundland Funds	Sterling	Gold	Sterling	Sterling	Sterling	Sterling	Sterling	Sterling	Sterling	Gold	Sterling	Gold	Sterling	Gold	Sterling	Sterling	Sterling	Sterling	Sterling	Canadian Funds	Gold	Gold	Sterling	Sterling	Gold	Sterling	Gold	Gold	Gold	Gold	Newfoundland Funds	Newfoundland Funds	Newfoundland Funds Total
When raised.	1895	1921	1896	1888	1889	1889	1890	1890	1891	1919	1893	1922	1923	1923	1893 to 1898	1893 to 1898	1905	1897	1893	1932	1924	1925	1910	1901	1926	1912	1927	1928	1929	1930	1909	1910	1911
Interest Rate. Per cent. \int_{A}	- 1 -	6.5	4	4	4	4	4	4	4	5.5	3.5	5.5	5	5.5	3.5	3.5	3.5	3	3.5	5.5	5	5	3.5	3.5	5	3.5	5	5	5	ŭ	4	4	4
Maturity Not Fived	1st July, 1935	30th June, 1936	31st December, 1936	9th May, 1938	1st July, 1939	1st January, 1941	1st July, 1942	1st July, 1943	1st July, 1943	1943 to 1948	1943 to 1948	September, 1945	1st January, 1947	1st January, 1947	30th June, 1947	1st July, 1949	1st July, 1949	July, 1950	October, 1951	31st December, 1951	July, 1952	31st December, 1952	31st December, 1953	31st December, 1954	30th June, 1955	1959	1st July, 1961	1st July, 1961					
Number	- 0	ç	4	5	9	7	×	6	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34

Table 4.1: Newfoundland bonds outstanding

A sinking fund was established for the second bond on the list. Source: Appendix G of Newfoundland Royal Commission (1934)

Table 4.2: Debt to Gross Value of Production ratios

Year	Debt	GVP	Ratio
1921	$43,\!032,\!785$	$22,\!114,\!000$	195%
1929	$79,\!477,\!478$	$43,\!480,\!000$	183%
1933	100,769,771	43,480,000 (est.)	$232\%~({\rm est.})$

Table 4.3: four selected Newfoundland bonds

Interest rate	Maturity		1899	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909
3.5	1938	High/Daily	107.75	107.5	105.75	105	103	104	104	103	102		
		Low	104	103	102.5								
4	1941	Daily				93	90	92.5	95	94	90	93	93.5
Interest rate	Maturity		1910	1911	1912	1913	1914	1915	1916	1917			
4 (con't)	1941	Daily	93	92	88	83	n/a	n/a	63	69.675			
1 (00110)	1011	Durly	00	02	00	00	ii/ a	Π/a	00	00.010			
Interest rate	Maturity		1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932
3.5	$1947,\!48,\!51$	High	81	84.75	80.875	79.5	79	81	82.5	82.25	83.75	85	88
		Low	61	73.675	72	75	75	75.5	79	74.5	77.5	58	55.5
5	1949	High					103	103	103.5	103	105	103.75	104.5
		Low					100	98.75	100	98	97.125	82.5	70

Notes: High/Low is the yearly high and low prices of bonds. Par value is 100. Daily is taken from the daily closing prices around the end of November of each year. Sources: The Economist, 1899-1913, The Times (London), 1916-18, Newfoundland Royal Commission (1934), 1922-32

4.A Newfoundland after 1933

As events transpired, increased sponsorship by the United Kingdom was crucial for the survival of the people of Newfoundland in the four years following its establishment. Poor fishing yields, coupled with the collapse in worldwide prices from the Depression and the 1937 recession, meant that Newfoundland missed its revenue targets and required additional support from Britain to provide relief to the poor. Additionally, the relief provided was increased from the pre-Commission levels. Even so, there were reports of malnourishing diseases like beriberi during this time (Smallwood, 1973). It's unclear whether the savings in government revenue from defaulting on the debt would have provided enough funding for Newfoundland to feed its own people during these years.

