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Race, Suburbs, and the Municipal Bond Market:

Evidence From California

A thesis submitted in partial satisfaction

of the requirements for the degree

Doctor of Philosophy in Urban Planning

by

Justin Gustave McBride

2024

ABSTRACT OF THE DISSERTATION

Race, Suburbs, and the Municipal Bond Market:
Evidence From California

by

Justin Gustave McBride
Doctor of Philosophy in Urban Planning
University of California, Los Angeles, 2024
Professor Chris C. Tilly, Chair

Prior work has demonstrated a connection between the racial composition of a community's residents and the terms of credit that community experiences. However, these studies largely draw from large population city samples and take limited approaches to the dynamic. Here, regression analysis of bond transaction data from California suburbs provides evidence that racial difference in municipal bond markets manifests in at least three key areas: the credit rating, interest, and fees associated with a bond offering. The effect persists even when controlling for bond type or other factors like median income or property tax revenues, and is present in suburban communities at rates comparable to or exceeding those experienced in larger core cities. Social network analysis shows that smaller cities operate in distinct segments of the California municipal bond markets from their larger counterparts, and low-income cities with proportionally high residents of color operate in the most segmented part of the network. Finally, interview data reveals that these latter cities tend to structure their relationships with financial services provider firms adhering to RFP processes in adherence to professional standards, rather than using long-term trust-building relationships preferred by other small suburbs. The arrangement effectively cuts these cities out of networks of trust undergirding the entire bond market. This structural arrangement may explain some of the mechanism for the racial difference manifesting in the bond market.

The dissertation of Justin Gustave McBride is approved.

Hannah Appel

Veronica Herrera

Ananya Roy

Rachel Weber

Chris C. Tilly, Committee Chair

University of California, Los Angeles

2024

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BIOGRAPHICAL SKETCH

Justin McBride is an urban planning scholar and labor activist. He received his master's degree in the UCLA Masters in Urban and Regional Planning program, and his undergraduate degree in Literature at Duke University. Before pursuing his advanced degrees, he worked as a union organizer with several organizations, including the AFL-CIO and SEIU on campaigns like the CLEAN Carwash Campaign and Justice for Janitors. Justin has published in multiple journals on a variety of topics, including labor policy (*ILR Review, Relations Industrielles/Industrial Relations*), and water politics (*Water Resources Research, Water, Alternatives, Utility Policy*). He has taught at the California State University Dominguez Hills in its Labor Studies program, and Urban Politics in the Political Science department at California State University Northridge, and currently teaches the Sectoral Analysis class in the UCLA Department of Urban Planning.

CHAPTER 1

Introduction: Four California Cities In Debt

The United States is a global outlier when it comes to local capital finance. Most municipalities in the world meet capital finance needs in one of two ways. In some cases, municipalities borrow directly from banks, essentially mortgaging the specific projects they desire. Others borrow through their parent national governments, preferring to allow the larger government agency to deal with capital markets and benefit from their relatively larger size, superior expertise, partial immunity from investor claims, monetary control, and economies of scale. In the United States, however, local governments have historically preferred to engage with bond markets on their own by issuing their own bonded debt.

The practice stems from the start-up nature of urban development on the colonial fringes of US society in the post-Civil War boom of westward expansion (Monkonnen 1984; Sbragia 1996). US city leaders sought to rapidly grow and become the next key regional hub. They did this by attracting railroads, or by subsidizing industrial development. In those heady and freewheeling times, the constant municipal thirst for cash to fund these dreams led city leaders to seek funding independently from regional or national governments by reaching out directly to investors. The practice stuck. A present-day entrepreneurial streak to local economic development (Harvey 1989; Leitner 1990) has led US cities and other local governments to continue this practice (Weber 2010), even though many could doubtless obtain money at a lower cost through scaled-up public entities like states or even the federal government (for example, the federal government provides low-interest loans through a state-managed revolving loan fund for water infrastructure). Investors certainly do not complain; they often obtain higher interest rates since local borrowers are, supposedly, more risky credits than the federal or state governments. And federal tax policy has generally guaranteed that interest from locally issued public debt is free from income tax liabilities for investors (Sbragia 1996).

The result is thousands of borrowers issuing debt annually, competing for investors and operating in an economy where they have very little control over credit markets. Some cities emerge winners, and

some losers, in this thirst for money, though the market lacks clear criteria which observers can use to assess whether a city or local government got a 'good' or a 'bad' deal. In short, some communities pay more for their money, sometimes drastically more. Unsurprisingly, in a capitalist system which relies on racial difference to generate value (Robinson 2000), these lines between winners and losers are often tied closely to race, a phenomenon which scholars have long realized but only recently begun to explore with critical tools of analysis applied to racial capitalism (Loviscek & Crowley 1990; Ponder 2021; Jenkins 2021).

The problem is compounded by the fragmentation in local government inherent in the US political economy. Unlike most nations in the world, the US has extra layers of local government, eschewing truly regional municipalities for a patchwork of cities, districts, and counties, each with distinct and overlapping roles often governing a common geography. All these players borrow from the same class of investors. All of them access those investors through the support of a small, and shrinking, network of intermediary private firms, which help them navigate municipal credit markets in exchange for negotiable fees. Because we lack a truly regional approach to public capital financial planning, property taxpayers may pay for bonded debt simultaneously from multiple issuers every time they submit their property tax bill, honoring the overlapping debts of the state, county, city, and even multiple special districts. None of these agencies coordinate their borrowing.

In this research project, I explore the ways in which the municipal credit market generates difference by differentiating municipalities every time a bond transaction occurs. The broad network of financial advisors, underwriters, and credit ratings agencies attacks this market in a segmented fashion, in the process generating additional value for investors at the ultimate cost of the communities the municipal bond market is supposed to serve. The result is a drain of resources from communities simply to access the money they need to sustain a basic level of infrastructure. These processes are tied closely to race, with white privilege allowing predominantly white communities to borrow, and fulfill their communal dreams, on more advantageous terms. Other factors like lower household incomes compound the

problem, to be sure. But race always plays a central role in municipal credit at multiple key junctures of a bond deal.

In principle, the efficiency of the municipal bond market relies on issuers being financially savvy enough to determine when and on what terms their agency should pay for money. But there are over 90,000 local agencies in the United States.[1] Each one of these who desires to borrow through bonds has to reinvent the wheel for every transaction. It is a huge pond with both big and small fish. Some agencies borrow multiple times every year and have entire departments of dedicated staff to monitor the municipal bond market. Others may have staff who have never borrowed before. All are treated as equals in the marketplace.

Agencies who do not borrow frequently know their potential disadvantage, and rely on outside advice to navigate the potential perils of disadvantageous deals. Yet safeguards are limited, as evidenced by periodic examples of corruption via bond transactions. Still, corruption is not the typical point of departure for a bad deal with such varying degrees of experience, especially in a murky area like municipal finance where it is hard to say with certainty whether a deal is 'good' or 'bad.' As one municipal advisor reported in an interview for this project, "I see stuff that is uncomfortable [and] they get a little over leveraged… You [can] just see how easy they could be victims of firms doing things and getting them a little over their skis."

Four Bond Transactions

Before turning to the plan for this dissertation, I want to take a step back and illustrate examples of how different the borrowing experience can be by looking at a few concrete transactions. In Fiscal Year 2014-15, California local governments were just beginning to emerge from the ravages to public finance caused by the Great Recession. According to California Debt and Investment Advisory Committee

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[1] Census of Governments. US Census. 2017.

(CDIAC) data,[2] approximately 2500 public bond transactions occurred in the state during the fiscal year. Roughly 10% of these transactions were initiated by city governments.

Below are details on just four of these bond transactions from the 2014-15 fiscal year, selected with an eye to capturing a variety of city types in a common region. These transactions all occurred in Southern California, and all were relatively ordinary bond transactions. All were issued with dedicated revenue streams instead of as General Obligation (GO) bonds, a practice which allowed the cities in question to avoid going to the public for a vote approving the borrowing.[3] All sought funding from, roughly, the same pool of potential municipal bond investors. Yet the four agencies in question engaged with those investors on very different terms, each coming to the transaction with their own recent histories, differing levels of experience, and accessing the market via different intermediaries. Ultimately, each had a markedly different experience from the transaction.

Viewed from one angle, these bond deals were all successes. As a municipal advisor stated in an interview for this dissertation about municipal deals more generally, "They needed money and we got them money." But from another angle, the widely disparate terms of the cost of money for these four cities indicates substantial variation in our nation's market-based approach to supplying needed capital funding to communities.

Bell Gardens, California

Successor Agency to the Bell Gardens Community Development Commission Tax Allocation Revenue Refunding Bonds, Series 2014A-C

$21,455,000 in total

June 3, 2014

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[2] CDIAC is a state-run agency housed in the Office of the California State Treasurer dedicated to educating local governments on how to issue municipal debt, and monitoring public debt transactions by all agencies subsidiary to the State of California.

[3] I discuss the differences in bond typologies in greater detail in Chapter 2 of this work.

Bell Gardens is a city of about 42,000 residents living in 2.5 square miles in Southeast Los Angeles County. The city was 95.8% Latino in 2014, and had a median income just over 66% of the median income for the county as a whole in the same year.[4] While the area is undeniably economically depressed, Bell Gardens has generally fared better than some of its neighbors thanks to the presence of the Bicycle Casino, an attraction that generates a more-or-less steady revenue stream for the city's coffers which usually provides some degree of economic stability for the community. Bell Gardens had largely escaped the notoriety for public corruption and misconduct that plagued demographically similar neighbor cities in Southeast County throughout the 2010s, including the adjacent cities of Bell, Cudahy, Maywood and South Gate.

Like many California cities, Bell Gardens had embarked on ambitious economic redevelopment projects starting in the 1970s. Bell Gardens designated two areas of the city as redevelopment zones and used potential property tax increases as collateral for bonds in a process called Tax Increment Financing (TIF). Bell Gardens periodically refinanced this debt, adding additional debt in the process, several times in the intervening decades.

In 2011, in response to the public finance crisis caused by the Great Recession, California state legislators voted to dissolve all redevelopment agencies in the state. Bell Gardens set up a Successor Agency, whose sole purpose was to use property tax revenues to pay down debt incurred in prior redevelopment schemes. Like redevelopment agencies, successor agencies are merely parts of the city in question, sharing common boards and key administrators with the city's government.

As a part of its mission to pay down debt, the Bell Garden Successor Agency refinanced its bonds in 2014. The bonds had been last refinanced in 2003, at interest rates between 2.2% and 5.875% depending on the maturity of the issue and the redevelopment project in question. In addition, in 2002 the city had borrowed $10 million through a promissory note, for which payments had been nearly interest only. The full amount of the note had been due two years earlier, in 2012. However, Bell Gardens had not

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[4] $37,882 for the city, $55,870 for the county. US Census Bureau ACS 5-Year Estimates, 2014.

paid off the note due to a dispute with the State of California over whether this debt, now totaling over $9.2 million, was payable via the redevelopment tax increment. In 2014, with the dispute over the note resolved, the city did not have the cash on hand and needed to borrow to meet their overdue obligation. Although interest rates were only slightly more favorable than when the 2003 bonds had been issued, Bell Gardens opted to refinance the bonds at the same time they sought to finance the debt from the note (Bell Gardens 2014).

No one in the city administration who had worked on the 2003 Series bonds was still present in 2014. The city had gone through at least three city managers and five city finance directors in the intervening 9 years, admittedly turbulent ones for local governments across America. Instead of working with the financial advisor who had helped the city issue the 2003 Series bonds, the city brought on a new financial advisor. Bell Gardens opted to work with a small firm, Magis Advisors, helmed by a widely respected member of California's public finance community. Unexpectedly, however, the principal of Magis was appointed to serve in the California State Controller's office in 2014 (Webster 2023). The move left Bell Garden effectively advisorless during the bond transaction, with Magis restricted to a strictly ministerial role.

The city was able to secure only a partial and slight improvement in their credit rating from the Series 2003 bonds, which had been rated at a low BBB+. The smaller 2014 Series A and B bonds ranked at A-, a slight upgrade from the 2003 series. But the largest part of the 2014 transaction, Series C, ranked at only BBB.[5] Agencies assigned this partial credit downgrade although the city has never defaulted on their bonded debt. What's more, under the terms of the dissolution of redevelopment agencies, the securing property tax revenue stream was earmarked solely for debt service payments to investors and could never be spent on any other end use. In other words, investors had a guaranteed first bite at property tax revenues from the districts as a securing revenue stream. Despite these promising economic indicators, credit ratings agencies did not agree that the city was a safe borrower. Standard & Poor's

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[5] Series C ranked lower than A or B because they were subordinate to the latter, meaning, investors from A and B would receive payment first.

(S&P), the agency which assessed Bell Gardens in 2014, reports that a BBB rating means an "adequate capacity to meet financial commitments, but more subject to adverse economic conditions" (S&P nd). Despite this relatively neutral definition, a BBB rating is the second lowest rating the agency can bestow on a municipal borrower.

Bell Gardens sought bond insurance to make up for this low assessment, paying Assured Guaranty to guarantee investor repayment. The city opted to hire Cabrera Capital Markets to underwrite the bond, a Latino-owned Chicago-based mid-size investment bank.

The 2014 Series of bonds did reduce the annual payments required from the 2003 Series bonds while maintaining the same repayment timeline, largely by reducing the long-term interest rate at the top end by 0.732% to 5.143%. The reduction came at a cost. The city agreed to spend an additional $1.35 million (about 6% of the par value of the bonds) on interest over the lifetime of the new bond by restarting the clock on the 2003 Series bonds and adding in various fees to the debt, despite the lower interest rate. The city also spent just over $1 million in bond issuance costs, including the underwriter's discount, and fees to Magis—about 4.8% of the total par value of the bonds.

Los Angeles, California

Municipal Improvement Corporation of Los Angeles 2014-A and 2014-B Lease Revenue Bonds

$93,530,000

September 10, 2014

Most readers will be familiar with the city of Los Angeles, the largest city in the State of California and the second largest in the United States. Los Angeles is by all measures a major urban core. The city spans 469.5 square miles, and in 2014 had over 3.9 million residents. The median household earned $53,670 in that year, roughly the median for the county which shares its name. Los Angeles is a

multicultural city: in 2014, 48% of residents self-identified as Latino, followed by 28% as non-Latino white, 11% as Asian, and just under 9% as Black.[6]

The city of Los Angeles routinely borrows money through bond issuances on both short-term and long-term bases. Because of the frequent interactions between the city and borrowers, the city has a dedicated Debt Management division within its Chief Administrative Office (CAO), the city's administrative nexus serving under the mayor. The Debt Management team usually is made up of five people whose sole job it is to mitigate city risk from credit markets, negotiate the internal politics of borrowing, and secure the best deals possible for the city. Natalie Brill, an experienced debt desk staffer, was running the department at the peak of her prestige as a well-respected municipal debt specialist. She had helmed the debt desk since 2000, and worked for the city as a debt manager for decades. Indeed, her expertise was so respected in the field that when she retired in 2021, the industry trade publication *The Bond Buyer* ran a retrospective of her storied career (Webster 2021).

Los Angeles uses an unusual and sophisticated borrowing process for routine credit needs. In 1984, the city established the Municipal Improvement Corporation of Los Angeles (MICLA). While MICLA is technically an independent 501(c)(4), the organization has no staff and a volunteer board appointed by the city. City staff perform all MICLA functions, primarily budgeting, on a no-cost basis. MICLA's sole purpose is to serve as a debt clearinghouse for the city. Los Angeles has leased several of its real property sites to MICLA, which in turn leases them back to the city, generating a revenue stream. MICLA then uses that revenue stream to secure debt finance. Whenever the city purchases new real or big-ticket chattel property, MICLA funds the purchase through its established commercial paper program with one of its lenders.[7] More or less annually, the city's Debt Management team will bundle quantities of MICLA's short-term commercial paper notes and refund them, issuing long-term revenue bonds payable by MICLA (secured by the city's lease payments to the organization). The system allows the city to

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[6] US Census Bureau ACS 5-Year Estimates, 2014.
[7] While slightly more complex than the following description implies, commercial paper essentially acts as a short-term loan generally pre-approved by a creditor for the purposes of meeting cash flow obligations, not unlike a line of credit.

quickly purchase property when it needs it, and to borrow its long-term debt when interest terms are most advantageous to the city rather than when immediate needs arise. By pooling loans, MICLA allows the city to minimize transaction costs on the bonds since larger transactions typically charge smaller percentages on the loans. And finally, the MICLA arrangement allows the city to forgo seeking voter approval for debt since the corporation, not the city, is technically issuing the debt.

In 2014, the city issued just such a long-term bond broken into two series, totaling $93.53 million in face value on the debt with interest rates ranging from 2% to 5% (City of LA 2014). The issuance retired 19 distinct commercial paper loans, and refunded two long-term bonds from the early 2000s. The city wisely managed to set favorable terms for the debt. A consortium of underwriters sold these bonds at a $10.2 million premium to investors, essentially commanding a price above the face value of the bonds to the city with LA pocketing the difference. Investors typically pay a premium for one of two reasons— either the bonds pay an above-market interest rate, or the bonds are viewed as exceptionally stable. Both factors were likely at play with the 2014 MICLA bonds. Some of the bond tranches did pay a slightly elevated interest rate, but LA is also a household name in the municipal bond market due to their frequent bond transactions and strong history of reliable payments. Combined with another $8.8 million that MICLA had in reserve from the prior commercial paper transactions, the $93.5 million in bonds allowed the city to retire $106.3 million in commercial paper debt. The city did have to pay $723,000 of this money to underwriters and a variety of other firms assisting the transaction, a large amount in abstract but a mere 0.77% of the total face value of the bonds.

The city used an outside consultant as an advisor for the deal, Public Resources Advisory Group (PRAG). PRAG is a large nation-wide firm which specializes in large municipal clients—core cities like Los Angeles with high name recognition, frequent bond issues, and dedicated internal debt management staff. The firm had already pre-qualified with the city of LA to serve as a municipal advisor through a Request for Qualifications (RFQ) process, where PRAG and a number of other firms had all submitted necessary paperwork to the city establishing their credentials to serve in a financial advisory role whenever the city did desire to borrow. PRAG's successful application allowed for the firm to be included

in a pool of pre-qualified potential advisors, at virtually no cost to the city. For the 2014 deal, the Debt Management team selected PRAG following a mini-request for proposal (RFP) for the deal. Los Angeles tries to rotate between pool firms as a policy to avoid overly favoring one firm or another. Because the city issues MICLA bonds so frequently, financial advisors in the pool know they have a good chance of selection for future transactions. For example, between 2000 and 2019, LA worked with eight distinct pool-qualified financial advisor firms on MICLA bond transactions.

The 2014 series bond amounts were so large that the city relied on a consortium of three underwriters to sell the bonds: Bank of America through their newly acquired Merrill Lynch municipal practice; Loop Capital Markets, a Chicago-based Black-owned investment bank which also assists major clients such as the World Bank in complex debt transactions; and Ramirez & Co., a New York-based Latino-owned investment bank. Like their financial advisor counterparts, underwriters had to gain access to LA's underwriter pool through a complex RFQ process. Unlike for financial advisors, the city always stresses the bottom line for any specific transaction since underwriters take up the lion's share of bond transaction expenses. The three chosen firms had to bid against each other, and over a dozen other underwriters in the pool, for the privilege of underwriting the MICLA debt.

The city obtained three credit ratings assessments at substantial costs. With the country still recovering from the economic meltdown of the Great Recession, some municipalities wanted to ensure that investors would feel safe in their investments by obtaining multiple opinions about their creditworthiness. Los Angeles ended up seeking (and paying for) such assessments from Standard & Poor's, Fitch, and an upstart firm trying to break into the traditionally three-firm oligopoly, Kroll. Both S&P and Fitch assessed the city at an A-, even though LA had never defaulted on a loan. Kroll gave a slightly higher outlook, possibly to keep the client (LA) happy and more likely to return to them in the future. Although this rating is mid-level at best for municipal bond instruments, LA did not insure the bonds, a common tactic for cities with marginal credit which guarantees repayment for investors but increases the costs of issuance substantially. The city nonetheless obtained relatively low interest rates from the market, even with the bonds sold at a premium, and the bond sales were a success.

Including city proprietary departments like the Department of Water and Power and LAX airport's governing authority, the MICLA bonds were one of five major bond issues for the city of LA in 2014. With the city still recovering from the Great Recession, this was a slow year. By 2019, the city was back to issuing over 15 bonds per year.

Calabasas, California

2015 Certificates of Participation, Civic Center Project

$40,925,000

May 12, 2015

Calabasas is a wealthy suburban enclave located in the San Fernando Valley, just outside of the City of Los Angeles. The city of 24,000 residents (in 2014) spans 13.7 square miles northwest of the City of LA. Calabasas is synonymous, regionally, with a high-end lifestyle. The median household income in 2014 was $117,000, more than twice the median for Los Angeles County as a whole. Over 75% of the city's residents self-identified as non-Latino white in 2014.[8] Calabasas is arguably most famous for, and associated with, the Kardashian family, many members of which live in the community, though this is just one of many wealthy celebrity families who live within the city limit.

In 2006, the city of Calabasas decided to build a new city hall and library. The city borrowed $35 million, supplementing the amount with state library grants and developer impact fees, and allocated the total sum to the construction project. The city worked with C.M. de Crinis, a small firm specializing in assisting smaller cities to access bond markets. Calabasas and de Crinis opted for Certificates of Participation (COP) in 2006, a somewhat complex financial instrument that generally behaves like a lease

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[8] US Census Bureau ACS 5-Year Estimates, 2014.

revenue bond,[9] and projected paying off the debt by 2041. Importantly, like lease revenue bonds, COPs do not require voter approval.

In this earlier transaction, debt service payments would not be amortized into equal amounts, but rather increase in size annually as the COP aged, similar to a balloon-style mortgage. This unusual feature for the municipal bond market would allow the city to pay low amounts at the time of borrowing, and hopefully to refinance in an interest climate more favorable to the city in the future. The downside of the trade-off is that the city would pay higher interest costs overall over the lifetime of the loan, and at each time of payment. Interest rates on the 2006 issuance ranged from 4.50% to 5.00% (Calabasas 2006). Despite enjoying robust tax revenues for a relatively small sized city, Calabasas was effectively maintaining a steady debt burden and periodically kicking the can on repayment down the road.

Although the city made twice-annual payments for 8 years, because of the structure of the 2006 COPs they made very little progress towards paying off the borrowed principal in the following 10 years. By 2015, Calabasas had paid off only $1.56 million of the $35 million borrowed from the 2006 series COPs, while paying approximately $11.8 million in interest over the same period of time. A few other costs also plagued the 2006 series, notably the city's decision to purchase bond insurance. Finally, interest rates had dropped following the economic crisis of the Great Recession. The timing seemed right for a refinancing.

In 2015, the city partnered again with C.M. de Crinis, seeking to refinance the 2006 series COP, and to take out an additional $6 million in debt to contribute to purchasing new furniture and other equipment for the facilities. The bond team would have been very familiar with one another, although they had not worked together in almost 10 years. Calabasas's City Manager, Anthony Coroalles, and Chief Financial Officer, Gary Lysik, had both been involved in the 2006 COP issuances personally. The two men had worked in their respective positions since at least 2003 and would continue to do so until

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[9] A lease revenue bond is a bond backed by a stream generated from a lease. Typically a city establishes a separate but wholly subsidiary financing authority and transfers real property to the authority, then leases it back from the authority, generating a steady income stream which can serve as bond security. See the technical section of Chapter 2 for more details on lease revenue bonds.

Lysik replaced Coroalles upon his retirement in 2018. Indeed, much of Calabasas's city council would have been familiar with the 2006 deal. Two of the city's five councilmembers had also served continuously since the first transaction. Calabasas brought de Crinis on as an advisor again as well, one of only18 clients the four-advisor firm represented in bond transactions and other advisory roles in that year (de Crinis 2015).

The 2015 COPs were different from the 2006 series in several notable ways. First of all, Calabasas had managed to improve its underlying credit rating in the intervening six years, raising the city from an underlying assessment by Standard and Poor's of AA to AA+. This increase in creditworthiness convinced the city to issue the new COPs without bond insurance, lowering the cost of delivery from 1.67% to 0.73% (Calabasas 2015).[10] Second, the interest rates offered on the new COPs were substantially lower than the 2006 Series, ranging from 3.00% to 4.00%. While some of this decrease reflects the general drop in interest rates following the Great Recession, it also stems from the city's improved perception of creditworthiness as judged by S&P.

Calabasas again opted for a balloon-style structure which entailed low payments towards the principal amount early in the life of the bond. The city's annual payment for 2016, for example, dropped from $1.735 million to $1.578 million via the refinancing tool. The 2016 Series would expire in 2041, exactly like the 2006 Series COPs. Payment size would begin to balloon for the city in 2018, when Calabasas would again begin to pay down principal on the debt. In all, assuming the city does not refinance again, Calabasas will pay $26.4 million dollars in interest over the lifetime of the 2015 COP. Added to the amounts covered by the 2006 Series, by 2041 Calabasas will have paid $38.2 million in interest for $40.7 million in capital.

Calabasas had no trouble attracting a large financial institution to underwrite their COPs. Merrill Lynch served as an underwriter for the 2016 Series (in the parlance of COPs, technically the 'initial

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[10] The cost of delivery includes several outside costs for a bond issuance, but does not include any underwriter discount. The percentages here are calculated over the par value, or face value, of the bonds, not the initial offering price.

investor'). Although larger underwriters like Bank of America/Merrill Lynch tend to focus on larger borrowers with substantially higher face-value bond transactions, the bank made an exception for Calabasas. The 2016 Series transaction originated from the second smallest California city issuer underwritten by the bank in the entire decade.[11] Calabasas had had similar luck in 2006, when another major financial institution which generally avoided smaller borrowing agencies, Citi, underwrote the initial COP. In 2015, Merrill Lynch received a $460,000 on the sale of the bonds, about 1.12% of the par value—more than the City of Los Angeles had paid on their issuance the prior September but substantially less than the other two cases presented in this chapter. Because of their economy of scales, larger trading departments, and deeper pools of potential investors, larger financial institutions can often charge lower fees than boutique underwriting firms.

Calabasas is only an infrequent borrower. As of the time of writing, the city has only issued one other bond transaction since the 2015 deal.

Beaumont, California

Beaumont Financing Authority 2015 Local Agency Refunding Revenue Bonds, Series D (Improvement Area No. 16)

$7,820,000

May 27, 2015

The city of Beaumont is among the fastest growing municipalities in California. Nestled near the interchange of three major freeways deep in Riverside County, the city of about 30 square miles grew from roughly 11,000 residents in 2000 to 43,000 residents by 2020—a 327% increase.[12] This steep influx of residents required the rapid development of new housing. Over the same twenty-year period, private developers built over 10,000 new homes (an average of over 500 per year) to accommodate new residents. The homeownership rate in Beaumont spiked from 54.2% to 79.6% over the same time period.

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[11] The smallest was a 2016 issue by the city of Fillmore.
[12] US Census Bureau 2000 Census and US Census Bureau 2020 ACS 5-Year Estimates.

These tract developments were turnkey slices of the American Dream in the far reaches of Southern California's Inland Empire suburbs. Beaumont residents are relatively affluent—the median annual household income in 2014 was just under $70,000. 40% of the city's residents self-identified as non-Latino white, followed by 37% as Latino.[13]

Beaumont's rapid development relied on a series of policy decisions in a city welcoming extremely rapid suburban growth, including a heavy reliance on the financial sector and lenders. In the complex world of tract housing development, a landholding corporation typically subdivides a large tract of land into multiple plots. Yet generally these land developers are reluctant to pay for the necessary backbone infrastructure required to build housing—roads, sewers, hookups to water, electricity, and gas utilities—since doing so would elevate housing prices and make their product harder to sell. California cities, highly constricted by the strictures of Proposition 13, are also usually reluctant to fund such infrastructure. In 1982, state policymakers authorized Mello-Roos special districts as a way solve this problem of backbone infrastructure costs for greenfield development.

Mello-Roos districts are fairly simple. Landowners of a parcel of land can vote to form a special district, and issue bonded debt guaranteed by an increase in property tax exclusively within the district. In this way, the landowners themselves, in other words new homeowners, bear the brunt of the infrastructure required to build their new homes in the form of temporarily elevated property taxes. This keeps housing costs low since the cost of infrastructure appears in the tax bill rather than the purchaser's mortgage. The practice should in no way imply that the eventual homeowners of Mello-Roos district homes actually vote on the expense, however. Rather, landholding corporations generally establish Mello-Roos districts early in the development process, when they are the sole landowner of the district's property and thus the sole deciding vote approving formation and debt issuance. Upon formation, the landowning firm will install the backbone infrastructure, subdivide the improvement district into parcels, and sell the land to housing developers, shovel ready for new housing. The additional tax levy is recorded as a part of the land title,

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[13] US Census Bureau ACS 5-Year Estimates, 2014.

and paid by the homeowners for the lifetime of the debt. Politically, Mello-Roos districts are parts of the city where they are located, with the city council serving as the governing body and city administrators as key bureaucrats.

Cities use Mello-Roos financing to spread out the cost of backbone infrastructure associated with greenfield housing tract development, like sewer mains or roads. Developers pay the associated costs up front, and then apply for reimbursement from the city. The city in turn pays the developer with debt finance by borrowing money in a bond, usually for 20 years, and securing the bond with a new property tax assessed solely on the developed area. The structure allows future residents to pay for backbone infrastructure in their homes through property tax rather than increased housing cost allowing developers to keep housing costs low. It also frees the rest of the city from shouldering up-front costs of development, for example the expansion of wastewater systems. However, it does have a cost. By debt financing the backbone infrastructure rather than including the costs in the price of the house, the city is effectively paying interest on it, meaning in the long run the infrastructure costs more.

In the case of Beaumont's 2014 bond issue, the city had already authorized just such a district 10 years prior. In 2004, Beaumont officials, at the direction of a consulting firm called Urban Logics, formed Improvement District No. 16 to subsidize the backbone development projects of Beaumont Gateway, LP (Beaumont 2004). Beaumont Gateway, LP, the sole landowner in District No. 16, immediately voted to authorized bonded debt up to $8,000,000 to fund the necessary infrastructure, to be secured by Mello-Roos taxes. The city was more measured in the execution of the plan, eventually borrowing $5.98 million through a complex bond issue in 2004.

The bond 2004 issue was unusual, though not unique. The Mello-Roos district, instead of selling its bonds on the market, instead sold the bonds to the City of Beaumont's Financing Authority, another technology of municipal debt. Financing authorities exist to issue revenue bonds, a type of bond secured by a single revenue stream. In this case, the financing authority became the sole purchaser of the Mello-Roos district's bonds, creating a revenue stream from district to authority in the form of debt service. The financing authority, in turn, issued revenue bonds secured by this debt service to the general market. The

sleight of hand insulated the city itself from the debt by two layers. In fact, only at most $4.59 million of the $5.98 million went towards construction costs, leaving roughly 23% of the 2004 issuance dedicated to outside consultants and a 'discount' for the finance authority when it 'purchased' the bonds from the district—essentially a subsidy to the authority and thus to the city paid for by future homebuyers.

In 2014, Beaumont operated a similar playbook to the bond from ten years prior. The district issued refunding bonds, which were promptly snapped up by the authority, with the new district-to-authority debt service payments becoming a revenue stream for a new series of revenue bonds. The authority borrowed $7.82 million in order to purchase $5.45 million in district bonds. An additional $1.74 million went towards new infrastructure in the district, and once again the authority took a 'discount' from the district of $538,000. Administrative and outside consultants added up to an additional $404,000 of the issuance—about 5% in all. The bonds, like all land secured debt, were unrated, and despite the complex fiscal arrangement underlying the instruments, sold at relatively low interest rates varying from 2.00% to 4.25% (depending on the maturity date). This offered substantial savings over the 2004 series, which had remaining interest rates up to 6.00%. Rod Gunn Associates, a one-man boutique municipal advisory firm which reported only 4 clients to the SEC that year (Gunn 2015), served as the financial advisor. O'Connor & Company, a subsidiary of mid-sized underwriting firm Southwest, underwrote the bonds at a 2% discount from their par value (Beaumont 2015).

Besides the administrative sleight of hand behind the bonds, the 2014 Series D issuance had another unusual feature. The city reported the financial officer position as 'vacant' on the bond issue statement issued on May 27, 2015. The city's finance director, William Aylward, had resigned abruptly on May 1st, and the city had not yet decided about the process for hiring a permanent replacement. Though it is unclear if the city realized it at the time, the resignation was the start of a lengthy scandal. The city manager, Alex Kapanicas, had been working with Aylward and a number of other city officials to steer contracts to Urban Logics, the firm which had helped set up numerous Mello-Roos districts across the city and issue debt, including District No. 16. What Kapanicas, or anyone else, had failed to disclose was that he had a financial stake in the firm, and essentially collected portions of the contract money from

debt issuances like the 2004 and 2014 series bonds. In other words, property taxes had been increased in Mello-Roos districts across the city to provide direct additional compensation to key city administrators for over a decade. Two days after the 2014 issuance, Kapanicas himself resigned (the city council terminated his contract shortly after). Almost a year to the date after the 2014 issuance, Kapanicas, Aylward, and several other key officials were charged by the Riverside District Attorney's office with a collective 94 felonies, alleging theft of approximately $48 million dollars from multiple Mello-Roos bond issuances and other forms of embezzlement spanning over a decade (Muckenfess 2016). Even forensic auditors would later never be able to put a concrete dollar value on how much debt-fueled money was embezzled by the cohort via the scheme.

In all, by 2034 the 241 households of Improvement District No. 16 will have paid $14.79 million dollars for $5.35 million of infrastructure—about $2000 per household per year over a 30-year period for $22,000 of value in 2004 dollars.

Creating difference from similar borrowers

The above cases of Beaumont, Bell Gardens, Calabasas, and Los Angeles reveal four very different experiences from the municipal bond market. This happened despite relative similarities between the deals. All of the cities borrowed through revenue bond structures (bonds secured by a specific revenue stream). All borrowed in the same period of time during a similar interest climate. All are located, roughly, in the same subregion of Southern California. But similarities arguably end there. The four cities borrowed radically different amounts, have different resident bases and tax bases, and different urban structures. They ultimately approached the market through distinct intermediaries, and had access to different underwriting firms. The end result was different costs of money. Table 1 lays out the results of the bond issues in a comparative fashion.

Table 1.1: Comparative Selected Details on Four California Municipal Bond Transactions, FY2014-15

City Name (2015 Population)	Principal Borrowed	Credit Rating	Interest Rate	Fees (as % of total principal)	Total Interest Paid Over Life of Bond (as % of total principal)[14]
Beaumont 43,000	$7,820,000	UNRATED	2%-4.25%	$271,400 (3.5%)	$3,184,392 (40.7%)
Bell Gardens 42,000	$21,455,000	A-/BBB	3%-5.14%	$1,034,000 (4.8%)	$9,215,109 (43.0%)
Calabasas 24,000	$40,925,000	AA+	3%-4%	$759,688 (1.9%)	$28,381,747 (69.4%)
Los Angeles 3,900,000	$93,530,000	A+	2%-5%	$722,845 (0.8%)	$37,014,843 (39.6%)

Population data from US Census Bureau American Community Survey 2015 5-year Estimates.
Bond data from bond issue statements: Beamont (2015); Bell Gardens (2014); Calabasas (2015); City of LA (2014).

Los Angeles, by virtue of its sheer size, borrows far more frequently than most of its neighboring cities, and in far larger amounts. Indeed, the city is one of the most active local borrowers in the entire nation. Because of the frequency of its bond transactions, Los Angeles has historically maintained a cadre of bureaucrats dedicated to the municipal bond market—public servants who not only have the time, but are uniquely specialized in their training, to follow trends in municipal borrowing, assess what peer cities are borrowing for and how, and plan out complex financing strategies for the city. These public servants also use multi-layered request for proposals (RFPs) to make sure they are getting the best offers from financial services providers in a competitive marketplace. Because of the size of its transactions, Los Angeles attracts bids from larger banks, which might not deign to participate in small transactions. The city never lacks for dance partners in a bond transaction.

Smaller cities, generally, do not have these luxuries, but nonetheless have needs for capital finance. In each of the three other case cities above, the finance manager wore multiple hats—balancing the budget, watching cash flows, making sure employees and vendors are paid on time, calculating

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[14] Does not include fees.

revenue projections for an upcoming budget cycle, preparing audited reports of prior year expenditures, and keeping track of investments and other assets, just to name a few of the many roles played by a small-town municipal finance director. In their day-to-day lives, capital finance is a miniscule part of their purview—except during a bond transaction. These cities, like LA, relied on outside advisors to help them navigate the borrowing process. But unlike for the larger and more active agency, the relationship places substantially higher degrees of trust with the financial advisor despite the fact that interactions are less frequent and thus fundamentally transactional. The paradox transforms the financial advisor from a true advisor to something more akin to an active partner with the city (or even a leader) through the borrowing process, complete with a federally-mandated fiduciary obligation to represent the best interests of the clients.

Like Los Angeles, two of the other cities had to seek outside verification of their creditworthiness from bond ratings agencies. Yet despite equally clear histories of prompt repayment, Bell Gardens and Calabasas had vastly different experiences with ratings agencies. Beaumont, with property tax-secured debt, did not have to rate its bonds at all. Bell Gardens, also with property-tax secured debt though of a more speculative nature, did. Even though the Beaumont's debt was unrated, they were able to command a lower interest rate than Bell Gardens, this despite similar histories of bond repayment. Meanwhile, Calabasas, issuing debt essentially secured by a budgetary sleight of hand rather than a guaranteed property-tax revenue stream, somehow commanded the lowest interest rate of the three. Although the city would pay more in interest over the lifetime of the loan overall due their balloon structure, debt service would be a lower burden for the well-heeled community and they did not seem to suffer from either the speculative nature of the debt security or the fact that Calabasas has a small population.

Access to purchasers of the instruments also varied. Calabasas, like LA, had access to one of the world's largest financial institutions as an underwriter, while Beaumont and Bell Gardens settled for smaller boutique investment banks. The latter suffered increased associated costs for borrowing.

Despite these differences, most of the city administrators involved in these bond transactions were likely trained by the same trainers at the California Debt and Investment Advisory Commission

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(CDIAC), a division of the State Treasurer. They would have learned the basics of why cities use bonds to borrow, what credit ratings mean, and why RFPs are so important for keeping costs down. In short, they had similar formal education opportunities, but experienced the bond market differently from one another.

This dissertation attempts to better understand why California cities have such different experiences, and end up with such distinct terms of lending, from a municipal bond market which is supposedly driven primarily by market forces. Bell Gardens will never be able to borrow like Beaumont, despite some similarities between the two communities. Calabasas will always have its choice of dance partners when they borrow, while many of its neighboring suburbs will be left with scraps. Every city or local agency can access the capital they need—such is the miracle of the United States municipal bond market—but not everyone can do so on equal, much less favorable, terms.

There are obvious reasons why some smaller cities might fare worse in a tough market filled with bankers who emphasize the bottom line. Although smaller cities have been theorized to provide more readily tailored packages for amenities for residents (see Tiebout 1956 for the classic version of this argument), the trade-off is a fragmented political landscape where many cities lack specialized staff, while basic functions are duplicated—a loss of efficiency and capacity through smaller economies of scale, in other words. In more clear language, a smaller city might not have the resources to employ dedicated debt staff, and even if they did, that putative staff person would spend the majority of their time idling between infrequent bond transactions. Borrowing from the language of water planners, these cities lack Technical-Managerial-Financial (TMF) capacity when it comes to the highly technical set of skills needed to interact with a complex multinational financial market via multiple intermediary firms.

Small city staff recognize this issue, of course. My research will demonstrate that city financial officers from smaller cities respond by placing greater trust in the outside contractors who shepherd their cities through bond transactions than their big city counterparts. Relationships, repeated cooperation, and the ever-important reputation of outside financial advisors either supplement, or supplant, rigorous RFP processes or the bottom line in many smaller agencies. As I will demonstrate in this work, trust built up through longer-term relationships and repeated interactions between the issuing city and outside financial

advisors ultimately seems to serve small issuers better than a blind faith in the RFP process when in-house expertise and capacity for evaluating market terms is lacking. In the worst cases, like that of Beaumont, such trust can allow for outside or inside parties to even take advantage of the issuing agency for personal benefit. But in most cases, the result is better terms of lending. This patchwork system of connections between suburban cities and firms creates a system of winners and losers among suburbs, amplified by a market where Monday-morning armchair quarterbacking over already-closed deals can rarely truly say a finished deal was 'bad' for the borrower, only comparatively worse than possible comparison deals. The stakes can run into the millions of dollars, money which could be spent to provide more infrastructure or amenities for residents.

This system of winners and losers makes for a potent blend with the racial difference fostered under racial capitalism. Capitalism always takes advantage of the fostering of racial difference in the search of additional profits as a core part of its functioning (Robinson 2000). Suburbs have been one of the primary socio-political channels for fostering racial difference (Carpio 2019; Pulido 2000). Initially built as zones of white privilege, suburbs continued the fostering of racial difference through zoning policies which pepper some areas with pollution and other disamenities. I argue in the following chapters that debt finance is another tool to foster the creation of racial difference though the spatial-political entity of suburban governments. The result is another tool of uneven development across metropolitan areas. The dynamic will continue to grow as suburbs continue to diversify.

The problem compounds with the income of residents. Cities with a lower median income also do worse that their better-heeled counterparts—an effect that shows up as independent of racial composition. Unsurprisingly, the effects from race and the effect from income compound in predicting worse terms of credit. What is more, my study shows that low-income cities with high proportions of non-white residents do not have access to key advisors and underwriters in the municipal bond market. While not operating in an entirely separate market from larger or richer issuers, low-income cities with proportionally larger non-white populations clearly operate in a segmented market with a reduced number of firms, and connect with those firms through distinct structural arrangements.

The idea that racialized dynamics are present in debt markets is nothing new. Indeed, racial discrimination in consumer credit markets is well documented, despite the putative neutrality and transparency of the algorithms determining consumer credit ratings. The municipal debt market has even less claim to neutrality or transparency in its creditworthiness rating system. Rather, an oligopoly of three (or four, depending on who you ask) firms provide opinions on credit ratings through opaque processes of evaluation. Such a process surely can also generate rents for bondholders based on higher costs and interest rates stemming from racial difference.

And indeed, plenty of scholarship has long shown that municipal credit markets have evinced a racial penalty on majority Black communities. While recent interventions have shown this to be the case (Ponder 2021), economists commented on the phenomenon as early as the 1980s (Loviscek & Crowley 1990). Although municipal bond market participants will go out of their way to assure all parties involved that racial difference does not manifest in the bond issuance process—in credit ratings, interest rates, or fees paid—studies have for the most part indicated the contrary.

This dissertation takes its point of departure from these prior studies. I use samples from California cities with a focus on its rapidly changing suburban landscape to analyze creditworthiness as a mark of white privilege relative to people of color as a whole, rather than limiting attention to uncreditworthiness associated with Blackness which prior studies have uncovered.

California provides an ample field of study for this phenomenon. The state is multicultural, and populations of white residents are dropping in many California cities and in the state overall. Many suburbs, once founded as racial enclaves to protect and isolate white residents from their neighbors of color, have been undergoing a dramatic racial/ethnic shift across the state over the past 20 years (Pastor 2013, Kneebone & Berube 2014). Some outlying cities which were once playgrounds for local Ku Klux Klan chapters now have less than 5% of white residents. Figure 1 shows the percentage of non-Hispanic/Latino white residents averaged across all cities by county for selected populous California counties, tabulated for 2000, 2010, and 2020 from Census data. The figure shows a steady decline, on average, of white residents in all cases over the past twenty years. A similar figure would show a decrease

even in the cities with the whitest populations for every county, though less drastically. In short, California's urban and suburban cities are becoming less and less white. A clearer understanding of the effects of racial difference expressed by municipal credit markets is thus key for understanding, and planning for, California's future municipal capital and credit needs.