Discussion of Newfoundland budgets in the Newfoundland capital of St. John's and in London were notable for two opposed viewpoints. In both locations, there was one faction for a basic frugality and a desire for Newfoundland to pay its own way and spend responsibly while under Commission government. A separate faction thought that Newfoundland would not be able to support itself at its current level of development, and that something would need to happen to put Newfoundland in a position to resume self-government. Debates about investments in Newfoundland continued until 1939, but, ultimately, improvement in the Newfoundland economy was due to exogenous forces (Neary, 1988).

This improvement and diversification of industry came to Newfoundland in the late 1930s through two changes: one technological and the other historical. The technological change was the rise of air travel. The state of aviation at the time meant that Newfoundland's north-eastern location off the coast of the continent made it an ideal place to cross the Atlantic by air, and the seaplane harbor at Botwood and the airfield developed at Gander became frequent stops for transatlantic travel (Gander Airport, 2016).

The historical change was the Second World War. Britain's desire to involve the neutral United States more closely in the war led to the United Kingdom granting the US very favorable terms for building several military bases in Newfoundland in 1940. This "base-building boom" provided thousands of local construction jobs through 1942. Later, the bases provided hundreds of jobs for support staff, as well as hundreds of servicemen and women with disposable income.²³ The economy of the island was transformed, and this new industry, coupled with a rebound in salt fish prices, led to increased revenue and an increased standard of living (Neary, 1988).²⁴

Additionally, an income tax was imposed on high incomes for the duration of the war. This taxation, combined with the overall increased prosperity of the island, led to a government surplus during the war years (Neary, 1988).

As the war turned in the Allies' favor in 1943, Britain considered how to resolve the governance of Newfoundland. Officials on both sides of the Atlantic understood that Newfoundland protests would be muted during the war, but that the higher standard of living displayed by Americans on the island, along with continued non-representation in government, could provoke unrest if the issue was left unresolved. This conversation continued through 1945 (Neary, 1988).

Britain in 1945 was in an uncertain financial situation, not knowing that the Marshall Plan was on the horizon. The country was borrowing from Canada and wanted to offload its obligations regarding Newfoundland. Additionally, Britain and its new Labour government acknowledged that it was transitioning to a post-colonial world, and the Colonial Office was "in the business of going out of business" (Neary, 1988). Thus, British government discussions at the time favored Newfoundland becoming part of the Canadian confederation, although the Colonial Office understood that any public pronouncements of such a policy would lead to more opposition (Hiller, 1998).

While Canada was cool regarding the inclusion of Newfoundland in its confederation during the Great Depression, after World War II it had two additional reasons, besides its improving finances, to include Newfoundland. The first was the increased strategic

²³Canadians also constructed and operated bases in Newfoundland, but their expenditure was on a different scale and relations with the Newfoundland population were more chilly (Neary, 1988).

²⁴During the war Newfoundland loyalty to the United Kingdom was again demonstrated. Newfoundland sent thousands of soldiers, sailors, airmen, aircraft maintenance workers, merchant sailors, and forestry workers to assist in the war effort.

importance of Newfoundland. As the world transitioned from World War to Cold War, an independent Newfoundland that was militarily weak was seen as a potential Soviet beachhead on the North American continent. The second was losing Newfoundland into the American sphere of influence. Newfoundland residents had positive feelings about their experiences with the Americans during the war, and some wanted to explore the idea of becoming part of the United States (Neary, 1988). That the US had very little interest in this arrangement did not deter these Newfoundland supporters, and did not wholly calm fears in Canada.

Thus, the United Kingdom and Canada were united in their desire for Newfoundland to become part of Canada, and the United States had no interest in interfering. The decision rested on a referendum which would be voted on by residents of Newfoundland. The Commissioners announced a National Convention, made up of elected representatives, that would explore the different governmental options. The original mandate stated that the convention would "make recommendations... as to possible forms of future governments to be put before the people at a national referendum" (Clement Attlee, House of Commons, quoted in Noel (1971)).

Although some self-government supporters wanted representation coupled with British guarantees of future debt, Britain stated clearly that, if the Commission of Government was chosen to continue, it would provide guarantees, but if self-government was re-established, Britain would not guarantee any future debt or provide any assistance that was not already promised.