Figure 1.1: Percent of white residents, averaged across all cities by county, select California counties
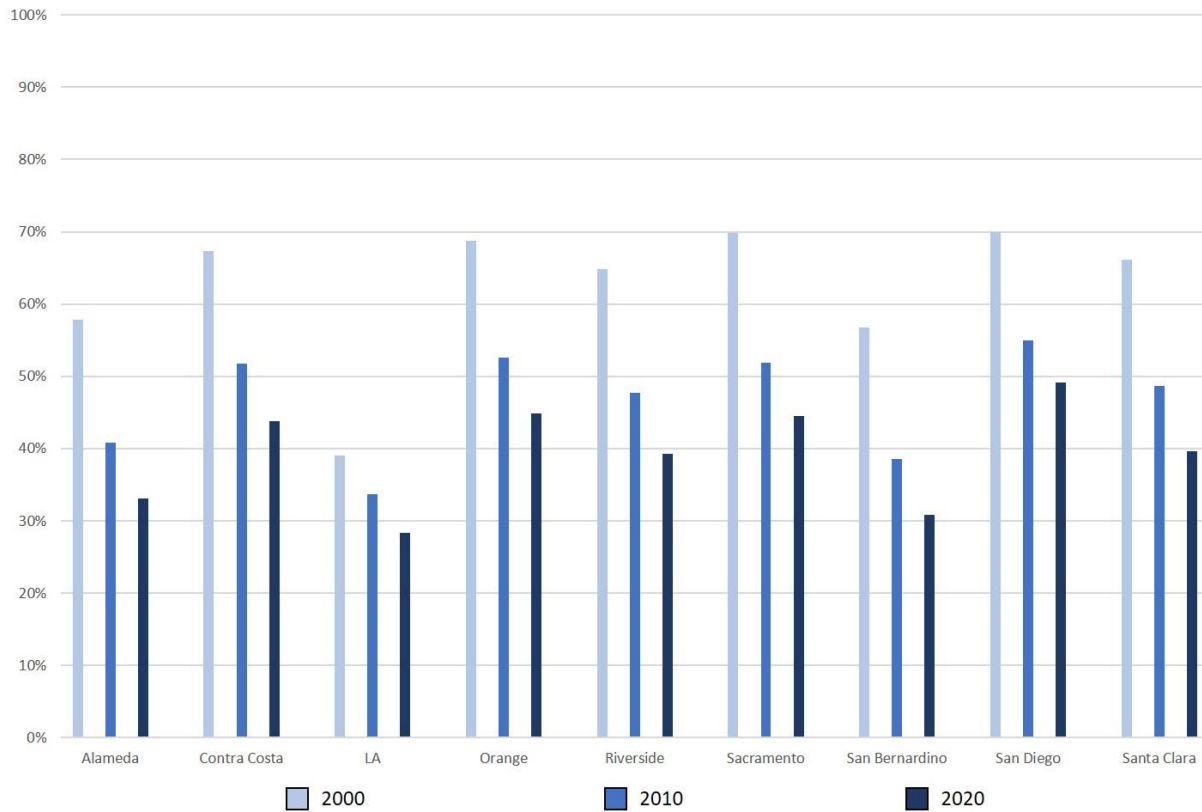
Source: US Census Bureau Decennial Census Demographic Files, 2000, 2010, and 2020.

A Note on the Term 'Suburb'

The term suburb is a fraught one. The imaginary of the suburb—single family homes, white picket fences, strip malls as far as the eye can see—is for many the most immediate response to the term. Even this perception is a conflicted one, as demographic change in suburbs has shifted the suburban experience far from their original formations, typically as white enclaves. Today's suburbs in the United

States are more diverse than at any point in the past, and continue to diversify in racial and income terms (Jackson 1985; Pastor 2013, Kneebone & Berube 2014).

Suburb can also refer to a socio-political formation, and when incorporated as the most basic unit of the local state in the US political economy. The ambiguity between the cultural and experiential connotations of the word and the political connotations might be confusing in some contexts.

This dissertation will use the term 'suburb' to refer specifically to the political units of cities surrounding a core urban city—in this case, the cities of Los Angeles (including Orange County and the Inland Empire), San Diego, San Francisco, San Jose, and Sacramento. This category includes 379 specific political entities, ranging in 2020 population size from 100 residents to over 460,000 residents. Cities range in diversity as well, from 90% white residents to 98% Latino, and in 2020 median household income levels ranged from as high as $266,000 to as low as $36,000. Some of these cities, like Bell Gardens, are essentially dense and urbanized areas, despite the suburban moniker. Other cities specialize in industrial production and have very small populations. Some, by contrast, are primarily rural communities on the fringes of suburban counties. And some, like Beaumont, are suburban boomtowns promoting extensive greenfield development—cities arising on the urban frontier seemingly overnight. In short, for the purposes of this dissertation, the term suburb thus refers to a wide variety of cities which have little in common with one another besides their close proximity to a major core city.

Using the term 'suburb' to refer exclusively to distinct political entities might not be adequate for most studies of the suburb, given that portions of a core city might be suburban in culture and built form. But because this study relies on observations of distinct bond issuers, which by definition must be bounded political entities, it seems the most sensible approach. Kneebone and Berube (2014) have taken a similar approach in their studies of trends of suburbanization. And Terbeck (2020) found that political lines were essentially as useful in studies of suburban dynamics as three other methodological approaches for dividing up regions (relying on age of housing stock, for example). These considerations aside, however, the fact remain that communities which are not legible to the financial sector cannot issue debt, and incorporation is the first requirement for legibility.

Precisely because suburban cities are so different from one another, they also relate to financial services providers in different ways. Indeed, in the following chapters, I show evidence that financial markets are adept at operationalizing racial difference, in particular, to generate higher rents for bondholders and higher fees for the finance sector. This difference creates a tension in the very word suburbs as a category. Where possible, I will try to differentiate between types of suburbs, and present here a few archetypes.

Privileged Suburbs are cities of wealth and privilege. Generally these suburbs have larger populations of white residents, and very elevated median household income rates and homeownership rates. In many cases, Privileged Suburbs from California have become household names across the nation, shorthand for a Californian lifestyle of wealth, ease, and privilege. Some examples of California Privileged Suburbs likely familiar to most readers might include Beverly Hills, Calabasas, or Palo Alto.

Growth Suburbs are cities on the urban fringe experiencing rapid tract home development. These cities greatly exceed the average pace of growth for California, sometimes by triple-digit percentages. Growth Suburbs, in contrast to Privileged Suburbs, are generally not known far from their borders, only attracting residents who seek a single-family home lifestyle at affordable land costs, and willing to suffer longer commute times and higher gas expenses to subsidize it. Beaumont is such a Growth Suburb.

Industrial Suburbs are cities with low residential populations, which zone extensively for industrial use. These cities often are not intended to, or oriented towards, have residents at all. They behave distinctly from other suburbs because their revenue primarily comes from firms, not individuals, and as such tend to have lower sales tax revenues. They are also more likely to operate their own water and electric utilities in the interests of serving enterprise. The much maligned second season of the HBO show *True Detective* was set in such a suburb, based loosely on the real city of Vernon in Los Angeles County. Vernon has the smallest population for a city in my population for this study.

These three archetypes leave most cities out. To categorize the omitted cities, I draw on a modified system of classification established by Pastor (2013). His study presents three typologies for inner-ring suburbs with primarily Latino populations tiered, primarily, by household income: Middle-

Class Latino suburbs, Working-Class Latino suburbs, and Struggling Latino suburbs. Putting aside the ethnic aspects of this typology, the three-income level standard is instructive. Pastor uses these terms relative to each other. Middle-Class Suburbs are areas 'where incomes and homeownership levels are relatively high;' Struggling Suburbs 'are marked by very high levels of poverty, (and) low rates of homeownership (Pastor 2013: 144).' Working-Class Suburbs are everything in between these extremes.

This typology has an obvious problem in that it lacks precision in its relativity. A city which might appear 'struggling' vis-à-vis Beverly Hills, for example, might appear middle-class or even better compared to a city like Bell Gardens. Nonetheless, the idea that suburbs do cater to rough classes of residents by offering packages of amenities equivalent to their respective purchasing power is fairly well established in political science and planning literature (Ostrom, Tiebout, and Warren 1961). In other words, suburbs are inherently easier to think about in relative comparison to each other, with household income as a fair enough proxy. This scholarly process of differentiation between communities might be familiar, perhaps, to a first-time homebuyer shopping for amenities like 'better' schools, 'cleaner' streets, or 'safer' neighborhoods.

As such, I will use Pastor's three typologies loosely throughout this dissertation, with an admission here that the lines between the three ordinal categories are fuzzy at best. The reader can be reassured that a Struggling Suburb, as discussed herein, will be suffering from lower property tax revenues and exhibit demographic trends including low median household incomes and low homeownership rates. Middle-Class Suburbs will not experience these issues, but will also fall short of Privileged Suburbs—in short, they will hew closely to California's medians in each category. Working-Class suburbs will fall somewhere in between Struggling and Middle-Class Suburbs. The reader is warned here that the lines between these categories are not bright lines, but rather porous concepts, and that the terms are relative and have little meaning in a scientific sense.

I also discuss Large Suburbs. These are cities geographically near to core cities, but major cities in their own right. I have selected a bar of over 200,000 residents to separate these from smaller cities— by contrast from the above distinctions, a bright line if an arbitrary one. In California, these cities, while

not large core cities, are more complex political entities than smaller ones, and tend to have larger administrative state apparatuses, more contentious politics, and stronger mayors. By virtue of their size, they depart from the homogeneous communities often present in smaller cities. Some Large Suburbs are indeed quite large. The city of Long Beach, a suburb of Los Angeles, is larger in population than the core city Sacramento, for example.

There is nothing inherent about 200,000 residents which changes a city—in all likelihood, a city with 199,000 residents would have more in common with a city like Long Beach than it would with a city like Bell Gardens or Beaumont, for example. But the line does serve as a convenient one as it encompasses only nine California cities, many of which will likely be familiar to the reader with even a passing knowledge of California politics or geography: Anaheim, Chula Vista, Fremont, Irvine, Long Beach, Oakland, Riverside, San Bernardino, and Santa Ana. The next largest city in size, Glendale (at 195,000 in 2020), exhibits some of the attributes this typology is supposed to cut out: a rotating mayoral position rather than a mid-power directly-elected mayor, and a large ethnic community with a dominating role in local politics (Armenian). Thus, while acknowledging the arbitrary nature of the 200,000-resident line, the cut seems to work for my purposes, at least in the context of suburban California.

Finally, from time to time I will apply ethnic or racial modifiers to the above typologies to express the dominating presence of a specific racial or ethnic group among the city's residency. In California, this typically resolves as a Latino Suburb, here defined as a city with over 40% Latino residents in the 2020 census, or an Asian Suburb, here defined as a city with over 40% Asian residents, again as reported in the 2020 census. While conceptually possible, no city in my sample qualifies for both categories.

I define a White Enclave Suburb as a city with over 60% white non-Hispanic residents. I use the higher threshold to avoid double counting cities, and to emphasize the overwhelming whiteness of the city's residents.

California has no Black majority cities. Indeed, only one city in the entire state reported over 40% of its residents as non-Hispanic Black people (Inglewood). The Black-white paradigm which has been so

instructive in other studies of the racialized effects of bond borrowing (Ponder 2021 or Jenkins 2021 to name just two) has limited utility in the study of racialized effects of bond borrowing in California precisely because the state's Black population has become so dispersed. I use the term Historically Black Suburbs to refer to five suburbs which have historically seen Black majority or near-majority populations: Compton, Hawthorne, Inglewood, Oakland, and Richmond. It should be noted that all five of these cities exhibit dwindling Black populations, and three of them fit the above criteria for Latino cities (Compton, Hawthorne, and Inglewood).

These terms may be stacked. Thus, the reader will encounter White Privileged suburbs, Latino Working-Class suburbs, Historically Black Large Suburbs, and the like throughout this work. I make no pretense of some kind of essential universalism behind these labels of convenience. The above categories apply in the context of suburban California, but may not be applicable in other contexts.

Plan of the Dissertation

The dissertation starts with a literature review and technical roundup of bond borrowing processes, terminology, and key players. The main arc of the analysis attacks the problem of suburban borrowing from three distinct empirical angles, each addressed by a single chapter, followed by a concluding discussion and theorization of the findings.

In Chapter 3, I have created a dataset by hand coding bond transactions for all core and suburban cities in California's major metropolitan areas: Los Angeles, the Bay Area, San Diego, the Inland Empire, and Sacramento. I added to this control variables from the US Census Bureau for socio-economic factors, and from the California State Controller Fiscal Cities database to control for public finance differences. Unlike some prior studies which have assessed the connections between race and terms for bond transactions, I included analysis of two key factors which factor into a bond's cost and creditworthiness: end use of the funds and source of payment for debt service. These two key factors can alter the terms of credit substantially. For example, a speculative bond transaction supporting the development of a new NBA stadium in the rural Central Valley, secured by future ticket revenues despite no team being attached

to the project, might have less favorable terms than a well performing municipal water utility with steady revenues from user payments. These factors do matter to investors, and should be included in any study of racial effects.

To my knowledge, mine is the first study looking at racial difference to control for these important considerations. I also broaden the analysis beyond a simple Black-white dynamic to include other racial dynamics, particularly majority Latino cities. As with several prior studies, I control for other key city characteristics like median household income. Even including these factors, I find that on average, the more white residents a city has, the more likely it is to borrow money from the municipal bond market in any given year. Furthermore more, they will on average receive higher credit assessments than their comparable cities. Controlling for credit rating, they will also pay lower interest rates. And finally, controlling for both credit rating and interest rates, they will also pay lower fees for their financial services. Racial composition matters more than the size of the city and has robust effects even in samples of only small communities, an important addition to scholarship which until now has primarily focused on cities over 250,000 in population.

Chapter 4 explores connections between municipal city issuers and the outside contractors assisting them with debt issues, using social network methodology. While best practices encourage municipal borrowers to seek RFPs for most bond transactions, in practice many city finance officers rely on intuition, past partnerships, and personal connections to select partners as much as, or even more than, the bottom line. This study is the first to use social network analysis to better understand the networks that cities build around themselves when they choose to borrow money. Using a variety of network models, I show that low-income cities (as measured by median household income) work in an overall market with fewer available partner firms for their transactions. This implies constricted potential partner firms for bond transactions for low-income communities or for communities of color. Because they issue infrequently, low-income cities do not have enough transactions to build close and lasting relationships with the advisors and underwriters they partner with. By contrast, those firms work frequently with *each other* on bond transactions, building strong ties with each other but not with their client public agencies.

The chapter closes with an analysis of firms which specialize in working with smaller cities that evidences these trends. The overall picture shows that these cities are operating in largely separate bond markets from their neighboring communities when it comes to the intermediaries between them and the ultimate purchasers of the bonds. The finding contributes to other scholarship which shows that racial difference is, in part, exacerbated by social closure, with less access to potential partners governed by social relationships overall.

Chapter 5 relies on interview data to better understand the connections between cities and their advisors underpinning bond transactions. The data reveal that cities use a variety of structures to access the outside help that they need to issue debt. Larger cities have little in common with smaller ones in the degree of formality of the relationships between the city and the outside firm, with some smaller cities relying more on intuition and word of mouth than strict bottom-line RFPs. However, amongst smaller cities, substantial variation also exists. Smaller cities which have more resources are more likely to entertain long-term relationships with outside providers, sometimes spanning decades. The length of these relationships speaks to the value of engaging in a "repeated game", with repeated successful transactions leading to stronger relationships and deeper contractor understanding of city priorities. Less fortunate cities, however, eschew these long-term relationships, focusing instead on RFP based deal-by-deal contracts. The transactional nature of these agreements, coupled with the informality of assessment through RFPs and a lack of institutional knowledge within the city itself, has created a volatile mix where outside parties have little incentive to provide optimal terms for transactions for cities, and ample incentive to provide optimal terms for other firm partners with whom they regularly work.

The end result is a roughly three tier system. Large cities work with large pools of major firms and rely on a mix of in-house bureaucratic expertise and RFP logics to keep terms favorable. Small cities with resources partner with firms in long-term relationships which provide the firm incentive to best serve the client. While these arrangements can create perverse outcomes like Beaumont's, in general public administrators find that the benefits of increased trust via long-term relationships outweigh the potential costs. But Struggling Suburbs for the most part do neither. Lacking in-house expertise, they rely on

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outside advice. But they structure their relationships with outside partners on a deal-by-deal basis, relying on RFPs rather than repeated interaction to provide discipline to private sector actors. This, I argue, explains some of the racial difference evidenced in the terms of bond transactions and the social network of outside partners uncovered in the previous two chapters.

Despite these evident patterns, financial services providers and municipal administrators alike were both highly reluctant to acknowledge any racial difference within the municipal bond market. Interview subjects instead argue that two factors, primarily, contribute to higher costs experienced by cities with large proportions of people of color: a perception of political instability, and a perception of an overly 'political' selection process with too much interference by elected leaders in administrative processes. In some cases, interview subjects acknowledge that the political interference was caused by financial services providers themselves.

Neither of these discourses adequately explains the situation experienced by the most disadvantaged borrowers, however. In the concluding chapter, I lay out an overall framework to encompass my findings. Struggling Suburbs are included in the municipal bond market, but the inclusion process is an example of predatory finance, a term which means financial practices designed to extract additional value from creditors (Seamster & Charron-Chénier 2017; Taylor 2019). Discourses of blame place the responsibility on Struggling Suburban borrowers for their own negative terms of credit. Yet these issuers have little control over the municipal credit market, and by and large adhere to the best practices touted to them by state-run training authorities and professional organizations. By adhering to these practices in a market where they have reduced access to vendors, Struggling Suburbs are effectively putting themselves in a potentially volatile situation where outside vendors have far more incentive to cooperate with each other at the city's expense rather than to cooperate with the city itself. These structural arrangements manifest in the form of racial difference, which has a very real cost for low-income communities with large proportions of residents of color.

Another way might be possible, though substantial challenges would make reform daunting. My findings spotlight a system which, despite repeated findings of racial bias, has been so whitewashed as to

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appear neutral and market-based to all participants, and provides little room or hope for reform. In short, it is in almost no actor's interest to acknowledge the important role that debt-based racial difference plays in generating uneven development across metropolitan regions. Such an acknowledgement would destroy the benefits accrued to investors and private sector financial services intermediaries which are generated by racial difference. The most likely beneficiaries, the Struggling Suburbs themselves, are the politically, economically, and financially weakest actors in the interlocking system of debt. Nonetheless, armed with empirical insights and a conceptualization of the processes generating racial difference, my dissertation closes with a brief section on possible other solutions to the problem of racial differences which might allow cities to meet their capital needs on better terms, and keep intact the important role of municipal bonds as tax-free investments for investors.

CHAPTER 2

Literature Review and A Technical Primer on Bonds

Urban Planning and the Problem of Debt

Most meat-and-potatoes urban planning literature is woefully underprepared to really understand municipal debt. Planning literature typically looks at public goods and their relative merits, and takes for granted that debt finance is a way to make those plans come to life. But our discipline lacks a comprehensive theory of debt and how different pathways of debt lead to different planning outcomes. As evidence, look to the discipline's flagship journal, the *Journal of the American Planning Association* (JAPA). In the past 10 years, JAPA has only published one article which focus primarily on municipal debt as a planning tool, and this just in the past year at the time of writing (Fisher, Leite & Weber 2023).

As a practical matter, city finance officers and contractor financial advisors understand this very well. Indeed, many interview subjects for this project joked about the relative lack of sophistication planners showed towards debt. One financial advisor quipped:

> *Finance only exists as a resource towards… implementing planning and engineering, the facilities and infrastructure that are needed for communities to exist. And they [financial concerns] tend to be the last addition to the equation! So you'll have engineers and designers and planners and architects come up with these great visions for what needs to get done. And some of it is boring stuff, like pipes in the ground, and other things are actually fancy libraries or performing arts centers or aquatic centers. And then they get to, 'oh yeah, how are we going to pay for this?' And its like, well, you don't go find the house you want to live in and then figure out 'can I afford it?!'[laughs]… And that's pretty routine. Its pretty amazing how [some] of our engagements are solving a problem that has been years in the making.*

This cavalier approach to the financial outcomes of planning is exacerbated by the US political economy which relies on myriad local states to provide public goods. Urban fragmentation relates to financial planning in the US more than in other countries simply because we by and large lack finance pathways from higher levels of government to allow local communities to meet their capital needs. In a political context which favors arguably absurd degrees of fragmentation at the local level,[15] planners should take seriously the ramifications of leaving cities to their own devices when they seek capital funding. My work cannot fill this gap, but I do hope it can provide an inspiration to take the issue of financial planning more seriously.

This chapter contains two sections: a literature review, and a technical review on municipal bonds.

In the first section, I situate this work as speaking to two key existing literatures. First, I discuss race in connection to the suburb as a key locus of racial difference, and in connection to framings of risk and debt. Second, I discuss literature around debt and governance and situate my dissertation within debates around municipal autonomy and the power of the financial sector.

I follow the literature review with a technical discussion of how and why cities borrow using municipal bonds. This includes a brief history of municipal debt, but primarily focuses on the most common pathways of debt US cities use today to borrow money. This section may be tedious to readers who have spent ample time studying municipal finance; such readers are invited to gloss or skip it over. However, for readers who are less accustomed to municipal finance generally or municipal bond markets particularly, the section may help situate later discussions within this often arcane little slice of urban

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[15] The author of this work grew up in Saint Louis County, which includes 97 cities for about 1,000,000 residents as of the 2020 Decennial Census—about 10,000 per city on average. The largest has only 50,000 residents, while the smallest has a mere 400 (the City of St. Louis is politically independent from the county, though it too is far from huge). Los Angeles County, where the author's university is located, is not far behind, with 87 distinct cities besides our core city of LA.

planning. It can also be used as a reference for readers who come across unfamiliar terms or pathways of debt later in the dissertation.

Literature Review

I view my dissertation as primarily contributing to two scholarly fields.

First and foremost, this dissertation above all is situated within critical discussions of racial capitalism, and how various pathways used by capital can create racial difference as a way to maximize returns on investment. I argue here that municipal debt is one such pathway, filtered through the variety of suburban local states and through the building of risk. The suburb has historically served as a key site of the formation of racial difference through technologies like racial restrictions. Later, suburbs continued this core function through the siting of public disamenities like polluting industrial activity or through the ready availability (on predatory terms) of consumer capital leading to a housing market collapse. I argue that the suburb today continues this role, at least partially, through the minute differentiations in constructed risk which underly municipal debt. At its heart, this dissertation is primarily concerned with the pathways through which these differentiating risks are generated.

However, the dissertation also informs discussions of debt and governance in the age of the neoliberal entrepreneurial city Economic geographers have explored to some degree the role of debt as a disciplining force for municipal governance. Scholars have debated the degree to which finance determins outcomes in local governance, but also the degree to which local development prerogatives may lead finance. But regardless of viewpoint, these studies have tended to draw conclusions from large city cases, and the findings may not apply to smaller cities like suburbs, the most common form of city in the US political economy. The studies for the most part eschew explorations of how pathways of debt might be different in local states which, in the US political economy, have very different political structures and varied levels of bureaucratic expertise.

As each of these topics have somewhat distinct literatures, I will discuss each body in turn. First I address race and debt in the suburb with a two-part review, looking at suburban generation of racial difference and at racialized concepts of risk. In the next major section, I lay out the debate on the role of finance in urban economic policy and situate my study within that debate.

Race, debt, risk, and municipal finance

The linkages between racial difference, risk, and debt are complex. To discuss the role of race in municipal debt, I have to approach the problem from two angles. In the first, I discuss how the local state, particularly the suburb, has historically been a key site for racial difference and increased profitability. Second, I turn to the idea of racialized perceptions of risk in debt more generally.

Overall, I argue here that my work speaks to a gap in the literature surrounding race and debt, specifically, a theory of racialized processes of municipal debt. Suburban processes of debt have become highly racialized as the nature of suburban residents is changing. This process has opened up opportunity for increased returns on investment for investors through channels of municipal debt. Unlike similar processes for consumer debt, this field remains understudied, at least as it pertains to the suburb as a key site of social subjectification. By treating suburban processes of debt like other processes of debt, planners and urban administrators are in fact reifying racial difference into key fiscal markers like the interest rate and the amount of money they pay to borrow.

The Suburb as an Engine of Racial Difference

At its heart, racial capitalism is the use of key institutions (including the State) to generate and perpetuate racial difference in the interests of increased returns on capital investment (Robinson 2000). This process has taken many forms since the arrival of capitalism, including colonialism (Park 2016), slavery (Baptist 2014), and Jim Crow (Kelley 1990).

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In the American context, the suburb has been a key locus for the reinforcement of racial difference. Suburbs traditionally have been sites of racial exclusion (Jackson 1985; Nicolaides 2002), which generated racial difference through disparate access to amenities like green space and fresh air, but also through the increased tenancy payments made by Black residents excluded from suburban life and restricted by racial covenants to specific neighborhoods. This framing of the suburb has been complicated by recent scholarship, which has argued that Black and minority suburbs have always existed. However, local planning practices have been far more likely to disrupt Black communities or fail to provide them with amenities required for basic life, or by restricting their siting to dangerous or undesirable locations (Gordon 2019; Purifoy 2023).

The make-up of suburban space is rapidly changing, shifting the locus of poverty but also the distribution of race in US space (Kneebone & Berube 2014). The make-up of residents in suburban space, particularly in the largest US states of California and Texas, does not line up on a simple Black-white paradigm, with other racialized groups making up majorities or large constituencies of residents in suburban communities. This has at times resulted in shifting politics and political alliances (Saito 1998).

Further scholarship has shown that processes of exclusion were not the only channels through which the local suburban state was able to generate racial difference in pursuit of profit. Substantial scholarship has explored the suburban siting of polluting disamenities, with shocking and gruesome effects on suburban residents (Pulido 2000). Even everyday infrastructures can contribute to racial difference in the politically variegated mosaic of suburban space. For example, Carpio (2019) showed that roadways contributed to racial difference through segregation and disparate enforcement in suburban space. I have written elsewhere about how something seemingly as benign as the political structure of water utilities and variegated oversight logics have contributed to worse health and fiscal outcomes in racialized suburban space in Los Angeles County (McBride 2022). And of course disparate policing practices in suburban communities have had substantial influence on how we describe the suburb, or even the discipline of urban geography as a whole, in a post-Ferguson world (Derickson 2017).

Perhaps most germane to the present study, however, are recent scholarly interventions around the question of economic and infrastructural development in both urban and suburban space and how these can play into the creation of racial difference. Purifoy and Seamster (2021) have shown that routine suburban economic development contributes to racial difference through direct taking of resources, through the erosion of autonomy, and through continued exclusion of Black residents from white space. Land use planning, channeled through the local state but with the co-operation (and often leadership) or private firms, contributes to racial difference.

The trick for scholars is to recenter the role of the firm and its interactions with the state to better understand the pathways through which the state generates racial difference (Carrillo & Pellow 2021). While this is generally done by understanding how firms engage with municipalities in the economic development of projects, I argue that we also need to better understand how firms *contracted* by the state generate racial difference through the repetitions and replications of market-logic norms. While Jenkins (2021) accomplished something similar to this for a large US city in his sweeping study of San Francisco of the mid-twentieth century, how the suburb might relate to private firms in its interactions with finance remains an open—and key—question. This dissertation speaks to that gap by delving into the different structural relationships suburbs use when contracting out to financial services providers.

Racial Capitalism and Risk

Several recent studies by scholars have begun to delve into the role of the financial sector in the generation of racial difference. Ponder (2021) provided evidence of disparate interest rates paid by majority Black large US cities (defined in her study as over 200,000 residents). Other studies have shown similar dynamics behind credit ratings, with cities that have large Black populations suffering lower ratings (Eldemire, Luchtenberg, and Wynter 2022; Norris 2023). While there are substantial limitations to the methods used in these studies (which I discuss in greater detail in Chapter 3), the general outcome is

clear, and is consistent with many prior studies of municipal debt (see Lovisek & Crowley 1990 for a substantial review of scholarship showing this phenomenon spanning multiple decades).

Credit ratings and interest rates both reflect uncertainty, specifically the uncertainty of future repayment or the uncertainty of fluctuations in interest rates in the market overall. The point of a municipal bond, from an investor's perspective, is to have the highest possible yield reliably generating interest for the longest possible period of time. A higher interest rate for a specific instrument makes profitability less susceptible to fluctuations in interest rate, and thus mitigates the risk of changes beyond the individual investor's control. Similarly, a higher interest rate mitigates the impact of a default, since returns up to that point were elevated above other essentially equivalent investments—and compensates for assuming that risk.

Since Beck's (1992) interventional idea of the 'risk society,' critical scholars have delved into the technologies used under capitalism to mitigate uncertainty, ultimately a fruitless goal in totality. Beck argued that post-industrial capitalist societies generated uncertainty as a by-product of generating returns, and that even the most insulated capitalist was susceptible to some forms of this uncertainty. The risk society attempts to solidify this uncertainty into risk—an attempt to know the unknowable, quantify it, and claim expertise over it in order to provide the best chances of coming out on top. The concept of the relationship between risk and uncertainty also comes across clearly in economic literature, with interventions from Knight (1921) and Keynes (1937) arguing that profitability has a close relationship to better understanding, when possible, what uncertainty is—transforming it into a knowable risk.

Credit ratings and interest rates are examples of this attempt to transform the uncertainty of the future into knowable risk, a common process in finance (Durand 2017; Lysandrou 2016). But, as LiPuma & Lee (2004) argue in their study on derivatives (another key finance technology to know and to mitigate risk), the generation and quantification of risk does not make risk disappear, rather it pushes risk away from investors and back onto the subjects of capital and uses gradations of risk to generate higher returns on investment.

Roy (2010, 2012) discussed the process of the creation of riskscapes in her work on microfinance, the generation of new subjects under financial systems who may have been excluded in the past through the pushing of risk onto them reframed as, in the case of microfinance loans, personal responsibility. Communities of color are the riskscapes of the modern municipal bond market. Peripheral communities of color traditionally had little or no access to capital finance. See for example Gordon's (2019) study of Black 'suburban' communities (I put the word suburb in quotes here since he deals largely with peripheral unincorporated communities) in Saint Louis County, which lacked even basic sewer infrastructure because capital finance was unavailable, or Purifoy's (2021) discussion on unincorporated communities in North Carolina with similar issues. Suburban space is now rapidly becoming majority non-white (Kneebone & Berube 2014). Technologies of credit gradation like credit ratings and interest rates, assessed by credit ratings agencies on the one hand and investors via underwriters on the other, are designed to quantify these relative unknowns in the eyes of a putatively neutral or 'innocent' investor class (to borrow from Vasudevan 2021) into investment-worth commodities. The assessments of risk become themselves the agents of racial difference.

Racialized Debt

Though largely ignored in scholarship of debt, this process of racializing debt on the consumer level has been well documented and studies by critical race scholars (Hsia 1978; Krippner 2017; Taylor 2019). The idea of 'predatory inclusion' (Seamster & Charron-Chénier 2017; Taylor 2019) provides a useful way to understand the consequences of inclusion, where disparate terms in credit (claimed by market actors as mere reflections of risk which they have quantified by technologies of debt like credit scoring) have potentially disastrous results for the people who borrow, but guarantee results for lenders either through repayment or through dispossession.

In the context of municipal debt, dispossession can occur—Detroit famously lost some assets during its bankruptcy, for example (Bomey 2016). But total adherence to strictures around repayment are

far more common, with cities generally going to great lengths and resorting to severe austerity measures to honor debt service payments (Hinkley 2017; Hinkley & Weber 2021; Davidson & Ward 2021). These measures foreclose on future dreams or even present day services, rather than on physical assets. They can also increase reliance on future debt in a snowball process where greater loans incur greater fiscal liability (Peck & Whiteside 2016; Farmer & Weber 2022).

Development and Governance

In addition to speaking to problems of racialized debt, this study informs examinations of governance structures around finance and development more generally. While scholars in this literature do not always ignore the role of debt, they tend to frame municipal development through the view of the entrepreneurial city in an age of neoliberalism. Although my overall theory behind this work pertains specifically the role of debt, the findings concerning how suburbs relate to the financial sector also contribute to this literature.

There is a central debate in contemporary thinking around urban entrepreneurialism. Harvey (1989) argued that towards the end of the twentieth century, cities began to take on an increasingly entrepreneurial bent towards development as a way to find outlets for capital. Yet Harvey was casual in his study of the actual mechanisms behind this prerogative (Leitner 1990). In some ways, this oversight continues to shadow all discussions of unban entrepreneurial activity, which at the end of the day is closely tied into the municipal debt which fuels public entrepreneurial development schemes. One way of framing the debate is exactly how Leitner explores it: to what extent do local conditions and place matter in understanding urban entrepreneurialism? Another way of framing this debate could be around the question of local autonomy and debt-fueled austerity, specifically, is the financial sector in the driver's seat over decisions of austerity, or are cities making financial decisions internally (admittedly under logics established by the financial sector) and embracing austerity on their own? The answer to this debate is a

key one: local efforts to contest austerity depend on a solid understanding of the causes and key movers behind the measures.

Both framings depend heavily on the concept of neoliberalism. This review is not the place to revisit this notoriously hard-to-pin-down and slippery term. For the purposes of this work, I define neoliberalism narrowly as, on the one hand, a general devolving of responsibility from federal and state governments to local governments in terms of policy implementation, infrastructure maintenance, and meeting the reproductive needs of their workforces and the communal means of productions for producers; and on the other hand a policy-based restriction of the ability for these localities to fundraise through taxation. This is an incredibly narrow vision of neoliberalism but (I believe) sufficiently covers the topic without doing violence to either side of the debate for the purposes of this review.

I discuss here each point of view, before situating this work within the debate.

The Financial Sector and Urban Fiscal Discipline

First, I turn to scholars who view finance as the key motivator for urban governance in an age of urban fiscal austerity.

Even before the Great Recession, Hackworth (2007) argues that credit ratings agencies have taken on a governing role over cities through their monopoly on assessing the credit-worthiness of urban projects, and of cities themselves. There are three bond credit ratings agencies in the US, acting more or less as a monopoly, and they can credibly dictate the creditworthiness of any city or the likelihood of repayment of any specific bond to the market. Ratings agencies are essentially accountable to no one in their rulemaking, and have significant though indirect sway over how a city's debt will be structured. A low rating from an agency means a higher interest payment on debt; a very low rating might make a city's debt 'speculative,' a deadly imposition which prohibits institutional investors, such as pension funds, from even buying the bonds. When entrepreneurial cities borrow to compete with one another, they accept this

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ratings system as a part of the deal, effectively ceding control of their city's agenda. If a rating agency sees something they do not like in the city's budget, such as too much spending on social welfare or collective bargaining agreements they consider unfavorable, they can effectively slam a city's door to credit.

As the Great Recession intensified and began to hit cities,[16] other scholars began to take notice of Hackworth's work. Kirkpatrick and Smith (2011), for example, put Hackworth in conversation with Logan and Molotch (1987), by arguing that entrepreneurial cities experience risk differently depending on the makeup of their local growth coalitions.

Peck (2012) posits that the neoliberal moment was uniquely situated, and in some ways waiting, for a fiscal crisis like the global recession to pounce on cities and promote a new vision for urban governance. Peck combines Hackworth's vision of externally imposed governance choices and the discussion of austerity in Europe by Blyth (2013) into the concept of austerity urbanism, a political project from outside of the city itself. Austerity urbanism is a process of running up large budgetary deficits and incurring further debt to meet them, leading to service cuts in the interests of debt service payments in times of recession. Peck argues this moment is distinct from the neoliberal roll-backs of the 1980s, cutting deeper and reforming even what a city means to its residents. For Peck, austerity urbanism is fiscal crisis manifested in the urban state, resulting in fewer public sector employees, slimmer budgets, and increased fundraising through user fees.

Peck (2014) later argues that the American Legislative Exchange Council (ALEC), Carl DeMaio, the Reason Foundation, and the Manhattan Institute were actively using a narrative around fiscal discipline to promote austerity policies at the local level. By exploring these organizations' political platforms surrounding urban governance, and state governance towards cities, Peck shows that they viewed the milieu of the Great Recession as a way to get their wish-list of eliminating or scaling back

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[16] Cities tend to suffer from recessions a few years after consumers and firms due to a lag in tax collection (McFarland & Pagano, 2020).

collectively bargained obligations (especially pensions), eliminating and privatizing services, and a renewed focus on city budgeting. He goes on to argue that the organizations view municipal bankruptcy as a positive process since it automatically reopens collective bargaining agreements with city unions, putting the fate of city staff and their benefits in the hands of impartial bankruptcy judges who will surely see the wisdom of eliminating supposed Cadillac benefits. If bondholders also take a haircut in the process, it is of course a tragedy, but perhaps necessary for the future. Yet city officials have little alternative but to accede, straitjacketed as they are by crippling debt service payments and willing to go to extreme lengths to avoid default and the associated credit downgrade.

Peck even went so far as to argue that austerity urbanism had ended the era of the entrepreneurial city (Peck & Whiteside 2016), with cities entering a new era into of financial urban rule. The processes under financial rule are so extremely beyond anything experienced by cities during the 1980s that one can no longer effectively consider cities to be competing with each other. Instead, cities have become mere devices for wealth extraction from communities, through debt, public-private partnership arrangements, privatization contracts, risky market behavior by cities themselves as investors, technocratic governance, and the power of a debt-machine. The authors intentionally contrast this with the classic growth machine concept (Logan & Molotch 1987), to argue that cities merely exist to take on debt and service debt, and that these conditions have fundamentally altered the city's power players: in other words, the city functions as a debt machine. A new class, the debt coalition, will attempt to ensure cities stay indebted and prioritize their debts above all else. This class may come into conflict with the growth coalition (Peck & Whiteside do not argue that the growth coalition concept is outmoded, simply that they have new competition in spaces of governance), particularly when times get tight. But the debt coalition, unlike the growth coalition, are not local; they do not reside in the city itself, rather, they operate from afar steering city finances and city futures to their whim.

In all of these undeniably bleak arguments, Peck, and to a lesser degree Hackworth, leave very little room for local autonomy. Austerity, as a project of late-era neoliberalism, is something that is felt,

experienced, and pushed onto cities—from the political realm by forces like ALEC, and through the world of finance through players like ratings agencies and wealthy bondholders. I turn now to another school which disputes this account of the passivity of cities. However, far from painting a more optimistic picture, these scholars view city government itself as a direct vehicle for the rollout of links between capital and forces of development.

Embracing Debt Locally With Open Arms

Some scholars have painted pictures of a more active local political class, closely connected to local developers and the financial sector, need little pushing to embrace financial logics within their governance.

Weber (2010) looks specifically at Chicago and reveals a shocking increase in the use of TIF beginning in 1995, bolstered by demand from pension funds and even bond ratings agencies (the latter began rating TIF far more generously between 1996 and 2006, despite that fact that TIF bonds have no full-faith backing from an issuing entity; see below for a brief discussion of TIF debt). Weber intriguingly finds that a tight network of developers and capitalists, specific to Chicago, enabled the city to jump with both feet into the world of TIF, using elaborate financial products far more complex than simple interest yielding bonds. The making of a market for Chicago debt was an active process—the city had to actively groom local financial partners over the course of a decade before establishing preferred partnerships. Far from having debt shoved down their throats, the city had to prepare people to borrow, in the end establishing a broad network of players supporting the use of debt in urban development.

Weber (2015) later argues that the culmination of the parties' efforts was a drastically overbuilt commercial real estate sector within Chicago's famed Loop district, with empty towers idling near semi-full office buildings all over the Loop. Weber asks how a city could end up with such an overbuilt

environment, and places the blame on fast money and ready-to-please politicians who had come to regard growth as its own end.

From similar viewpoints, Davidson & Ward (2014) look at cities in California coping with debt, partially brought on through redevelopment agencies, through what they call entrepreneurial speculative urbanism. They show active accounting practices at the local level designed to mystify debt and shield if from scrutiny. In a fascinating study, Pacewicz (2013) performs an ethnography of redevelopment officials in Iowa and concludes that their personal career goals are what drag cities into debt, not any specific development needs or the financial sector's prerogatives.

In all of these cases, the financial sector is a means for generating a discourse around best practices for urban debt, but takes a far less active role in propagating urban governance decisions than anticipated by scholars like Peck. Cities remain firmly in the driver's seat, though they drive on a road governed by logics set up by the financial sector, both to accommodate that sector but also for internal reasons of their own. Cities adapt algorithms generated by the financial sector, for example, to assess potential futures (Weber 2021). Solutions to financial issues are generated at the local level, though in a relational fashion with both external and internal drivers (Davidson & Ward 2021). In short, over-privileging the role of the private firm in analysis of public fiscal decisions can lead to distorted conclusions; the interface of the public and private sectors is the key area for emphasis. Nonetheless, the financial sector comes out ahead through these interactions by dominating the decision pathways cities use to assess projects, possible outcomes, and futures of possibility (August et al. 2022).

The problem of small cities

I view this dissertation as informing the debate around local autonomy by precisely looking at differences in how smaller cities, especially suburbs, relate to the financial sector. In the coming chapters I lay out key structural differences in how larger and smaller cities contract out for financial advice,

particularly for financial advisors—key interlocutors between the local agency and the financial sector. I argue that these structural differences exist for good reason, but that they benefit smaller cities unequally, with low-income high-minority population cities adhering closest to market-established best-practices but losing out in terms of their debt.

Robinson (2002) has called on scholars to take a more critical approach to the study of what she deems 'ordinary cities': locales where the vast majority of people live and which make up the majority of local agencies, but which scarcely grace studies by urbanists. In the US political economy, where most residents consider themselves to live in suburbs (Parker et al. 2018), the ordinary city is arguably a suburban one. And indeed most residents live in suburban local agencies in California (Nicolaides 2024).

Yet most of the above studies focus on larger issuers, admittedly key actors in the municipal bond landscape. Because large cities are so distinct from other local agencies, studies of larger cities perhaps lack universalizable power. One may place weight on the argument that ALEC and credit ratings agencies are actively disciplining cities, or that cities are already governed by adherents to logics of financializing urban development. ALEC may indeed seek to sow urban austerity politics in a large city like San Diego, but is it fair to assume that ALEC really cares what happens in a suburb of 25,000 residents, enough to lobby its city administrators? Similarly, the Rahm Emmanuel's City of Chicago may have been replete with finance officers trained alongside bankers and neoliberal economists, but what about the finance officer of a small suburb with a community college accounting degree whose only prior work was bookkeeping at a car dealership?

My dissertation speaks to this gap in the literature by centering the suburb and putting suburban patterns and structures of municipal debt in relief vis-à-vis practices used by larger core cities within the State of California. California has multiple core cities, and many, many suburbs surrounding them, yet they all share a common municipal bond market (along with California counties, school districts, special purpose districts, and the state itself). In the coming pages I highlight key differences in the strategies and

structures these suburban cities use to best situate themselves against the financial sector in the municipal bond market.

Municipal Bonds–A Technical Review

Why Use Municipal Bonds?

Though not unique to the United States political economy, from a global point of view municipal bonds are an outlier in how the local state meets capital needs. Many countries allow local communities to meet their financial needs through grants from the national government; in turn the national government funds those capital needs through sovereign debt. This presents several advantages, two foremost among them: a sovereign can (usually) print money, and they can always default. This is not the place for a full analysis of sovereign debt, but a brief explanation is in order.

First, sovereign nations can usually print their own money. This seigneurial privilege allows the sovereign borrower some leeway over how much their debt is actually worth—in a pinch, most governments which control their own currency can fire up the printing presses and devalue their own debt or pay off debt in foreign currencies. While this drastic measure absolutely has an effect on residents, it prevents a country from ever truly being in doubt of paying back its debts—so long as they control their own currency. This is not just a political topic in banana republics—mainstream economists like Paul Krugman (2013) have at various times endorsed a trillion-dollar coin as a potential solution to US sovereign debt issues related to political deadlock in Congress over the debt ceiling.

If a more drastic measure is needed, a sovereign borrower can also default. Creditors have a notoriously difficult time collecting assets from sovereign borrowers who are determined to not pay because they are above the law, or better put, cannot be held to agreements in other jurisdictional justice systems. While such measures are rare because they have spillover effects into future access to capital,

they are not unheard of. Roos (2019) provides an excellent discussion to the relative merits and perils of default or debt restructuring.

Local governments can do neither. On the one hand, they have no right to print money. And on the other, they are subject to national justice frameworks where creditors can seek to either force repayment, or to collect assets.

Many nations, of course, are in a similar situation. Many countries in the European Union, for example, have ceded their monetary policy to a common central bank with a shared currency, and can no longer print their own money. Perhaps for this reason, many local municipalities in Europe seek capital funding through direct loans from banks.

Municipalities in the United States have, for the most part, not done so—at least not for big ticket capital projects. US local governments do sometimes use direct bank loans, but only typically for projects lasting under 10 years in length. Instead, local governments independently issue municipal debt, called bonds, on an open market replete with investors. The US federal government, while regulating the market, has set its taxation policy to favor this process by making most forms of municipal debt interest income tax-free for investors (Sbragia 1996).

The reason US cities tend to use municipal bonds rather than direct bank loans can be explained in multiple ways, but all responses more or less boil down to one common story: local governments in the US have done it for so long that we have a hugely robust 200-year-old municipal bond market—in other words, we have always done things this way and there is no pressing reason for change. The process is so closely tied into how US local governments raise money by this point that other pathways seem impossible to imagine. When I asked interview subjects why US cities did not opt for other forms of capital finance, they seemed perplexed by the question. While US municipalities do pay for capital projects through other pathways—pay-as you go being most common, but also through some federally-backed revolving funds, grants, and occasionally direct bank loans—the fact is that most major cities take the municipal bond market as a granted simply because it is.

In her thorough history of the US municipal bond market, Sbragia (1996) claims that the first capital finance bonds for a public project were issued in conjunction with the construction of the Erie Canal, started in 1825. As such, from their very beginning, the US non-sovereign bond market was closely tied to economic development goals. Local municipal bonds arose as a core method of funding local economic development goals in the post-Civil War era, when such bonds were closely tied to railroad development (attracting a railroad to stop in towns through bond-financed subsidy; essentially, issuing railroad debt backed by local public coffers) or subsidizing industrial development in the hopes of creating jobs and thus attracting residents (Monkonnen 1984).

The Municipal Bond Market

Today's municipal bond market is robust and vibrant, with state and local governments issuing in the aggregate over a trillion dollars in local bonded debt every year. The Municipal Securities Rulemaking Board (MSRB), the federal agency which shares regulatory authority over the municipal bond market, reported between $1.5 and $2.5 trillion dollars in non-federal bonded debt issued every year between 2007 and 2022 in a recent report (Bagley & Viera 2023).

It would be a mistake to think of municipal bonds as static investments, held to maturity once purchased by an initial lender. Rather, the municipal bond market is writ large is to some degree actually two distinct markets, one of initial lenders, and one of speculators.

On the one hand, the primary market concerns initial purchasers of municipal bonds at the time of issuance. These creditors essentially loan money, through an intermediary underwriter, to an issuing authority with the expectation of regular interest payments over the lifetime of the bond.

On the other hand, and perhaps equally important, is the secondary market for bonds. While Marx (1991 [1894]: 595-7) may have overstated things slightly when he argued that bonds are essentially as

liquid as money,[17] the fact is that investors routinely buy and sell municipal bonds from other investors in an active marketplace. In 2022, for example, over 12 million such trades transpired (Bagley & Viera 2023): an average of roughly 50,000 trades per working day, or just under two trades every working second.

While this dissertation is primarily concerned with how cities access the primary bond market, it is important to flag that considerations from the secondary bond market have substantial influence over primary trades. This is especially true for credit ratings. Credit ratings are commonly viewed as markers of creditworthiness. However, perhaps more importantly, they serve as legibility markers for secondary market investors.

Bondholder identity is generally anonymous to the public who send them interest payments (Hager 2016), so analyzing bondholder trends is notoriously difficult. However, most bondholders active in both the primary and secondary markets are probably institutional investors. Large financial institutions like Vanguard maintain dozens of municipal bond mutual funds available for casual investors to use as investment tools. Some individual investors also hold municipal debt, seeking tax-free income in their portfolios. But the average retail investor will invest in municipal debt via a mutual fund or electronically-traded fund (ETF). Most readers of this work who own a 401(k) or other retirement account likely hold shares in at least one such muni bond fund.

Local agencies are not typically selling their bonds to their own residents. Classical Keynesian economists argued that bonds were primarily redistributive in nature, since interest payments left public coffers but stayed in their respective communities (and thus local economies) when they went to local bondholders (Hansen 1946). This made bonds ideal money-raising instruments from a Keynesian perspective. But in any event the practice is now rare. For one thing, bonds are often sold in $5000 increments (called 'a bond' or 'one bond' in the terms of the market) which makes their potential pool of

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[17] Marx said the pretense that bonds as a form of capital were not as liquid as money capital was the 'mother of every insane form of capital.'

investors somewhat limited given the generally small portion of an overall retail investor's portfolio typically taken up by municipal bonds. In one interview for this dissertation, a finance officer from a Wealthy Suburb claimed residents of her city usually demanded first right of refusal to purchase the city's debt. But this practice did not exist in any other city where I held an interview. As such, interest payments from bonds almost always leave a local community forever, destined for bondholders in other locales.

Financial institutions that maintain bond funds typically limit the amount of fund capital they are willing to tie up in lower-rated municipal debt. Looking at five randomly selected Vanguard California mutual funds and ETFs, I found none that held more than 20% of their portfolio in BBB or lower rated bonds. The end effect of this dynamic is that bonds rated BBB or lower are substantially less liquid than those rated higher. Interview subjects for this dissertation identified these concerns around liquidity as one of the primary meanings of credit ratings, rather than a risk of default. Put more directly, a low-assessed bond is less liquid than a higher-rated counterpart, even though default is unlikely for either bond.

It is important to note that municipal bond transactions are actually transactions of many varieties of bonds, not a single municipal bond. Borrowers structure the issuances to include multiple maturity dates which occur at various times during an overall window of time, typically 20 years but sometimes shorter or longer depending on the bond transaction's structure. As such, any single transaction for long-term municipal bonded debt will include multiple unique interest rates. The city redeems some instruments with principal repayment, and pays interests on others. The time when each bond is repaid is called its maturity date. Most municipal bonds also include call dates, times when the issuer may repurchase the bond early, typically as a result of a refinancing (see the section on refunding bonds below). Figure 2.1 shows a maturity schedule from a recent 2022 general obligation bond from the City of Los Angeles. Note the variety of interest rates for each unique bond available for purchase in the transaction (column 3 of the table, labeled *Interest Rates*). Because of this, almost every municipal bond does not strictly speaking have an interest rate, but rather a bundle of interest rates. For the purposes of this dissertation, I always use values from the oldest maturity date of the bond.

Also note that the price of each bond varies, as seen in column 5 of the table. Some bonds are offered by the city at a premium, or over the par value of the bond (those with a price over 100), while others are offered at a discount (those with a price under 100). These establish distinct yields for primary investors. Investors may, in turn, be able to market the bonds on the secondary market for additional premiums (or at a lower discount) depending on overall fluctuations in interest rates in the market overall. The liquidity of a bond, long-term, thus depends on a variety of factors external to the issuer itself, with some more speculative investors seeking to improve their yield at a future time via the secondary bond market.

Figure 2.1: Excerpt from a City of Los Angeles Municipal Bond Offering Statement (City of LA 2022: 2)

MATURITY SCHEDULE

$389,435,000
CITY OF LOS ANGELES
GENERAL OBLIGATION BONDS, SERIES 2022-A (TAXABLE) (SOCIAL BONDS)

Year (September 1)	Principal Amount	Interest Rate	Yield	Price	CUSIP[†] (Base: 544351)
2023	$19,475,000	5.000%	3.900%	100.986	QN2
2024	19,475,000	5.000	3.950	101.924	QP7
2025	19,475,000	5.000	4.000	102.731	QQ5
2026	19,475,000	5.000	4.070	103.339	QR3
2027	19,475,000	5.000	4.120	103.883	QS1
2028	19,475,000	5.000	4.140	104.474	QT9
2029	19,475,000	5.000	4.200	104.760	QU6
2030	19,470,000	5.000	4.250	104.998	QV4
2031	19,470,000	5.000	4.300	105.139	QW2
2032	19,470,000	4.400	4.400	100.000	QX0
2033	19,470,000	4.375	4.500	98.927	QY8
2034	19,470,000	4.500	4.600	99.086	QZ5
2035	19,470,000	4.625	4.700	99.276	RA9
2036	19,470,000	4.750	4.800	99.492	RB7
2037	19,470,000	4.875	4.900	99.733	RC5

$97,350,000 5.000% Term Bond due September 1, 2042; Yield 5.000%; Price 100.000%; CUSIP[†]: 544351RH4

Financial Intermediaries

Most local governments rely heavily on outside vendors to issue municipal bonds. While bonds transactions can include many types of vendors, this section will explain the roles of some of the most common such actors.

Credit Ratings Agencies

Credit ratings agencies provide independent assessments of a city's creditworthiness. There are three major credit ratings agencies in the United States: Moody's, Standard and Poor, and Fitch. A fourth agency, Kroll, is attempting to break into the oligopoly with some limited success.

Although credit ratings assessments are frequently compared with consumer credit scores, the two values are substantially different in several key ways. Consumer credit scores are produced by algorithms which seek to anticipate a consumer's likelihood of repaying credit based on the behavior of other consumers with similar attributes (Poon 2007). A credit score is basically a regression-type analysis: the credit scoring firm inputs key attributes and predicts based on the mean. The process, while contestable in validity, is a fairly impersonal one and has a certain pseudo-scientific rigor to it.

Credit ratings are unlike this in every way (Rona-Tas & Hiss 2010). The process is far more subjective. An agency assigns an agent to analyze the issuer for key attributes. The analyst prepares a recommendation based on their conversations and any data they may have about city finances or other attributes. The analyst then presents this recommendation to a secret committee, which either approves the recommendation or provides another rating value. The membership of these committees is highly guarded, as are the types of discussions which occur in the room.

Credit ratings agencies do not provide a full accounting of each rate, but they do provide a sort of roadmap for how they create their assessments in the forms of weighted tables. I discuss these in greater detail in Chapter 3.

Periodically, ratings agencies will revisit a bond and make assessments on the continued validity of their assessment from the time of issuance. They generally also provide an outlook—positive, neutral, or negative—if they see positive (or negative) signs within the city that do not warrant a ratings overhaul but might be signs for celebration (or concern). These outlook scores are also highly watched by investors.

Credit ratings agencies take great pains to make clear that they provide opinions, not scientific assessments. However, it is safe to say that their assessments are generally treated as binding by other market actors.

It is important to note that credit ratings are on a per deal basis, not attached to the city issuing the debt per se. An issuer could at any given time have multiple ratings from different bonds.

Issuers do not technically have to purchase a credit rating, but without one bonds are essentially unmarketable. The only exception is bonds secured by certain types of land debt, which do not need to be rated. Mello-Roos bonds are the most common such bonds in California (see below for a more ample discussion of Mello-Roos debt).

Issuers may seek credit ratings from several agencies before issuing the debt. Several interview subjects indicated that some bond funds require at least two ratings before purchasing a bond. In some cases, an issuer may disagree with a low rating and seek a second opinion to reassure investors. The assessments do not always line up neatly.

Issuers pay credit ratings agencies for this service. Several financial advisors I interviewed (including some who had worked for ratings agencies in the past) indicated that the cost of receiving a credit rating was far too high, well beyond the proportional work involved by the rating agency. This is to be expected, given the oligopolistic nature of the service.

Underwriters

Underwriters are firms which promise to underwrite municipal bonds, in essence pay for them in their entirety and then attempt to sell them on the primary bond market, though in practice most underwriters attempt to sell all bonds to primary investors without having to pay for them in-house. Underwriters tend to fall into one of two categories. Several large financial institutions like JP Morgan, Goldman Sachs, Merril Lynch/Bank of America, and (until 2024) Citi, maintain municipal bond departments which focus on underwriting municipal bonds. These departments tend to be relatively small compared to the overall operations of the firm. Some smaller boutique firms also serve as underwriters. These firms, unlike their larger brethren, may not perform other financial services.

According to interview subjects for this dissertation, underwriting a bond actually involves three distinct branches within the underwriting firm. A banker liaises with the issuing authority, and works with them to determine the goals of the transaction. These bankers tend to view the borrower as the client, and take great pains to foster and maintain relationships with issuers. I discuss the various forms bankers use to structure those relationships in greater detail in Chapter 5 of this work.

Meanwhile, a trading desk works with investors and attempts to place the bonds in the hands of outside parties. The goal is to sell as many of the bonds behind any transaction as quickly as possible, so the underwriter does not need to use its own capital to purchase the remainder of the instruments. These traders tend to view investors as their primary constituency. A third party works to calculate the appropriate payment structure by working with the banker and the traders, and they keep the underwriter's interests in the forefront.

As such, the underwriter is constantly pulled in three directions. On the one hand, they work in a competitive market for municipalities, and have to provide the best possible terms to issuers in order to secure business and improve chances for future work. On the other hand, they have investors who have a lot of choices for bonds in a glutted municipal bond market, and as such they need to provide better terms

(either in lower cost or higher interest rate) to attract them. Finally, underwriters need to turn a profit. No major underwriter is operating a municipal bond desk as a charity.[18]

The end result is that underwriters are in a sense attempting to please everyone, but also in a sense serve only themselves. Underwriters are required to disclose this self-interest to municipal issuers. Pointedly, they have no legal fiduciary responsibility to the municipalities they service—they are allowed to put their own interests, or the interests of their investors, ahead of those of their municipal clients under federal regulatory law.

Underwriters may be compensated in a variety of ways, but above all rely on an underwriter's spread for compensation. Historically, underwriters charged a fee for underwriting bonds, but interview subjects report this is exceedingly rare in the modern municipal bond market. Instead, cities typically structure bond deals to include an underwriter's spread, also called an underwriter's takedown. In essence, underwriters pay the issuing authority less than the par value (or face value) of the bonds in a bond transaction. They then attempt to sell the bonds to investors at face value (or even, in some cases, at a premium above face value). The underwriter then keeps the difference of the spread as their compensation. The practice encourages underwriters to market bonds aggressively since they have a clear financial stake in selling the bonds. The underwriter's spread is independent of the premium or discount paid by a primary market purchaser.

Underwriters negotiate with issuers around a variety of concerns underlying a bond transaction. The underwriter spread is one such consideration. Interest rates are another. An underwriter will propose probable interest rates with a borrower at the time they sign a contract to underwrite bonds.

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[18] Though the Bank of North Dakota, a publicly owned bank, does underwrite local debt in-state and has less profit motive than private enterprise.

Financial Advisors

Financial advisors are firms which advise cities during a bond issuance. Financial advisor firms are relative newcomers in the municipal bond market, arising in the 1980s but only used by some issuers for the next few decades.[19] By the mid to late-2000s, however, an issuer's use of a financial advisor has become mostly standard when a borrower issues a bond, though the occasional issuer still goes it alone. Every city I interviewed uses a financial advisor when they borrow, and every underwriter I spoke to indicated that they preferred bond transactions that included a financial advisor in the mix.

Financial advisors are sometimes called municipal advisors; the terms are interchangeable, though I use the former throughout this work the latter may appear in some direct quotes.

The financial advisor's role, at its most basic level of service, is to provide a counter-balance to the underwriter by providing an independent assessment of municipal bond market conditions to city staff. The underwriter presents a package including a proposed par value, underwriter's discount, and interest rate to the city. The financial advisor's job is to assess that package compared to other recently issued bonds from agencies similar to the borrower, and to advise the city if it is a good deal or not.

Importantly, unlike the underwriter, the financial advisor has a fiduciary obligation to the issuer. This means that they are required by law to put the issuer's interests before their own. Interview subjects reported that this was a fairly open-ended obligation, however, in a market where what constitutes a good deal or not is fairly subjective. Some financial advisors make it a practice to push hard against underwriters, but most financial advisors view their relationship as a check and balance against an overly powerful bank. Many individual financial advisors formerly worked as underwriters, and as such have a fairly clear understanding of the bank's job in a transaction, as well as areas to watch.

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[19] Jenkins (2021), for example, makes no mention of financial advisors in his deep history of San Francisco's municipal bond political economy ending roughly in the 1970s.

Although providing a check on the underwriter is the core job of the financial advisor, many financial advisory firms go far beyond this service. Some financial advisor firms assist local agencies in financial planning—selecting what types of capital finance to use, designing collateral streams to secure bonds (see below for a discussion of different types of bond funding streams), and even assisting cities in the creation of special districts or authorities when necessary. Most financial advisors I spoke to prefer to offer these additional services, where possible, but ultimately the public agency determines the parameters of the relationship.

Finally, financial advisors tend to assist their contracting city in continuing disclosures throughout the lifetime of the bond. This means their relationship with a contracting city is typically substantially longer than an underwriter.

Unlike underwriters, financial advisors are typically paid in flat fees, usually in two ways depending on their role in their relationship with the city. For a bond transaction, a financial advisor will receive a flat fee when the deal is closed. This fee is substantially smaller than the underwriter's spread, and tends to vary by the complexity of the deal. If a financial advisor is providing additional services to a city, they may also charge an hourly rate for those consultations. California cities who want these additional services typically sign a three-to-five-year contract, and then have the advisor on call for any financial planning questions or discussions they may wish to have during that time, as well as for any bond issuances they may want to undertake.

Financial advisors vary in their role and degree of activity in a bond issuance. In some cases, financial advisors lead the transaction entirely, only referring back to the issuing agency for approval at key junctures. In other cases, the city is in the leadership role, and the advisor advises. I discuss the different structural relationships between cities and advisors in greater detail in Chapter 5.

I note briefly that some underwriters also operate financial advisory arms within the same firm. However, they cannot act in both roles on a transaction.

Bond Counsel

Bond counsel are attorneys who verify the legality of bond issuance documents. They also provide a non-binding legal opinion to investors as to whether bond interest is taxable as income or not.

I did not interview any bond counsel officials for this project. The role is typically a fairly rote service, but some interview subjects from other key roles did indicate that some bond counsels in California do take a more active role in the bond issuance, occasionally even a leadership role.

Trustee

When a city issues a bond, they receive a large lump sum of money. The trustee is a bank which holds that money as the city spends it down, paying some kind of interest rate to the issuer/depositor. The service is typically purchased by bid, with the highest offered interest rate being selected. However, some evidence points to a less than fully competitive marketplace. At some points, banks have been accused of colluding to artificially depress interest rates at the expense of cities (Marcus, King, & Ledino 2013).

Importantly, the interest rate an issuer gains from its trustee cannot exceed the interest rate the issuer is paying on the bonds themselves; that practice is called *arbitrage.* If an issuer does engage in arbitrage, their municipal instruments could lose their tax-exempt status, which would create major liabilities for bondholders (Tsilas & Ciccerone Betterton 2018). Since municipal bonds typically trade below the federal prime rate (due to their tax-exempt status), issuers typically receive very low rates from trustees on these investments.

Trustees are universally large financial institutions. Many trustees also provide underwriting services. However, an underwriter and a trustee would never be the same firm on any given bond transaction.

Trustees generally take a passive role in bond transactions.

Issuing agencies which receive a lower-than-desired credit rating face a difficult position—their bonds will cost the agency extra in the form of higher interest rates, and will likely demand a larger underwriter spread because of a perceived difficulty in marketing the bonds. Some issuers may opt to purchase an insurance policy to promise investors that a bond will be paid, in essence pumping up their credit rating. For some issuers, the cost of the insurance outweighs the perceived cost of issuing the debt at a reduced credit rating. Rating agencies will then provide two ratings for an insured bond: the insured rating, and the uninsured rating, with the latter reflecting the true underlying financial strength and reliability of the bond in the opinion of the ratings agency.

There are only a handful of insurance providers who will insure municipal bonds; some of the largest or most active are Assured Guarantee, BAM, and MBIA.

Bond insurance became very common in the lead-up to the Great Recession. However, a small number of insured municipal defaults occurred during the economic downturn, and the insurers (facing substantial cash flow issues themselves) were less than forthcoming with bondholders. Several interview subjects reported that many investors no longer perceived bond insurance to guarantee repayment after their experiences in the Great Recession.

Bond Revenue Streams

A municipal bond's creditworthiness is gauged by two factors: the underlying qualities of the issuer entity itself, and the security and probable reliability of the revenue stream acting as collateral for the loan. This dissertation focuses by and large on the former—how markets subjectify issuers for consumers, and how under racial capitalism perceptions of risk and lack of trust can make the terms issuers receive worse. I turn only briefly here towards the latter—the funding stream underlying the debt.

It is undeniable that the source of funding for repaying a bond is a major consideration in the credit rating that bond will receive. Take two hypothetical projects: the City of Los Angeles, say, is seeking funding to refurbish its iconic LAX airport, and is seeking funding to build a municipal flea circus attraction. Both proposed bonds will be guaranteed by the revenue streams they generate: airport docking fees and passenger fees, on the one hand, and ticket sales from people desiring to see the fleas' antics on the other. For the reader, it should be immediately clear which revenue stream is more likely to be reliable for 20 years into the future. Although both streams contain risk (the COVID crisis is a prime example of how airport revenues could plummet suddenly), the flea circus venture is far more speculative. Put another way, it is hard to picture a world where a major airport like LAX fails completely. It is much easier to envision a mostly empty flea circus tent.

I use this somewhat frivolous example to emphasize a point about how key the underlying bond repayment stream is. No city, to my knowledge, is producing a municipally operated flea circus. But local agencies do engage in speculative investments all the time, and seek bond funding for them. Conference centers, stadiums, regional airports, parking structures, malls—these are just some of the potentially risky investments a local agency might ask investors to fund via a bond.

In this section, I will explain in very brief terms the key funding streams typically used by local agencies to guarantee their bonded debt. The reader should not consider this to be an exhaustive list. Similarly, the details behind each stream are, for the sake of brevity, somewhat papered over here. Ample resources exist with greater detail for the interested reader.[20]

General Obligation Bonds (GO)

General Obligation (GO) bonds are the simplest bonds to understand. GO bonds are backed by

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[20] CDIAC (2006) is a very comprehensive resource on the ins and outs of municipal bonds.

the full faith and credit of the issuing authority. This means that GO bonds do not have a dedicated revenue stream, but rather that the borrower is pledging to repay the bond out of its general coffers.

While at first blush this may seem like a riskier prospect, GO bonds are typically viewed as the least risky type of bond simply because they are secured by all of the issuing agency's revenue streams, not one stream in particular, insulating against the risk of any given stream drying up.

Because they are so simple to explain and prepare, GO bonds usually trade on better terms for the issuing agency—typically either at a premium or at a lower interest rate (or both). They are less complicated, and thus cost less to prepare in issuance costs.

However, GO bonds have substantial downsides, which have led most cities to eschew them. In most states, including California, voter approval via the referendum process is almost always a prerequisite for a GO bond transaction. This creates substantial delay, uncertainty about the vote outcome, and monetary costs to run a political campaign encouraging voters to support the initiative—all potentially vexing concerns for urban administrators. Jenkins (2021) discusses how the politics of whether these referendums succeed are highly racialized.

Roughly one in four new bonds are GO bonds, making them an important but not majority category in the municipal bond market (Howard 2023).

Revenue Bonds

Unlike GO bonds, revenue bonds are secured by a specific and dedicated revenue stream only. In theory, if that revenue stream fails, the investor does not get paid. In practice, most issuing agencies make investors whole from other revenue streams when possible to avoid credit downgrades for future bond transactions. Nonetheless, a borrower does not have to do this, and investors could be left high and dry if the funded project fails to generate revenues sufficient to meet bond obligations.

As the reader may imagine, a myriad of possible revenue structures might serve this purpose. But generally, issuers rely on a fairly limited playbook of revenue streams to secure debt. I now turn to the most common types of revenue streams used by local agencies to fund debt.

Utility Revenue Bonds

Perhaps the most straightforward type of revenue bonds, utility revenue bonds are used to build infrastructure for municipal utilities—typically water or electric, though the rare city may also operate their own gas utility, and even fewer cities are expanding into broadband as a municipal utility. Utility users generate a steady and reliable stream of revenues in the form of user fees. Because these streams are steady and readily predictable for the future, municipalities can use them as security for a bond to fund infrastructure development for the utility. In a pinch, utility service costs could be raised to fund the debt service.

Lease Revenue Bonds

Lease revenue bonds are the most common type of revenue bond. Lease revenue bonds are unique in that they do not use a pre-existing revenue stream to secure the bond, but rather create a new revenue stream through an administrative sleight of hand.

Suppose a city which wants to use a lease revenue structure. This city would first establish a financing authority, a wholly owned and subsidiary public agency belonging to and governed by the city itself. The city council becomes the governing board of the finance authority. The city then transfers a key asset to the finance authority—typically a city hall or some other form of real property. The finance authority leases the asset back to the city for an annual rent payment. The finance authority then issues the bond, using that lease payment as collateral. Out of nowhere, an asset has become a revenue stream which can then secure debt.

Lease revenue bonds typically cost more than GO bonds, all things being equal; this is primarily due to the complexity of the underlying multiple transactions and the fact that the debt is not backed by the entire city budget but rather by an on-paper authority with limited assets. But many issuers have come to prefer them because they do not require voter approval since the finance authority, not the issuer itself, issues the debt, making lease revenue bonds one of the most common types of municipal debt.

Certificates of Participation

Certificates of Participation (COP) are essentially lease revenue bonds. There are some minor technical differences in the structure between the two instruments, but for the purposes of this dissertation they generally function in the same fashion.

Land-Backed Bonds/Mello-Roos

Issuers can secure bonded debt through earmarked property tax revenues. In California, this process is frequently used to subsidize greenfield new housing development, and is called Mello-Roos debt.

Mello-Roos financing sets aside land into a new district (a Mello-Roos or Improvement District), which is owned and governed by the city and usually coterminous with a new housing tract development. While establishing such a district requires a vote of landowners in the proposed area, generally there is only one landowner at the time—the developer itself—and as such approval is not a major concern. Once the district is established, the developer installs backbone infrastructure, for example roads or sewer pipes. The developer then applies to the Mello-Roos district to finance those developments, secured by an incremental increase to the district's property tax. The developer parcels out and sells the new homes, and the new homeowners pay the property tax to fund their own backbone development for the remainder of

the life of the debt. Beaumont, discussed in the introduction to this work, made ample use of Mello-Roos debt to fund their development.

Tax Increment Financing

This is not the place for a lengthy discussion of tax increment financing (TIF); interested readers should look at the ample literature studying and critiquing TIF (Weber 2010 is an excellent place to start). In brief, TIF bonds are secured by the potential for future property tax increases over a designated subregion of the issuer, typically a city. A city desiring to use TIF will set aside some area of the city as a redevelopment zone. This act silos future increases to property tax into a redevelopment agency and away from other local governments (for example the city itself, the county, and school districts, perhaps among others). The redevelopment agency is typically (like a finance authority) run by the city itself with the city council serving as the governing board. It can then can invest the incremental increases in property tax back into the area for improvements. While the district can spend this on a pay-as-you-go basis, most typically this increment is used to secure bonded debt.

TIF is a common but highly controversial practice. For the purposes of this work, I set aside the debate on its merits, but it is important to flag that as of 2012, TIF is no longer lawful in California (a state which innovated the practice, see Black 2014). Many cities in California still have the vestiges of the TIF system, however, and continue to pay down TIF debt through 'successor agencies' which manage the increment solely to service debt which pre-existed the termination of the TIF system.

Pension Obligation Debt

Pension Obligation (PO) debt is secured by a city's future revenues which would be earmarked for pension obligation payments. Most cities are beholden to external pension funds, which mandate annual payments towards pension liabilities. These payments are frequently challenging for smaller cities

to make, since they are unpredictable to budget for and tend to be large. A city can prefund their obligations by borrowing money, and then dedicating the general fund revenues they would have paid to the pension fund as a security for the debt. In theory, this can limit a city's future liability if markets underperform. PO debt made sense to a lot of city finance officers during the historically low interest rate period following the Great Recession and prior to the COVID crisis. In California, PO debt does not require voter approval.

Tax Revenue Anticipation Notes

Tax Revenue Anticipation Notes (TRAN) are short-term municipal bonds, lasting typically only one year. In California, TRAN are secured by sales tax revenue which the city or issuer knows is coming, but which is held up at the state level due to lag time in processing.[21] TRAN thus play a role roughly akin to a payday loan for a consumer—the money may be promised and coming, but cash flow issues create a need for quick cash in the short-term.

Typically, TRAN are used by larger cities that have substantial cash flows, generally in the form of employee payroll which must be disbursed on a weekly or biweekly basis. Cities which use TRAN tend to issue it every year.

A Quick Primer on California's Political Economy

Every state has a unique relationship between the state itself and its local agencies, and structures those local agencies through distinct logics. A brief description of the circumstances surrounding California are thus in order.

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[21] In California, sales tax is split between the state, which sends it to its' general fund, and the locality where the purchase was made, either a city or (if the purchase occurred in an unincorporated area) the county. The state collects the sales tax and remits it to the local agency in lump sums periodically throughout the year. Thus, the local agency may suffer several month's lag time before receiving sales tax revenues.

California operates with a very simplified local agency structure. Under the state itself, operating as subdivisions, lie counties and then cities. While some California cities self-identify as 'towns,' politically they are identical to cities in powers and structure. Such towns have nothing in common with townships found in other states, which are in effect intermediary layers of government between counties and cities.

California is also distinct in that its school districts are wholly separate from city agencies. Special school districts operate K-12 schools. As such, cities are never responsible for managing (or, importantly for this dissertation, providing capital funding for) school districts. While California school districts do also engage in capital markets with high frequency, interview subjects indicated that considerations behind bond transactions for school districts are generally distinct enough from cities in the California context that they require some degree of specialization. Most financial advisory firms which work with both school districts and other local agencies (like counties, cities, and other types of special districts) generally keep separate stables of advisors for each of the two categories.

California local governments are tightly bound by tax revolt era policy. Most importantly, Proposition 13 limits property tax revenues substantially. While this is not the place for a lengthier discussion of Proposition 13, I only note that the policy can limit property tax revenues when real estate markets are not experiencing frequent sales. In other words, cities with hotter real estate markets will have property tax revenues aligned much closer to the actual value of land. The problem has led some cities to rely on creative revenue stream (see the next chapter for a quick discussion of how Bell Gardens has tried to deal with this problem, for example).

Conclusion

        This dissertation speaks to the role of the suburb as a key site for the generation of racial difference via the mechanism of municipal debt. It also speaks to discussions around how differences in structural relationships between the local state and private firms can drastically alter debt outcomes.

        I now turn to a discussion of these phenomena in greater detail. In the next chapter, I will show that the terms of municipal debt experienced by suburban states do vary by the racial make-up of the community's residents. In Chapter 4, I will further show that the structural relationships between the city and the financial sector similarly vary. And in Chapter 5, I will delve into the reasons why these differences exist which create this racial difference, as well as the discourses involved parties use to justify the difference.

CHAPTER 3

Do Communities of Color Pay More For Money? A Regression Analysis

Bell Gardens received worse terms than its three counterparts in the transactions discussed in the introductory chapter to this dissertation. An obvious question arises—why? Several candidates present themselves as explanations.

For one thing, the city's revenues from property taxes, often considered to be the most stable municipal revenue source and one prized by credit raters, were substantially smaller than those for Beaumont, Calabasas, or of course than the territorial behemoth Los Angeles. Figure 3.1 shows the tax revenue structure of each smaller city in the sample. Bell Gardens has the lowest amount of real property tax revenues. Yet Bell Gardens creatively had found supplements to property tax in the form of a casino tax, which evened out the overall municipal revenues to be close to those of Calabasas. While a potentially volatile revenue stream like a casino tax might seem more speculative than property tax revenues to an investor, it was not used to pay the debt in any rate. The Bell Gardens bond was secured by a property tax stream which by state law could only be used to pay for the debt. Investors would have first bite at a chunk of property tax revenues before it even factored into Bell Garden's budget.

A casual observer driving through Bell Gardens, versus Calabasas or Beaumont, would likely notice that yes, property values are likely lower in the city. One would likely assume, correctly, that the Bell Garden's median income was lower than in the other cities. This had not always been the case: in the year 2000, around the time both Beaumont and Bell Gardens were issuing their first bonds which they refunded in 2014, the two cities had roughly equal median household incomes. By 2014, Beaumont's median income was almost twice that of Bell Gardens, pumped up by commuter homeowners who had purchased tract houses in developments like that found in Improvement District No. 17.

Figure 3.1: Revenue mixes of three sample cities, FY2014-15
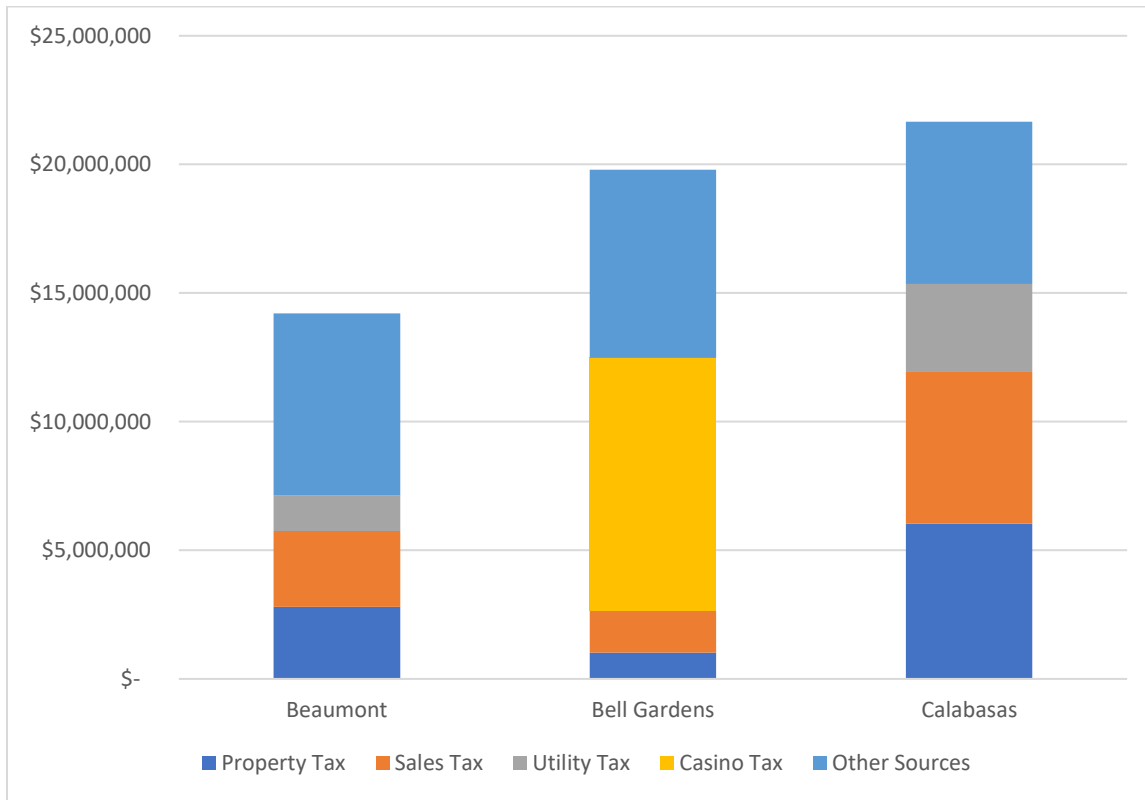
While these disparities are true and likely readily inferable to the casual eye, a visitor to the city would be struck far more quickly by another key difference. They would notice that a large majority (above 95%) of Bell Gardens's residents are Latino, while Calabasas, Beaumont, and even Los Angeles all have sizable non-Hispanic white populations, as well as other communities. Could this key difference have played a role in the disparities in outcome of the four bond issues in question?

Credit ratings companies like Moody's, S&P, and Fitch, are quick to assert that the racial makeup of a city's residents does not play into their credit assessments of a city's likeliness to repay bonded debt. In other words, according to the agencies themselves, any correlation between race and a lower credit rating is either coincidental, or is associated with some endogenous factor correlated with race—fiscal health of the city, median household income, tax revenue stability, even homeownership. All of these

factors, in the United States, are closely correlated with race, with white residents in the aggregate always showing higher privilege than people of color in almost every category.

Thus, separating race from other factors has long plagued researchers interested in municipal debt. This chapter bridges several gaps in analysis from prior scholars who have either noted, or delved deeply into, racial disparities in terms of loans in their studies. For one thing, I control for the end use of the debt finance, something most studies have failed to do. I also add control variables for the type of revenue stream securing the bonded debt. Using stepwise regression, I show that race always matters for the terms of the debt—and not just for credit rating.

The chapter proceeds as follows: I first will briefly address the core literature surrounding connections of race and key indicators in municipal borrowing, with an eye towards their methodologies rather than their theoretical perspectives.[22] Following this, I have a brief discussion of data sources and processing I used for this chapter, as well as a discussion of the methodologies of each series of regressions. The heart of the chapter is taken up by a series of four stepwise regression analyses to look at the connection of race, as a predictor variable, to concrete terms of borrowing, as outcome variables. The first in the series assesses the likelihood of borrowing in any given year as an outcome. How does the racial makeup of a city change that city's likelihood of issuing debt? Second, I look at credit ratings to assess if ratings agencies truly are race neutral in their assessments, or if a strong correlation between race and credit remains strong despite control variables for other demographic markers like fiscal stability of the city, median income of households, or the percentage of single-family housing stock in the city. I then turn to the interest rate paid on the debt, adding credit rating as a control. And then I turn to the fees paid to financial services providers, including underwriters and municipal advisors, among others, adding interest as a control here. At all stages of the process, a beneficial correlation exists between the percentage of white residents and the outcome variables, meaning a higher likelihood of borrowing, a

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[22] See Chapter 2 for a more in depth engagement with the theories behind these studies.

higher credit rating, a lower interest rate, and a lower proportional fee for borrowing. I close the chapter with a reflection on the finding, and a bridge to the next analysis in Chapter 4.

Previous studies of race and municipal creditworthiness

To an outside observer, municipal bond ratings might appear at first blush to be roughly equivalent to a consumer credit score. Several interview subjects for this dissertation used the analogy of credit score to describe the process and purpose of credit ratings, and the Municipal Securities Review Board (MSRB) paints them in a similar light:

> *"What is a credit rating? Think about your own credit score. Credit scores and credit ratings are similar. Companies use credit scores (ranging from 300 to 850) to assess people's ability and willingness to make car or mortgage payments. Investors in municipal bonds use credit ratings to assess **creditworthiness**, or the ability and willingness of the state of local government issuing the bond to pay investors their money back, plus interest."* (MSRB 2020:1; emphasis in original text)

Yet despite this go-to analogy, there are key differences between consumer credit scores and bond credit ratings. Unlike their counterparts in consumer credit scoring, who portray their findings as empirically sound, credit ratings agencies take great pains to specify that their ratings are, basically, educated guesses—opinions of creditworthiness, not backed by pseudo-scientific algorithmic models used in consumer credit scoring. Although agencies have been forthcoming about the actual process of assessment, they have never fully disclosed what types of data they privilege during the process itself. Typically, when assessing a potential borrower, a ratings agency will detail an analyst to compile financial data, coupled with interviews with key figures at the borrower. The analyst makes a recommendation to a committee (the exact make-up of such committees is highly secretive to avoid push-back), which will come to a consensus on the appropriate grade a borrower should receive. Agencies acknowledge that both

quantitative and qualitative data goes into an assessment, but the precise mix remains a closely guarded secret. Agencies are quick to hide behind First Amendment protections when they get things wrong, which they frequently do—after all, a credit rating is just an opinion, and raters make no claims to be stating any facts about future likelihood of repayment (Rona-Tas & Hiss 2010).

The three major bond credit ratings agencies—Moody's, Standard & Poor's (S&P), and Fitch—do make some details about their methodologies available to the public. Each has its own unique system. Moody's, for example, uses three distinct methodologies—one for General Obligation (GO) bonds, one for revenue bonds, and one for utility bonds.[23] Appendix 3.1 contains Moody's criteria for GO bonds. In short, the rater claims that 30% of the assessment is based on the local tax base, as assessed by its overall size, value, and the median family income of the municipality in question (as a proxy for wealth). An additional 30% comes from the city's fiscal situation, and 20% from the city's debt profile. The final 20% is related to the 'management' of the city, broken down evenly between 'Institutional Framework' and 'Operating History.' The former category is squishy, but the latter relates back again to the agency's 5-year average of the ratio between operating revenues and operating expenditures (Moody's 2019: 18). S&P and Fitch have similar ratings with slightly different weights; these agencies respective criteria can also be found in Appendix 3.1.

While an in-depth comparison between these ratings is best left for another time and place, the main takeaway here is that the three agencies claim to more or less agree on equivalent criteria one might use to assess whether or not a local government is a good credit. Table 3.1 quickly compares the three agencies and the factors each consider to emphasize this point.

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[23] See the technical section of Chapter 2 for an in-depth discussion of the differences between GO and revenue bonds.

Table 3.1: Comparative Measurement Criteria for the Major Three Credit Ratings Agencies

Moody's	S&P	Fitch
Tax Base Size		Population Size
Tax Base / Capita		
Median Family Income	High Income Levels	Median Household Income
Fund Balance / Revenue	Liquidity	
5-Year Fund Balance Change	Sustained High Fund Balances	Financial Resilience
Cash Balance / Revenue		
5 Year Cash Balance Change		
Institutional Framework	Institutional Framework	
5-Year Average of Op. Rev/Op. Exp		
Direct Debt/Full Value	Debt & Contingent Liabilites	
Direct Debt/Op. Rev.		Overall Debt to Revenues
3-Year Average Pension Liability/Full Value		
3-Year Average Pension Liability/Op. Rev.		
	Economy	
	Management	
		Revenue Volatility
		Population Trend
		Employment Trend
		Unemployment Rate
		Educational Attainment
		Economic Concentration

Yet some evidence suggests that the agencies do have flexibility in their assessments. Cities and other agencies which are seeking assessment pay the agencies for these ratings. Like any customer paying for a service, cities may expect a certain degree of alignment with their own vision of their creditworthiness. As one municipal finance officer who works for a large California city interviewed for this project put it:

These rating agencies are still a business. They still want to maintain business and relationships. So there is the credit analyst, who does their job.[24] But there's relationship managers we deal with. And with the relationship managers we talk about how satisfied we are with their service, how satisfied we are with their fees. And if we don't like a rating analyst, we can talk to the relationship manager and get them removed. Bring in a new one. And so I know I'm not stuck with someone that I think it incompetent or is not expressing my credit effectively. We could bring those issues up. And we've done that before, in the past. We've gone through relationship managers… So I would say, because they want to maintain business, they will hear you out if you disagree with their rating, with the rating decision. So there is leverage. Which is kind of sad, in a way, because they are supposed to be very independent…

I have four rating agencies to choose from. All of them are expensive. I don't need all four to get my deal done, I just need two. And they know they are competing with each other. And so the second you don't choose them for your deal or the next two deals, you will get a call from their relationship manager to say 'What happened?'

Why would I go to a rating agency that rated me lower than the other one? I do think those pressures do come to play, but they [the agencies] will swear up and down that there is a silo between the credit and the relationship people. I don't know how true that is or whatnot. But for us, the city, we will always fight for what we think is the appropriate rating.

The point here is not to highlight the inherent conflict of interest in a borrower paying an entity to tell the world it is creditworthy—this conflict is well recognized by all in the market, and was a major consideration in the Dodd-Frank law which updated SEC regulations of credit raters. Rather, I share this

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[24] Specifically, working with the city and on their own to compile relevant data about the city to assess creditworthiness, preparing a proposal to the agency's review committee, and defending their recommendation to that committee.

quote to show that an agency might step outside of the lines of their provided tables and look to other criteria, or at least put another set of subjective eyes on inherently interpretable data. I also do not mean to imply that all cities have this outlook towards credit ratings agencies. Rather, as I will show in Chapter 5, such a footing by a city towards credit ratings agencies is not equally experienced by all.

At the very least, credit ratings agencies are opaque on the criteria they use, despite the tables and ratios they provide. Indeed, academic researchers have, for decades, been trying to assess the validity of the ratios, tables, and methodologies provided by credit ratings agencies, primarily through regression analysis and with only middling success in terms of R^2 values (this dissertation joins that long tradition, as the reader will see later in this chapter). Lovisek and Crowley (1990) rounded up no less than 18 prior regression studies of municipal credit ratings from the previous several decades, all of which attempted to reconstruct credit rating agencies by using variables as close as possible to the ones the agencies reported. Lovisek and Crowley eventually conclude that a simple probit model relying solely on the rate of per capita income of residents outperformed almost all of them (and still barely broke even with a pseudo-R^2 of 50.65%). This stands in stark contrast to academic attempts to reconstruct sovereign credit ratings with regression analysis from the same agencies, with studies in that vein routinely attaining R^2 values in the low 0.9 range, though these studies have their detractors (Cantor & Packer 1996; cf. Ferri, Liu & Stiglitz (1999)).

The question is not merely academic, however. A lower credit rating is an imprimatur of higher risk, imposed by a federally recognized (and supposedly neutral) credit assessor. Higher risk, in turn, becomes reflected in the form of higher interest rates.

Recent Studies and Methodological Issues

More recently, critical race scholars have become highly interested in the connection between perceived municipal creditworthiness, expressed as risk, and the race of a city's residents. As discussed in

the literature review of Chapter 2, race and risk are inherently closely tied in markets under racial capitalism. Some of these studies have sought to expose that connection. Ponder (2021) showed that majority-Black cities, which she categorizes as cities with over 50% Black population in the year 2014,[25] all paid higher interest costs than the average interest rate paid by all cities, with the gap widening near the end of Ponder's timeframe of analysis in the mid-2010s as interest rates hit near-historic lows following the economic credit-associated depravities which led to the Great Recession. A second recent study found that cities and counties paid overall higher costs for borrowed money proportional to the local Black population between 1990 and 2019 (Eldemire Luchtenberg & Wynter 2022). And Norris (2023) looked specifically at credit ratings from a single agency (Moody's) rather than interest as a proxy for risk, and found similar conclusions. Cities suffer lower ratings proportional to the percentage of Black residents, even when controlling for exogenous factors like median income, which ratings agencies argue are what actually matters.