The leading figure in the National Convention was Joey Smallwood. Smallwood, a polished writer and radio personality, was the leader of the movement towards confederation with Canada.²⁵ The fact that the debates of the convention would be recorded and broadcast later each night made his media savvy more important to winning over

²⁵Residency requirements for election were strict, and only due to a decision years before to relocate to Gander to open a pig farm did Joey Smallwood win an election to serve as a member of the convention. If he had stayed at his old residence in St. John's, opponents of confederation would have defeated his election to the convention. As he said, "I would have no chance whatsoever" of election if he hadn't moved to Gander to farm. As it was, in his constituency he needed to drum up an opponent so he wouldn't win by default, and Smallwood was elected to the convention with 89% of the vote (Smallwood, 1973).

the general public.

The National Convention began in September of 1946. After several days of preparatory work, the convention was galvanized by Smallwood's motion to include a discussion of confederation with Canada. The timing of this motion has never been clearly explained, and Smallwood's explanation that he thought it would be more efficient to consider confederation at the same time as other committee work is unsatisfying. While his motion was defeated on the convention floor, it seemed that supporters of confederation still gained from his motion. By Smallwood's reckoning, confederation with Canada was debated for thirty four days of the convention, while responsible government was debated for only four (Smallwood, 1973).

Even so, the convention had a majority of members who favored a return to responsible government, and requested in their final report that the referendum contain only two options, a continuation of the commission or the return to self-determination. It required a post-convention campaign by Smallwood and his allies to gather 70,000 names on a petition to submit to the Governor calling for confederation to be added to the ballot.

The British Colonial Office accepted this petition, and the referendum on the form of the future government had three options: Maintenance of the current Commission for five years, confederation with Canada, or "Responsible Government as it existed in 1933" (Neary, 1988).

Smallwood waged a vigorous and unified confederation campaign against a divided responsible government side. His communication skills, and the skills of those he employed, proved to be superior to the amateur efforts they faced. In the first referendum, on June 3, 1948, responsible government gained a plurality of 44.6 percent, while Confederation received 41.13 percent. Once the Commission option was removed and the second referendum held on July 22, Confederation garnered 52.3 percent of the vote, versus 47.7 percent for self-government, a difference of fewer than 7,000 votes.

The fact that responsible government won the first vote, while the second vote was close, has fueled long-running opposition to this referendum result (Long, 1999). That Smallwood was elected to the provincial assembly and named Premier afterwards certainly added to that opposition. Much of Smallwood's memoir is taken with responding to critics that he sold Newfoundland out for his own personal political gain. While Canada was able to offer superior access to markets and additional social and infrastructure spending, Historian James Hiller believes that a more organized responsible government side would have made the difference in the referendum (Hiller, 1997).

The resulting agreement with Canada gave Newfoundland a transitional fund of 42.8 million dollars over twelve years. With the war surplus intact, and the repayment of 9 million loaned to Britain in wartime, Smallwood, named Premier of Newfound-land, had a substantial fund to start Newfoundland's provincial existence, and more freedom to dispose of this surplus than as head of an independent state with British financial oversight in place (Neary, 1973). Smallwood's desires, however, were of a piece with earlier administrations - he immediately began subsidizing heavy industry. In his memoirs, he said:

Twenty plants were initiated or salvaged in the early drive toward industrialization. Of these, nine are operating today [in 1973] as they did when they were established, two have been converted to a different kind of production, and strenuous efforts are being made to give life to one other plant. We put a total of about \$50 million altogether into those plants: and although, if you look at them from a narrow, orthodox, balance-sheet point of view, over half of them have been losers, the fact is that from the Province's point of view they have, taken as a whole, been a profit-maker.

- Smallwood (1973)

Smallwood's method of calculating a profit for the province omitted opportunity costs. The failure of another industrial intervention was part of the recurring theme of Newfoundland development.