While this author has absolutely no argument with the theoretical underpinnings of these inquiries, all of the above studies are limited in their potential for external validity for methodological reasons. First, the studies focus on cross-state sampling of large public agencies, possibly incorporating unmeasured confounding factors. Second, they ignore the most common types of municipal borrowing instruments. And finally, they focus on a Black-white racial paradigm which fails to represent changing demographics in many US cities. I turn to each methodological concern in turn; Table 3.2 summarizes the concerns.

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[25] Incidentally, due to changing inner city demographics, Ponder's use of 2014 as the cut off year and strict application of majority Black at a 50% threshold left out several traditionally majority or near-majority Black cities, including Washington, DC and Saint Louis, MO (the latter being the original hometown of this dissertation's author). These cities, and perhaps others, would have been near-majority Black cities for the lion's share of Ponder's time frame of analysis, which spans from 1970 to 2014. Indeed, according to noted urbanist Clinton (1975), Washington DC is the original Chocolate City. One wonders about the outcome of a potential debate between these two urban theorists, to my knowledge unresolved at the time of writing.

Table 3.2: Summary of key methodological concerns, select studies on race and municipal debt

Author	Size	Demographics	Area of Analysis	Regionalism	Debt
Ponder (2021)	Only 100,000 and larger	>50% Black population	Concentrated on East Coast and Southern cities	Cross-State Analysis	
Eldemire et al. (2022)			Compares cities to counties	Cross-State Analysis	
Norris (2023)	Only 200,000 and larger			Cross-State Analysis	Only GO Bonds

All three of the above critical race theory-grounded studies, as well as most studies of municipal bond borrowing in general, opt for ease of data collection and rely on large agencies in their sampling. Ponder (2021) cuts off at 100,000 residents, Norris (2023) uses the 200,000-population figure as a cutoff. These approaches require the use of cross-state analysis. No state has enough majority Black cities of over 100,000 residents to constitute an ample enough sample for any statistically meaningful findings. Eldemire et al. (2022) eschew the municipal issuer's population entirely and instead take demographics from the agency's county. While they also analyze cross state, they do control for state tax privilege policy frameworks.

The effects of this approach to sampling are serious. First, the approach flattens key cross-state distinctions in powers and authorities of local agencies. Second, the approach results in relatively small sample sizes. Third, the approach ignores any possible effects experienced by 'ordinary cities,' to borrow a concept from Robinson (2002).

Cities (and counties) are both creatures of the state in which they fall geographically, with state law delineating their responsibilities and powers. Those responsibilities and power can vary widely from state to state. Importantly, each state has its own property tax regime. Property tax is the most important (and generally most stable) source of local revenue in most contexts (Fisher 2021). It is nonetheless

assessed, collected, and distributed under distinct parochial conditions established by state law. An analysis which does not factor in this between-state difference flattens key distinctions of this paramount marker for creditworthiness, at least as expressed by the three major credit ratings agencies.

As a second issue, the large agency approach also results in relatively small samples. Norris (2023) has only 109 cities in his sample, with a total of 680 observations over nine years. Ponder (2021) has more observations, to be sure, but only because she opts for a 40-year time frame, and only 21 cities are majority-Black in her sample of cities, a small number of treatment cases for her independent variable.

Arguably most importantly, this approach ignores the majority of borrowers by focusing on large, mostly core, cities. By way of example, in California in 2019, the last year I use in my samples for my various tests in this chapter and the final year before the COVID-19 fiscal crisis of 2020, 151 unique city borrowers issued bonds, including Community Facilities District (CFD, or Mello-Roos) debt and successor debt for redevelopment agencies (CA Treasurer nd). Only two (Los Angeles and San Diego) had over 1,000,000 residents. An additional 16 cities had between 999,999 and 200,000 residents (Ponder's cutoff), and 19 more had between 199,999 and 100,000 residents (Norris's cutoff). This means the experiences of 114 California borrowers, over 75% of the active participants in the marketplace, are not captured by the analysis of either of these studies.

This might not be important if size does not matter in the experiences of cities borrowing money from capital markets. But credit ratings agencies explicitly tell us that it does—both in terms of direct population headcounts, but also as a proxy through the size of the property tax revenue base. I am not, here at least, arguing that the experience is necessarily different—I do that below in Chapters 4 and 5. But I do think its important to assume that the experience of a small town borrower might diverge substantially from a larger, more frequent, participant in the bond market, in line with calls from Robinson (2002) and others to focus more on the experiences of 'ordinary cities' as key sites of valuable data, rather than merely convenience sampling from large cities only and extrapolating findings.

My sampling circumvents these issues. Because I draw from one state only, all cities in my sample operate under a common legal framework of powers granted to the local government, including a shared local taxation framework. By including cities of all sizes, I thus end up with a larger sample to draw from, even restricting myself to suburban borrowers. And I treat population not as a line for a sample cutoff, but rather as a continuous control variable which may factor into outcomes.

Moving away from my first major methodological concern, I turn now to the question of the type of debt analyzed by these studies. Norris opts to use only GO bonds in his analysis. While this is certainly a clean cut, the fact is that most cities, particularly smaller cities, do not routinely issue GO debt. Revenue bonds are a far more common type of bond instrument for local governments. Norris thus focuses his analysis on a small part of the market, and one which essentially overdraws from larger cities. Ponder, for her part, does not specify what types of bonds she is analyzing. Assuming she draws from all bonds, she may be making false comparisons between types of debt. Interest rates are absolutely dependent on the type of debt being issued, including the revenue stream underpinning that debt. If larger cities are more apt to issue certain kinds of debt, which they are (due to their frequent ownership of large infrastructure like water systems, electricity utilities, airports, conference centers, or ports, to name a few possibilities), her sampling may also skew her results.

My analysis rectifies this issue by including all types of bonds issued by local borrowers, but using categorical dummy variables for specific revenue streams.

My third overarching methodological critique of recent promising studies about race and credit relates to a simplification of racial capitalism's ability to foster racial difference for profit. All three of the above studies work along a Black-white paradigm, with Black-ness of residents serving as a predictor variable for worse credit outcomes. However, such a paradigm fails to adequately capture the on-the-ground reality of rapidly diversifying suburban communities, particularly in the Unites States's two largest states, California and Texas, both of which have substantial and growing Latino and Asian communities. Norris (2023) and Eldemire et al. (2022) treat the percentage of Black residents as a

continuous variable, whereas Ponder (2021) treats a 50%+1 cutoff as a dummy indicator for her analysis. The problem of this approach is twofold, with both a practical sampling issue and a larger issue concerning changing demographics in the US.

On the sampling side, there are simply not many majority Black cities in the US. California currently has no cities which meet this criteria, though it has many cities with a majority non-white population. Even Texas, a Southern state and our nation's second most populous, has only 16 cities or towns which have a majority Black population—out of 1221 total. In other words, majority Black cities are rare, outside of a few areas of the South, some East Coast core cities, and a few satellite cities near urban core cities (places like Gary, IN or East Saint Louis, MO). Any sampling method using this approach is destined to have a very small treatment group, and to sample disproportionately from specific political and historical contexts, limiting the potential for external validity of any findings.

This critique is by no means meant to argue that anti-Blackness is not a key mechanism used by capital to garner additional benefits through the creation of racial difference—of course it is. But it is not the only difference capitalism can mobilize in the interest of higher returns. In my analysis, I track whiteness as a marker of creditworthiness—credit privilege in other words—rather than Blackness of residents as a marker of uncreditworthiness. I also assess my findings against regressions looking to both Black and Latino residents. According to the Census Bureau, 'Latino' as a category is not a racial one, and individuals who self-identify as Hispanic/Latino in the Census may also designate their race separately. However, some scholars, building on Omi & Winant (1986), have argued that the category is a highly racialized one (see Almaguer 2012 for one such example), though scholars do debate the point. While not wading into this debate fully, I argue that the category may still a useful one for identifying credit discrimination based on racial difference. But by focusing the analysis on whiteness as the main predictor, rather than Blackness, I effectively increase the number of cities in the treatment group—a novel, if simple, approach to the issue of assessing racial difference in credit.

Data & Methods

This chapter of the dissertation addresses four key questions, each with a unique stepwise regression analysis. First, does a proportion of white residents in a city increase the chance that a city will borrow money? Second, does it improve the underlying credit rating a city is likely to receive? Third, does it lower the interest rate the city will pay? And finally, does it lower the fees a city will pay to the financial services sector when they issue a bond? In order to answer these questions, I hand-coded two datasets—one to answer the first question, and another to answer the three remaining questions.

Both datasets focus on urban and suburban communities in California. Even in a diverse state like California, rural communities have on average larger white populations. Rural communities also have potentially unique problems or capital needs from urban and suburban communities. By focusing on the latter two, I can more readily compare like to like. I also argue that suburbs historically are unique locations of the creation and fostering of racial difference, a process which I discuss at some length in Chapter 2. For all of these reasons, suburban communities were the best population to draw from.

California has 5 major urban/suburban areas: the Greater Los Angeles area, the Inland Empire, the San Fransico Bay area (including the Oakland and San Jose areas), San Diego, and Sacramento. To simplify matters, I took all cities lying within counties covered by the MSAs included in these areas, specifically: Alameda, Contra Costa, Los Angeles, Marin, Napa, Orange, Places, Riverside, Sacramento, San Bernardino, San Diego, San Mateo, Santa Clara, Santa Cruz, Solano, Sonoma, Ventura, and Yolo counties. These counties vary substantially in their degree of urbanization—Los Angeles County is one of the most urbanized counties in the United States, while its neighbor San Bernardino (the largest US county by ground area) is mostly empty desert and suburban clusters. Placer and Yolo counties have just sprinklings of Sacramento suburbs but remain largely rural. Nonetheless, I took all cities from these areas because of the clean cut they provided, a total sample of 323 unique cities.

I note quickly that I opted for two-tailed tests in all of the below regression analyses. While prior studies have made a predicted directional effect fairly clear, at least for interest rate and credit rating—

namely, that the presence of Black residents would be correlated with an increase in the former and a decrease in the latter, and thus presumably a counter-directional effect for the presence of white residents—many of the control variables are less clear. To preempt any arguments that I attempted to cherry pick one-tail variables, I use a cleaner cut of two-tailed tests across the line. While generally the results are the same, in a few instances, interpreting my primary predictor variable—race—in a one-tail test would have important ramifications for the outcome, which I note below as they arise.

I now turn to specifics from each dataset in turn.

Model 1: Does race factor into whether cities choose to borrow?

Data, Descriptive Statistics, and Correlations

For the first question, I created a panel dataset by drawing information from a variety of sources for the 323 cities of my suburban/urban population. I did this for 20 years, from 2000 to 2019. The end date was the last year before COVID-19 drastically changed the municipal borrowing landscape. Although 2020 is not a year of no borrowing for cities, the bond market did shift as a result of the COVID lockdown and economic crisis, and many cities tightened their belts in anticipation of several rough years ahead by deferring capital projects. The starting year, 2000, was selected because it falls 20 years before that time, a somewhat arbitrary choice. However, data limitations for a few data sources dovetailed with a 2000 or even later timeline, the year seemed like a fair compromise. From this, I obtained 6411 city-year observations. The number is less than 323 cities for 20 years because several cities were incorporated during the timeframe, and do not have early year observations.

The primary outcome variable for this regression analysis is a bivariate marker for whether a city borrowed in a specific year of observation. A value of 1 means the city issued at least one bond in that fiscal year; a value of 0 indicates the city issued no bonded debt. This includes GO bonds, revenue bonds, TIF debt, TRAN, and Mello-Roos debt.

The main predictor variable is the percentage of residents who identified as non-Hispanic white, as measured in the US Census Bureau's American Community Survey (ACS) 5-year estimates. The ACS began in 2010; for the first 10 years of my analysis, I used 2000-2010 linear interpolations for the absolute total population and the absolute number of non-Hispanic white residents in the city, and computed the ratio of these interpolated values. While this approach loses some nuances of community change, it should roughly mirror changing demographics during this period.

I also used a number of control variables in my analysis. Table 3.3 lists the control variables for this dataset with key characteristics. I took all cities within these counties and first determined which cities had key infrastructure which routinely entail additional infrastructure costs: municipally-owned water enterprises, municipally-owned electric enterprises, and municipally-owned airports.[26] To determine these ownership structures, I first turned to water utilities. I used the Organizational Structure and Institutional Types of Community Water Systems in Califronia dataset (Dobbin & Fencl 2021). This dataset provides a comprehensive list of all water systems in California, and includes city-owned systems. Any system identified in this data set as owning a municipal system received a dummy indicator. 155 cities met this criteria.

I also analyzed electrical systems using data from the California Energy Commission. System sprawl is a less serious concern in electricity and gas provision than in water (Pierce et al. 2019). In all, only 21 cities in the state operate municipal electric systems; all but two of these also operate water systems. Finally, for airports I turned to a list from the Federal Aviation Administration (FAA) of all airports, and individually investigated ownership of all located within cities in my sample. Only five cities operated airports categorized as Large by the FAA; an additional 11 cities owned smaller airports.

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[26] I did not include a variable for ports, which were very rare in the sample, although they also have substantial costs related to their infrastructure.

Table 3.3: Key information about variables used in Model 1

Variable Name	Details	Type	Units	Source
WHITE	The percentage of white residents over total city population	Continuous	Percentage	US Census Bureau American Community Survey 5-Year Estimates
SM_AIRPORT	Does the city operate an airport which carries less than 0.05% of all US enplanements	Dichotomous		Federal Aviation Authority
LG_AIRPORT	Does the city operate an airport which carries at least 0.05% of all US enplanements	Dichotomous		Federal Aviation Authority
WATER	Does the city own a water utility	Dichotomous		Dobbin & Fencl (2021)
ELECTRIC	Does the city own an electric utility	Dichotomous		California Energy Commission
DIRECT_MAYOR	Does the city have a directly elected mayor	Dichotomous		Various
AREA	The land area of the city	Continuous	Square Miles	US Census Bureau
POP	The population of the city	Continuous	People	US Census Bureau American Community Survey 5-Year Estimates
PROP_TAX	The ratio of property tax revenues to all general fund revenues	Continuous	Percentage	California State Controller Fiscal Cities
EMPLOYEE	The ratio of expenditures on employee salaries and benefits over all general fund expenditures	Continuous	Percentage	California State Controller Fiscal Cities
DEBT	The ratio of expenditures on debt service over all general fund expenditures	Continuous	Percentage	California State Controller Fiscal Cities
GROWTH	The annual growth rate of the city	Continuous	Percentage	US Census Bureau American Community Survey 5-Year Estimates
MED_INC	The median household income of city residents, converted into 2019 dollars	Continuous	Dollars	US Census Bureau American Community Survey 5-Year Estimates
RENT	The percentage of homes in the city occupied by renters	Continuous	Percentage	US Census Bureau American Community Survey 5-Year Estimates
SF_HOME	The percentage of single family homes in the city	Continous	Percentage	US Census Bureau American Community Survey 5-Year Estimates

Next, I added variables to capture the socio-political factors for the cities in my sample. I used dummy variables for cities with a directly-elected mayor (versus a rotating weak-mayor position, common in California local government). I also included variables for land area size in square miles, from the US Census Bureau, and city population, again from the US Census Bureau American Community Survey 5-Year Estimates, with interpolation for unavailable years. I also added some variables from Census data, including median household income (by ten thousand dollars, adjusted for inflation to 2019 dollars using the CPI), the percent of renter households, and the ratio of single-family homes in the community. I also calculated each city's growth rate by measuring the percent increase from the prior year, starting in 2001.

Finally, I added data from the California State Controller's Fiscal Cities dataset (CA Controller nd) to assess for city fiscal health. The Controller only began reporting data in 2003, so prior years are unavailable. I calculated three ratios for each city: the ratio of property tax revenues to general revenues to assess fiscal stability,[27] employee salary expenses over general operating expenses, and debt service payments over general operating expenses. I included the employee variable as a control to consider arguments by Peck (2012) and others, who have proposed that excessive labor costs might reduce a city's ability to access capital markets, and the employee salary ratio measures this possibility. Debt service, for its part, is a key marker indicated by credit ratings agencies as a reliable predictor of creditworthiness.

Table 3.4 reports descriptive statistics for all of the above variables for all cities in the sample. As expected, cities show a wide range in characteristics across the sample in most variables. A few outliers, explained in footnotes, stand out, but the overall picture is one of a wide variety of cities of different income types, racial mixes, fiscal situations, and housing models. Appendix 3.2 contains the equivalent table for all cities in the sample under 100,000 in population. A few key differences stand out between the two samples. Smaller cities are on average whiter by about 5 percentage points, and smaller by about 7

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[27] Property tax generally regarded to be the most stable source of local revenues (Bland 2013).

square miles. Population levels are intuitively lower. But for other demographic markers like median income and fiscal stability, the numbers are fairly similar between the two samples.

Table 3.4: Descriptive Statistics for the Model 1 Dataset

Variable Name	n	Mean	Median	Maximum	Minimum	Standard Deviation
WHITE	6395	0.476	0.491	0.993	0	0.248
AREA	6411	19.89	10.93	469.49	0.44	36.54
POP	6395	79,259	42,697	3,979,576	91	236,160
MED_INC	6381	9.28	8.52	29.70	3.16	4.34
RENT	6386	0.356	0.352	0.898	0.010	0.145
SF_HOME	6386	0.637	0.620	1.00	0.044	0.206
GROWTH	6064	0.0079	0.0041	-0.2819	0.2914	0.0183
PROP_TAX	5419	0.277	0.254	0.899	0.000[28]	0.159
EMPLOYEE	5440	0.323	0.328	1.000[29]	0.000[30]	0.119
DEBT	5440	0.059	0.0035	3.922[31]	0.000	0.122

Table 3.5 shows correlations between the variables used in Model 1. As generally expected by most models, median income and homeownership are closely correlated with the percentage of white residents in a community. A correlation also is present between the proportion of white residents and the relative strength of property tax revenues, a key indicator of fiscal stability. Besides these correlations, the only other tightly correlated variables are land area and population, a fairly intuitive connection.

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[28] These values were likely reporting errors by Foster City, which does have property tax revenues. Controller data is self-reported by cities with no auditing by the state.

[29] The city of Industry reported spending its entire budget on employee salaries in two fiscal years. While it is unclear why the city would report this, Industry is an unusual city in many respects. As the name implies it is primarily an industrial community, with very few residents or public services.

[30] This single value was observation by the city of Menifee for its very first fiscal year. The city likely contracted most services at this time, but had hired staff by the following fiscal year.

[31] This unusual value stems from accounting issues in years of large debt issuances.

Table 3.5: Correlations between continuous variables used in Regression Model 1

	WHITE	AREA	POP	MED_INC	RENT	SF_HOME	GROWTH	PROP	EMPLOYEE
AREA	-0.085	-							
POP	-0.132	0.893	-						
MED_INC	0.502	-0.144	-0.113	-					
RENT	-0.444	0.065	0.166	-0.600	-				
SF_HOME	0.129	-0.045	-0.133	0.353	-0.605	-			
GROWTH	0.028	0.178	0.037	-0.111	-0.099	0.112	-		
PROP	0.511	-0.046	-0.034	0.663	-0.474	0.359	-0.052	-	
EMPLOYEE	-0.012	0.028	0.089	0.029	0.210	-0.212	-0.045	0.067	-
DEBT	-0.021	0.064	0.061	-0.075	0.089	0.001	0.033	-0.050	0.008

Model 1 Methods

Model 1 uses a logistic regression with panel data to measure the likelihood that a city would borrow in any given year. The model tests a hypothesis about the reasons why cities either chose to borrow or are able to borrow from the municipal bond market. Every city in the counties of my sample, including core cities and suburbs and exurbs of all sizes, are included in the panel. All regressions control for year fixed effects to account for ups and downs in the municipal credit market.

I selected to use a two-tail test for this model given the lack of prior studies concerning the dynamics at play in choosing to borrow.

I hypothesize that access to municipal credit markets is deeply affected by race and ethnicity, much as in the consumer credit market. Specifically, cities with a higher proportion of Black or Latinx

residents will have a more difficult time accessing the municipal bond market, or finding terms favorable enough to allow for borrowing. This effect should persist even when controlling for municipal income.

Test 1:

$H_1 - A\ larger\ percent\ of\ white\ residents\ will\ increase\ the\ likelihood\ of\ borrowing.$

$H_0 - The\ percent\ of\ white\ residents\ will\ have\ no\ effect, or\ an\ opposite\ effect.$

To assess these hypotheses by looking for correlations, I used a stepwise model to my regressions, adding variables in sets: the asset set, political and size controls, fiscal controls, demographic controls, and my primary predictor variable (the percentage of white residents). In the spirit of brevity, I present several steps combined below.

I ran this stepwise series twice: once for all cities in the sample and once for cities under 100,000 residents in size. In this way, I am able to resolve two outstanding issues in existing scholarship. First, do prior models which focus exclusively on large city sample have a solid basis when extrapolating to smaller city contexts? And second, does my primary variable of interest gain predictive power, or lose predictive power, as population drops?

Model 1 Results

For Model 1.A, I first added in most of my control variables. Because I am using a logistic regression model here, I then want to assess the relative power of adding the primary predictor variable,

the percentage of white residents, into the model, as shown in Model 1.B. Finally, in Model 1.C I also included median household income, single family homeownership, and the percentage of renters. These three variables are all correlated with the percentage of white residents, and I opted to add them to the model separately to assess changes in log likelihood in the model with their addition.

As shown in Table 3.6, Model 1.A generates an overall log likelihood of just the control variables of -2806.406, and a χ^2 value of 145.96. Although most variables in the model have predictive power at a generous α of 0.1, a few surprises jump out. The population of a city seems to have little influence on a city's propensity to borrow from the municipal bond market, far less than the presence of either type of utility or an airport. There is probably correlation at play here—only large cities, after all, own and manage large airports, though not all large cities do so, and most publicly owned electric utilities are located in larger cities. Second, the debt ratio does not seem to matter in this model. In other words, cities do not seem to factor in the relative debt service burden they operate under when they decide to borrow or not borrow. This may be a result of California law. As a part of several laws passed during the state's famous tax revolt era of the 1970s, California state law places strict limits on the ratio of debt to assessed valuation a city is legally authorized to issue. In other words, all cities have the same proportional cap to their ability to issue debt.

Model 1.B adds my primary predictor variable into the mix, the proportion of white residents in a city. Overall, the model's predictive power shows a modest increase. The percentage of white residents does show a statistically significant increase in the probability that any city will borrow in a given year at an α of 0.1. However, I note here that if the test is viewed as a one-tail test, the p value drops to 0.04, below an α of 0.05.

Interestingly, the same test using the percentage of Black residents also showed a positive coefficient for this test which was statistically significant, and indeed stronger than the effects for white residents. This emphasizes that a simple Black-white paradigm has little explanatory power over current developments—at least in terms of probability of borrowing—in California suburbs, which are multiracial

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in nature. The coefficient for percentage of Black residents was 1.26 (versus 0.51 for white residents).

Both were statistically significant results. Latino residents, a large majority in many working-class

California suburbs, by contrast have no statistically significant explanatory power in this model.

Model 1.C adds in the variables correlated with the presence of white residents which ratings

agencies actually claim influence bond rating outcomes. The log likelihood of the model jumps to -

2791.998, though this may be influenced by some lost observations. The χ^2 increases to 154.68.

Interestingly, median household income seems to show little to no statistically significant effect on the

probability of a city borrowing money. At the same time, the substantive effect of additional white

residents decreases, though its statistical significance increases. Indeed, the p value comes in at 0.011 for

a two-tail test; when viewed instead as a one-tail assessment of the variable the statistical significance is

quite high. Model 1.C has a .690 area under its AUROC curve, signaling it accurately predicts about

seven out of ten of the possible outcomes.[32]

For the mean general law California city with a water utility, but no electric utility or airport, all

else equal, a 20% increase in white residents in a city would be associated with a 12% increase in the

odds of borrowing in a given year. Spread over a lengthy timespan like the 20 years of this analysis, this

finding implies that cities with larger populations of white residents are enjoying substantially elevated

access to the municipal bond market.

The findings of these three models allows me to reject the null hypothesis, and state that a higher

proportion of white residents in a city is correlated with a higher likelihood that that city will engage in a

bond transaction in any given fiscal year.

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[32] The AUROC curve, or Area Under the Reciever of Characteristics, test plots the sensitivity (or accurate correct assessments) and specificity (or accurate incorrect assessments) of a model on a simple xy-axis graph. The test is commonly used in biosciences but it less common in social science, however it is a useful rubric for testing just how much better a logistic regression model is that flipping a coin. A model with the predictive power of flipping a coin would have a 45% line, or AUROC value of 0.5. A model with completely accurate predictive power has an AUROC of 1.0. This is not the place for a detailed discussion of the underlying mathematics, see Fan, Upadhye & Worster (2015) for a more detailed primer.

Scaling Down

This section addresses the extent to which these correlations increase or decrease for the smallest cities in the sample. Table 3.7 shows side-by-side comparisons for regression Model 1.C for all cities in the sample, and all cities under 100,000 residents in the sample.

Importantly, while some control predictor variables either retain or lose predictive power with the smaller population samples, only two variables increase their predictive power: population, and the percentage of white residents. The latter is particularly important for this analysis. The smaller a city gets, the more important the percentage of white residents becomes in accurately predicting whether a city will borrow in any given fiscal year. The variable increases both in statistical significance and in the size of the coefficient.

The increased importance of population is likely related to the drop of importance of dummy predictors for utilities and airports. Few cities under 100,000 residents operate these utilities, making them less powerful as predictors. Only water is an exception—smaller cities are more likely to operate a water utility than an airport or electric utility. These categorical variables might be absorbing some of the effects of population in the full sample model. These findings, though testable in other models, lie beyond the crux of my present study.

Table 3.6: Regression outcomes, log likelihood to borrow

	Model 1.A *Control variables*	Model 1.B *With primary Ind. Var.*	Model 1.C *Additional Ind. Var. controls*
WHITE		0.510* (0.293)	0.454** (0.178)
SM_AIRPORT	0.692** (0.339)	0.642* (0.342)	0.529*** (0.170)
LG_AIRPORT	1.227* (0.650)	1.156* (0.656)	1.077 (0.661)
WATER	0.339*** (0.130)	0.375*** (0.132)	0.305*** (0.135)
ELECTRIC	0.486* (0.251)	0.472* (0.253)	0.430* (0.246)
DIRECT_MAYOR	0.500*** (0.193)	0.509*** (0.194)	0.477** (0.196)
AREA	0.137*** (0.004)	0.126*** (0.005)	0.012** (0.005)
POP	0.107 (0.123)	0.164 (0.128)	0.211 (0.135)
PROP_TAX	-0.917** (0.379)	-1.250*** (0.427)	-1.007** (0.482)
EMPLOYEE	0.807* (0.430)	0.774* (0.432)	0.820** (0.442)
DEBT	0.359 (0.303)	0.354 (0.301)	0.316 (0.298)
GROWTH	0.000*** (0.000)	0.000* (0.000)	0.000*** (0.000)
MED_INC			-0.021 (0.024)
RENT			1.468** (0.637)
SF_HOME			1.032*** (0.369)
n	5423	5423	5411
Log Likelihood	-2806.406	-2926.415	-2791.998
χ-Squared	145.96	145.87	154.68
P	<0.001	<0.001	<0.001

* = $p < 0.1$
** = $p < 0.05$
*** = $p < 0.01$

Table 3.7: Model 1.C across two samples varying by population size

	All Cities	Cities Under 100,000 in population
WHITE	0.454**	1.046***
	(0.178)	(0.340)
SM_AIRPORT	0.529***	0.299
	(0.170)	(0.417)
LG_AIRPORT	1.077	0.383
	(0.661)	(1.101)
WATER	0.305***	0.339**
	(0.135)	(0.143)
ELECTRIC	0.430*	0.319
	(0.246)	(0.358)
DIRECT_MAYOR	0.477**	0.090
	(0.196)	(0.248)
AREA	0.012**	0.014**
	(0.005)	(0.007)
POP	0.211	1.21***
	(0.135)	(0.312)
PROP_TAX	-1.007**	-1.235**
	(0.482)	(0.506)
EMPLOYEE	0.820**	0.494
	(0.442)	(0.485)
DEBT	0.316	0.303
	(0.298)	(0.308)
GROWTH	0.000***	0.000***
	(0.000)	(0.000)
MED_INC	-0.021	-0.010
	(0.024)	(0.024)
RENT	1.468**	1.444**
	(0.637)	(0.649)
SF_HOME	1.032***	1.193***
	(0.369)	(0.392)
N	5411	4418
Log Likelihood	-2791.998	-2202.226
χ-Squared	154.68	109.82
P	<0.001	<0.001

*   = $p < 0.1$
** = $p < 0.05$
*** = $p < 0.01$

Model 1 Discussion

In all, these models demonstrate that an increase in the proportion of white residents in a city is correlated with an increase the probability of borrowing in any given year. There are several possible explanations for this phenomenon, which I will discuss below. Importantly, however, the finding argues that scholars who look to either find traces of racial difference in municipal bond markets only by looking at transactions might be sampling on a dependent variable—cities which borrow. Future scholars of municipal debt may also want to look not only at what happens *when* a city borrows, but *what* causes a city to borrow in the first place.

The model, sadly, does not provide a ready explanation of why the correlation exists. Two possibilities present themselves. First, cities with higher degrees of white residents might have better access to municipal bond markets. Cities with lower proportions of white residents, on average, might either be unable to access credit through the bond market, or find that when they explore the possibility of accessing credit through the municipal bond market the terms are so unfavorable that they in the end opt not to borrow at all, or to seek financing from other types of municipal credit markets or grants.

However, the presence of Black residents is also associated with a higher likelihood of borrowing. Indeed, the effect is if anything stronger than that for white residents. This latter finding stresses the importance of keeping an open-ended view towards what diversity means in rapidly changing suburban landscapes operating under racial capitalism. Other racial or racialized ethnic groups, however, exhibited no statistically significant effect over the likelihood of borrowing.

Interview responses for this dissertation with both municipal finance officers and financial advisors argue strongly against the idea that minority-white communities cannot borrow from bond markets, or are somehow cut off from this type of capital finance. In short, cities can always find a ready market for their debt, no matter who lives there or how bleak conditions in the city might be. Cities cannot, however, control the terms that will come with that debt—the price of money they will have to pay. The following regression models of this chapter explore racial difference in the key markers of

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creditworthiness: credit ratings, interest rates, and fees. And Chapter 4 of this dissertation explores whether access to municipal bond markets, as measured by connections through possible intermediary financial services firms, changes with racial and ethnic demographics and with median household income of residents. These further tests seek to answer this question.

Whatever the cause, limiting the analysis to smaller cities implies that correlative effect between race and the decision (or ability) to borrow is amplified in smaller city contexts. Chapter 4 will return to this theme.

Another possible explanation exists. Perhaps communities with larger proportions of white residents are more likely to demand public goods which require capital finance: a new city hall, newer gear for police or fire departments, a better equipped library, a public pool. This dissertation leaves this potential alternate explanation to the side, and assumes that residents will demand roughly equivalent public goods regardless of their circumstances. Further studies might clarify this question.

I now turn to models which assess the terms of borrowing when cities opt to borrow.

Models 2, 3, & 4: How does race factor into bond transactions which do occur?

Models 2, 3, and 4 Data, Descriptive Statistics, and Correlations

Models 2, 3, and 4 measure correlations with outcome variables of credit rating, interest rate, and fees paid in conjunction with bond transactions to the finance industry, respectively. However, the three models use a common dataset, which I hand coded for this project. Each observation in the dataset is a specific bond transaction. I again opted for the 2000 to 2019 timeframe for this analysis, with the endpoint selected for the same reasons described above (the final year before COVID-19 hit municipalities and began to shift politics) and the former being 20 years before that point. In all, California cities in my selected geographies issued 3783 bond transactions over that 20 year period—my

total observations. Of the 323 cities in my sample, 287 issued debt at least once during this 20-year timeframe, just under 90% of the potential borrowers.

My primary predictor variable is, again, the percentage of non-Hispanic white residents in the city. I once again used US Census Bureau ACS 5-Year estimates for the 2010-2019 period, and interpolated values linearly for the 2000-2009 period.

My outcome variable varies by model. Model 2 is the most complicated model in terms of outcome. Credit ratings agencies assess cities on different scales, depending on the type of bond issued. I only used ratings assessed by Moody's, S&P, and Fitch. While Kroll has made large inroads into the municipal bond market in recent years, the agency is still relatively new, focuses mostly on large borrowers (who I am less interested in for this study), and generally not as well accepted as the so-called Big Three raters.[33] The California State Treasurer's Debt Watch data included the credit rating, so I did not have to hand code these assessments from bond issuance statements.

Municipal bond ratings range on a ten-point scale of varying letter ratings for long-term debt, the most common type of municipal bonds which includes most GO bonds, revenue bonds, and TIF bonds. I transferred their letter ratings into a 1-10 scale, with 10 being the highest possible assessment and 1 the lowest. I note here that most Mello-Roos bonds are issued without a credit rating and thus were not included in this process.

Short-term debt, commercial paper, and some forms of conduit bonds use alternative scales which vary in their number of steps by assessing agency and type of debt. Using ratings agencies descriptions and matching keywords, I transferred these onto the same 10-point scale, leaving some gaps. Cities often seek ratings from multiple agencies for a single transaction. For each bond rated by one, two, or three bond ratings agencies, I averaged the assessed values. Figure 3.2 shows the result, a near even-distribution curve, with an only very slightly more ample tail on the high end of the distribution, running

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[33] This latter claim is based on data from several interviews with practitioners in the field.

primarily along whole numbers with occasional valleys in between numbers where ratings did not

precisely align. The distribution, while not perfect, was close enough for an ordinary least squares

regression model.

Figure 3.2: Distribution of averaged credit rating by observation
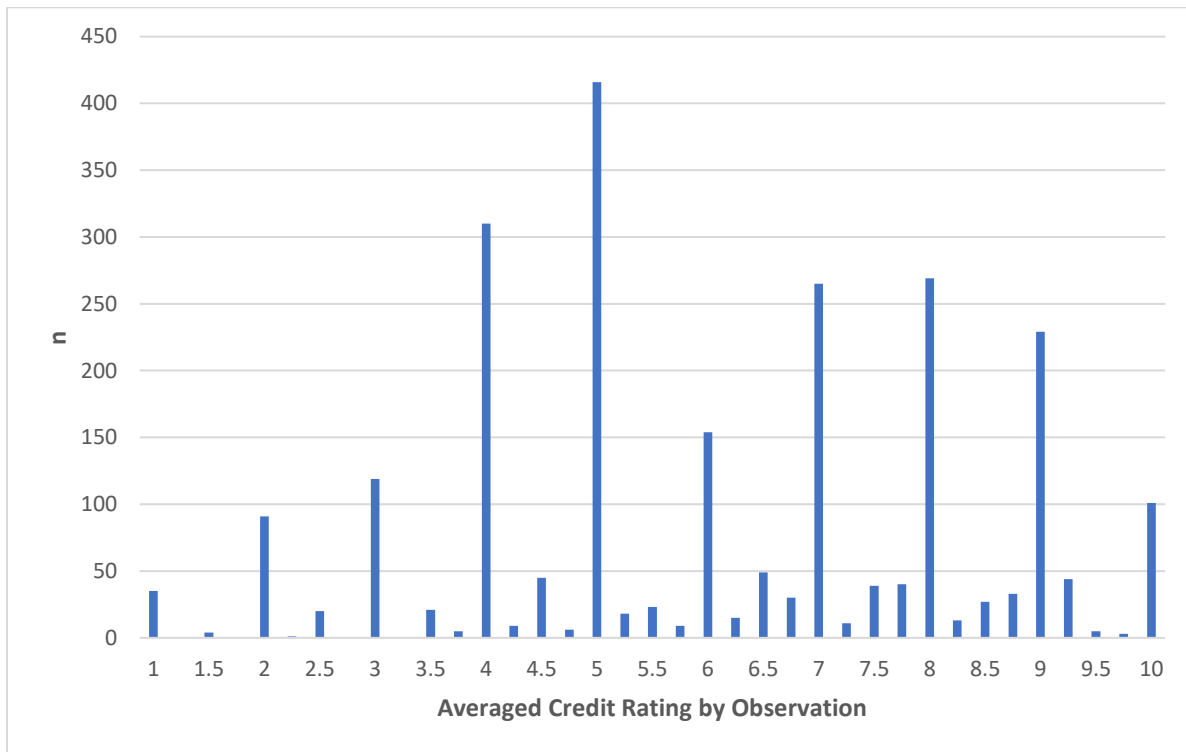
For robustness, I also assessed credit ratings using a multinomial logistic model, the methodology

for which I describe in detail below. For this model, instead of 10 ratings categories, I divided ratings into

four groups. Group 1 only includes municipal bonds rated the highest. Group 2 includes all bonds

$7 \leq X < 10$. Group 3 includes all bonds $4 \leq X < 7$. Group 4 includes all bonds $1 \leq X < 4$. These four categories

are broadly writ parallel to ratings agencies assessments of Best, High, Upper Medium, and Medium in

quality. The theory behind this model is that a leap from, say, 4 to 5 on the ten-point scale (or, put another

way, from Medium to Upper Medium) is greater than a leap from 5-6. As described below, either method yielded similar results.

Model 3 assesses interest rate. Cities report an interest rate to the California State Treasurer, which the latter captures in their Debt Watch dataset, calculated in one of two ways depending on the accounting conventions a given city elects. Each reported interest rate uses one of two accepted methods to report their interest cost. Some cities report their True Interest Cost (TIC), and others their Net Interest Cost (NIC). While both models include the costs paid by the underwriter, NIC does not factor in timing of payments and is typically slightly higher than the TIC (by about .2 percent on average). There is no simple formula to convert from one value to another. However, the distributions of TIC and NIC are almost identical, with NIC exhibiting only a slightly longer right tail. A large majority of observations under either measurement falls between 1.76% and 6.6%. The two variables show a Pearson correlation of .66 to one another, a relatively close value. For the purposes of this regression, I collapsed both into a single variable with an understanding that this does collapse some differences, but relatively minor ones.

I note that the reported interest rate is always the rate for the highest maturity bond in the bond series. Recall that every bond transaction is in reality a collection of bonds with differing maturity dates and terms, including interest rates and premium or discount offering price. However, typically the full maturity portion of the bond offering has the largest proportion of shares. Interest rates may vary, but generally not drastically. Since CDIAC opts to report only the highest maturity bond in the series, my approach is justified but with the understanding that it may elide slight differences.

Note that some cities purchase bond insurance, which shifts their credit rating upwards in an attempt to make their bonds more palatable to investors. When this occurs, ratings agencies provide two ratings—the insured rating, which is the rating of the bond as it is insured, and the underlying rating, which is the rating the bond would have received if the city had opted not to purchase bond insurance. Rather than controlling for insurance, I simply used the underlying ratings in these regressions. Interviews for this dissertation revealed that when bond insurance is a good idea or not, if ever, is a topic of lengthy

debate and conjecture in the financial services sector. While this is a key debate with important policy and fiscal ramifications for cities, I circumvent it here by sticking to the underlying assessment which is a purer assessment of the credit ratings agency's perception of a city's creditworthiness.

Model 4 assesses the costs of bond issuance, including the underwriter's takedown, any fees paid to municipal advisors, bond counsel, or other entities, and any other fees listed as miscellaneous by cities related to the bond—from here on called the cost of issuance. The California State Treasurer's Debt Watch provides an overall value for these amounts, which I used for my dependent variable without transformation.

I used a number of control variables, common to all three models and captured with key information in Table 3.8. First, I controlled for size of bond issuance by using variables for the logged par value of the bond as reported by the California State Treasurer in the Debt Watch database. According to data from interviews, agencies with large dollar-value bonds typically pay lower fees, proportionally, for their debt. This is because of economies of scale, but also because some supporting outside firms like municipal advisors generally charge flat fees for service rather than a percentage (the underwriter's takedown, by contrast, is almost always assessed as a percentage of the par (or face) value of the bond). I also controlled for the size of the city by logging the population, as measured by hundred thousand residents and taken from the US Census Bureau American Community Survey 5-Year Estimates.

Table 3.8: Key information about variables used in Regression Models 2, 3, & 4

Variable Name	Details	Type	Units	Source
WHITE	The percentage of white residents over total city population	Continuous	Percentage	US Census Bureau American Community Survey 5-Year Estimates
CREDIT_RATE	The average credit rating of the bond	Near continuous	Numeric	California Secretary of State Debt Watch
INTEREST	The reported interest rate of the bond	Continuous	Percentage	California Secretary of State Debt Watch
FEES	The total of fees associated with the bond transaction over the par value of the bond	Continuous	Percentage	California Secretary of State Debt Watch

LOG_PRINCIPAL	The logged principal of the bond	Continuous	Numeric	California Secretary of State Debt Watch
LOG_POP	The logged population of the city	Continuous	Numeric	US Census Bureau American Community Survey 5-Year Estimates
PROP_REV	Is the bond secured by a special property tax (non-TIF)	Dichotomous		Bond Issue Statements
TIF	Is the bond secured by Tax Increment Financing	Dichotomous		Bond Issue Statements
LEASE_REV	Is the bond secured by a lease arrangement	Dichotomous		Bond Issue Statements
UTILITY_REV	Is the bond secured by utility revenues	Dichotomous		Bond Issue Statements
OTHER_SOURCE	Is the bond secured by some other revenue stream, besides the above or a General Obligation (includes but not limited to Pension Obligation and Conduit bonds)	Dichotomous		Bond Issue Statements
TRAN	Is the bond a Tax Revenue Anticipation Note	Dichotomous		Bond Issue Statements
REFUNDING	Is at least a portion of the bond proceeds dedicated to refunding prior debt	Dichotomous		Bond Issue Statements
PROP_TAX	The ratio of property tax revenues to all general fund revenues	Continuous	Percentage	California State Controller Fiscal Cities
EMPLOYEE	The ratio of expenditures on employee salaries and benefits over all general fund expenditures	Continuous	Percentage	California State Controller Fiscal Cities
DEBT	The ratio of expenditures on debt service over all general fund expenditures	Continuous	Percentage	California State Controller Fiscal Cities
DIRECT_MAYOR	Does the city have a directly elected mayor	Dichotomous		Various
COMPETITIVE	Is the bond a competitive issue (ie not negotiated)	Dichotomous		California Secretary of State Debt Watch
LOG_MED_INC	The logged median household income of city residents, converted into 2019 dollars	Continuous	Dollars	US Census Bureau American Community Survey 5-Year Estimates
SF_HOME	The percentage of single family homes in the city	Continous	Percentage	US Census Bureau American Community Survey 5-Year Estimates

My next set of variables control for the revenue stream and type of bond. All of these variables are dichotomous, with a value of 1 indicating the bond is that type of bond, and a value of 0 indicating it is not. I set my regression baseline to GO bonds. Although these bonds are not the most common type of bond issuance, I wanted to differentiate between different types of revenue bond streams rather than lumping more speculative types of revenue streams, like TIF bonds, with relatively more stable streams, like a water utility, and the inevitable residual "other" category is not a good candidate for a baseline .

General Obligation bonds, by contrast, all are relatively equal. The marker dummy variables for revenue stream were: property tax revenue, including but not limited to Mello-Roos bonds; Tax Increment Financing (TIF) bonds; lease revenue bonds, almost all secured by a semi-fictitious lease between a city and its wholly owned financial authority; utility revenue bonds, primarily water and electric; and 'other,' a catchall for other types of revenue streams including pension obligation bonds, conduit bonds, and some other highly esoteric bonds.[34] I also included a variable for TRAN, which are short-term notes and have several features which set them apart from long-term debt. Finally, I added a variable for refunding bonds, which are bonds that essentially refinance older debt. Sometimes cities exclusively use bond proceeds to refund debt, and sometimes they refund an older debt while borrowing new funds. For my analysis, a bond received a 1 in this category if any part of the bond went towards refunding other debt. To find values for all of these categories, I hand coded bond issue statements from the entire sample of 3783 bond issuances. I also added a variable for negotiated versus competitive bonds, as recorded directly by the California Secretary of State in its Debt Watch dataset.

My next set of control variables seek to control for a city's overall fiscal health. I used the same variables from the Model 1 analysis: property tax revenues over all general revenues; employee salary expenditures over general operating expenditures; and debt service payments over general operating expenditures.

I added a set of variables to measure for political control in the city. Essentially, I wanted to control for the presence of a strong mayor on the one hand, and a strong city manager government on the other hand. California has very few truly strong mayor cities. Only five cities within the state have a mayor who serves outside of the city council—Los Angeles, Oakland, San Diego, San Francisco, and (perhaps surprisingly) Fresno. The latter two are not included in my dataset. San Fransico is technically a county as well as a city; counties have distinct capital finance needs from cities and I did not want to muddy the water by including an agency which is neither fish nor fowl. Fresno lies outside of the counties

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[34] For example, one city issued a bond secured by revenues from the landmark tobacco litigation settlement.

of my analysis. However, California does have ample cities which have a directly elected mayor who serves as an at-large head of the city council. I hand coded all cities for direct mayoral elections by running internet searches on all charter cities (California general law cities all stipulate that the mayor is a purely ceremonial position which rotates between city councilmembers; most cities in the dataset are such council-manager structures). When city websites did not indicate that a mayor was clearly elected at-large for that explicit position, I turned to county election results and hand-coded these instead.

I then added several demographic control variables from US Census Data.. I logged the median family income variable from above, adjusted to 2019 dollars and by $10,000. I also included the percentage of homes that are single-family. Both values came from the US Census Bureau American Communities Survey 5-Year Estimates.

Importantly, the dependent variables from models 2 and 3 become predictor variables for the subsequent models, meaning the credit rating serves as a control variable in the interest regression model (number 3), and both credit rating and interest rate serve as control variables for the fee model (number 4). These three values work in close concert with each other. The credit rating, as a marker of creditworthiness, is also supposed to help investors identify risk involved in purchasing a bond instrument. Interest, at the end of the day, is a reflection of risk compared to other types of investments— higher risk means higher interest commanded by the investor. For their part, some fees are flat and negotiated before the bond deal. But the underwriter's takedown, generally the largest fee involved with a bond, is negotiated in the context of the interest rate and overall likelihood of challenges an underwriter will face when selling the bond. I wanted to assess for all three to see where, if anywhere, race played a factor in credit outcomes, and the extent to which a racial effect compounds as the transaction unfurls.

Table 3.9 contains descriptive statistics for the above variables. With the log transformations of a few skewed variables (like household income and population), the variables are mostly evenly distributed. Only the percentage of white residents and debt service exhibit more than a slight difference between the mean and median values. For the former variable, this is explained by nearly-all white suburban enclave

cities; however, a log transformation of this variable did not improve the distribution. For the debt service variable, the skew is caused by a few single observation outliers in years where cities accounted for paying off or refunding large debts in an unconventional fashion. These few outliers appear so extreme that they skew the average, but the overall distribution of the variable is fairly even.

Table 3.10 shows the correlations between these variables. A few key correlations jump out on this table. The interest rate is negatively correlated with the credit rating. This makes sense—a lower credit rating means a higher interest rate, not exactly a controversial finding and indeed a core tenet of municipal bonds. The presence of white residents is correlated with higher logged median household income, again a fact well established in literature. The presence of white residents notably also correlates somewhat closely with a higher percentage of property tax revenues, as does a higher logged median household income. All other correlations fall around the 30% or less threshold.

Models 2, 3 and 4 methods

Models 2, 3, and 4 are all ordinary least square (OLS) regression models. Scholars have differed in their approach to measuring bond outcomes, with some opting for OLS models and others preferring multinomial logistic models where outcomes are categorical, especially for credit ratings which are not

Table 3.9: Descriptive Statistics for the Model 2, 3, & 4 Dataset

Variable Name	n	Mean	Median	Maximum	Minimum	Standard Deviation
RATE	2460	6.096	6	10	1	2.211
INTEREST	3393	4.302	4.394	13.213	0.11	1.426
FEES	2202	0.036	0.030	0.427	0.0001	0.029
WHITE	3768	0.406	0.364	0.936	0.000	0.206
LOG_PRINCIPAL	3783	16.640	16.552	21.227	12.064	1.288
LOG_POP	3768	11.715	11.417	15.197	4.554	1.807
PROP_TAX	3453	0.254	0.257	0.880	0.000	0.116
EMPLOYEE	3448	0.498	0.521	0.992	0.032	0.165
DEBT	3448	0.096	0.062	3.922	0.000	0.213
LOG_MED_INC	3765	11.201	11.164	12.525	10.441	.283
SF_HOME	3766	0.593	0.583	1.000	0.044	0.189

Table 3.10: Correlations between continuous variables used in Regression Models 2, 3, & 4

	RATE	INTEREST	FEES	WHITE	LOG_PRINCIPAL	LOG_POP	PROP	EMPLOYEE	DEBT	LOG_MED_INC
INTEREST	-0.484	-								
FEES	-0.223	0.158	-							
WHITE	0.089	0.026	0.017	-						
LOG_ PRINCIPAL	0.192	-0.185	-0.506	-0.189	-					
LOG_POP	0.301	-0.182	-0.080	-0.312	0.372	-				
PROP	0.304	-0.118	0.063	0.418	-0.033	0.178	-			
EMPLOYEE	0.267	-0.206	-0.095	0.017	0.084	0.371	0.294	-		
DEBT	-0.038	0.048	-0.052	-0.116	0.077	-0.130	-0.195	-0.196	-	
LOG_ MED_INC	0.128	-0.029	-0.031	0.596	-0.156	-0.294	0.418	0.117	-0.128	-
SF_HOME	-0.297	0.186	0.161	0.120	-0.242	-0.459	0.186	-0.330	0.186	0.186

truly 'continuous' variables since they fall only on whole numbers. For robustness sake, I also did a multinomial model for Model 2. In short, the multinomial logistic model roughly confirms findings from the OLS mode. While I do not report the findings in detail here, I will briefly discuss them when I discuss findings from Model 2.

The effect between the proportion of Black residents and lower credit ratings has been found in prior studies, but these studies only drew from large core cities. My models draw from a wider variety of cities, and additionally take into account the effect of Latinx residents. However, unlike prior studies, I set my main predictor variable of interest assesses the inverse effect of whiteness as a marker of creditworthiness for credit markets.

Test 2:

$$H_1 - A\ larger\ percent\ of\ white\ residents\ will\ be\ correlated\ with\ a\ higher\ bond\ rating$$
$$or\ increased\ probability\ of\ a\ municipal\ bond\ appearing\ in\ a\ higher\ rating\ group.$$

$$H_0 - The\ percent\ of\ white\ residents\ will\ have\ no\ effect, or\ an\ opposite\ effect.$$

Models 3 and 4 follow similar hypothesis patterns. Test 3 assesses if a larger percentage of white residents will be correlated with a lower interest rate on the bond even when controlling for credit rating, and Test 4 assesses if a larger percentage of white residents will be correlated with a lower amount of assessed fees on a bond even when controlling for credit rating and interest rate.

For all three models, I use a stepwise regression approach, first adding key control variables around the type of debt, size of city and transaction, and the political and fiscal milieu of the city in question. I then added in my main predictor variable of interest, the percentage of white residents, and

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finally added demographic markers which correlate with that variable and which might provide alternative explanations for the phenomenon.

Model 2 Findings

Table 3.11 shows all Model 2 regression results assessing the effect of predictor and control variables on a 10-scale credit rating. Model 2.A shows the primary predictor variables before the addition of my main variable of interest. Overall the model exhibits an R^2 of 0.555, in line with other prior studies of municipal credit ratings which tend to range from the low 0.500 range to the low 0.600 range. Most variables, as expected, have predictive power, although a few do not. The size of the transaction has no statistically significant correlation to the credit rating of the bond, itself an interesting finding. The percentage of municipal expenditures spent on employee compensation also seems to have little effect on the credit rating.

Importantly, the type of funding stream behind the bond does matter. All dichotomous marker variables for funding stream are statistically significant with a p-value of 0.000. In the two markers which look to property tax secured revenues as debt securities, the t-value is in the high teens, with a negative correlation between the type of debt and the credit rating. A TIF bond, for example, is on average associated with an almost three notch drop in credit rating.

Curiously, the presence of a directly elected mayor is correlated to a higher credit rating. One possible theory may explain why this may be the case. In order to have a directly elected mayor, a California city must have a charter. All major cities in California are charter cities, though some smaller cities as well (indeed, the state's least populous city, Vernon, is a charter city). On average, though, charter cities are more well known and more urbanized that their general law counterparts. This effect may be related to the name recognition that more prominent cities might enjoy with credit raters. I return to this theme in Chapter 5.

Model 2.B adds my primary predictor variable, the percentage of white residents. In line with earlier findings, the percentage of white residents is strongly associated with a higher credit rating. The addition of this variable lessens the predictive power of the three municipal fiscal markers I included in my regression models. The percentage of white residents is closely correlated to a strong property tax base, but not the other two variables (employee expenditures and debt service expenditures), so it is unclear why this addition would alter this outcome.

In any rate, Model 2.B shows a modest increase in predictive power over Model 2.A, with the R^2 value increasing to 0.585 (about a 3 percentage point increase). Model 2.B thus shows that the presence of white residents does seem to drive credit ratings. Though it is certainly not the primary driver behind assessments, it does seem to factor in.

For robustness, I also ran models controlling for the percentage of Black and Latino residents, respectively. Both models showed a highly significant downward correlation with credit ratings (with coefficients of -3 in the former, and -2.3 in the latter), both to statistically significant degrees.

Model 2.C assess whether this effect persists with the inclusion of highly correlated variables, specifically the proportion of single-family homes and the logged median household income. The overall predictive power of the model jumps again, to an R^2 of 0.610. Importantly, the effect of the presence of white residents does not disappear with these additions. While the coefficient drops from around 2.2 to 1.2, the lower coefficient is still statistically significant with a t-value of 6.46 and a p-value of 0.000.

The overall effect may not be determinative of the credit rating outcome, but it is present in this model, with a 50-percentage point increase in white residents likely to be enough to tip the scales to a higher credit rating. While this is a less strong correlation than other predictors like the revenue stream securing the bond, it is still has a present and correlative relationship to the overall credit rating. A 50% point increase is admittedly substantial, but in California's highly segregated suburban political economy, it does happen. Bell Gardens, to take just one example, has less than 2% of white residents, whereas Beaumont has roughly 33% and Calabasas 71%. According to this model, one would predict that Bell

Gardens, all other things being equal, would be close to having one grade lower credit rating than Beaumont and perhaps even two lower than Calabasas. Another thing to point out it that, although this model treats credit ratings as a continuous variable, they are in fact categorical in the real world. For a city on the margin, upward pressure associated with a higher proportion of white residents could easily tip the scales into the next highest credit rating.

But perhaps even looking at a smaller scale increase might be instructive. Under model 2.B, a general law city with the median values for each variable issuing a negotiated GO bond results in an 8.95 rating. Adding 20% additional white residents increases the predicted outcome to 9.40—almost half a credit rating jump, in other words, and certainly enough to tip the scales for a city on the fence between two possible outcomes.

Running the model exclusively for a sample of cities under 100,000 confirms that the effect is relatively robust, with a slightly small coefficient of 1.06 (rather than 1.2) but at an equally statistically significant level.

Table 3.11 – Regression outcomes, credit rating (continuous OLS)

	Model 2.A *Control variables*	Model 2.B *With primary IV*	Model 2.C *Additional IV controls*
WHITE		2.256***	1.242***
		(0.180)	(0.192)
LOG_PRINCIPAL	0.127	0.003	-0.010
	(0.029)	(0.028)	(0.027)
LOG_POP	0.051**	0.150***	0.192***
	(0.026)	(0.026)	(0.027)
PROP_REV	-3.432***	-3.585***	-3.706***
	(0.194)	(0.188)	(0.183)
TIF	-2.880***	-2.858***	-2.807***
	(0.159)	(0.154)	(0.149)
LEASE_REV	-0.563***	-0.634***	-0.673***
	(0.158)	(0.153)	(0.148)
UTILITY_REV	-0.559***	-0.532***	-0.527***
	(0.159)	(0.154)	(0.149)
OTHER_SOURCE	-0.963***	-0.944***	-0.963***
	(0.174)	(0.168)	(0.163)
TRAN	0.983***	1.071***	1.192***
	(0.193)	(0.187)	(0.181)
REFUNDING	-0.165**	-0.139**	-0.146**
	(0.069)	(0.067)	(0.065)
PROP_TAX	2.144***	0.308	-0.555
	(0.324)	(0.346)	(0.350)
EMPLOYEE	0.154	0.249	-0.206
	(0.227)	(0.219)	(0.218)
DEBT	-0.028*	-0.005	0.020
	(0.016)	(0.016)	(0.015)
DIRECT_MAYOR	0.311***	0.380***	0.380***
	(0.089)	(0.086)	(0.085)
COMPETITIVE	0.161*	0.065	-0.111
	(0.090)	(0.087)	(0.086)
LOG_MED_INC			1.803***
			(0.151)
SF_HOME			-1.242***
			(0.218)
n	2308	2308	2306
R-Squared	0.555	0.584	0.610
F-Statistic	158.45	168.52	167.65
P	<0.001	<0.001	<0.001

* = $p < 0.1$
** = $p < 0.05$
*** = $p < 0.01$

For robustness sake, I also ran this regression as a multinomial logit model. The results largely support the conclusions of the OLS model, with the presence of white residents showing its strongest predictive effect in the jump from the Upper Medium to High category. The effect was less pronounced for the Best category, though it was still present and statistically significant at an α of 0.05. This finding argues that the presence of white residents is potentially most key in the jump to the most commonly accepted investment grade category of bonds, which are more sought after by investors, some of whom have restrictions on the amount of Upper Medium or Medium bonds they are allowed to hold on the books.

Model 3

Table 3.12 shows the regression outcomes for my next outcome variable, the mean interest rate. Model 3.A shows the effects of the main control variables I selected from Model 2, with the addition of the credit rating as a predictor. As predicted, a higher credit rating is associated with a lower interest rate of about .16% for each step. A simple univariate regression with credit rating as the sole variable has an R^2 value of 0.455, compared to the full control variable model which came in at 0.615. Clearly the credit rating is carrying a lot of the water in determining interest rate, though interestingly other factors matter. This is itself an intriguing finding, since the primary role of a credit rating is to help investors evaluate appropriate interest rates in the absence of other information. Clearly, other information is also playing a role.

But some kinds of other information are more important than others. Once credit rating is taken into account, the revenue stream securing the bond seems less important to the interest rate than it was to the credit rating, with only TIF bonds showing an association with higher interest rates. Since TIF bonds are in many ways more speculative, especially prior to 2012 (see Chapter 2 for a brief discussion of TIF

in California), this might make sense. Competitive bonds come in at a lower interest rate than negotiated bonds. Notably, the fiscal variables have little effect on the interest rate.

Model 3.B adds in the percentage of white residents, a variable does little to improve the overall model, with R^2 increasing only slightly. However, the presence of white residents does have a statistically significant downward correlation to the interest rate at an α of 0.1. The p-value for a two-tail test is 0.072; when viewed more properly in a one-tail test the p-value is thus under an α of 0.05. Again, while clearly not the determinative factor, white residents do seem to correlate to better terms of a deal. Importantly, this effect compounds to the effect already exhibited in the credit rating, which (as discussed above) is the most important determinant of interest rate. Majority white cities are correlated to a higher rating, but even controlling for that benefit, still correlate to an additional benefit displayed through lower interest rates. This effect is less pronounced for the proportion of Black or Latino residents, with positive coefficients in each case but without statistical significance.

Under this model, a general law city exhibiting the median values for all variables issuing a negotiated GO bond might expect to see an interest rate around 3.534%. The model predicts that adding an additional 20% of white residents to this hypothetical city would be associated with an interest rate of 3.490%--a 4.5 basis point drop.[35] For a 30-year GO bond at $100 million (roughly the median par value in the dataset) this change in basis points would likely add up to over $912,000 in additional debt service for the city with less white residents over the life of the loan. Factoring in the compounding effect of the half-step in credit rating exacerbates this disparity, making the difference increase to $2,519,000. Suppose two fictional cities, each with California median values for all variables except for the percentage of white residents, which we set to match Calabasas (71%) and Bell Gardens (2%) respectively. Model 2.B predicts that, when the predicted change in credit rating is compounded with the racial effect on interest, the Bell Gardens-like city would pay almost $8 million more over the lifespan of the bond.

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[35] A basis point is one hundredth of one percent, and is frequently used to measure interest rates for large loans.

Model 3.C controls for the same variables correlated to the presence of white residents. Once again, the overall predictive power of the model is roughly flat with these additions. Notably, the logged median household income or percentage of single family homes shows virtually no effect on the interest rate. The effect of the proportion of white residents remains however, barely outside but within a rounding error of statistical significance at an α of 0.1 in a two-tail test, but with a p-value of 0.104 the variable does have statistical significance in a one-tail assessment just outside an α of 0.052. The effect is still present at roughly equivalent coefficient and t-value when looking only at cities under 100,000 residents.

Viewed as a one-tail test, the end result allows me to fully reject the null hypothesisIn addition to a correlative racial premium for white residents in credit rating, a higher proportion of white residents also correlates with a lower interest rating. Indeed, this possible additional correlation is independent of compounding issues like median household income, which effectively shows no correlation whatsoever with the primary dependent variable in this regression model. The racial difference, in other words, may be occurring within credit ratings as a process, but also to some degree may be present in the negotiations between underwriters and end purchasers of the bonds above and beyond any effect captured in the credit rating analysis.

Table 3.12: Regression outcomes, interest rate (continuous OLS)

	Model 2.A *Control variables*	Model 2.B *With primary IV*	Model 2.C *Additional IV controls*
WHITE		-0.225* (0.125)	-0.219[1] (0.135)
CREDIT_RATE	-0.165*** (0.015)	-0.157*** (0.016)	-0.157*** (0.016)
LOG_PRINCIPAL	0.068*** (0.019)	0.069*** (0.020)	0.068*** (0.020)
LOG_POP	-0.060*** (0.018)	-0.071*** (0.019)	-0.073*** (0.020)
PROP_REV	-0.270** (0.137)	0.023 (0.139)	-0.223 (0.141)
TIF	0.360*** (0.110)	0.379*** (0.110)	0.378*** (0.111)
LEASE_REV	0.121 (0.102)	0.133 (0.103)	0.134 (0.103)
UTILITY_REV	0.021 (0.102)	0.022 (0.102)	0.031 (0.102)
OTHER_SOURCE	0.113 (0.118)	0.121 (0.118)	0.118 (0.118)
TRAN	-2.451*** (0.124)	-2.468*** (0.124)	-2.471*** (0.125)
REFUNDING	-0.609*** (0.046)	-0.610*** (0.046)	-0.611*** (0.046)
PROP_TAX	0.145 (0.214)	0.312 (0.233)	0.337 (0.244)
EMPLOYEE	-0.120 (0.146)	-0.130 (0.146)	-0.143 (0.150)
DEBT	-0.012 (0.010)	-0.014 (0.011)	-0.014 (0.011)
DIRECT_MAYOR	0.102* (0.059)	0.096 (0.059)	0.091 (0.059)
COMPETITIVE	-0.205*** (0.058)	-0.198*** (0.059)	-0.199*** (0.059)
LOG_MED_INC			-0.020 (0.109)
SF_HOME			-0.042 (0.152)
n	2100	2100	2098
R-Squared	0.615	0.616	0.616
F-Statistic	111.06	104.43	92.76
P	<0.001	<0.001	<0.001

* = $p < 0.1$

Model 4

Model 4 assesses the effects of racial differentiation on the fees municipalities pay when they borrow by measuring those fees as a percentage of the face value of the underlying bond. Because fees are negotiated (or submitted in a competitive package) in the overall context of the interest rate, I included interest from the previous regression as a predictor variable. Table 3.13 has the results of the regressions I used in this analysis.

Model 4.A includes my package of control variables not related to the primary variable of interest. The model is not an excellent fit, with an R^2 value of 0.323. The most important indicator for the fees paid is the logged value of the principal. This makes sense. While some fees, especially the underwriter takedown, are proportional to the amount of debt issued, others (like fees paid to the municipal advisor or bond counsel) are flat rates. In addition, for exceptionally large issues, the underwriters takedown will shrink. Finally, cities issuing large par value bonds tend to be larger municipalities, and will attract larger underwriters who only seek out big bond transactions and benefit from increased economies of scale. All of these contribute to the correlation between a high par value bond and a low fee schedule.

The interest rate also factors in to the overall fees. This squares with descriptions of how the process of negotiating with an underwriter generally unfurls. A city might be able to gain a few basis points on a bond by paying the underwriter extra in fees, to compensate the underwriter for expending extra efforts on finding an appropriate purchaser for the bond.

Property tax revenue, TIF, and lease revenue bonds all exhibit slightly elevated fee structures. This is likely explained by the relative complexity of these types of deals, which require more on-paper partners in the form of redevelopment agencies or Mello-Roos districts.

Model 4.B includes the primary variable of interest, the proportion of white residents in the city. Overall, the improvement to the model as measured by the R^2 value is slight. Once again the coefficient for the proportion of white residents is negative, meaning a higher proportion of white residents is associated with a lower value fee structure. The effect is statistically significant. Because both credit rating and interest are included in this model, this small negative correlation is compounded with the negative correlation for credit ratings and the positive correlation with interest rates, as these variables are also included here. Thus, while examined alone, the coefficient for negative correlation is small here, it is important to recognize the compounding effect of the correlation with racial difference and worse terms— at every step of the process. For robustness, I ran two models, one with the proportion of Black and one with the proportion of Latino residents. These each exhibited a positive correlation with fee structure of roughly the same coefficient size, though for Black residents the finding lay outside of statistical significance at a p-value of 0.138. All of these findings point to a continued racial effect in the process.

For a California general law city exhibiting median values, model 4.B predicts a difference of 1.6 basis points between the median California white population (36.4%) and an additional 20% of white residents, all other values being equal. For a $100 million bond, this amounts to a difference of $158,000. In all, then, a median city experiencing a decrease of white residents by 20% would expect a compounded effect of a drop in credit rating by about half a point, with an uptick in interest in addition to this drop. What is more, the city would pay more for access to the market where the bonds would be sold. At each step, the effect is cumulative. Factoring in the half-step drop in credit rating and the 4.5 basis point drop in interest, this amount increases to $206,000. A 20% difference is ultimately a modest one in the universe of segregated suburbs. For the same $100 GO million bond, using two fictional cities with California median metrics except for the percentage of white residents, which I set to those of Calabasas and Bell

Gardens (71% and 2% respectively), the compounded effect of the decrease in white residents in the latter fictional city results in roughly $680,000 of additional fees.

Model 4.C wraps in control variables which might provide alternate explanations for the correlation between lower fees and a higher proportion of white residents. Again, the overall model improves only slightly. But these control variables do almost nothing to shift the effect from white residents, despite their strong correlation with each other. The logged median family income has no statistical significance at all, and the percentage of single family homes has a smaller coefficient. In short, the racial correlation remains present even controlling for other possible indicators. This effect is also present at a roughly equivalent coefficient when running the regression model only for cities under 100,000 residents. I note quickly that the p-value for the white residents variable came in at 0.014 in a two-tail test, and would thus be statistically significant at an α of 0.001 for a one-tail test.

Intriguingly, the regression residuals in Model 4.C increase as the observed values increase. In other words, the model was better at predicting low fee transactions than it was in predicting high-fee transactions, with some cities able to get much better and much worse deals than the model predicted. This fanning in observations versus residuals speaks to the degree of flexibility in bond transactions, where all fees can be negotiated, compared to competitors, or packaged into alternative deals. The racial effect on fees may come into play in this stage, with financial advisors and underwriters more eager to cut deals with some issuers over others. Chapter 5 delves into this phenomenon by looking at the alternative fiscal arrangements cities use with their outside partners for bond transactions.

Table 3.13: Regression outcomes, fees (continuous OLS)

	Model 3.A *Control variables*	Model 3.B *With primary IV*	Model 3.C *Additional IV controls*
WHITE		-0.008***	-0.007**
		(0.003)	(0.003)
CREDIT_RATE	-0.001***	-0.001***	-0.001**
	(0.000)	(0.000)	(0.000)
INTEREST	-0.001	-0.001	-0.001
	(0.001)	(0.001)	(0.001)
LOG_PRINCIPAL	-0.007***	-0.007***	-0.001***
	(0.000)	(0.000)	(0.000)
LOG_POP	-0.000	-0.001	-0.001
	(0.000)	(0.000)	(0.000)
PROP_REV	0.009**	0.010***	0.010***
	(0.003)	(0.003)	(0.004)
TIF	0.006*	0.006**	0.006**
	(0.003)	(0.003)	(0.003)
LEASE_REV	0.006**	0.006**	0.006**
	(0.003)	(0.003)	(0.003)
UTILITY_REV	0.001	0.001	0.001
	(0.003)	(0.003)	(0.003)
OTHER_SOURCE	0.006*	0.007**	0.008**
	(0.003)	(0.003)	(0.003)
TRAN	-0.009*	-0.010**	-0.010**
	(0.005)	(0.005)	(0.005)
REFUNDING	-0.002*	-0.002*	-0.002*
	(0.001)	(-0.001)	(0.001)
PROP_TAX	-0.005	0.001	0.001
	(0.001)	(0.005)	(0.004)
EMPLOYEE	-0.007**	-0.007**	-0.006*
	(0.003)	(0.003)	(0.003)
DEBT	-0.000	-0.000	-0.000
	(0.000)	(0.000)	(0.000)
DIRECT_MAYOR	-0.001	-0.001	-0.001
	(0.001)	(0.001)	(0.001)
COMPETITIVE	0.003**	0.003**	0.004**
	(0.001)	(0.001)	(0.001)
LOG_MED_INC			-0.001
			(0.002)
SF_HOME			-0.005
			(0.003)
n	1081	1081	1080
R-Squared	0.323	0.329	0.331
F-Statistic	25.29	24.51	22.09

P	<0.001	<0.001	<0.001

*   = $p < 0.1$
** = $p < 0.05$
*** = $p < 0.01$

Models 2, 3, and 4 Discussion of Findings

These regression models show that, at every step of the borrowing process, a higher proportion of white residents in a city is associated with better terms from credit markets. This correlation is present regardless of the size of the city, and persists even when controlling for other factors which might provide alternative explanations, like the regional median income, the overall property tax base of the area, or the percentage of residents who occupy single family homes.

The finding largely confirms other studies findings. Norris (2023) argued as much concerning credit ratings, and Ponder (2021) did the same for interest rates. However, this study goes further than the prior explorations of this phenomenon, by allowing for racial diversity which more accurately reflects changing suburban demographics in our nation's most populous state (as well as quite a few others). It also controls for key variables neglected by earlier studies, and incorporates more types of debt than simply looking to relatively uncommon GO offerings. This study implies that the effects go far beyond GO debt and that while the type of revenue securing the bond matters, racial difference still occurs regardless of funding stream.

These prior studies have tended to measure racial difference as exclusive to majority-Black cities or communities. My study argues that the effects, at the least, seem to act as a form of white racial privilege rather than explicitly racial punishment for Black communities. At a minimum, the above findings show that terms of debt experienced by majority Latino communities are similar to those experienced by Black communities, at least in California. US race relations are often framed in terms of Black-white interactions, understandably given our nation's history. However, the present day US suburban political economy is more complex, and continues to diversify. While it may be a fine point,

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treating the issue of racial difference in municipal credit markets as a 'Black' problem while not also recognizing that it is simultaneously a problem of white privilege may misrepresent the issue to some degree. The finding is in tune with scholarship that has argued that debt is a two-faced creature, both granting privileges and acting as a disciplinary force (Seamster 2019). Interestingly, the racial correlation compounds at each step, even when controlling for the effects from the prior parts of the bond issuance process. This finding provides evidence as an argument for an underlying tendency of racial capitalism to foster racial difference in the interests of furthering profit rather than individual acts of racist discrimination. The beneficiaries of this racial difference, ultimately, are the underwriters and bankers who facilitate the transactions (who gain from higher interest rates and higher fees) and the ultimate bondholders who purchase the bonds on the primary or secondary markets (who gain from lower credit ratings and higher interest rates). Race appears to be baked into the borrowing process at every step of the way, with whiter communities able to expect, on average, better terms than their counterparts regardless of the underlying economics of their communities.

At least one possible alternate explanation might explain the observed correlations. Some interview subjects from the financial advisor community argued that minority communities are more likely to rely on Minority Business Enterprise (MBE) businesses which reflect the underlying demographics of their cities, for example, and pay a premium for those services. Though this would not explain the phenomenon of racial difference in credit ratings, it might explain the differences in interest rates and fees. One financial advisor argued:

> *Some of those [minority] communities are also very political on who they are giving assignments to and what underwriter they are using. So if they are going to give all of their business to a minority firm that doesn't have the same distribution or trading capacity, just because they are a minority firm, they may not get the best deal because of that, too… So I think it's more about that than, 'Oh, there's Black people that live in that city.'*

Another financial advisor stated:

I've not seen where the rating agencies have been discriminatory at all… I have seen,

however, that Black communities or Hispanic communities that want to engage a

financial team that resembles their community, I have seen where they pay more… I don't

think the results are always bad, although there are different tiers of firms.

The argument, in essence, blames minority communities for the phenomenon of racial difference because of their alleged unwillingness to adhere to market principles. Chapter 4 will return to this theme using social network analysis.

One additional finding, not directly related to my core thesis, is of note. The percentage of municipal expenditures on public sector employees does not seem to alter the terms of bonded debt for cities. Peck (2012) argued that some city governments, particularly in the wake of the Great Recession and informed by the conservative American Legislative Exchange Council (ALEC), dismantled overly generous compensation and benefits packages due to viewing them as an impediment to attaining favorable bond ratings or terms of borrowing. The evidence from California cities, at least, seems to point otherwise. Employee expenditures do not seem to shift bond transaction outcomes of credit ratings. He goes on to argue that bond markets thus take on a disciplining role in urban governance, and act as the point of the spear for urban austerity movements. While I in no way mean to diminish the importance of debates around debt and discipline, these findings do support one of two alternative arguments to a bondholding class acting as shadow government: either the finance industry is claiming they will discipline cities, when in fact cities seem to face no such issues; or the finance industry is a straw man argument for fiscally conservative local political movements who *a priori* seek to diminish employee compensation. I stress here that the inverse is not necessarily true—increased debt burdens could over

time decrease overall employee compensation, and indeed I have argued as much in other pieces (McBride 2019).

Conclusion

In the introductory chapter to this dissertation, I showed how Bell Gardens fared worse that its counterpart cities in a bond issuance in 2014-15 fiscal year. The city had many disadvantages as they worked with the finance sector to close the deal, including the absence of a truly dedicated financial advisor and some turbulence in its city administration. The city also, unlike the other cities I explored, was an almost exclusively Latino community, though this should not have mattered for its borrowing outcomes according to the public positions voiced by credit ratings agencies.

I have argued in this chapter that the presence of white residents supports municipalities' ability to live up to their communal dreams through municipal debt on better terms than comparable communities of color. White residents are correlated with a city's ability or willingness to access credit markets, increase the perceived creditworthiness of a city as reflected in federally sanctioned credit assessments, and lower both the up-front and long-term costs of money in the form of reduced fees to the financial sector and lower interest rates. The findings build upon prior scholarship by expanding the sphere of analysis to include other types of racial and ethnic communities active in the municipal credit market, beyond exclusively looking at the effects of racial difference in relatively large majority Black cities. They also strengthen previous arguments that racial difference plays a role in municipal credit markets by including a more robust series of control variables, and looking beyond GO bonds into a broader universe of municipal credit instruments. Finally, the results head off critiques of certain methodological sampling choices from prior studies by showing the effects those studies found persist with increased controlling variables.

Racial difference is clearly not the only factor in any of the three outcomes I have measured here. I am not arguing that it is even the most important factor. But in an industry where the difference between a comparatively good and bad deal can be measured in basis points, and dollar values can range into nine figures, any downward pressure on a city's creditworthiness can end up costing that community millions of extra dollars. In other words, Bell Gardens did not fare worse exclusively because of its overwhelmingly Latino residents, but the demographics of the city likely did influence the outcomes of its 2014 transaction and place city administrators at a disadvantage vis-à-vis the municipal bond market. That disadvantage likely began when Bell Gardens sought a credit rating. It likely compounded when the underwriter negotiated with potential purchasers of the bond over the interest rates the city would pay. And it likely further compounded when the city negotiated with the underwriter themselves on the takedown the par value would face.

In the next chapter, I turn to address the ways in which smaller cities, particularly smaller communities of color, interact with the financial services sector by looking at their access to intermediary firms.

CHAPTER 4

## California Networks of Debt

Divergent Pathways of Debt

When Bell Gardens borrowed money in 2015, the city relied on a financial advisor and an underwriter, neither of whom they had ever worked with before. This stood in stark contrast to the other cities in the small sample of cases I discussed in the introduction. Los Angeles, a frequent borrower, had previously partnered with both the financial advisor and the underwriter on multiple past transactions. Calabasas also had a long-term relationship with its a financial advisory firm, but selected different underwriters each time they borrowed. And Beaumont, for its part, had an almost closed circuit between the city, the financial advisor, and the underwriter which predated the 2015 issue by well over 10 years.

The city of Los Angeles is a frequent borrower, easily one of the most engaged municipal bond issuers in the entire nation. Between 2000 and 2019, the city engaged in at least 436 bond transactions using multiple financial advisory firms and multiple underwriters. Figure 4.1 is a simplified social network graph showing Los Angeles's place in the municipal bond market. The red node, at the center, represents the city of LA. Green nodes mark financial advisors, and blue nodes represent underwriters, a convention I will keep throughout this chapter. Although not strictly speaking reflective of some universalist experience in the borrowing process, for simplicity the graph routes all transactions starting in the city, running through the financial advisor and on to an underwriter (or for transactions without a financial advisor, directly from the city to the underwriter).[36] The edges (line segments) between nodes are weighted by the number of transactions which occurred over the period.

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[36] The connection between financial advisors and underwriters varies substantially by city. In some cases, the financial advisor essentially picks the underwriter autonomously, and on the opposite end of the spectrum some cities select underwriters with no input from their financial advisor. According to interviews I discuss in greater detail next chapter, most cities fall somewhere in between, with both the city and the financial advisor cooperating to select an underwriter following guidelines laid out by the city's underlying policies.

For the vast majority of bonds in the series, LA used a financial advisor (the few exceptions are all TIF bonds from the community redevelopment agency in the early 2000s). Los Angeles relied heavily

Figure 4.1: Social network graph, City of Los Angeles bond transactions, 2000-2019
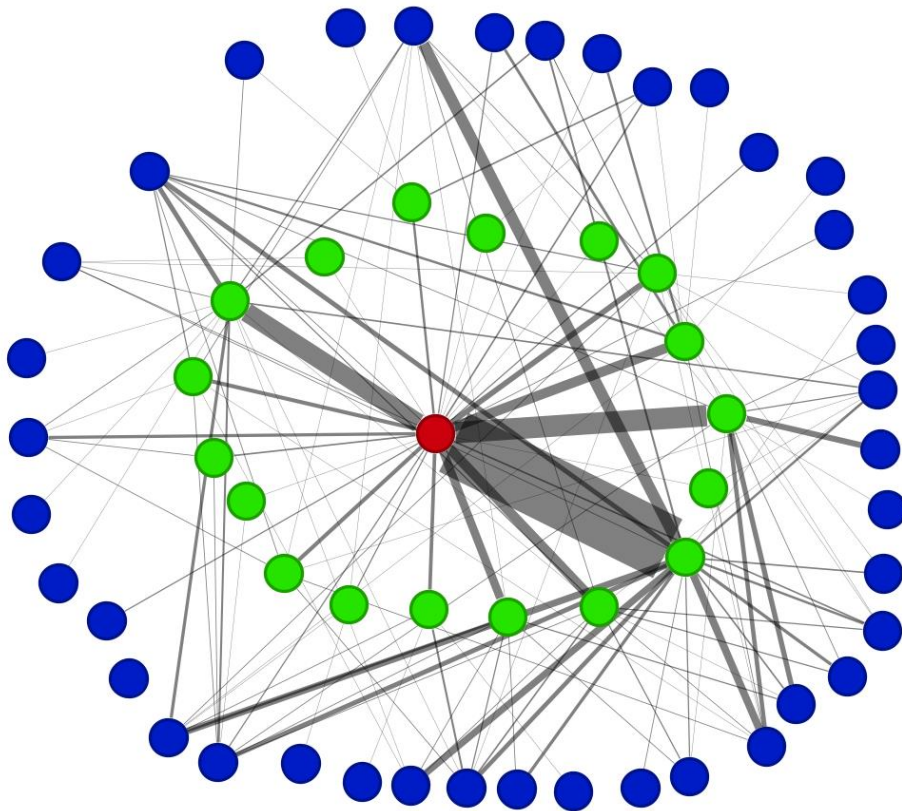
on three financial advisory firms, but maintained an ample stable of other pre-cleared potential advisor partners and even occasionally went outside these collaborators. This stable of advisors, in turn, relied on a mostly overlapping network of underwriters to market the bonds to investors. Almost every underwriter worked with multiple financial advisory firms on distinct transactions, and vice versa—in other words, no special connections between specific financial advisory firms and underwriters are evident in the graph.

Indeed, this graph simplifies the ecosystem, as it only represents the primary or lead underwriter on every specific transaction—for many larger transactions, the city was served by consortiums of underwriters, often a major financial institution and a smaller MBE firm. A more accurate graph reflecting these junior partners would show even more overlap between financial advisors and underwriters.

This model of financial relationships shows a frequently borrowing city which relies on a rigorous RFP process at every step of the borrowing transaction. As discussed in the Introduction to this dissertation, LA pre-qualifies financial advisors and underwriters prior to even contemplating a bond transaction. They then have firms from these pre-qualified pools apply for any specific transaction that arises. The result is a complex network of multiple players, all of whom interact with each other—and with the city—at different times and in different combinations of players.

Figures 4.2, 4.3, and 4.4 show social network graphs from Calabasas, Beaumont, and Bell Gardens respectively, each for the 2000 to 2019 period. The graphs share little in common with the graph of their regional city, LA. Once again, red nodes represent the city; green nodes, financial advisors; and blue nodes, underwriters. The edges are weighted by the number of transactions.

The City of Calabasas (Figure 4.2) relied on a single financial advisor over the 20-year period. However, the city worked with three different underwriters on the three bond transactions they engaged in during that time frame. The reliance on a single financial advisor, in other words, did not necessarily translate into a close relationship with an underwriting institution. This type of graph demonstrates a long-term financial planning relationship with a financial advisor firm, not uncommon for well-resourced communities which seek out advice on financial planning beyond individual bond transactions. As a part of that relationship, the city and the advisor likely worked together to select underwriters for individual deals.

Figure 4.2: Social network graph, City of Calabasas bond transactions, 2000-2019
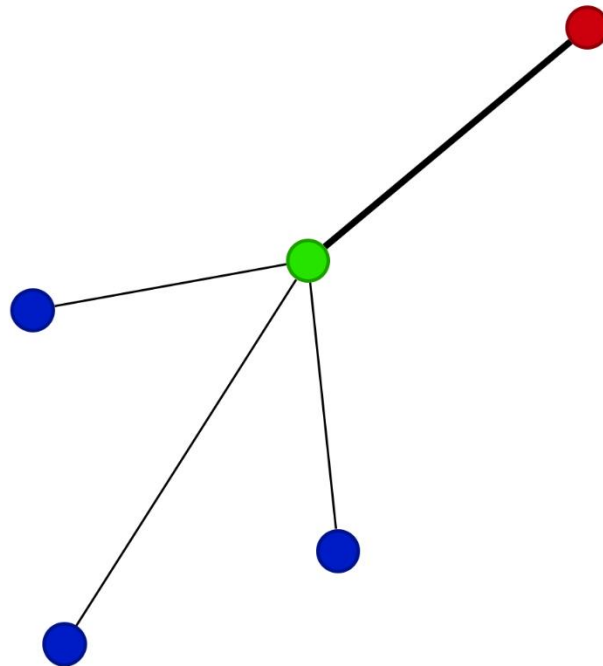
Beamont (Figure 4.3), for its part, essentially ran a closed circuit during most of the time in question. Unlike Calabasas, the city engaged in numerous bond transactions over the twenty-year period. Up until the city's embezzlement scandal, which forced Beaumont to change both city manager and finance director abruptly, the city (like Calabasas) relied on a single financial advisor (on the left side of the figure). That advisor, in turn, stuck with a single underwriter for 30 distinct bond transactions. This arrangement facilitated the embezzlement committed by the city's upper management.

Following the turmoil of the public finance scandal, Beaumont switched to a new financial advisor (the green node linked by the smaller edge to the right of the graph). Yet some patterns remained. The city primarily has worked with a single underwriter under this new arrangement, changing underwriters only once. This type of graph demonstrates little evidence that the city sought help for bond transactions on the open market, and potentially relied on criteria other than RFPs to select its partners.

Figure 4.3: Social network graph, City of Beaumont bond transactions, 2000-2019
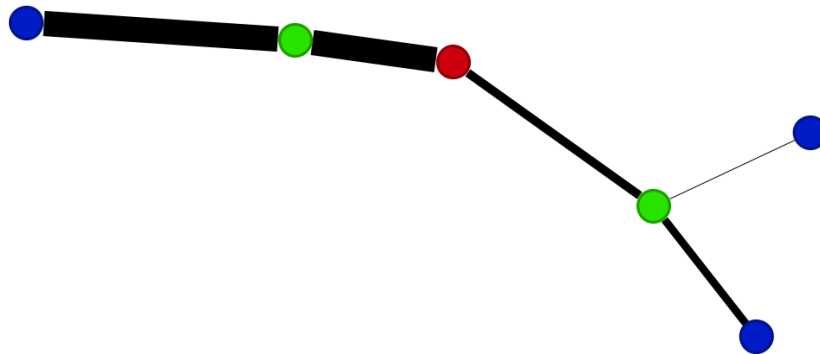
Finally, Bell Gardens (Figure 4.4) shows some aspects of all of the above. For a time, the city relied on a single financial advisor, which seemed to encourage Bell Gardens to bid out underwriting services. For a time, the city worked with a different advisor, who maintained a much closer link to a specific underwriter. And, for a time, Bell Gardens eschewed financial advisors entirely, preferring to treat with underwriters directly. Only two of six underwriters worked with the city multiple times, and as discussed in the introduction, one of the financial advisors shuttered during the 20-year timeframe depicted in this graph. This model shows little in the way of a tight financial plan in the city. Bell Gardens underwent numerous changes in its administration over the twenty-year period of this sample, perhaps explaining the shift in direction at the city over this time.

Figure 4.4: Social network graph, City of Bell Gardens bond transactions, 2000-2019
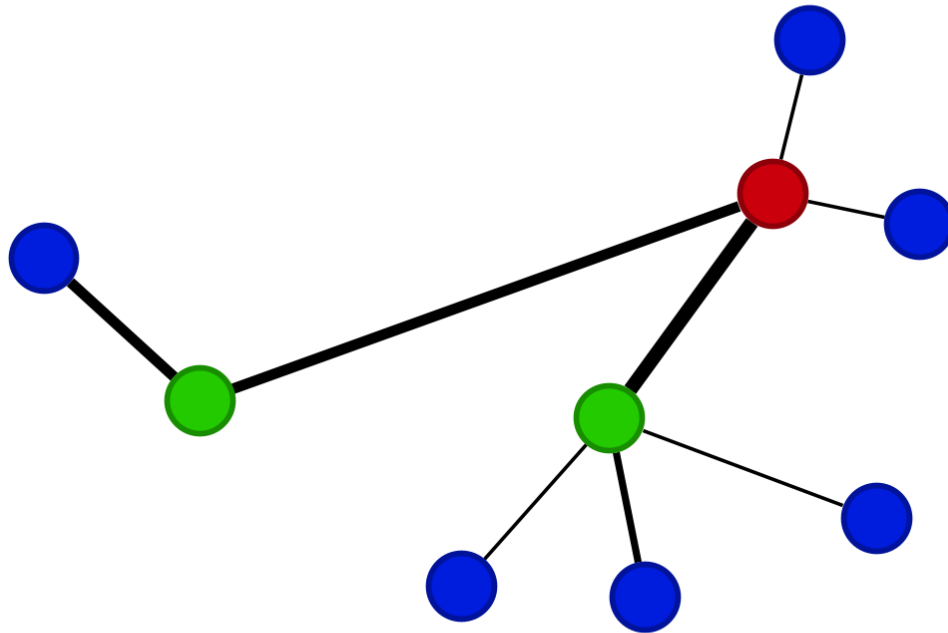
Behind the Graphs

These four patterns are indicative of several common approaches to structuring relationships between a city and the financial services sector. California local government administrators, by and large, receive training from the same institutions, specifically trainings convened by the California Debt and Investment Advisory Commission (CDIAC). Yet for various reasons, these trainings are slight on best practices. The result is that cities end up structuring their connections to the financial services sector very differently from one another.