Newfoundland's transitions from dominion to Commission government, and later from that to province, were both stories of complicated sovereignty issues. Both of these transitions came with the explicit agreement and assistance of the large powers to which Newfoundland was beholden. However, both were also endorsed by the people of Newfoundland themselves. To recall the quote at the beginning of this chapter, Newfoundland didn't lose its sovereignty, the people gave up their sovereignty willingly.

Further, it is unclear if Newfoundlanders themselves would have seen the institution of the Commission as a loss of sovereignty, as most took great pride in being part of the British Empire, as seen by their sacrifices in World War I.²⁶

This study was originally motivated by the seeming similarities between Newfoundland in the 1930s and Puerto Rico today. In 2016 a federal control board was named that would make some fiscal decisions (Kaske & Sivaloganathan, 2016). This is certainly less onerous than a loss of representative government, but the idea of oversight is similar. One crucial difference between the polities and their situations is the economic strength of the hegemonic power. Britain, as mentioned above, was in an unsteady financial position in 1945. The economic position of the United States currently affords it patience with dealing with the financial crises of Puerto Rico, one that was brought about partially through the issue of moral hazard in Puerto Rico debt accumulation. A second difference is the macroeconomic environment and the US economic performance, which is substantially improved from the early 1930s. Currently, the situation in Puerto Rico is not resolved. The idea of a bailout for the island is not currently politically viable, but it's possible that an exchange similar to Newfoundland's, where Puerto Rico bonds are traded for US bonds, will occur.

The question of moral hazard in the governance of Newfoundland remains open. While it is much more likely that corruption was the source of the problematic deficit financing in the 1920s, it is not clear if, in addition to creditors, legislators also believed that the United Kingdom would backstop any debt crisis. Certainly, post confederation, moral hazard is an issue as, since the Great Depression, a province of Canada has never been allowed to default. In the 1970s, Newfoundland had the lowest credit and debt

 $^{^{26}}$ Additionally, Newfoundland did not ratify the 1931 Statute of Westminster, which delineated the responsibilities between the United Kingdom and dominions, which could be seen as another indication it wanted closer ties with Britain.

rating of any Canadian province (Higgins, 2011).

An interesting counterfactual note is that, had responsible government had won the July 1949 referendum, then moral hazard would not be present, since (unless the question was revisited) Newfoundland in the post-colonial world would be an independent nation. Whether that nation would have been a better financial steward of its postwar surplus is an open question. Whether Newfoundland as a country could arrange beneficial (or neutral) trade and defense agreements with its more powerful neighbors is unknown.

Newfoundland's governments have persisted in their desire to make specious investments in alternative industries. In 1987 Newfoundland provided 14 million Canadian dollars in loan guarantees to launch a hydroponics industry to grow cucumbers and tomatoes, an investment one historian called a "foolhardy scheme" (Cadigan, 2009).

The fishing industry has changed significantly in Newfoundland. In 1992, collapse of the stocks of cod led to a Canadian government moratorium on cod fishing. While this would seem to be the death knell of an important industry, fishermen (and women) have shifted to other stocks. "These alternatives – principally invertebrates such as crab and shrimp – currently yield catches comparable in value to the former cod fishery." (Hamilton et al., 2001)

Diversification has again come to Newfoundland with the discovery of offshore oil reserves. However, the fact that these resources were located offshore meant that, until 2005, the tax revenue from oil extraction went directly to the central government in Ottawa.

The Newfoundland Railway ceased operations in 1988, its obsolete narrow gauge and the Trans-Canada Highway providing the fatal blows (Crawford, 1989). The fact that the railway operated for 94 years is more of a testament to successive governments willing to subsidize its losses than to its conversion into a going concern.

The Gander Airport continued refueling transatlantic flights into the 1960s, then faded from use as planes no longer needed to stop to refuel (Gander Airport, 2016). It attracted some notice for housing 6,700 people stranded when US airspace was closed on September 11, 2001 (Lewis, 2011), leading to a subsequent popular musical. The airport, however, is suffering from declining revenue and states that it will have to close unless more government funding is provided.

In July of 2016 Newfoundland again had its credit rating lowered and once again had the lowest credit rating of any Canadian province. Moody's forecasted a 240 percent debt-to-revenue ratio by 2020 (Bird, 2016).

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