Compare, for example, the following quotes. First, a finance director of small city, demographically not unlike Bell Gardens, described his municipal approach as follows:

> *In the government sector, there isn't really a whole lot of personal selection for [financial*
>
> *services providers]. We basically put an RFP out, and they respond. And once they*
>
> *respond, that's when we would do our homework: checking their references, talking to*
>
> *colleagues to see who had used them before… and ultimately [we the staff] take our*
>
> *recommendations and the responses to the governing body… You do it for every deal that*
>
> *you do. You have to. Even if I have a relationship with an advisor, and I for example know*
>
> *[we at the city] have bonds coming up, I would reach out to them or forward them the*
>
> *RFP… but I can't just bring in somebody outside of that parameter.*

Contrast that approach to the one described by a small mostly white wealthy city in the Bay Area:

> *In our situation, we've had a longstanding contract with our financial advisor… This is*
>
> *for whenever we need any kind of analysis run, such as 'we're interested in refinancing,*
>
> *what are our options?' or 'we need to work on major capital projects, would you mind*
>
> *please researching this?' And then we engage with them through the actual debt*
>
> *issuance….*
>
> *So we've been with them for quite some time… When we talk about underwriters,*
>
> *sometimes we do negotiations but oftentimes we will put out some sort of solicitation*
>
> *through our financial advisor.*

And, a third approach from a mid-sized diverse suburb in Southern California describing the bond team selection process:

> *I've had a financial advisor I've used for the last 20 years. Same person. So I've had this*
>
> *person for the last 20 years but its mostly for our bond issuances and crunching the*
>
> *numbers to make sure… One time he did change firms… I thought I'd lost him [but I*
>
> *didn't]. We [the city and the financial advisor] have a contract for each deal that we do.*

Same thing [for the underwriter]. I've had my underwriter, now, for about 18 years. Same

underwriter… we've just built this relationship over time, and we continue to use the

same person.

[So]I have a team that I use where, you know, they are known to me, we all trust each

other. And so the team is loosely organized until we actually do a deal, then I enter into a

contract with each of the players. I do it based on trust.

All of these descriptions, though distinct from each other, are a far cry from the elaborate policies used by major California cities to pick underwriters, financial advisors, and other supporting firms, entailing multiple RFP stages, outside contractor pools, and even occasionally auctioning off services to the lowest qualified bidder. Pointedly, the idea of trust takes a role easily as central as a competitive bid for some cities.

Best practices for assembling bond teams generally recommend a request for proposal (RFP) process. The Government Finance Officers Association (GFOA), the association of municipal finance officers, explicitly recommends an RFP process for selecting the municipal advisor, the bond counsel, and the underwriter when preparing a bond issue:

The GFOA recommends that issuers select MAs [municipal advisor] *on the basis of merit*

using a competitive process and that issuers review those relationships periodically. A

competitive process using request for proposals (RFP) or request for qualifications

(RFQ) process as applicable provides the necessary information to objectively compare

the qualifications of proposers and to select the most qualified firm based on the scope of

services and evaluation criteria outlined in the RFP. (GFOA nd.a).

The California Debt and Investment Advisory Commission (CDIAC), a state agency which trains municipal finance officers, similarly recommends a 'competitive solicitation process' (CDIAC 2022:i-22).

Despite these recommendations, neither organization provides any guidelines about how many responses to an RFP are recommended to ensure competitiveness or even to adequately meet a municipality's needs, much less how to rank responses and factor in diverse criteria in the RFP process. The GFOA, for example, encourages a city to "take steps to maximize the number of respondents" (GFOA nd.b), but gives no indications about how the quantity of actual responses should be factored into RFP response evaluation or how to rank them. Pointedly, the idea of trust appears nowhere in these factors.

The financial services sector which assists municipalities issuing debt is constricting, and the pace of contraction accelerated dramatically during and after the Great Recession. According to the California State Treasurer's DebtWatch dataset, the number of financial services firms actively serving California municipalities in bond matters has shrunk drastically, even as the total quantity of specific bond offers has increased. Table 4.1 shows a comparison between the 1985-1989 and 2015-2019 period, the earliest and most recent pre-COVID complete five-year periods available respectively. In all categories, except trustees, the number of participating consultant firms has contracted immensely—despite an almost 40% increase in bond activity. As financial institutions thin out, this creates potential problems for municipalities since there may be fewer options available.. There are no reported trustees in the dataset for 1985-1989, so I reported the value for the following five-year tranche for the sake of comparison.

Table 4.1: Number of outside consultants by field, 1985-89 and 2015-19.

Time Period	Bond Issues	Financial Advisors	Bond Counsel	Underwriter	Trustee
1985-1989	2874	121	97	181	0 (20 in 1990-1994)
2015-2019	3970	64	35	57	7

Contraction has another, potentially more potent effect over the sector beyond a mere drop in possible bidders. Economics literature (Axelrod 2006, for one) generally accepts that repeated interaction between parties builds trust, which creates efficiencies and reduces the incentive to take advantage of counterparties. And indeed, the changes in the bond market over the past 30 years would argue for higher degrees of trust in the California municipal bond market. Afterall, there are far more bond transactions now than at the start of the time frame of observation, as the municipal bond market has grown substantially. At the same time, there are far fewer contractors to work with, even if the number of issuers has remained essentially static. This argues for increased interactions between parties, which should generate benefits for both issuers and firms alike.

Yet evidence from interviews shows that vastly different structures issuers use in selecting outside vendors may have ramifications. As one underwriter interviewed for this study put it:

> *Typically, the selection process is through an RFP, and generally the RFP process is managed by a financial advisor. And the financial advisor, with the issuer, will review the RFPs as they come in and will make recommendations. So having a good experience with a financial advisor, a good relationship with a financial advisor, is certainly an advantage. You have to have a good proposal and you have to have good qualifications, but having worked with a financial advisor previously or having a good relationship with that financial advisor is helpful.*

When saying this, the underwriter was not arguing that that issuer is left out of the process. But they are arguing that, in a field with a small number of frequent borrowers and a large number of occasional issuers, past experience between firms in other contexts—built-up trust— matters substantially. In a three-party transaction system with one principal and two agents, where interactions between the agents are frequent but the principal itself is not, the issue of trust becomes muddied at best.

Yet almost across the board in interviews, the idea of trust does matter substantially. Interview subjects from this research project almost always stressed the importance of trust, bolstered by reputation

and repeated interaction, in the bond transaction industry. Take this comment from a finance officer of a small growth suburb in Southern California which frequently borrows money, responding to a question about how they know the municipal advisor represents the city's interest:

> *What they've done for you in the past, you can tell was that the best for the city [or not]. And the way they represent themselves. I have full faith and confidence that our financial advisor does have the city's best interest at heart, always… [For underwriters], its also about past relations, maybe how they've handled certain situations… You want someone reputable, someone who's going to do a good job for you.*

That city had worked with their municipal advisor and underwriter for over half a decade without issuing a new RFP. Contrast this outlook to a comment from a Struggling Latino Suburb in Southern California which frequently changed advisors:

> *For financial advisors, when it comes to bonds… it's a per deal agreement… You do it for every deal that you do. You have to… All three of them [underwriters, bond counsel, and municipal advisors] are pretty much the RFP process. But sometimes the financial advisor will recommend an underwriter, and they would actually incorporate them into their agreement. And that's acceptable as well.*

These divergent attitudes towards outside vendor selection easily result in different outcomes for the contracting parties, and traces of those dynamics are evident in social networks. To return to the above examples, the City of Los Angeles worked with most of the entities in its network multiple times. At the same time, those outside contractors worked with each other, in a variety of shapes and structures, multiple times throughout the period of observation. If repeated interactions indeed foster trust, then a network surrounding this major issuer should be contributing to an overall higher amount of trust across the system as a whole. Los Angeles takes on a central role in this network of trust.

Smaller issuers, of course, do not have that luxury, simply because they issue less debt less frequently. Yet both Calabasas and Beaumont evidence the role of trust in their networks, as well. For

Calabasas, the city established a long-term relationship with an outside financial advisor, leaning on the firm for assistance over a long-time frame. Beaumont, for its part, had an even tighter network. Indeed, the network contained enough trust that city staff felt comfortable embezzling funds from bond proceeds without worrying that outside contractors would divulge their malfeasance.

Bell Gardens, then, is the lone example of a city which does not have circumstances potentially leading to higher degrees of trust, and thus a higher degree of incentive for all parties involved to not take advantage of other actors. What the above graph does not indicate, however, is how familiar the entities in Bell Gardens' network were *with each other*. While Bell Gardens was an infrequent issuer, the outside parties were not. Indeed, some of them were among the most active participants in the California municipal bond market during the time frame in question. Bell Gardens engaged in four bond transactions with the municipal advisor firm Harrell & Company. One involved the underwriter Wedbush. The Bell Gardens transaction was one of five those two firms partnered on during the 20-year window, and accounted for only 7% of the overall bond par value of those deals. Another underwriter, Stone &Youngberg, worked with Harrell and Bell Gardens on two deals. Yet without the city at the table, Harrell and Stone & Youngberg partnered on 21 total deals together in the 11 years between 2000 and 2011 (Stone & Youngberg was acquired by Stifel in that year, now the market leader for underwriters as discussed later in this chapter). Prior to the underwriter's merger, Bell Gardens accounted for only 6% of the overall par value of Harrell and Stone & Youngberg's bond transactions together.

As the number of contract firms has dramatically constricted, and the number of issues have increased, logically the number of interactions between participants in a bond deal have increased, potentially creating stronger ties in the market and providing some evidence of an overall increase in trust system-wide. Yet it does not follow that these strong ties are evenly distributed amongst the overall network of the California municipal bond market. How, then, has the dynamic of increased interaction shaped the market in California? Where do strong ties provide evidence of increased trust, and which borrowers are cut out of this dynamic? Is it even fair to claim that all California cities operate in a

common bond market, regardless of their size, or are they operating in divergent markets with unique players and patterns? And how do race and income fit into this picture?

The chapter addresses these issues primarily using a novel methodology, at least for bond issuance inquiry. By treating the ecosystem of potential borrowers and intermediary firms like a social network, and specific bond transactions as connections between key players (both agencies and firms), I can identify the strength of relationships between cities and financial services intermediaries.

In the end I find that, as intuitively predicted, the reduction in potential financial services providers has led to increased concentration in strength of ties in the overall social network among firms. But it has not led to a change in the average number of firms a city will encounter—issuers in California today, on average, work with the same number of outside partners as in the past. The end result is a network with some strong ties, but strength is not evenly shared network-wide. Stronger segments of the network cut out many cities, which appear on the edges of the network, connected only weakly and sporadically to other actors who in turn work together frequently. Some cities, like Los Angeles, are fine, maintaining core spots within the overall network. But many cities appear as nodes essentially on the periphery of these networks of capital finance.

Compounding this issue, the market for financial services providers is highly segmented, with most firms (though not all) appearing to cater to certain types of issuers as their business strategy, primarily by size, income, and race. These compounding forces of market constriction, tight bonds between actors, and market segmentation result in individual social networks that do not resemble random models which might be expected from a truly neutral RFP process.

For smaller cities with majority people of color and low median income, the financial services thus market appears to be very different from that enjoyed by large frequent issuers. These smaller cities, by and large, rely on a far more constricted network of potential transaction partners to meet their financial services needs. Some financial intermediaries simply decline to service them, particularly large banking institutions but also some financial advisors. The remaining banks and financial advisory firms are more closely connected to each other than to their client cities. This market is not entirely

segmented—Struggling cities do not operate in an entirely separate financial services market from larger and more frequent borrowers, admittedly. But in turn, the market is highly split, and the relative position of Struggling cities in the strong ties underpinning bond borrowing in California is far more peripheral. Much of the activity in the financial services market is thus highly segregated by size, income, and racial composition, with the effects compounding.

The chapter unfolds as follows. First, I address briefly a few considerations in literature around the social network analysis methodology I use in this chapter, and outline why I think the underutilized method shows promise for urban power analysis particularly in cases involving connections between the public and private sectors. I then describe the data and methods used in this section. I proceed to a series of tests of social network analysis to assess key questions about the California municipal bond market. First, I explore the relational structure of the overall network in question with the goal of revealing how evenly distributed strong ties are amongst network actors. I find that ties are not evenly distributed at all, but rather the distribution of strength among ties has deeply concentrated in only certain parts of the network. I then turn in a second series of tests to look at interactions between issuers and two key financial services intermediaries—financial advisors and underwriters—to explore patterns in those subsets of the market compared to randomly distributed networks of equal size. Here I find that the real-world network bears little resemblance to randomly distributed ones, with firms clustering around certain issuers. Descriptive analysis shows that this is affected by the race and income of city residents, and compounds across both categories, creating a very segmented marked for municipal bonds. I close the chapter with a brief discussion of the ramifications of my findings and potential areas for future research.

Literature Review

In the 1970s and 1980s, leftist sociologists relied on social network analysis to better understand key social-financial connections underpinning capitalist activity. Several of these studies attempted to map out corporate interlocks which revealed links underpinning elite power structures, often scaling analysis at a local level to shore up arguments in the long-running urban power debate of last mid-century

(some hallmark examples include Levine 1972, 1988 or Bearden et. al. 1975). Meanwhile, Granovetter (1973) put forward his now famous argument about how even weak ties between entities could have substantial impacts on their ability to transfer information and collaborate.

Despite the promises of social network analysis and the lasting contributions of Granovetter's insights and those that followed, the network analysis method has fallen into disuse in critical studies of corporate power and was never deeply embraced by economic geographers. A few studies have used the method in more recent decades (some examples include Uzzi 1999, Davis & Mizruchi 1999, and Haberly & Wójcik 2022), but in general as the economy has globalized attempts to better map out relations of power through social networks have proven challenging at best.

Despite these challenges of mapping a complex environment, I view the relative disuse of the method as a missed opportunity. Social network analysis has the power to show more clearly the important social characteristics underlying corporate power and to lay bare pathways capital needs to move about in its search for additional value. The method has special promise at the urban level, where even though local governments are operating in a globalized economy, many key connections occur locally, and relative data transparency (at least in the United States context) provides a wealth of information (Kass 2020).

Indeed, the moment feels right to revisit the methodology of social network analysis, as economic geographers have recently shown a renewed interest in tracing monetary flows to better understand capitalism. Over a decade ago, Christophers (2011) promoted applying 'follow-the-thing' methodology to flows of money to better understand the inner functions of capitalism. Christophers had argued that money could be traced as a commodity, much in the way that critical geographers had traced other commodities. Tracing flows of money could provide clearer understandings of the role of money in the capitalist system and in turn allow researchers to better understand how capitalism uses this commodity to generate surplus value and profits.

However, despite the provocative argument from Christophers (2011), following the money did not immediately become a common research method in critical geography. For one thing, as Gilbert

(2011) pointed out in her response to Christophers' initial argument, following the money can be incredibly difficult. As a commodity, money is largely indistinguishable and timeless, and unlike many other commodities does not emerge wholesale from a factory or a field. Gilbert instead argued that credit was a much more promising avenue than money itself for both practical and theoretically appealing. Credit, unlike money, transcends time—indeed it is inherently future-oriented. And importantly credit inherently implies a lasting social relationship, the bond between borrower and lender.

The debate fell more or less to the wayside until recent years, when Hughes-McLure (2022) presented a new call to revisit Christophers (2011). Informed by the methods articulated by Kass (2020) for the study of public finances through publicly available financial data, Hughes-McLure laid out a clearer methodology than Christophers had for following flows of money to connect the private sector to the state, and articulated several advantages to a researcher using this methodology. Germane to this study, credit flows, and the money that breaks off of them and falls into the hands of private financial intermediary firms like financial advisors and underwriters, can help researchers better understand complex social and economic relationships which underly transactions of the money commodity via bonded debt.

Importantly, both Christophers (2011) and Hughes-McLure (2022) highlight that monetary flows are highly indicative of social relationships. While some flows of money are assuredly anonymous, many transactions have a particular social character underpinning the exchange. Granovetter (1985) recognized this social character of exchange, terming it the 'embeddedness' of markets. And indeed, to come full circle, several of the studies which made use of social network analysis to understand corporate interlocks framed their arguments in terms of embeddedness of capitalist exchange within a social context (Uzzi 1999 is just one example). The social connections in this chapter, while delineated by successful bond transactions, are perhaps best understood as flows of money—fees paid for a service provided by the private sector to the local state. While I am not arguing that all relationships are merely transactional (indeed, many municipal finance officers aver deep personal connections with their financial advisors), at the end of the day monetary transaction brings all parties to the table.

While Hughes-McLure used her new methodology to trace international flows of money and risk, I argue here that the method is particularly promising for urban geographers seeking to better understand social and economic relationships and the distribution of risk in the local state. In part, this is facilitated by a simpler map of actors on the local stage. California's municipal bond market, for example, includes a variety of players each playing discrete roles. These players range in size from the largest of multinational banks all the way down to hyperlocal one-person firms. But the list in its totality is a relatively finite (and shrinking) one, far more manageable to map out than complex international financial deals under a globalized capitalist economy. Following local public money allows urban scholars to trace claims of risk in financial transactions, unveil social connections which might otherwise not be publicly available, and ultimately trace influence between the local state and actors in the private sector.

This chapter of the dissertation is informed by these arguments. While seeking to answer important questions about the connections between municipal agencies and the intermediaries who help them access the municipal bond market, the social network analysis used in this chapter also seeks to revitalize the use of the method, channeling critical sociologists of the 1970s and applying their method to pressing calls in economic geography today to use public data sources to better understand connections between the state writ large and the private sector.

Data

This chapter of the dissertation relies on the California Secretary of State DebtWatch dataset, the same set used for several variables in the regression analysis chapter of this dissertation. I used this one dataset to generate three distinct social network graphs, each to assess one quality of the overall California municipal bond market. In the following passage, I first discuss the sourcing of the data, followed by a brief primer on key social network test statistics for readers who may not be accustomed this method. I will then pass on to discussing the specific methods used to generate test graphs for my first test, which assesses changes in the overall cohesion of the California municipal bond market over time. I follow this graph data with my findings and analysis. In the next section, I explain the methods

used to generate two additional graphs used in my second set of tests, both of which assess cohesion between municipal issuers on the one hand, and a specific category of financial services providers on the other hand (specifically municipal advisors and underwriters). I again follow the by findings and analysis. For all three graphs, I supplement the graph statistics with descriptive discussions of the underlying data.

There are a few key differences between the dataset in the regression portion and in this portion, however. For the social network analysis, I cast the net substantially wider than my focus on suburbs in the previous chapter, and have included issuers from across the state including both city and county borrowers. Interviews have indicated that, while counties and cities have distinct fiscal responsibilities and capital needs, from a financial services provider point of view cities and counties are roughly equivalent.[37] I thus opted to include counties in the main dataset because California has a relatively shallow bench of large city frequent borrowers whereas most counties routinely issue debt, and I wanted to avoid overconcentration of large nodes by including other regularly borrowing nodes in the network. While not universally true, counties by virtue of their size generally borrow more regularly than smaller cities. Below, when I pare down my analysis to specific types of cities, counties are not included. In this chapter, when I use the terms 'local agency' or 'municipality' I am referring to both cities and counties; 'city' refers explicitly to the former alone.

I eliminated TRANs and other types of short-term notes (like commercial paper) from my sample. Short-term debt has unique markets and is not immediately comparable to long-term debt. In addition, the inclusion of short-term debt would have necessitated adding scores of consulting firms, since firms tend to specialize in one type of debt or another, possibly distorting my data. Finally, not all local agencies regularly use short-term debt. Short-term notes are most frequently used to meet cash flow issues. Wealthy cities with substantial reserves, or small cities with relatively tiny payrolls and other recurring costs, do not frequently issue short-term debt. TRANs in particular are primarily tools for larger

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[37] By contrast, financial services providers view K-12 school districts and community college districts as a unique subset of the municipal bond market, and tend to employ specialists who work specifically with these types of governments.

agencies, like Los Angeles: both the city and the county issue a TRAN every year. Including short-term debt would thus over-privilege larger agencies in my population. To counter any argument that the same consideration plays out in long-term debt, I would argue that some smaller cities may only infrequently issue longer term bonds, but most small cities never use short-term notes like TRANs or commercial paper.

I processed the data line by line and assessed the actual issuer in question. The DebtWatch dataset includes data on the issuer of record. However, as mentioned above, local agencies frequently issue debt through finance authorities or redevelopment agencies. Cities or counties may issue debt through authorities, like housing authorities. These entities, while technically and legally independent from the municipality on paper, are fully staffed by municipal staff and governed by municipal elected officials. Finance authority meetings, for example, often happen immediately before or after city council meetings, formally separated only by a knock of the gavel and with city council members remaining seated. To account for these shell authorities, I renamed the issuer in each line item to match the ultimate beneficiary of the bond issue in cases where a city or county was pulling the strings.

Finally, I cleaned up the four main categories of consultant firms I use in my study— financial advisors, bond counsels, underwriters, and trustees. I unified names[38] and corrected for errors,[39] changes in partner names over time (since the dataset covers over 25 years, name changes were not infrequent),[40] and pared down the number of lines as best as possible. Unifying names was key to building successful networks in my program, since node names are unique. Whenever I was remotely in doubt that two firms were not identical, I did not consolidate names. For larger mergers like Bank of America and Merrill Lynch, I kept the successor firm distinct from each original firm.

I also cleaned out municipal names from these four fields. Some municipalities reported themselves as the financial advisor or in other capacities when they did not contract out the work, others

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[38] Ex.: Fulano de Tal Associates the same as F. de Tal Associates.
[39] Ex.: Fulano de Tal Associates the same as Falano de Tal Associates.
[40] Ex.: Fulano and Mengano Associates the same as Fulano, Mengano and Zutano Associates.

left the field blank. Since this is not behavior I am trying to capture in my model, I harmonized all of these fields to blanks. My alteration additionally rid my networks of the issue of self-loops, which create problems for social network analysis and distort key outcome variables, particularly for evaluating the variables I sought to pull and in using algorithms for bipartite networks. This phenomenon most commonly occurred in the underwriter field. When municipalities do not contract an underwriter, they place their bonds on the market themselves, frequently to a large institutional purchaser such as a pension fund or bank (the practice was more common early in my time frame). In these cases, a municipality may decide that they do not really need an intermediary to find buyers for them. I also eliminated cases from this field when higher levels of government placed the bond; for example, the United States Department of Agriculture (USDA) was listed as a bond underwriter in several instances.

In the end I was left with 19,463 specific bond transactions in California from 1985 to 2019. The starting year was the earliest data available. 2019 is the last year before the COVID crisis, and dovetailed with the end year I used in the regression analysis chapters. In all, 514 specific municipalities, both cities and counties, issued these bonds (there are 542 total cities and counties in California, so most local agencies of these structures are represented in this data set).

Table 4.2 shows some basic descriptive statistics for the revised dataset. Participating entities all exhibit wide heavy-tail distributions in their activity, which is to be expected. Small cities, for example, may rarely enter the bond market (in fact, several have done so just once in the past 27 years). Small firms or firms specializing in bond issues in other regions similarly may rarely participate in the California market. Other agencies and firms are giants in the field, household names in the investor community and often in the general public. Note that these statistics might be misleading with respect to individual firms; some firms might act in multiple contractual capacities. For example, Bank of America might act as a trustee or an underwriter, although never not on the same bond transaction. Some underwriters also have financial advisory divisions.

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Table 4.2: Descriptive statistics for revised California DebtWatch dataset

Category	n	n Bonds	Mean n Bonds	Stan. Dev.	Min. Bonds	Max. Bonds
Issuers	513	19462	110.65	256,53	1	3904
Mun. Adv.	369	11082	30.03	114.17	1	1343
Bond Counsel	185	19237	103.98	454.70	1	4656
Underwriter	464	14042	30.38	103.12	1	1620
Trustees	72	12401	172.64	574.03	1	3875

For the first graph, I divided the transactions from the overall dataset into five-year non-overlapping tranches, starting with 1985-1989 and ending with 2015-2019. By cutting the larger dataset into tranches, I can compare changes in California's overarching municipal bond network over time, the key goal of my first test. The five-year set size is a somewhat arbitrary figure; no natural or economic bookend speaks to five-year time periods in the dataset. I chose this timeframe for two reasons. First, five years is long enough that many infrequent issuers will issue at least one bond. Though some cities are rarely active in the municipal bond market, most cities will issue something at some point over a five-year period. Second, five years is short enough to account for the effects of consolidation in the financial services sector. While firm consolidations (which occurred frequently over the 35-year period) happen when they happen, a limited time period allows me to consolidate nodes in the subsequent time frame, allowing me to limit the number of nodes in any given tranche to the firms actually active during that time. An overall graph would have many nodes from, say, the 1980s that had been defunct by even as early as 2000 cluttering the graph—and altering important statistics like the clustering coefficient, discussed below.

I relied on the NetworkX python package to generate the graphs, extract key statistics, and where used, to generate random comparison graphs. I used the Stata program to perform two-sample t-tests comparing results for statistical significance. All graph figures in this chapter, most of them simplified versions of the overall graphs used for statistical purposes, were produced using the Gephi program.

Simplified graphs can highlight desired portions of an overall network without unduly cluttering the landscape with unwanted data.

A Primer on Social Network Analysis Statistics

Social network analysis measures social network strength using a few key variables. Due to the relative obscurity of the methodology in urban studies, it is worth a brief detour to explain the outcomes variables I will use in this chapter. These are a few key metrics I will refer to below:

- **N**: The number of nodes overall in the five-year tranche network. This value measures how many firms and municipalities were active during the period.

- **E**: The total number of unique edges (ie, links between nodes) in a network. In my networks below, any time a firm or municipality works with another firm or municipality, an edge e is established. E is the sum of all of these edges e across the network:

$$E = \sum e_{i,j}$$

where $e_{i,j}$ is an edge between nodes i and j for all edges in the network. Note that this value does not double-count edges between nodes, meaning if nodes n and m are connected, that connection adds only a value of 1 to E. Note that E is unweighted, meaning for this study that it does not factor in the frequency of interactions, only the presence of an interaction in a bond sale. If a city and a financial advisor worked together six times over the course of a network, the e value of the edge between those nodes would still be 1.

The overall E value of the graph measures how many unique pairings of firms or municipalities worked on bond transactions together throughout the network—in other words, how many connections were made in the California municipal bond market during the tranche in question.

For some key statistics like network mean degree and the clustering coefficient, both discussed below, edges may be weighted. In these instances, E_w is the sum of all weights across the network:

$$E_w = \sum w_{i,j}$$

where $w_{i,j}$ is the weight of an edge between nodes I and j for all nodes in the network. Drawing from our earlier example, if a city worked with a financial advisory firm six times, the w value for the edge between the two nodes would be 6, not 1. Although I do not report the E_w statistic on its own, the value is used to calculate other key test statistics.

As such, every edge in a network has two distinct values, e (which is a priori 1) and w. Each statistic measures a unique aspect of the connection between nodes: e measures the presence of a tie without any indication of its strength, and w the strength of that tie. Ties with relatively high w values are strong ties, whereas ties with a w value of 1 are relatively weak. Using both statistics, combined over a variety of network analysis statistics presented below, can help interpret networks for both interconnectedness and strength, two key network aspects.

For the purposes of this study, I treat edges as undirected, meaning the origin and destination are not tracked. In reality, cities contract with outside firms for bond services, implying a directed network. I nonetheless use undirected graphs for two reasons. Most importantly, for the test statistics I use in this analysis, whether a graph is directed or not is irrelevant. Second, for the first test in particular, I wanted to also assess how often firms were cooperating on bond transactions, not just how often cities were working with specific firms—the overall network, in other words. Edges between cooperating financial service providers, by contrast, would not be directed, since issuers generate the contracts, not firm-to-firm. In order to extract statistics, a graph cannot include both directed and undirected edges, leaving me to rely on an undirected graph.

- **Mean unweighted δ**: The mean unweighted degree for the network, meaning the average number of unique edges per node regardless of strength (i.e. frequency or weight). This relatively intuitive statistic simply averages the degree of each node in the network—in my network, the average number of connections a node has. I calculated this by taking the sum of edges for each node. This is the total number of edges in the network E times two (again, the factor of two reflects the fact that each edge connects two nodes, whereas E counts each edge as only one) divided by the number of nodes in the network, N:

$$Mean\ unweighted\ \delta = \frac{\sum e_{i,j}}{N} = \frac{2(E)}{N}$$

This statistic measures how many unique partners, on average, each agency or firm partnered with on a bond transaction during the period, regardless of how many times they worked together—how many partners the average node partners with over the course of the time frame. An increase in mean unweighted δ means that on average nodes in the network are working with more partners, while a decrease in unweighted δ means on average nodes are working with less partners.

- **Median unweighted δ**: The median unweighted degree for the network, meaning the number of edges the median node in the firm had. This measures how many partners total the median firm or city had during the period, regardless of how frequently they worked together. This compares to the mean unweighted δ exactly as any median and mean in any other dataset would compare to one another. To calculate this statistic, I simply took the median value in the list of unweighted degrees δ_i for all nodes in the network.

- **Mean weighted δ**: The mean weighted degree for the network, meaning the average sum of edge weights for all nodes in the network. To calculate this number, NetworkX first calculates the weighted degree (sum of all edge weights) for each node N in the network:

$$\delta_i = \sum w_i$$

Where w_i is the numerical value for each edge weight for any given node. For example, if a city worked with an underwriter three times, and a municipal advisor twice, and no other firms, that city's weighted δ_i value would be 5. Note that a node's weighted degree does not change with the number of partners. A node *n* with one partner and a weighted edge value of 5 has a weighted δ_n value of 5, but so does a node with five unique 1-strength edges. Thus the weighted δ value for any node increases with either the total number of bond deals the node is involved in, regardless of the number of partners the node encounters.

NetworkX takes the average value from the collection of resulting degrees by summing δ_i across the network, and dividing by the total number of nodes in the network N. Note that the overall sum of δ_i in a network times two equals E_w, above. The equation follows:

$$Mean\ weighted\ \delta = \frac{\sum \delta_i}{N} = \frac{2(E_w)}{N}$$

Network wide, mean weighted δ increases with an increased number of bond transactions, or in a network with a constant number of edges decreases with the number of nodes in the network. A network with a higher mean weighted δ value is either dropping nodes, or increasing in the strength of its ties.

- **Median weighted δ**: The median weighted degree for the network, meaning the median edge strength of edges per node. This value measures how many bond deals the median agency or firm participated in during the period (again, adjusted for the number of partners), and is comparable to the mean weighted δ as any median compares to any mean in a dataset. To calculate this statistic, I simply took the median value in the list of weighted degrees δ_i for all nodes in the network.

- **Unweighted network C**: The unweighted clustering coefficient for the network measures the average number of triadic closures for all nodes within a network. Triadic closure means a closed network triangle: whether nodes n, m, and p connected to each other in a closed loop. Another way to think about triadic closure is for any given pair of nodes n and m, how many times do they have a common node p that they are each connected to as well. In the below networks, unweighted C measures one of two phenomena: if two firms partnered with an issuer on at least one deal; or if they partnered with a third firm on a deal. Spread across a network, this statistic measures how evenly distributed edges in the network are, or in other words, how interconnected the network actually is.

To calculate the unweighted clustering coefficient for a given node in a network, NetworkX measures the number of triangles the node is in compared to the number of possible triangles the node could be in:

$$c_n = \frac{2T_n}{(\delta_n)(\delta_n - 1)}$$

where T is the number of distinct closed triangles a node is included in with any two other nodes, and the denominator counts the maximum number of triangles the node could be involved in, given the number of deals it is involved in. Nodes with a high c_n value are more connected to a network, and nodes with a low value are more peripheral.

The overall network clustering coefficient C is simply the average of c_n for all nodes in a given network. This mean statistic measures how evenly distributed connections between nodes are across the network. Clustering coefficients range from 0 to 1; a value of 0 means no nodes are connected in triangles, while a value of 1 means every node in the network connects to each other node in the network (and thus form triangles between any possible triplet of nodes). Networks with a lot of tightly clustered nodes that pair with each other's partners have high unweighted values; networks with a large number of peripheral nodes have low values. C values are relative

and help to compare similar networks to one another and assess the impact of changes in network composition to the interconnectedness of the network.

- **Weighted network C**: The weighted clustering coefficient for the network. The weighted C value adjusts the clustering coefficient to measure the frequency of interaction, indicating how frequently a firm or city was to encounter another pair of firms or a firm and city pair during the time period of analysis.

Weighted C values can be calculated in a variety of ways. Following Saramäki et al. (2007), NetworkX calculates the clustering coefficient for each node in a network by taking the geometric mean of edge weights for every possible trio of nodes connected to the node of interest, and puts that in a ratio with the maximum possible number of triangles for the given node. That maximum number is the node's unweighted degree, δ_n, the number of edges originating from node n, multiplied by δ_n-1; this product is the number of unique pairs of edges, each of which defines a possible triangle that might or might not arise on any given deal. The formula used to calculate the individual clustering coefficient c_n for each node n in the network vis-à-vis nodes p and q:

$$c_n = \frac{\sum_{p,q}(\widehat{w}_{np}\widehat{w}_{nq}\widehat{w}_{pq})^{1/3}}{(\delta_n)(\delta_n - 1)}$$

where $\hat{w}_{xy}$ is the edge weight between two nodes normalized by the maximum weight in the network. While not the only way to measure central tendency, the geometric mean is helpful in this dataset, and in network analysis more broadly, because it mitigates the effects of heavy outliers. For example, a large city like Los Angeles might partner far more frequently with a specific bond team over a five-year period than most other agencies. Geometric mean helps compensate for that while still including larger values in the calculation of the mean.

If all the edge weights for all the triangles involving node n are equal to the maximum weight in the network, then c_n equals 1. To the extent that any of those edge weights fall below the maximum, c_n will be less than 1.

To get the overall clustering coefficient for the network, NetworkX then takes the average of all

values c_n within in the graph to report out the weighted C value for the network (where as a

reminder N is the total number of nodes in the network):

$$Weighted\ network\ C = \frac{\sum c_n}{N}$$

Overall, this variable tells you overall how evenly distributed the strength of ties are across a

network. Lots of c_n values at or close to 1, meaning that all or almost all triangles including those

nodes in which all sides achieve the network's maximum weight, lead to a weighted C close to 1.

When there is much variation in edge weights, the weighted C will fall short of 1 (though the

formula cannot have a zero value). Importantly the interconnectedness of a network does not shift

weighted mean network C. By factoring in the weights of edges rather than simply measuring

connections, the weighted network C gives a sense of overall how evenly connected firms and

agencies are within the network of interest relative to each other, and allows me to measure

changes in the distribution of the strength of ties over time across multiple tranches of California

bond activity. The statistic is best understood in relation to other graphs' respective weighted

clustering coefficients. Because most edges in real networks are not at a maximum possible

weight, the weighted clustering coefficient for the network as a whole will almost always be

substantially lower than the unweighted network clustering coefficient. However, the two

numbers have no direct comparison between each other.

I note here that I used two graph strategies in my analysis. My second test uses bipartite networks (ie.

networks consisting of two distinct types of nodes which cannot connect to each other within type). C

values in bipartite networks pose unique challenges, since triadic closure, the formation of closed

triangles, is impossible. As such, I used a different formula in those tests, discussed below.

Table 4.3 summarizes these variables.

Table 4.3: Key variables used in network analysis

Variable	What It Measures Generally	What It Measures In This Graph
N	The number of nodes in the network.	The total number of municipalities and firms active during the time period.
E	The number of edges in the network.	The total number of connections made via bond transactions during the time period.
Mean weighted δ	The sum of the weights of all edges the average node in the network has.	The overall strength of connections for all links to the average issuer or firm.
Median weighted δ	The sum of the weights of all edges the median node in the network has.	The overall strength of connections for all links to the median issuer or firm.
Mean unweighted δ	The total number of partner firms the average firm or municipality worked with	The number of partners the average issuer or firm worked with overall.
Median unweighted δ	The total number of partner firms the median firm or municipality worked with	The number of partners the median issuer or firm worked with overall.
Weighted C	The overall distribution of strong ties across the network	How evenly, relatively, the strength of ties are distributed across ties in the network.
Unweighted C	The overall distribution of connections across of the network	How widely and densely ties are distributed across the network—a measure of interconnectedness.

Test 1: Has a reduction in firms led to tighter networks of debt in California?

Methods

This first portion of this chapter maps the entire ecosystem of bonded debt from 1985 to 2019, for all data available in the modified DebtWatch dataset. Using NetworkX, I create a weighted undirected network. Nodes will represent municipalities, municipal advisors, trustees, underwriters, and bond counsels. Edges will represent a partnership on a particular bond issue between nodes, regardless of type. I opted for this type of graph over a bipartite graph because I wanted to assess what effect consolidation

in the financial services sector had on the likelihood of firms working together as much as with any given city. I return to the question of city interactions with specific firms later in this chapter with separate graph analyses. Figure 4.5 shows a sample subgraph for a single bond transaction featuring all possible parties, though note that some transactions do not include all possible outside contractors.

Often, network analysis tests the randomness of real-world networks by comparing them to randomly generated artificial networks with the same parameters. However, this graph is not a good candidate for random modeling for comparison. Nodes of a feather cannot flock together in my model, since municipalities cannot connect to other municipalities under any circumstances, and firms are not likely to directly connect to other firms in their field of expertise unless a firm happens to specialize in two or more support areas. Thus, while triads will form across entity categories, triadic closure within categories will be rare, and in some cases, impossible. This makes random modeling highly complex. Similarly, the vast interconnections between firms make community detection difficult. Almost all node pairs have multiple very short paths in this real-world network.

Figure 4.5: Sample subgraph of a single bond transaction
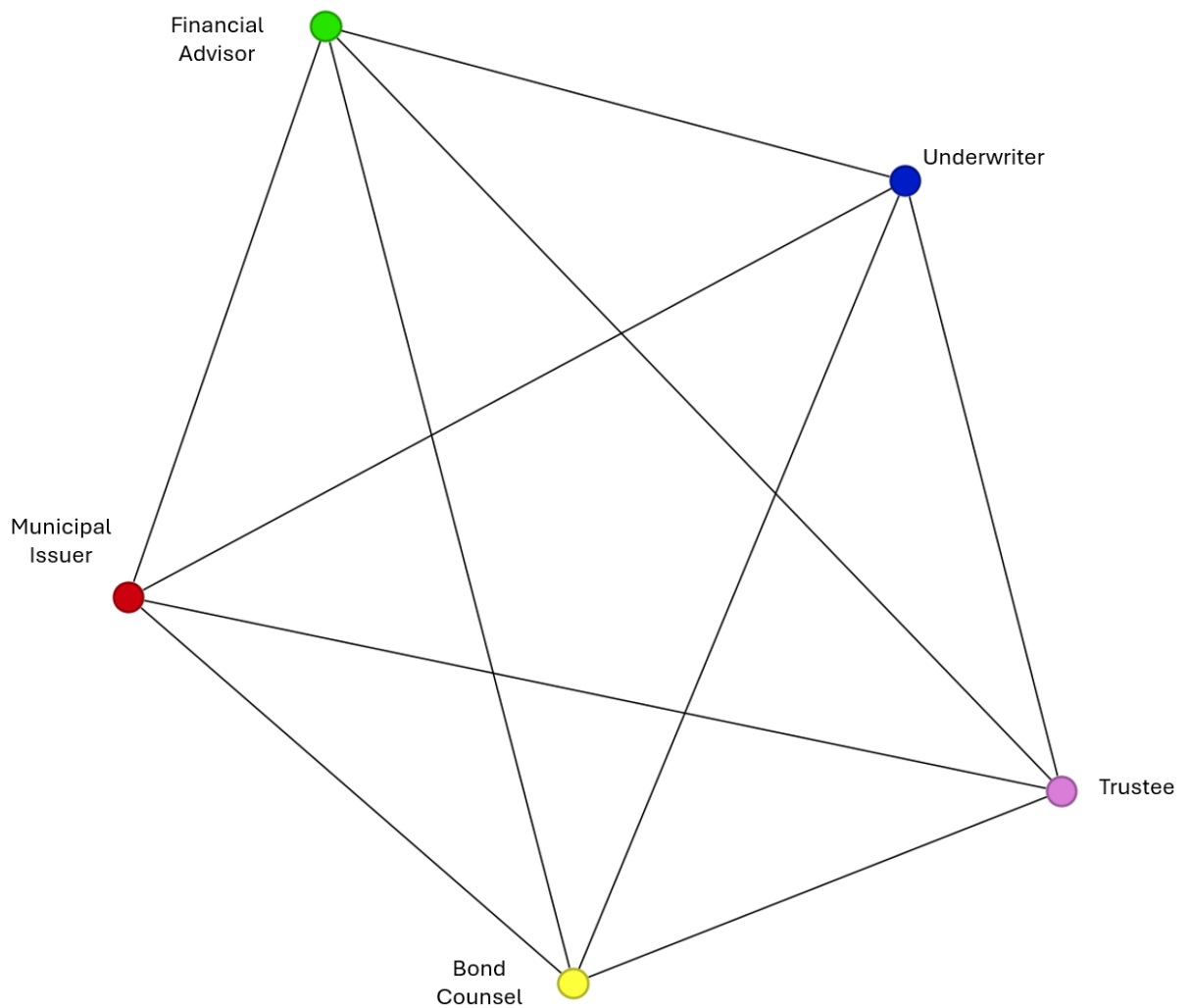
For the first bond transaction these firms and agencies work on together, I establish an edge between all nodes involved (for a maximum of 10 edges when all five possible node types are engaged in a transaction).[41] Subsequent transactions add one value to the weight of the pre-existing edge, regardless of other participants in the deal. For example, if a city worked with a particular firm on six different bond issues throughout the period of analysis, they will be joined by an edge with a value of six. Similarly, if a

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[41] Meaning: municipality, financial advisor, underwriter, bond counsel, and trustee.

bond counsel and an underwriter each worked together on only one specific bond issue, they will be connected by an edge with a value of one.

I then created five year tranche snapshot networks and compare key variables over time: network mean and median weighted δ, which measure the amount of times the average or median node worked on transactions; network mean and median unweighted δ, which measure the total number of partners the average or median node worked with over the five-year period; the mean weighted C, which measures triadic closure in the network favoring widespread ties of equal strength, in other words evenly distributed tie strength is across the network; and the mean unweighted C, which measures average triadic connectedness for any given node in the network, meaning how often entities came into contact with each other in a trio across the full set of deals. Together the weighted and unweighted C values help assess the strength of the network's interconnectedness by taking metrics from the differing perspectives of strong and weak ties. By taking both the mean and median values for δ, I can evaluate if heavy-tails are moving the mean higher or if the field as a whole is shifting higher.

My first set of tests looks to the weighted C values of the network. Given that the number of nodes for outside contractors has dramatically decreased between 1985 and 2019, the network will exhibit a higher mean weighted δ value—more transactions and less nodes means tighter bonds, on average. But has this change resulted in a network with an equally even distribution of weights? Or are the frequency of interactions only increasing between select bonds?

These questions return back to the overall concern of this chapter around the importance of trust and increased partnerships. The weighted network C value will be instructive as to how evenly distributed these transactions are. If the frequency of interactions increases more or less equally across the varied triads making up the network, over the time frame in question, the weighted network C should also be roughly constant between tranches. I hypothesize, however, that this is not the case, but that rather the increased frequency of interaction is resulting in an uneven distribution of strong ties favoring only some nodes. If this is the case, then the weighted C value should decrease over time.

Test 1:

H1: The weighted network C value should decrease over time as actors in the network drop.

H1$_0$: The decrease in actors will not change the distribution of weights in the network.

Results

Before getting into the numbers, I present a data visualization. Figures 4.6 and 4.7 show simplified social networks of the 1985-89 and 2015-19 tranches respectively, displaying only cities (red nodes), financial advisors (green nodes), and underwriters (blue nodes).[42] As in the earlier social network graphs, when a city used a financial advisor to inform a transaction, for these projections only, I route the transaction from the city, through the financial advisor, and to the underwriter. In transactions which did not use a financial advisor, the transaction is represented by a node directly from the city to the underwriter.

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[42] Because the graph I use in the below analysis includes overlapping edges between the five types of nodes is highly complex, I use here a simplified and substantially altered graph for visual clarity. This graph, like those in the introduction to this chapter, route transactions from the city, through an advisor, and to an underwriter. The figures do not match the below graph or metrics, but come from the same data source of transactions. I opted for this visualization to make the point about the effects of consolidation in the key outside partners of interest in my analysis.

Figure 4.6: Social network graph of all bond transactions, 1985-1989
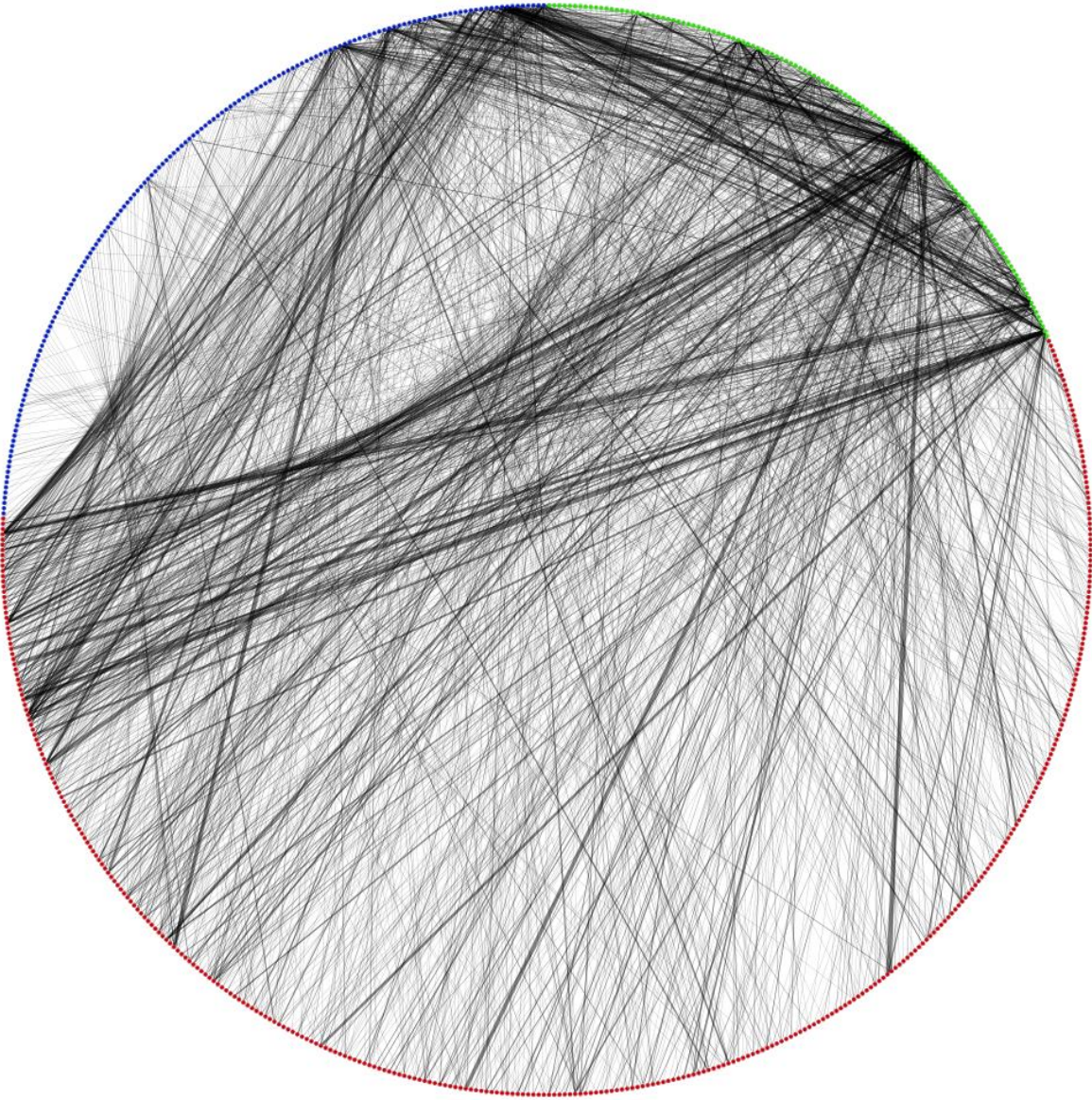
Figure 4.7: Social network graph, all bond transactions, 2015-2019
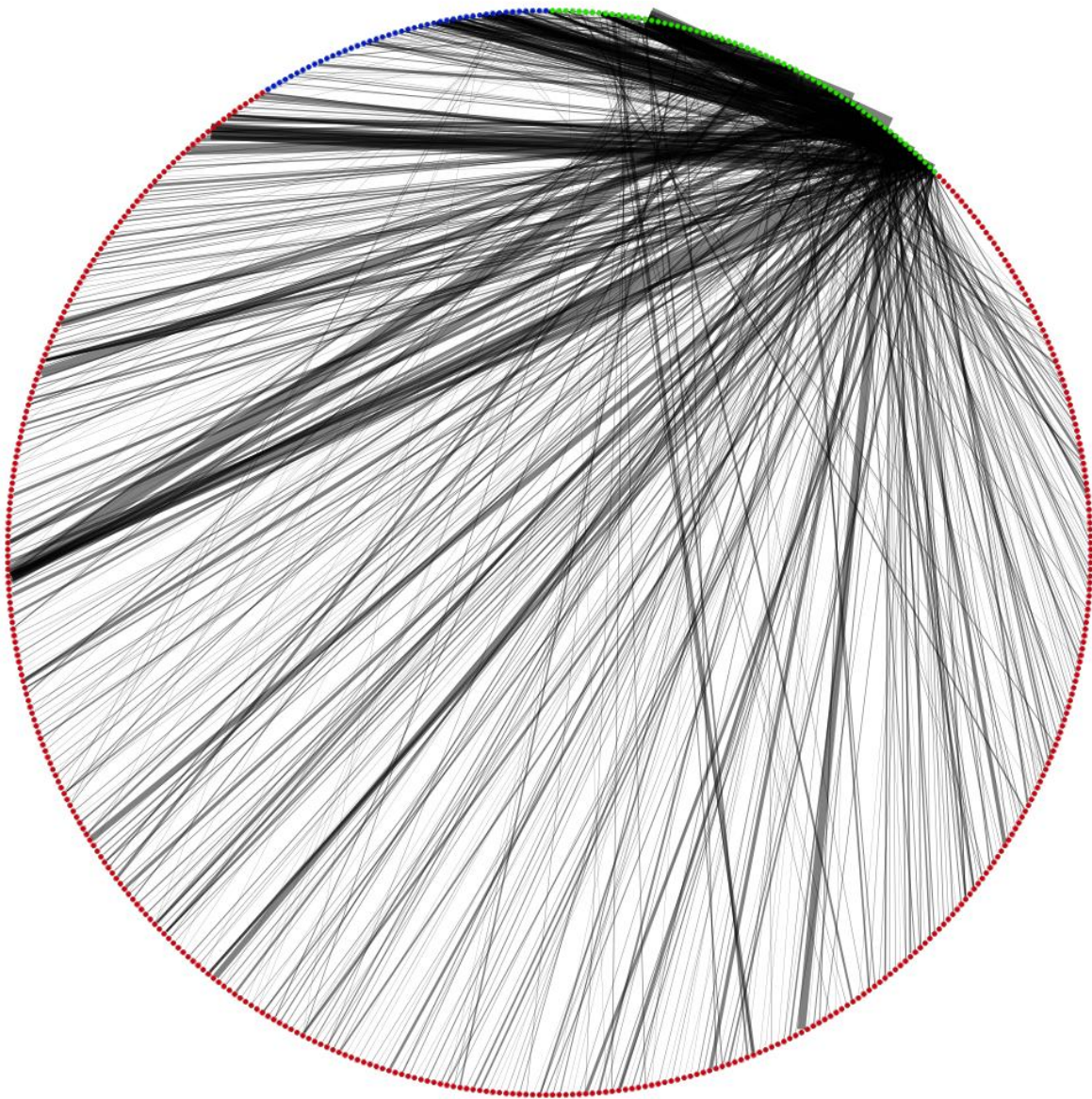
Before delving into the numbers behind these graphs stemming from the broader network, a few comments. First, the industry clearly changed in numerous ways between 1990 and 2015. The absolute number of underwriters and financial advisors active in the industry dropped substantially over that time (note the far smaller number of blue and green nodes in Figure 4.6 compared to 4.5), leading to a concentration of these types of firms (as Table 4.3 demonstrated). But the effect has also concentrated

further than a mere contraction in the number of financial advisors and underwriters. Some financial advisors partner with far more frequency with some underwriters than before, as evidenced by the dark thick lines at the top of Figure 4.6. Last, cities are far more likely to route a transaction through a financial advisor now than in the 1980s: note the far less frequent edges directly connecting red nodes to blue nodes in the latter graph. Note the especially bold lines connecting green nodes at the top. These represent underwriters that also operated as financial advisors over the 2015-2019 period—a new phenomenon which had not existed in the earlier graphed tranche. Stifel, for example, worked as both an advisor and as an underwriter during this period, though never playing both roles on any single transaction. In short, the lines between financial advisor and underwriter have become increasingly blurred, even as respective roles have become more stratified in federal policy following Dodd-Frank[43] and the use of a financial advisor has become a norm in the industry.

I return now to the full broader network. Table 4.4 shows key outcome variables of this analysis. Over the time period of this analysis, the amount of nodes (N) has decreased dramatically, by approximately 25%. As mentioned above, this decrease is mostly driven by consolidation in consulting firm categories (in fact, the absolute number of issuers increased during the same period; 375 cities and counties borrowed between 1985-1989; 402 borrowed between 2015-2019). At the same time, the overall number of bond transactions remained relatively stable until the last 5-year tranche. Presumably this notable jump in the 2015-2019 period reflects two factors. First, the period was one of municipal recovery from the Great Recession, which hit local agencies hardest in the early 2010s due to a lag in property tax revenues (note the lower than usual number of transactions between 2010-14). Local agencies which might have been reluctant to finance long-term projects while their revenue situation had been unstable were finally seeing a light at the end of the tunnel. Second, the period was marked by near historic lows in interest rates, leading many local agencies to refinance older bonded debt from the prior decade. This

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[43] See the technical section of Chapter 2 for a discussion of Dodd-Frank and its effects on the municipal bond industry.

combination of fiscal stability and low interest rates brought many municipalities to the bond market in the latter half of the decade.

Over the entire time frame of analysis, the number of unique edges (E) dropped, reflecting the smaller pool of participants in the California municipal bond market as financial services providers underwent waves of consolidations or left the bond market entirely. Note the especially large drop in edges between 2005 and 2014; the Great Recession notoriously shuttered both large and small financial services firms alike, ranging from household names like Lehman Brothers to small-time financial advisors working out of the trunk of their car. Post-Recession regulatory reforms like Dodd-Frank also decreased the number of financial services firms, particularly financial advisors.

As the number of edges (E) dropped, the mean weighted degree (mean weighted δ, signifying the average number of edges per node, weighted by the number of transactions per edge) of the network as expected grew substantially—surviving firms picking up slack from those that had left the sector were connected to more issuers than before. In the 1980s, an entity was likely to participate in approximately 30 bond deals on average over the five-year period; by the late 2010s, this average had increased to over 80 deals. In short, the combination of less firms and more borrowing has intuitively led municipalities to partner with those firms which are still active with a higher frequency.

*Table 4.4: Results from Test 1 network analysis by five-year tranche.*

Tranche	Number of Issues	N	E	Mean weighted δ / Median weighted δ	Mean unw. δ / Median unw. δ	Weighted C	Unweighted C
1985-89	2873	746	4336	29.88 / 8	11.62 / 5	0.0151	0.6188
1990-94	2751	728	4421	33.81 / 9	12.15 / 5	0.0178	0.6471
1995-99	2575	776	6049	50.70 / 12	15.59 / 7	0.0152	0.6939
2000-04	2768	708	5004	60.07 / 12	14.14 / 6	0.0127	0.7125
2005-09	2320	647	3998	53.77 / 10	12.03 / 5	0.0195	0.7579
2010-14	2024	548	3297	50.59 / 10	12.03 / 5	0.0212	0.7303
2015-19	3971	556	3271	81.23 / 12	11.77 / 5	0.0046	0.7693

However, despite this increase in activity, the unweighted δ values (the average number of *unique* edges per node), which floats independently of the number of overall transactions in this graph because repeat transactions do not affect it, have changed very little over the time period, both for the mean and the median. This runs counter to expectations from the model, which would predict a noticeable decrease in the unweighted δ as less potential partners are present in the network. In other words, there may be more bond transactions, but participants on average or at the median are working with roughly the same number of unique partners as in the past. Put yet another way, actors are working with the same average number of partners on a much higher number of issues, at least towards the center of the distribution. And despite contraction overall in the number of nodes in the network, most nodes are encountering roughly the same number of partners today that they did in the 1980s. These individual nodes, however, are more active (as reflected in the weighted δ value) and thus capturing more of the overall market share than they did in the past.

The median unweighted δ value network-wide remained relatively static throughout the entire time frame, hovering between 5 and 7 partner entities for the 35 years in question. This value closely reflects the experiences of an infrequent issuer in the market. An issuer (issuer nodes make up well over 50% of all nodes, especially by the final tranche) who partnered with one of each type of firms on a single bond deal would have an unweighted δ value of 4. The median node partnered with only one more outside firm than this. Yet single-bond issuers are rare in the timeframe of analysis; most cities who borrowed once, borrowed at least one more time in these arbitrarily drawn 5-year tranches (the median issuer engaged in three transactions, for example). Thus, at the median, an issuer was fairly likely to stick by their chosen bond counsel, financial advisor, underwriter, and trustee over the course of multiple deals, swapping out only one partner.

Indeed, single-deal actors decreased across most categories over the overall time frame in question. Figure 4.8 shows the percentage of agencies, financial advisors, and underwriters in each tranche who engaged in only a single deal. While the percentage of agencies engaging in single transactions remained relatively flat throughout the overall time period, the percentages for both outside types of firms dropped substantially. By the 2015-19 tranche, over 70% of financial advisors and 80% of underwriters active in California participated in multiple deals—and increase of 30 percentage points in the latter case. Agencies were modestly more likely to engage in just a single deal, but outside firms had clearly dug in to the market as consolidation whipped through the sector.

Figure 4.8: Percentage of select node typologies engaged in a single transaction by tranche, 1985-2019
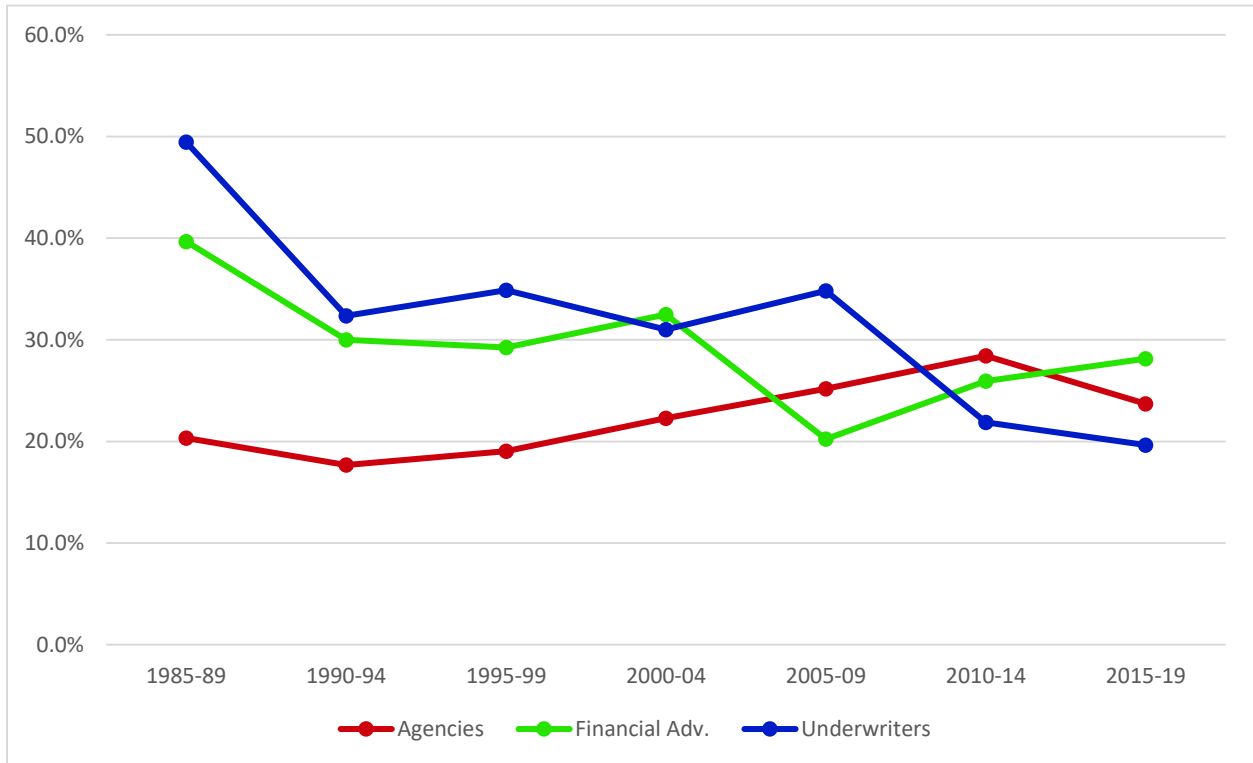
Returning to the graph, the modest increase in the unweighted network C value over time indicates a network with more evenly distributed connections. The unweighted network C value is quite high, given that my model prohibits certain links from forming at all based on their usual role in the bond issue process (ex. a city cannot work with another city on a transaction). This is likely at least partially an artifact of the limited number of trustee firms in the network, given that most bond deals require a trustee. Large, active borrowers which operate RFP models for contracting outside services also likely fostered triadic closure. These special nodes do not change from tranche to tranche, at least not much. The city of Los Angeles, for example, was a market leader in 1985 and continues to be a market leader today.

Nonetheless, the importance in the increase in this value lies in the consolidation amongst other types of financial intermediaries, as some key financial advisor and underwriter firms cornered larger and larger segments of the municipal bond market. Recall that unweighted network C measures triadic closure—two firms connected to an issuer, or three firms connected. As consolidation occurred,

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underwriters and financial advisors were more likely to see each other across the table at least once over a tranche of issues. I return to this below and explore how evenly divided these market captures are throughout the bond market in California.

Turning now to the hypothesis, the weighted network C value did indeed decrease substantially in the first time tranche after the Great Recession (recall that, for public agencies, recovery lagged substantially behind the private sector and well into the early 2010s). Taking the distribution of each individual node's clustering coefficient c from both the initial and final tranches, I compared the two distributions in a simple two-sample t-test. The difference is statistically significant—not surprising given its magnitude. I can reject the null hypothesis for H1: the decrease in firms has indeed led to a more uneven distribution of weights in the network to a statistically significant degree. Combined with my finding for network unweighted C, the overall bond network is more connected (meaning, actors are more likely to work together as a triplet on a bond deal) that ever before, but these interactions do not have evenly strong bonds. On average, some members of these interactions are getting cut out from repeated encounters.

Table 4.5: Results from two-sample t-tests for Weighted Network C, 1985-89 & 2015-19 tranches

Tranche	N	Mean	St. Dev	CI	t-value p-value
1985-89	746	0.151	0.011	0.014-0.016	21.97
2015-19	556	0.005	0.004	0.004-0.005	0.0000

Related to this finding of weighted network C, I also note a rapid increase in standard deviation between the two tranche samples (ie. 1985-89 and 2015-19) in the weighted δ values for individual nodes–from roughly 89 to 319. This large standard deviation again emphasizes the uneven nature of the distribution of tie strength in the network. A closer look at a few key values between the two tranches is instructive. In the 1985-89 period, the most times a financial advisor worked with an underwriter during

the period was 26 times (Fieldman Rolapp and Stone Youngberg). In the 2015-2019 period, the maximum number of interactions had become 98 (Fieldman Rolapp and Stifel, the successor firm to Stone Youngberg)—roughly more than one transaction executed between the firms in California every three weeks for five years straight (though admittedly the individuals involved doubtless varied between deals). Notably, Urban Futures Inc. (UFI) came in second highest (also with Stifel, 74 times), a firm which I discuss in greater detail later in this chapter for its special focus on low-income cities. Similarly, the most times a borrower worked with a specific financial advisor in the earlier tranche was 21 times (Los Angeles County with Caine Gressel). By the 2015-19 tranche, the highest amount of transactions had jumped to 60 (the City of Los Angeles and Public Resources Advisory Group)—about 12 times per year or once a month on average. Yet despite these large jumps at the higher end of the spectrum, the median number of contacts, or strength of edge, across the network between a borrower and a financial advisor barely changed at all between the two tranches, from 1 to 2. In other words, while transactions are becoming more concentrated for some select issuers, and particularly between financial advisors and underwriters, over 50% of the issuers in the California municipal bond market have barely increased their number of bond partners at all over the past 30 years and still work with them only infrequently.

Analysis

The number of firms working in California's municipal debt market is constricting. This process has accelerated in the post-Great Recession world. The most recent five-year period exhibited the smallest number of active firms in the field since at least the 1980s This constriction is not due to a lack of activity in the bond market—the 2015-2019 tranche displayed the highest number of municipal bond offerings for any five-year period in my analysis, with 3971 individual bonds put forward on the market. Less firms and more bonds should mean tighter connections between firms and municipalities, and between firms themselves in bond issue teams.

However, the above graphs and test show that the distribution of these ties has not fallen evenly across the network as a whole. Consolidation has led to some participants making stronger ties, while others are more loosely integrated into transaction-based triangles. This phenomenon is reflected in the network mean weighted C value. On average, entities are working together more often than ever, reflected in the dramatic increase in mean weighted δ, as expected given the rapid increase in transactions and the decrease in providers. Yet, many nodes in the network appear as relative bystanders, often just jumping into a single transaction with counterparties who frequently work together in other contexts.

Put in the context of transaction-fostered trust-building, there is an increased possibility for established trust in the network, reflected in increased successful partnerships. But many participants in the network, particularly issuers, come to the table without having built strong ties. In the process of borrowing, they collaborate with outside entities that are essentially strangers to them. Those entities, by contrast, generally do enjoy strong ties—with each other. In more concrete terms, an infrequent issuer might hire four outside partners in a bond deal. While the issuer technically sits in the driver's seat for the transaction, those four parties have a much richer and deeper history of working together in other contexts, without the issuer. Given the principal-agent dynamics at play in a bond transaction relying on outside financial services, this high degree of trust amongst previous collaborators, all agents, at the very least creates grounds for possible worse terms for the issuer.

Suppose a hypothetical transaction for a city like Bell Gardens. They city contracts with the financial advisor and underwriter for the deal. Yet, although the city is encountering those firms perhaps for the first time, those two entities work together repeatedly in other contexts, often with more important client issuers (as measured by the frequency and size of their transactions). These firms might even be working on multiple such transactions at the same time as they are working on Bell Gardens' deal. It is not too farfetched to imagine a dynamic where the optimal outcome for the two contracted parties, viewed in the overall context of their repeated encounters, might come at the expense of a small and relatively

peripheral issuer. This study does not show that cities are the only ones on the losing end of this dynamic. However, the majority of one-time issue participants were indeed issuers, most of them cities.

In an unexpected and interesting finding of this analysis, the mean unweighted δ of the networks has not changed, despite a decrease in firms and an increase in the number of potential transactions. Despite a smaller field of financial intermediaries, on average firms or issuers worked with 11 partners in 1985-1989, and work with 11 partners today over the course of five years. More transactions in the marketplace overall have not led to more partners, on average. This average includes substantial participation by heavy hitters like the City of Los Angeles, who borrow many times during a five-year period and do, in fact, work with a robust network of outside partners. Nodes involved in less interactions encounter the same number of partners today as in the past; the median δ value has also not shifted over time. With over 50% of the nodes being infrequent issuers, this shows that, for most cities, one type of outside firm for each function (which would give an unweighted δ value of 4) is more or less about right, with little incentive to change. This finding is striking, given that the median issuer engaged in three transactions, not one. The finding provides some evidence that most infrequent issuers are not engaging in holistic RFP processes on a per deal basis, and that some may even be aware of the dynamics discussed above and intentionally increasing their transactions, and thus their trust, with outside vendors.

The above social network analysis shows that a few expectations from a reducing field of partners have not necessarily occurred. In general, a network with fewer nodes and more transactions should show higher average weighted degrees. As expected, the mean weighted δ of the entire network increased, in this case by 172%. That sharp uptick outstrips the increase in the overall number of transactions substantially; the last tranche saw only a 38% increase in bond deals over the first tranche. In other words, one would expect the weighted δ of the network to increase, and indeed it did, but the increase of weights outstrips the increase in the number of transactions substantially. In the abstract, a weighted degree might

be a result of one of two dynamics: either stronger ties or the addition of new partners.[44] However, in this network, the finding of a static unweighted mean δ shows that the change in mean weighted δ is primarily a result of stronger network ties. In plain terms, contraction in the financial services field has not led nodes to partner with less counterparties on the average or at the median, but rather to work with the same number of counterparties at an increased rate.

Overall, these findings paint a picture of a network that is shrinking, but is shrinking in such a way that is not increasing the strength of ties for all parties involved. The findings demonstrate a network system in which multiple agents in a principal-agent dynamic can rely on substantial trust with each other. But these repeated interactions do not include infrequent participants in the bond market, the majority of them smaller cities, on the periphery of a social network of trust.

The following section looks more closely at connections between issuers and two specific types of outside contractors, financial advisors and underwriters, for a deeper understanding of the dynamics in those subsegments of the market.

Test 2: Do real world debt networks resemble random distributions?

My second test explores market fragmentation in the municipal bond market by looking to better understand how tightly interconnected networks are between cities and key outside contractors—financial advisors and underwriters. In order to do this, I use a completely different network graphs and different style of analysis. I constructed two weighted bipartite networks.[45] For each graph, I set node type A as the issuing municipality and node type B as a category of consulting firm which provided specific types of services: financial advisors for the first graph, and underwriters for the second. Once again, I weighted edges by the quantity of interaction in order to produce both weighted and unweighted metrics. A firm

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[44] Incrementally, a node's weighted δ value increases by 1 when you add a new one-strength edge to a new node, or when you add 1 strength to a pre-exiting edge.
[45] A bipartite network consists of nodes in two distinct classifications. Edges within classification are prohibited. In this case, an issuer cannot relate to an issuer and a firm cannot relate to a firm. Edges are only permitted between issuers and firms.

which partners with a specific city on six bond issues over the period of analysis would thus have a weighted edge value of six attached between the respective nodes.

To better analyze these networks, I created Erdös-Rényi style random graphs and compared them to my bipartite real-world networks to assess the degree of randomness in the real-world networks themselves (see Erdös & Rényi (1959) for a description of this common type of random graph). Unlike my larger network from Test 1, random model comparison is possible. As in all bipartite graphs, nodes of a feather cannot by definition flock together in my random networks. In this case, since there are only two types of node present, my random graph model will account for this factor.

The clustering coefficient statistics used in the prior tests do not serve bipartite networks for the simple reason that triadic closure is impossible. However, I can measure the bipartite clustering coefficient, which looks at density of connections by examining second-order neighbors. Instead of measuring the mean of this bipartite clustering value for the network as a whole, I measure a unique mean clustering coefficient for each type of node (meaning, on the one hand issuers, and on the other hand either municipal advisor or underwriter, depending on the network being analyzed), which allows me to compare how connected each category of participant is in the network.

NetworkX includes a bipartite clustering algorithm in the bipartite package. The algorithm draws from Latapy Magnien and Del Vecchio (2008), and focuses on the number of second-order neighbors of the same type that any given node has. In a network, first order neighbors are Type B nodes m directly connected to a given Type A node n by an edge. Second order neighbors for node n are all nodes of the same type (Type A) as node n connected to all of node n's first order neighbors. In a bipartite graph, where nodes can only connect by typology, all second order nodes are of the same type. In the case of this study, then, all second order neighbors of issuers are other issuers who worked with the same firm, and all second order neighbors of firms are other firms that worked with the same city.

In bipartite network analysis, by looking at the number of first order nodes a node n actually has in common with a second order neighbor m, put in a ratio over the universe of the total number of first order nodes that are linked to either of nodes n and m (or in other words, what the percentage of type-B

nodes connected to either of two type-A nodes do they share), you can determine how closely connected the node is to its second order neighbors the network. This is called the pairwise clustering coefficient. The equation to calculate the pairwise clustering coefficient is:

$$c_{nm} = \frac{|N(n) \cap N(m)|}{|N(n) \cup N(m)|}$$

Note that, unlike clustering coefficients for the open graphs above, a pairwise coefficient can only be expressed for two second order neighbors. Like other clustering coefficients, a pairwise clustering coefficient ranges from 0 to 1. A pairwise clustering coefficient of zero indicates that nodes n and m have no first order neighbors in common. In the case of the present study, two issuers with a pairwise clustering coefficient of 0 would thus have never partnered with the same financial advisor (or underwriter, depending on the graph). A pairwide clustering coefficient value of 1 indicates that nodes n and m share all first order neighbors. Again, in the present study this would mean that every financial advisor (or underwriter) used by issuer A was also used by issuer B.

NetworkX calculates the individual bipartite clustering coefficient for every node c_n in the graph using the following formula:

$$c_n = \frac{\sum_{m \in N(N(n))} c_{nm}}{|N(N(n))|}$$

where c_{nm} is the pairwise clustering coefficient between node n and a neighboring node m and $N(N(n))$ are second order neighbors of c_n. Put more simply, this sums the pairwise clustering coefficients for node n and puts that into a ratio with the total number of second order neighbors it has. I then calculated the arithmetic mean of c_n for each node type in my graphs, either issuer or outside firm. The mean, like the pairwise clustering coefficient, can vary between 0 (no type A node shares a first order neighbor with any other type A node) and 1 (*all* type A nodes n share all first order neighbors with all of their second-order neighbors m, so every c_{nm} is equal to 1).

For this assessment, I restrict my analysis to the past 10 years—2010-2019. I chose to use a smaller sample to more accurately reflect current activity in the California municipal bond market since I am interested in analyzing current relationships between municipalities and firms.

Although NetworkX contains several programed random networks, none are suited to weighted bipartite graphs. Classic Erdős-Rényi graphs generate simple non-bipartite graphs. I instead wrote my own python code to generate an Erdős-Rényi style unweighted bipartite graph. The user inputs n and m values for the number of each of the two types of nodes in the network respectively, and value E for the total number of edges in the networks. For example, in a network with 50 cities and 20 underwriters with 100 transactions, a user would input 50, 20, 100. The program randomly selects one from each type of node and adds an edge if none exists until E is exhausted. This program adheres closely to an Erdős-Rényi random graph but still respects bipartite division.

Note that by design the mean network degrees δ will be identical between the real world and random graphs, since δ is simply the ratio of two times the number of edges E over the number of nodes N. Since these variables are fed as constants into the modified Erdös-Rényi networks in my code, every random network will match the real-world network in these metrics. As such I only report results for the C values here.

I check the values in my real-world network as compared to the average of 100 random graphs, using the random network generator function I describe above. In this way, I can assess if my real-world graphs are outliers compared to randomly generated models in two bipartite clustering coefficient variables: municipality mean clustering coefficient (C_M), which will tell me if particular sets of municipalities tend to flock around specific consultants; and the mean consultant clustering coefficient (C_C), which will tell me if particular sets of consultants tend to flock around municipalities.

I hypothesize that real world debt networks are not random. If the RFP process were working as intended, then interactions between municipalities and consulting firms should be more or less randomly allocated. No single firm should get most of the work because market forces would discipline other firms to adopt and compete equally on subsequent issues. Overly strong ties between firms and some types of

municipalities, reflected in higher clustering coefficients, might indicate that something besides pure market forces are driving municipalities to select some firms over others. It would also indicate the importance of trust in networks between issuers and supporting firms. By comparing my graph to random graphs, I can tell how far certain types of relationships are from random allocation. A null finding indicates that consulting contracts are awarded randomly.

H2: The mean clustering coefficient for real world networks will be higher than random network models.

$H2_0$: The mean clustering coefficient of the real-world network is the same as random networks.

I predict the clustering coefficients C_M and C_C will be higher in my real-world network than in the random network, since I expect firms to 'specialize' in certain types of customers. However, this test will not indicate why these connections occur. I follow the graph analysis with a closer look into the underlying data to explore any patterns the network demonstrates. I note again briefly here that I perform this hypothesis test a total of four times. This portion of the study produces two graphs: issuers and financial advisors, on the one hand, and issuers and underwriter, on the other hand. For each graph, I assess the hypothesis for issuers (C_M) as well as for the graph's respective type of firm (C_F).

Findings

An analysis of the bipartite clustering coefficients for both municipalities (C_M) and consultant firms (C_F) in all four networks yields a few key differences. The real-world networks all exhibit larger bipartite clustering coefficients to a statistically significant degree, valid to an α of 0.001. I can safely reject the null hypothesis for H2—municipalities are not choosing their outside vendors in random fashion as would be expected from open bidding by vendors that that all have similar capabilities and are equally open to serving any issuers. Other forces must be at play, potentially including trust but also potentially including market discrimination.

Indeed, municipalities seem to cluster around specific firms in both categories more than random modeling predicts Tables 4.6 and 4.7 show mean graph bipartite clustering coefficients for each type of node in all four graphs, along with key statistical values from two-sample t-test analysis.

Table 4.6: Municipality and financial advisor clustering coefficient C values, 2010-2019

Municipality	N	Mean C_M	St. Dev.	CI
Real World	464	0.453	0.246	0.431-0.476
Random	464	0.291	0.012	0.290-0.292
t-value: 14.195 p-value: 0.000				
Financial Advisor	N	Mean C_C	St. Dev.	CI
Real World	106	0.136	0.189	0.099-0.172
Random	106	0.081	0.002	0.081-0.081
t-value: 2.982 p-value: 0.003				

Table 4.7: Municipality and underwriter clustering coefficient C values, 2010-2019

Municipality	N	Mean C_M	St. Dev.	CI
RW	464	0.271	0.169	0.256-0.287
Rand.	464	0.248	0.008	0.248-0.249
t-value: 2.922 p-value: 0.000				
Underwriter	N	Mean C_C	St. Dev.	CI
RW	85	0.085	0.065	0.072-0.098
Rand.	85	0.051	0.001	0.051-0.051
t-value: 5.281 p-value: 0.000				

Filtering by five key subgroups—cities with over 200,000 in population; cities with under 200,000 in population; cities in the bottom quartile of median income statewide; cities in the bottom quartile of white residents statewide; and cities falling into both of the two previous categories—yields interesting conclusions.[46] Larger cities (22 issuers in all, or 5.4% of the total numbers of cities in the

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[46] I note that, for this portion of the analysis, I dropped counties from the sample to focus on city borrowers.

sample) worked on average with 8.5% of the 51 financial advisory firms active in California over the time-period in question for a total of 1,099 deals (30.2% of all deals completed by cities in the sample). This averages to about 10 transactions per firm, or 4.4 financial advisors per city. Smaller cities (389 issuers in all or 83.8% of cities in the sample), by contrast, completed 2,539 bond transactions (69.8% of all city deals). They worked with roughly 3.3% of the possible firms on average—about 1.6 firms per issuer—completing about 4.7 transactions per partner on average. These ratios are relatively equal across all subgroups not over 200,000 in population.

Figure 4.9 shows the percentages of deals captured by specific financial advisory firms for each of the five categories of borrowers. The figure shows some important differences in borrowing style. Larger cities consolidate much more closely around financial advisor firms than smaller counterparts, with the top six firms attaining almost 75% of large issuer transactions. By contrast, the six most active firms in the smaller city segment captured only 57.6% of deals.

Small cities saw over 25% of deals captured by financial advisors who captured less than 2% of the small city market, many of them single transaction agents; in larger cities, this number dropped to 10% of the large city market. While consolidation is tighter for low-income cities or cities with high populations of people of color, it still comes in well below the consolidation levels in larger cities. The factors behind these respective market consolidations are not clear from these data, but I return to this theme in the following chapter.

Perhaps more importantly, the firms capturing the largest portions of the large city market are scarcely present in smaller city markets. For small cities, Fieldman Rolapp and Urban Futures Inc. (UFI) each took the top two spots for all three categories (meaning, small cities, low-income cities, and low-white cities), but for large issuers Fieldman Rolapp only took the fourth spot (11.2%), and UFI the 11th (2.2%). Similarly, the top two advisors for the large city market, CSG Advisors and Public Resources Advisory Group (PRAG), came in 10th and 14th in the small city group, collectively capturing only 4.4% of the small city market. Neither of these latter firms participated in a single bond deal for low-income cities, though CSG did capture 5.9% of deals initiated by cities with large populations of color. Most of

these deals came from two cities, Fontana and Ontario, both relatively large cities in the small city sample.

Turning to underwriters, again key difference come up in the amount of contact between firms and cities. Large cities on average worked with 20.5% of the 41 underwriting firms active in California at the time, about 8.5 firms per issuer. Cities under 200,000 in population encountered far fewer firms, working with on average only 6% of the possible underwriter firms—about 2.5 firms per issuer, with about 3 transactions per underwriter. Low-income cities encountered even fewer—an average of 5.2% of the 41 possible firms, or 2.1 on average—with an average of 2.2 transactions per underwriter. In short, small cities work with a smaller pool of underwriters, and engage in less transactions with the partners they do find. Low-income cities in particular come up even shorter in this regard.

Figure 4.10 shows parallel information to 4.9, for underwriters. The data is in some ways inverted from the previous one. While all city samples show roughly equivalent distribution of their bond markets among the top six underwriters, ranging from 56% to 62%, in the larger city sample this amount is spread much more evenly amongst the firms than in any of the smaller samples. This more even distribution among underwriters might indicate a more robust and competitive bond market for underwriters in the large city bond market. Note particularly that one single firm was able to attain 30% of the small city

Figure 4.9: Relative market shares of financial advisors by city characteristics, California 2010-19
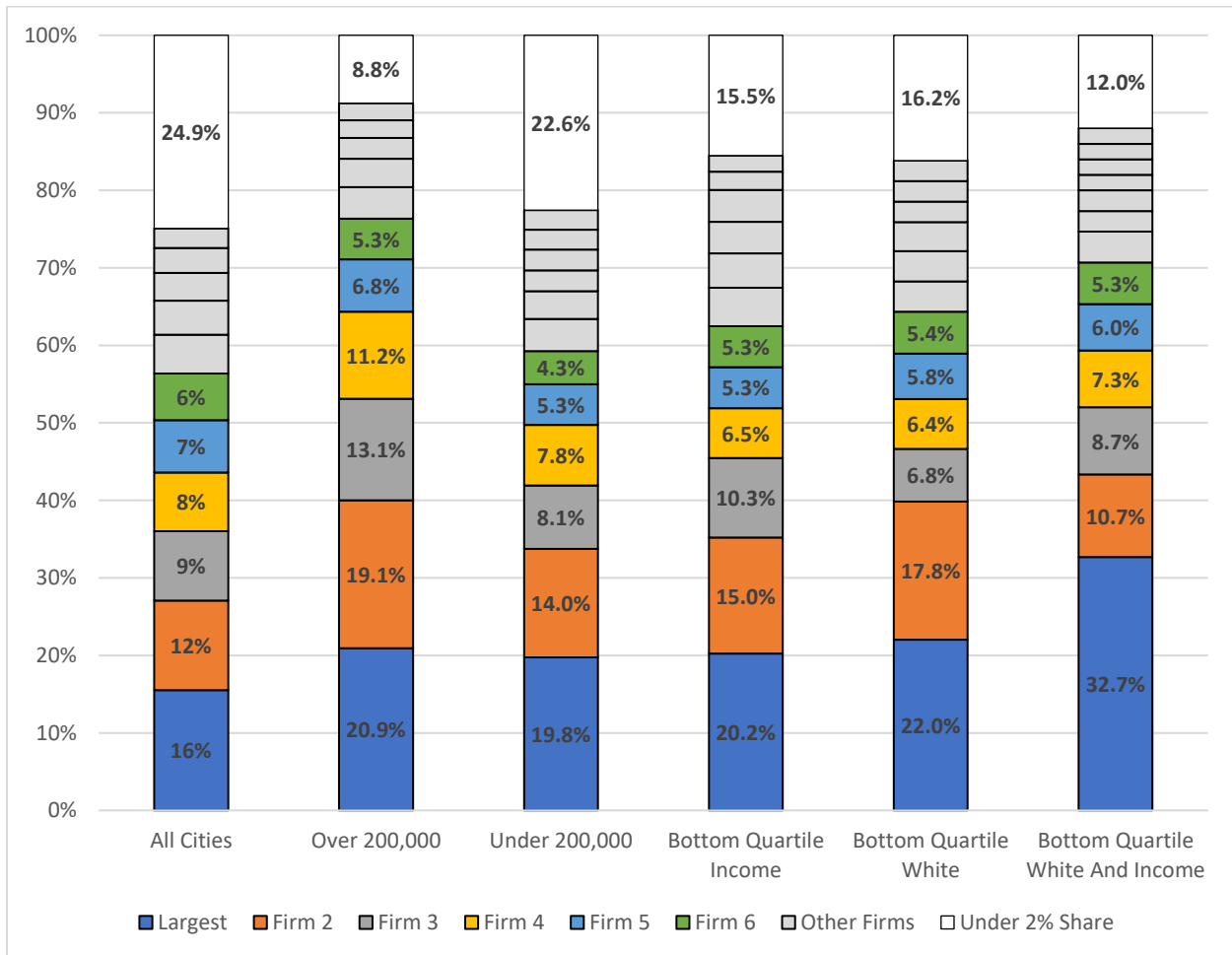
market, and 1/3 of the market for small cities in the bottom quartile for white population. This firm, Stifel, is also the largest firm in the large city sample, but there Stifel managed to capture far less of the total deals.

Looking further at individual firm participation again reveals market segmentation. While Stifel is the number one firm across the board, the next five firms for the large city sample (Citi, JP Morgan, De La Rosa, Merrill Lynch, and RBC respectively) are all active in the small bond market, but only De La Rosa cracked the top six firms (in fifth place, one notch below its spot for large cities). However, only one of these five other firms participated in any transactions in low-income cities: again De La Rosa, which was

Figure 4.10: Relative market shares of underwriters by city characteristics, California 2010-19
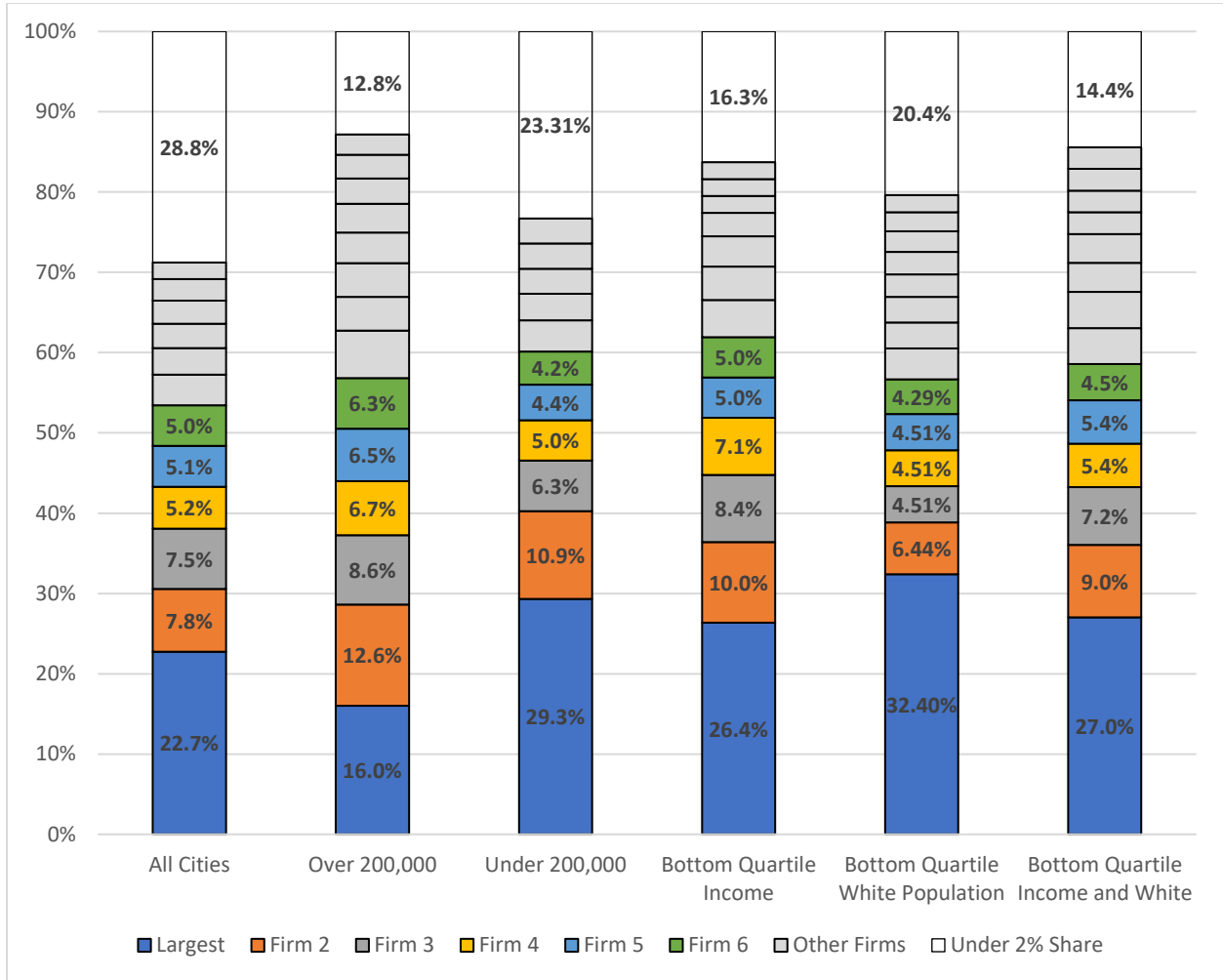
the seventh largest firm for both the low-income and low-income low-white resident city bond markets with approximately 4.5% of each market, two percentage points lower than its share of the large city bond market.

Figure 4.11 shows another version of this data in a social network graph. As in the above social network graphs, this figure routes all bond transactions linearly, starting at cities, moving through financial advisors and on to underwriters (or, in the absence of a financial advisor, connecting a city directly to an underwriter). The figure has been simplified by removing financial advisors and

Figure 4.11: Simplified graph of bond transactions by select issuers in California, 2010-19
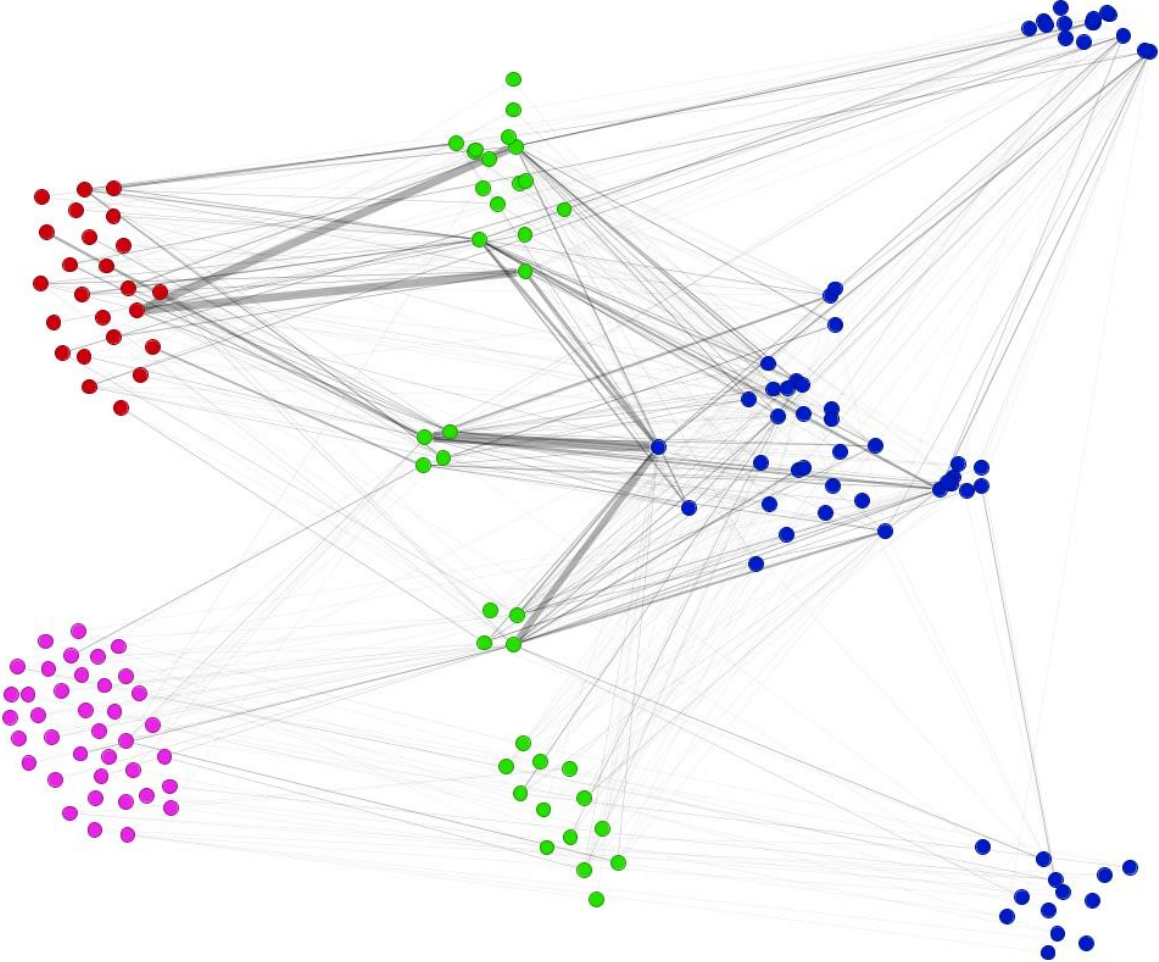
underwriters which engaged in only a single transaction. I have also simplified the data by only projecting nodes for cities in two major categories. For the first, all large cities (over 200,000 in population), agencies are represented by deep red nodes. The second category, cities under 200,000 in population which are in the bottom quartile for both median income and the percentage of white residents for California, are represented by pink nodes. These latter agencies align with the Struggling Cities of Pastor's (2013) classification scheme which I have loosely adopted for this study. Financial advisors and underwriters are represented, as above, by green and blue nodes respectively.

The graph does not exactly show two completely distinct pathways for issuers to access end bond purchasers, which would indicate two entirely distinct bond markets. But it also does not exactly show a common market, either. Large cities and disadvantaged cities shared only 8 financial advisor firms over this ten-year period in California. A large number of these transactions through the shared advisors filtered through a single underwriter, Stifel, the node located roughly in the center of the graph with thick edges connecting to it from both sides of the common pool. While many transactions did pass through these intermediaries in common, many did not, routed instead through larger pools common to each issuer classification. The two types of issuers saw move overlap with underwriters, the cluster of blue nodes in the center of the graph. But each also had somewhat distinct pools of underwriters who were, seemingly, uninterested in transactions from the other classification of issuer.

In other words, while these cities are working in a common market for end investors (or so we must assume; sadly, as noted above, information on bondholders is kept anonymous with ferocity, see Hager 2016), for the most part they are moving through different channels to get there.

Another feature of this graph shows tighter links between disadvantaged cities and their financial advisors. A casual glance at the graph might overshadow this, since the weighted edges are thicker for large borrower by virtue of their more frequent bond transactions. Ties between larger borrowers and their financial advisors differ in this visualization from their Struggling counterparts in two key respects. First, the ties are spread more widely between green nodes. Most larger issuers worked with multiple financial advisors during this period, though a few exceptions exist. Second, the ties are typically stronger than

smaller cities. But they are also, roughly, as strong as ties between financial advisors and underwriters. In some cases for frequent issuers, they are indeed substantially stronger. The same cannot be said for Struggling nodes in this chart. Struggling nodes do not by and large enjoy the benefits of working with multiple nodes (visualized in that the degree between pink and green nodes is smaller than for most larger issuers). But they also enjoy substantially weaker ties than their larger counterparts, or than between the financial advisors they contract with and the underwriters that they contract with. In other words, almost all financial advisors in this bond market serving Struggling cities enjoy stronger ties with underwriters than with the cities they represent in the borrowing process.

Analysis

Real-world bond networks cluster very differently than truly random networks, with network metrics indicating some clustering of firms and cities into communities. Part of this discrepancy stems from the presence of a small number of frequent borrowers, larger agencies like the city of Los Angeles or city of San Diego which frequently interact with the bond market. But several other aspects also have shifted real-world networks away from random networks. This flies in the face of the expectation of a truly random distribution of links that might be expected on a truly open and competitive bond market.

First, cities seem to congregate around specific firms, working with them repeatedly over multiple transactions. This might be evidence that bidding for financial services during a bond transaction is not a fully-competitive RFP process. It might also be indicative that some firms simply have little interest in working with certain cities—a form of market discrimination. Or it might indicate untoward connections between outside firms and city government, as in the case of Beaumont.

And indeed, the firm-to-city evidence later in this section does seem to indicate that, while some firms like Stifel are comfortable working with anyone, underwriters and financial advisors by and large seem to shy away from roaming outside of their core constituencies. Rather, many firms have a tendency to congregate by city type. The difference is especially stark between large frequent borrowers and Struggling cities, which I defined here as cities falling into the bottom quartile for both median income

and white residents in the state of California. While it is an exaggeration to say that these two groups of cities access the bond market through entirely different channels, it is fair to say there is not a lot of overlap between the two worlds, certainly nothing approaching the truly random allocation expected in an unstratified market. Only a select few firms operate with both kinds of clients. These data do not indicate whether those patterns reference firm preference or some other issue. But the differences in outside partners might be evidence of some of the mechanisms for racial difference within the bond market, exacerbated by the relative financial precarity of a city.

Another key finding is that smaller cities, and Struggling cities in particular, have on average far weaker bonds with their financial advisors compared to their larger city counterparts. In addition, those advisors in turn generally have stronger ties with the underwriters which they work with than they do with the Struggling cities that hire them. This is a result of the fact that Struggling cities do not, by and large, issue debt very frequently, while financial advisors and underwriters are in the business of debt transactions and as such are very frequent participants in the market. But it also has important ramifications for trust, to return to a core theme of this chapter. In an industry where all parties acknowledge that trust is key, if one takes the view that stronger ties (meaning, more frequent interactions) play an important part of trust-building, cities that borrow infrequently begin to take on a more marginalized role in the market rather than playing a central one.

The ties in the above networks are weighted by frequency of interaction—a reasonable choice given I seek to assess that exact metric. But an argument could be made that the total dollar value of the interaction has as much impact on familiarity as does frequency. To pose a hypothetical situation, an issuer which routinely borrows in the hundreds of millions of dollars range will be a more important client to outside firms than an issuer with infrequently borrows in the tens of millions of dollars range. A changed perspective on tie weights would doubtless favor large issuers, who issued 30.2% of all city deals by transaction, but 68.6% of all transactions as measured by dollar volume. While this study concerns the role of trust increased by frequency of partnership, absolute dollar values at stake doubtless play into

individual calculi around the wisdom of taking advantage of a client. Further studies might explore the dynamic by adjusting weight for dollar value.

Conclusion

When Bell Gardens decided to issue a municipal bond in 2015, they would not have been able to partner with certain underwriters other cities like Los Angeles, or even Calabasas, might take for granted. We do not know if Merrill Lynch, who underwrote both the Los Angeles and Calabasas deals that same year, made a bid to underwrite the Bell Gardens debt. But we do know that Merrill Lynch did not underwrite a single bond for any struggling California city in any of the five years preceding or following Bell Garden's 2015 issue. We also know that Bell Gardens, proportionally, paid more for their eventual underwriter services than either LA or Calabasas.

Similarly, the advisor Bell Gardens used in the 2015 issue, Magis Advisors, did not work with a single large issuer over the course of its brief life in the California bond market, unlike the financial advisor used by Calabasas which exhibited a diverse clientele of small and large agencies. And Bell Gardens contracted with an underwriter, Cabrera Capital, which also performed no transactions with larger cities in the state. In many ways, Bell Gardens was acting in a distinct market from the other issuers of the opening cases.

In this chapter, I showed that over the past 25 years, the California bond market exhibited increased interactions between borrowers and outside firms providing financial services, but that these interactions are not spread evenly between user types. This is not merely a reflection of a smaller number of firms active in the financial services sector, though that has clearly played a part. Even with a smaller pool to draw from, cities have remained relatively static in their relationships with outside firms over this time frame, working with on average the same number of outside partners today as they did 25 years ago, despite an increased frequency of borrowing, thus reinforcing and the stronger ties that come with repeated interaction.

The second test of this chapter showed that the transactional networks formed between cities on the one hand, and either financial advisors or underwriters on the other hand, bear little resemblance to randomly generated networks. Again, this is partially a feature of large borrowers, who are more active in the municipal bond market than their smaller counterparts. But it is also evidence of other factors at play, and shows that any RFP processes cities are using the select outside partners are not evidencing responses one might expect from a truly open and competitive market.

A closer look behind the data shows that the municipal bond market is compartmentalized, though not strictly segregated, with some firms partnering with specific city typologies, and eschewing other segments of the market. Large cities seem to have a more varied distribution of underwriters than smaller cities, closer to a random draw. Smaller cities, for their part, are seemingly more comfortable, or at least resigned, with going their own way and working with smaller firms that are scarcely active in the municipal bond market in California. But these patterns do not repeat for disadvantaged smaller cities, which in the aggregate favor (or are limited to, the direction of causality is not clear from this data) working with specific firms that have cornered their markets, particularly by UFI for financial advisor services, and Stifel as the underwriter. These firms each control roughly one-third of the California Struggling City bond market in their respective realms.

As repeated interactions between financial advisors and underwriters become the norm in a more compact market, the role of issuers in the overall network of the market has changed. Some issuers, by virtue of their frequent presence in the market, have multiple interactions with particular financial service firms, especially advisors. Others, because they borrow only infrequently, engage in transactions as a relative outsider, bringing on multiple outside support partners which typically have substantial experience working together, and a high likelihood of encountering each other in the future, but with limited possibility of working with the issuer again in the immediate future. If interactions are building trust, some issuers are left out of this loop, operating in a trust based marketplace with only relatively weak ties.

For Struggling cities in particular, which operate in a constricted marketplace and issue debt infrequently, these forces can compound. Cut out by some larger financial institutions by market discrimination against smaller issuers, they operate in a subsegment of the market with some overlap with larger issuers, not entirely excluded but certainly not entirely mainstream either. These borrowers have little opportunity to build trust through frequent interactions, but work with other parties that routinely collaborate.

The next chapter will seek to make sense of this data. Interviews with city finance officers, financial advisors, and underwriters about their activities and perceptions of the municipal bond market provide data behind these numbers about how relationships between cities and firms are made, fostered, and broken over time, and how structures behind deals reflect the relative position of issuers in a semi-segmented marketplace.

CHAPTER 5

Communities of Risk and Structures of Debt

In Chapter 3, I showed that race matters for the terms of credit a city might get on the municipal bond market. In Chapter 4, I showed that the race and income of a city's residents also matter for access to the market, particularly to specific financial advisory and underwriting firms. I argued that the frequency of inter-firm interactions, compared to the relative rarity of interactions with small agency issuers, created strong bonds between firms but left bonds between small agencies and contractors relatively weak. This chapter examines a few possible explanations for those discrepancies using interview data from the people most intimately connected to the market: city finance officers, and the financial advisors and underwriters who help them to borrow money.

The role of trust is key in the municipal bond market. Financial advisors in particular, but to some degree underwriters as well, are trusted by issuers to provide deals in a market with opaque pricing and difficult to compare transaction outcomes. Cities use multiple structural arrangements to connect to financial service intermediaries with the private sector and deal with this problem of trust, depending on their size, financial capacity, expertise, and local needs. Yet I argue that the structure of these arrangements have deep implications for how cities build up trust with their advisors, with Struggling Suburbs coming out with the most tenuous relationships with financial services intermediaries.

People who work in the municipal bond market were generally unreceptive to the idea that race plays a determinative or causal role in the terms of credit, but rather believed that race correlated to worse terms for a variety of reasons. These stories, for the most part shared by participants, help provide an explanatory discourse about cities who fare worse when they borrow money. The discourse places the blame squarely on borrowers rather than on the racial capitalist system they navigate when they borrow money. It paints cities as riskier borrowers because of perceived instability, and as more susceptible to

elected officials' interference with the financial professionals who are presumed to be the experts. However, these explanations fall flat faced with data.

Instead, I propose here that the discourse serves a valuable role in concealing something far more unsettling—that the municipal bond market is itself a creator of racial difference. While they use the discourse of corruptibility, incompetence, and instability as a smokescreen, underwriters and investors are able to generate additional rents for themselves at the expense of disadvantaged cities, by virtue of their control over the capital needed by those cities.

The above is not to say that core differences do not exist. Cities which are Struggling, to return to the typologies I proposed in the introduction to this manuscript, relate to the financial market through vastly different structural arrangements than other cities. These cities are already pre-disposed to fare poorly due to financial actors' perceptions of elevated risk mentioned above.

Above all the structural relationships Struggling bond issuers use with outside contractors, which follow market logics in form, typically fail to build, and to build on, the relationships of trust that tend to facilitate better financial transactions. This differentiates smaller Struggling Suburbs from their other small city brethren, which build trust through long-term relationships. Rather, Struggling cities structure their relationships much like the largest and most active issuers, by relying on and adhering strictly to market logics. But unlike for larger issuers, market participants have little incentive to provide the best deals because of the infrequency of market participation. The resulting structural arrangements most commonly used by Struggling Cities privilege ties between financial advisors and underwriters, at the ultimate expense of the cities which use them. When these cities' finance officers play by the rules of 'best practices,' they lose.

This chapter will provide evidence of these claims, using data from a series of interviews with key actors in California's municipal bond market. I first briefly explain the data and methods I used in this study. I then pass to a discussion of the discourses used by market actors to explain the reasons cities with

a large share of people of color receive, on average, worse terms when they borrow. I then refute each argument one by one.

I then pass to a discussion of the structural arrangements cities use to contract outside advisory and banking services during a municipal bond issuance. I find that these arrangements vary drastically by city typology, with low-income cities having the shortest-term arrangements, particularly with financial advisors, a key intermediary between cities and bankers. These arrangements exist because of a strict adherence to market logics in a less than competitive arena, and a lack of resources to seek outside expert help.

I close the chapter with a brief discussion of the findings, and some proposals for a future research agenda.

Data & Methods

This section of the dissertation uses data from a series of interviews with city finance officers, financial advisors, and underwriters. Interviews were semi-structured, and most lasted approximately one hour in length. All interviews were one-on-one, with one exception where I interviewed two city staff together, at their request. All interviews were conducted via Zoom or phone call.

In all, I performed 23 interviews: 12 with city staff, seven with financial advisors, and four with underwriters.

Obviously, 12 interviews are by no means representative of the entire population of cities in the State of California, 482 cities in all, most of them at least infrequently involved in bond transactions. I selected cities semi-randomly, based on a set of criteria to ensure a distribution between the city typologies I lay out in the introduction. These typologies lie on a spectrum and are artificial lines, at any rate; no study could be absolutely universalizable because every city is unique in some way. Nonetheless, I argue that they serve my purpose adequately, and I selected candidates for interviews with an attempt to

pick cities which indisputably fall into the typologies I have laid out, avoiding borderline cases. The reader can be assured that the big city staff I interviewed work for major cities with household names, regional hubs with major league sports franchises and airports. The Wealthy suburb finance officers I interviewed work in some of the wealthiest communities in the nation, household names in themselves which the reader would doubtless recognize. Struggling suburban finance officers I interviewed work in cities that are far from household names, but all fall within the bottom quartile for income and White residents in the state. Growth suburbs are growing quickly, nitro boosted by frequent Mello-Roos bonds.

In all I approached 40 city finance officers with requests for interviews, starting with roughly half of this number. As I completed interviews, I assessed to make sure I was representing all of the city typologies I desired, and added outreach which met my selection criteria to supplement and ensure variety of typology as well as by size and geography. In the end, I spoke with nine subjects from Southern California and three from Northern California. Two subjects worked for major cities in the state, two for Growth suburbs, three for Wealthy suburbs, one for a Working-Class suburb, and four for Struggling suburbs. One of the latter was a small suburb geared towards industrial rather than residential zoning but which would best be classified as Struggling based on its residential demographics. Another was a Historically Black suburb, though the demographics have shifted such that it is no longer a Black majority city.

By contrast, although I only spoke with seven financial advisors, the firms they work for make up a substantial share of California's municipal bond market. These seven firms captured 45.5% by dollar value, or 46% by absolute number of issuances, of all city municipal bond transactions where a municipal advisor was reported in the state between 2010-2019. The firms covered from above 10% to under 1% of market share each. Some firms were California specific, and others national in scope. Some specialized by issuer size (either for large or small) and others did not.

My sample admittedly under-represents the smallest financial advisory firms in the state; most of the firms I interviewed were industry leaders although two were smaller, one of them very small.

However, many of the smaller firms that were active between 2010 and 2019 no longer exist, making interview subjects challenging to find at best. For better or worse, subjects self-selected for participation, I did reach out to eight additional potential interview subjects without response. Nonetheless, despite the relatively small size of completed interviews, I feel comfortable arguing these represented a fair and reasonable sample of firms active in the region's bond market given the market share covered and the variety of firm typologies.

Bankers proved far more challenging to recruit for interviews. In the end, I interviewed only four underwriters, the only respondents to the over 60 inquiries I made. This low response rate is not surprising, given the bankers' relative reluctance to speak on the record. The firms these individuals worked for together captured only 8% of the state's bond market between 2010-2019. Two subjects worked for major household name Wall Street firms. The other two subjects worked for a MBE firms, one large and one smaller. Additionally, one of these MBE-employed subjects had also worked extensively for non-MBE firms in the past. Although the sample is less than representative, response details did not vary substantially between subjects, and ultimately the low response rate forced me to accept what I was able to garner.

Upon completing interviews, I transcribed interview recordings and hand-coded them for thematic commonalities and divergences.

Findings

The Problem of Racial Difference, Risk, and Instability

Regardless of sector, interview subjects were almost universally skeptical of a causal relationship between the race of a community's residents and the terms that community would receive from the municipal bond market. Only one respondent argued that some kind of overt mechanism of racial difference might exist in credit markets. This subject, a municipal advisor, put it succinctly:

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I think racism is very much front and center, having done some deals for [a mid-sized historically Black suburb] paying a premium over what they should, given their credit rating, because of their market perception. And market perception is not necessarily their fiscal reality, but they get penalized, right?... The bond market is pretty much a white man's club, so this does not surprise me.

Most respondents, however, felt that some other exogenous factor was primarily to blame for the differential terms communities of color faced when they borrowed money. Their explanations fit, broadly speaking, into three categories: an exogenous correlation between race and a more determinative factor, such as property tax base or average household income; a community's underlying political and social instability; or elected officials interfering in administrative processes, motivated either by legitimate economic development objectives or by untoward pressure from unscrupulous firms. Respondents also argued that determinations for credit rating were likely unrelated to those for the interest rate or the underwriter's spread, with the latter two metrics closely linked.

In Chapter 3, I have already debunked the exogenous correlative argument. Race, independent of property tax revenue, median household income, or pre-existing debt burden of a community, has a distinct and unique-unto-itself correlative relationship with the credit rating a community is likely to receive, the interest rate a community will receive for their borrowing, and the fees that community will pay. Multiple other academic studies from a variety of disciplines have backed these findings up. Although this explanation was a commonly expressed belief amongst interview subjects, I will not grant this argument further credence in this chapter given the extensive evidence produced by scholars debunking it.

The other two arguments, however, deserve a closer look. Why are these stories of instability and interference told by the financial services sector, and by municipal finance officers themselves, so pervasive and powerful among actors in the bond market?

'Risk' is the specter hanging over all discussions of the municipal credit market, but the importance of risk and the symbolized behind the sign, to borrow from semiotics, change drastically depending on who is discussing it. City finance officers, across 12 interviews, mentioned 'risk' 19 times—12 of them in just two interviews, with the balance appearing generally alone or at most twice per interview. Financial advisors mentioned risk 15 times across seven interviews, a slightly higher rate. Underwriters, by contrast, mentioned risk 43 times across four interviews, a notable increase over their two counterparties.

The difference runs deeper than mere frequency of occurrence. When municipal finance officers discuss risk, they often frame the idea in a pithy way. Take, for example, this quote from a finance officer from a Southern California Growth suburb: "Sales tax is based off the economy and its going to be a little more riskier [sic] than, say, utility revenues." Contrast this to underwriters, who describe risk as an almost living and breathing entity. From one underwriter, describing why he transitioned from underwriting to banking within his financial institution: "I was in my mid to late 30s, I guess. I got tired of taking risk, of going home with risk every day. It starts to wear on you."

For underwriters, risk, or more specifically the mitigation of risk, is a part and parcel of the act of underwriting. The trick to being a successful underwriter is to mitigate as much risk as possible. The same underwriter quoted in the above paragraph explained his job thus:

> *What an underwriter might try to do is make sure that the bonds are completely sold, are*
> *evenly sold, and have no risk of [the bank] walking out of the transaction owning bonds.*
> *That's really what the underwriter is trying [to do]. An underwriter is trying to find the*
> *balance between the best interest rate they can provide the issuer and not having to take*
> *risk on the transaction by underwriting bonds that are priced too high, or have too low of*
> *an interest rate to sell.*

This underwriter is saying that mitigation of risk is one of the key factors behind the calculus in an underwriter's pricing of a bond. At the end of the day, an underwriter must find buyers for a bond, or they are stuck with holding it in their own financial institution's investment portfolio until a buyer can be found. The longer they hold the bonds, the more likely interest rates will change and the instrument will be at a disadvantage. For smaller underwriters, they may even have to access lines of credit of their own to purchase the bonds, incurring interest payments out even as they receive interest from the issuer. Offloading bonds through sales must happen at near light speeds, compared to the 20- or 30-year lifespan of the bond. One underwriter said: "Generally, an underwriter does not want to carry unsold bonds more than a day or two. Generally. Market risk is market risk. We're not in the business of taking market risk, unless we need to support the client, or unless we want to take the risk." The underwriter is saying here that they will only be willing to take on risk for clients when the value of the relationship outweighs that risk, emphasizing again the key role of relationship building between underwriters and agencies.

In this framing, the bond itself is an almost toxic thing, and the underwriter's sole job is to unload it at the highest possible markup, but above all with maximum speed. Underwriters see themselves as taking on this undesirable risk during the transaction, albeit for as short a time as possible. To them, their markup and fees are compensation for that risk, not payment for the service of finding buyers. Another underwriter put it:

> In general, if you look at underwriting spreads, on a percentage basis, you'll find that the underwriting spread is higher for higher credit risk underwritings. It makes all of the sense in the world. If you have a higher risk, and you are underwriting that risk, the fee should be higher… I think of fees being higher for higher risk. Because… typically the bonds are sold, but at the end of the day you are signing a purchase agreement to buy those bonds. And you may have some secondary understanding that investors are going to buy them from you, but until you close those bonds, and transact them and have sold

them, you have to underwrite them. And so higher risk is meaningful to us. Higher risk

equates to higher fees.

This idea of risk contrasts sharply with the idea that risk behind bonds is a risk of default—of bondholders not being repaid. The risk, for underwriters, has little to do with repayment (the municipal bond market, it bears repeating, experiences defaults extremely rarely), it has to do with ability to sell and offload a product onto investors in an expedient fashion so as not to get stuck with a long-term asset paying a fixed interest rate.

Similarly, risk for investors is the risk of illiquidity of the bond, generally for one of two reasons. First, if interest rates rise (or for that matter even expectations about future rates rise), a bond from a period of low interest loses its yield compared to other possible investments, and thus loses its appeal as an investment instrument vis-à-vis newer bond issues and commands a lower price as a commodity on the secondary bond market. Second, if an investor owns a bond from a community perceived by the market as inherently risky, they may have challenges in selling the instrument to other buyers, some of whom even have institutional guardrails against purchasing low-rated bonds. The risk here is not so much a risk of default per se, but rather a risk that the market will *perceive* the bond as intrinsically unreliable or risky, despite the vanishingly small probability of an actual default.

Shifts in interest rate, or in the bond market overall, might make a bond a less desirable instrument. All parties are aware of this risk. Regardless of role, interview respondents universally viewed this macroeconomic risk as largely beyond their control. One city finance officer from a smaller middle-class city told a humorous anecdote about market shifts:

We had to take [the bond] at a regularly scheduled [city council] meeting, and the city

clerk screwed up and didn't notice it. So I had to wait an extra meeting [to get my vote].

In the meantime, Brexit happened, which freaked out the markets and [interest] rates

dropped even more. PO'd as I was at the city clerk, I was like, 'huh, you actually saved

us a couple of hundred thousand dollars by making us wait.' We timed it right where the

interest rates dropped even more. I tell that story because, like, how do I predict the

market?... Events like that, you have zero control over.

Underwriters in particular are sensitive to market shifts. Minute changes in interest rates can change a potential buyer from a yes to a no exceedingly quickly, so underwriters expressed the actual time of issuance of the bond as one of substantial uncertainty. The risk can only be mitigated by last minute adjustments to the interest rate or spread, a common occurrence in bond transactions.

The second locus of risk stems from investor interest. Investors by and large do not know communities when they issue debt. Investors thus view these communities as inherently risky, rendered so because of unknown qualities intrinsic to the issuer rather than any quality of the debt itself or even the likelihood of repayment, which all parties by and large agreed is exceedingly high in the municipal bond market. Investors know they will almost certainly be repaid. They are less sure, however, that they will be able to sell the instrument and continue to treat it as a relatively liquid asset.

For most financial services providers, credit ratings are best understood as assessing, and thus mitigating, this risk rather than the risk of actual default. Credit ratings are best understood as a reflection of how both risky investors should perceive a community as being before purchase, and importantly, how liquid the debt will be on the secondary market should the investor decide to sell it at a later date. A financial advisor explained it like this:

> *If you are an investor in New York, let's say. And you want to buy bonds in California.*
> *You wouldn't know if school district XYZ, located somewhere inland, you don't know*
> *anything about it, right? If you have the time, you could go to their website, try to look at*
> *their financials. But that's just one investment. You have so many other investments to*
> *make. And so you don't have the knowledge or the ability to check personally every*
> *potential investment out there. That's why you rely on the rating.*

Rating is, I think of the basic economic foundational theory—higher risk, higher return.

The lower the rating, the higher the risk. So for you, as an investor, that's a signal that if

its lower rated or non-rated, I need to expect a higher return on my investment… As an

investor, you may buy and hold the investment, but you may also want the ability to sell it.

And having the rating allows a broader base for reselling your investment.

I highlight this quote because the financial advisor is arguing that some intrinsic quality of the community, not the debt itself, is the source of risk in the transaction. For this financial advisor, credit ratings agencies assess the factors of risk which make up the community, and form them into easily digestible coded markers, legible to investors on the primary and secondary bond markets.

It is important to take a step back here and acknowledge that this is, somewhat, overstating the issue. The stability of the stream of resources underlying the bond, of course, also plays a substantial role in determining the riskiness of the bond. This is fairly intuitive: a municipally funded flea circus would likely have a less stable revenue stream than a municipally owned electric utility, say. The phenomenon also came across clearly in the regressions I used in my analysis of Chapter 3.

Nonetheless, the security of the bond's collateralized income is not the sole risk factor. The community itself also generates risk, by merely existing. This perception of risk varies from community to community; the true relative security of an income stream generally does not. For example, whether a municipally-owned water utility operates in a wealthy or a poor community, people need to drink water to survive; as such, the revenues from the utility are more or less a sure thing. The people themselves drinking the water, however, may appear quite different to the credit market in an assessment of risk.

Credit Ratings Agencies and Instabilility

The main function of credit ratings agencies, then, is to take the unknown about a community and package it as risk via a supposedly neutral opinion using common data markers for all assessed agencies.

In Chapter 3, I went into some detail explaining the criteria ratings agencies use to calculate the riskiness of the community as a whole. I will not rehash that discussion here, only to point out that my regressions show some of these purported factors (like property tax base) are less important than agencies themselves claim, and some factors they ignore (like race) do matter. But a more important and larger question arises here. What makes a community seem risky to a credit ratings agency?

City finance officers almost universally indicated that they felt they had some degree of control over the city's credit rating, despite the vagaries of macroeconomic trends. Regular financial reporting, accuracy in reports, well-established fiscal guardrails, and long-term economic planning were all reported by multiple interview subjects as key factors in their credit rating. But the idea of a city's 'stability' also came across as a key factor. One finance officer from a Struggling suburb of Los Angeles with a fairly lurid history of municipal corruption said:

> *What could be a factor could be [sic] the stability of the team, the behavior of their governing body, those I can see as being a contributing factor. Because when I went through interviews with the rating agency, those are things that they talk about—the turnover, how long has the city manager been there, is the council open and willing to work with you. If you say something different [than reality], those [city council] meetings are all televised or they are on the city's website… S&P did their review [of our city] this year and came back with a two notch increase in our rating because they recognized the fact that [our city] has changed. Management has been pretty stable.*

This officer felt that the credit rating agency was concerned with a stable, calm, orderly, and generally non-raucous city. Any sign to the contrary would be a sign of risk. This idea of 'stability' as a core aspect of creditworthiness and instability as a marker of risk came across in several other interviews with both finance officers and financial advisors.

It is true, to return to the cases from the introductory chapter, that Bell Gardens arguably had the most 'instability' of the four issuers, at least as measured by relative tenures of its finance officer and city

manager. This change in leadership might have been a deciding factor for the city's drop in credit rating, and as such led to worse terms in other areas as well. Bell Gardens also had the misfortune of being geographically proximate to several cities which suffered corruption scandals, though Bell Gardens has not. These factors might make the city seem risky to investors. But it is not at all certain what a concept like stability actually means in a local public sector marked by high turnover in administrative states generally. How much turnover, precisely, makes a city unstable? Does the situation behind the turnover matter, say a termination by city council versus a routine retirement?

It is also worth pointing out that Beaumont experienced extreme instability immediately following the 2015 issue used as a case in the introduction—its city manager and finance officer dragged off in handcuffs—yet only suffered a one notch downgrade in credit rating. Viewed against a high turnover environment like that at Bell Gardens, it is hard to take the idea of turnover alone as an indication of instability as a marker for creditworthiness seriously. And when it comes to corruption, Beaumont had an in-house case whereas Bell Gardens only had neighbors with scandals.

It's also worth pointing out that tenure and stability do not always play out in an expected fashion. A trope is that citizen volunteers serve on city councils in small cities, and career politicians from a more sophisticated political class in larger ones. Yet, due to California's laws governing local government agencies, smaller cities occasionally have stability in their elected bodies ranging far beyond their larger counterparts, aided by a lack of term limits. One finance officer explained that he felt his city council was probably far more sophisticated about municipal debt than their counterparts in larger neighbors, because some members had served on the council for 22 years and thus experienced many bond deals firsthand.

To return to the ratings agencies themselves: in their stated criteria, agencies universally express some interest in the way a local government is run. Moody's, in its GO bond rating scale, allots 20% of its overall credit rating to the 'Management' category, split down the middle between 'Institutional Framework' and 'Operating History.' Each of these markers is ranked at the same value as median family income in Moody's overall assessment of a city's creditworthiness (Moody's 2019:18). The latter seems

to refer to the ratio of operating revenues to operating expenditures, in other words, is a city living within its means—arguably more a fiscal marker than a governance one. Moody's explains the former in terms of the agency's strength of the 'legal ability to match resources with spending,' a far cry from seniority of administrative staff. Rather, this refers to a city's willingness to properly, in the eyes of the credit rating agency, allocate revenues towards permissible or preferred expenditures. S&P also gives 20% to 'Management,' with 'Institutional Framework' allocated an additional 10% (S&P 2013). And though Fitch, for its part, does not quantify its assessment criteria, 'Political Risk' and 'Management Practices' do appear on its list (Fitch 2023:4).[47]

If institutional framework is the area where 'stability' is captured, Moody's guideline seems to refer to a simple question: can these people be trusted to responsibly spend money? This perceived quality, by contrast to meeting reporting guidelines or presenting realistic (and reasonable) long-term financial plans, is much harder for a city to change. A municipal finance officer from a small borderline Working Class primarily Latino suburb put it this way:

> *Part of that [our rating] is just the stability. And part of what I've realized [in my current city] is that there's still… some of the analysts [wondering] how stable we are. And again, its not like we're going to go belly up. We're not going to declare bankruptcy. But in the analysts' world, there's some distinction that [our city] is not quite ready for the AA- because, you know, who knows? It's interesting. Our pension obligation bonds have a specific property tax override amount in addition to the 1% property tax that people pay, that can only be used for pension costs. So our pension obligation bonds are backed 100% with that. Which to me, that issue alone should be a AA+, easily. That's got a guaranteed, voter approved revenue. But, we're [our city]. If we had that and I was in [another, wealthier Latino city] just down the street, I'd have a AA+, not a problem. I*

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[47] The reader can find the detailed assessment tables in Appendix 3.1.

don't think it's the ability to pay. I think its in the context of 'That's great, you got that

voter approved property tax revenue that backs it 100%. But you're still [your city].'

The finance officer is arguing here that no matter what decisions he makes, or the city council makes, credit markets have always already saddled the community with a pre-existing perception of risk even before the bond deal comes to light. This risk is continually and repeatedly codified by credit ratings agencies—a service, it is worth adding, that the city pays dearly for.

The connection between race and risk in consumer credit markers is well documented in previous studies, see Chapter 2 of this dissertation for a more in depth review. But studies have less to say about communities of risk and the ways in which risk is built into those communities. For the financial class closest to investors, communities are risky or are not risky. That risk is expressed through the concept of instability, an ill-defined but catch-all category which gives leeway to raters to lower a community's rating when that community does not seem quite right.

This perception and codification of risk, then, is one channel through which racial difference is created, manifested, and baked into a community. The credit rating a community receives determines the terms of their credit—the cost to borrow, or put another way, the cost to fulfill communitarian dreams through the local state. By framing risk of a community as stemming from instability, the investor community generates additional rents for themselves in the form of higher interest payments. Underwriters, for their part, generate higher fees, again via the perception of risk. These tactics impose a different risk onto the communities themselves—risk that their credit may not be sufficient to merit similar public goods to their neighbors. Racial difference leads to higher rewards for investors.

Unlike consumer credit scores which are based on algorithms, credit ratings are individualized assessments generated in the context of a discussion between the rater, the agency, and a secretive committee which ultimately approves the final output. As such, a city can push back against an unfounded perception of risk. Some cities and financial advisors reported doing so. One financial advisor reported:

We will run our own credit assessment using S&P's methodology to the best of our ability, and we try to find some comp to do that… There's a bulk prospectus and you walk them [the credit ratings agency assessor] through the financial conditions and the policies of the city, where I've seen them kind of compare one agency to the other in the hopes of getting the rating that they're [the credit agency] using as comp. I've actually seen that. I've seen that play out where it works that way. Obviously, I can't tell you the internal discussions they [at the credit ratings agency] are having, like, 'hey, we gave so-and-so a AA, we've got to give these guys now one.' But its kind of an effective way to present is. Like, 'hey, using your methodology, here's what you gave this agency. We've applied it here, and we've come up with the same criteria.' Doesn't always work, but I have seen where it's been a pretty effective argument.

This finance officer is arguing that the best way to push back against credit ratings agencies is to reference your peers. In other words, a substantial part of the rating, according to this advisor, is related to what generally the market is out there evaluating other comparable agencies, as much as some absolute value intrinsic to the community itself. Where, then, does this leave cities whose peers and comparable agencies are also fiscally disadvantaged?

In short, it depends on the size of the issuer. City staff from larger cities reported relatively close relationships with credit raters. Take this quote from a major city's debt desk manager:

For us, because we're frequent issuers, we are always engaged with our rating analyst. So when you build a relationship with your rating analyst, I think it really goes a long ways. You build trust with them. There's a lot of information that we give them, and say 'this is confidential, you can't share this, you can't put this in the report, but I'm going to give you more color as to why this is.' Because they see something in the news or whatever, when you build trust, when you're open with giving information, and you trust them back to not reveal that information in a report… And so you could really influence

them on that part of it, to kind of convince them 'you should wait six months [before

shifting our outlook], these are the things that we are doing to bring our financial health

back in place.' And you know, they may wait and see, basically. Give you the benefit of

the doubt, if they trust you, if you've been consistent with your information that you've

protected them.

The debt manager went on to discuss how agencies viewed her city as a key client, and even took steps to ensure that the agency assigned analysts to the city which the city felt comfortable with. The relationship becomes one of trust, built up over a period of time with frequent interaction between the debt manager and the ratings analyst.

No finance officer from a smaller city described a similar relationship to the credit ratings agency. Finance officers at the Struggling cities I interviewed tended to frame their relationship with the credit ratings agencies as trying to please them in an ultimately futile game. One finance officer from a mid-sized Struggling community of color indicated: "I wouldn't say we can convince or make a case for an upgrade by telling them, 'hey, we're doing all of these things.' But based on [doing certain] actions, your credit rating may change." Or, from another smaller Struggling industrial community:

It's a matter of need, right? So [maintaining a good credit rating] is a top priority of any

city treasurer. ... It's just like someone asking you how worried are you about your credit

score? You're going to do everything within your power to make sure that you maintain a

high credit score. You are going to do everything within your power to make sure you

make right decisions, hopefully.

These quotes reveal a willingness to self-discipline, and even going to extreme lengths to do so. Contrast that quote to this one from a municipal finance officer from a Wealthy suburb:

There's underlying fundamentals, like the assessed property values of [our community],

the property values, the luxury nature of the retail, the high end hotels. Individually, I

don't have, obviously, any particular influence there. But regular financial reporting,

meeting deadlines, responding to ratings agencies when they have questions. They

usually annually come back with surveys or very specific questions about certain deals.

Continuing disclosure requirements, meeting those.

This finance officer also has a clear list of tasks. But the tasks largely refer to building a relationship with the ratings agency—establishing trust through the sharing of information—and complying with financial tasks in a timely fashion. That falls in sharp contrast to going to extremes and hoping for a better outcome. Struggling cities reported hope where their peers reported trust.

To recap, instability as a descriptive marker refers not to a community's politics or even its practices, but rather to perceived intrinsic qualities of the city itself and its residents. Credit ratings agencies evaluate this as a political will to spend money appropriately, though what constitutes appropriate is not clearly outlined or explained. A perception of failure on the part of a community might be from an actual practice. But it also might happen just because a community looks like other communities already deemed risky, through the use of comparable cities in the evaluation process. Larger cities have some room to push back on these assessments, by virtue of the frequency of their offerings and thus their relative importance as a client to credit ratings agencies. But they also can push back because of trust, built up with frequent interactions with credit ratings staff devoted to that city and other major borrowers. Smaller cities have no such luck. Here, communities are saddled with the hands they are dealt, and can only opt for extreme self-discipline in the pursuit of higher ratings, which may come to pass but also may not.

'Going Political' and the Selection of Contractors in Racialized Communities

I now turn to another common explanation for the disparate terms faced by minority residents— that communities of color, knowingly or unwittingly, bring higher costs upon themselves by selecting

contractors using criteria besides strict market logics. This explanation was primarily put forward by financial services providers, not city officials (unlike discussions around risk which were more broadly shared). The explanation also was primarily used to explain higher issuance costs and higher interest rates, rather than the credit rating a city might receive.

The argument unfurls something like this: cities with high proportions of people of color are more likely to select minority business enterprises (MBE) which match the demographics of the residents in the community. Explanations varied as to the motives for this selection: a few subjects explained the dynamic as a sophisticated economic development gambit, though most painted the dynamic as, essentially, a bamboozling of city council by unscrupulous underwriters. Generally, the story goes, MBE firms attempt to influence the decision process, often by circumventing professional staff and intervening directly with elected officials to encourage hiring an MBE over a more qualified or less expensive firm. Financial advisor subjects almost universally described this process, the circumventing of the city's bureaucracy, as 'going political.' Similarly, subjects described some cities which they viewed as pre-disposed to selecting MBE firms, as 'being political' in the selection process.

'Going political' was universally decried by financial advisors, who tended to view approaching city council or mayor's offices as beyond the pale of appropriate relationships. Like many negative behaviors, 'going political' was attributed to other firms; no financial advisor I spoke with admitted to speaking to city council without a representative of the city's administration, and several described going to great lengths to avoid such interactions. It was always portrayed as an action other, less reputable, firms might take. Take, for example, this quote from a financial advisor who worked at a firm specializing in large issuers:

> I think there are firms that kind of get political, but we don't. We don't deal with the
> politics, as a general rule. And they [city councilmembers] are generally not the
> decision-makers. The decision-makers, at least for our side of the business, are usually at
> the CFO/Department of Finance kind of level. Or debt manager… Most places have

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pretty strict procurement goals, and so they have a selection committee and they'll rank and score each of the candidates and select in a way that's pretty transparent. But there are people who obviously have the strongest voices in the room, as it probably should be.

Or, from another firm with a more generalist approach to advising:

From our perspective, we try to stay out of the politics because we don't want to be—we have a rule at [our firm]… if a councilmember calls us, which is very rare, we usually wouldn't talk to the councilmember directly. We would go through our city contact, the finance director.

Just as no financial advisor admitted to 'going political,' most agreed that underwriters were far more likely to attempt to 'go political' and circumvent RFP processes. One financial advisor put it succinctly: "Some of these underwriters are very political, and they bypass finance and they just go to the mayor, the city manager, someone else. City council. And so then, depending on the organizational structure, sometimes they are brought in. The finance officer or we have no say in that." A few municipal finance officers who had worked for multiple cities reported a similar dynamic. "I've found it challenging when… in order to move forward you needed to involve several underwriting [firms]. It could be political pressure sometimes to loop in a smaller firm back in the day." Or, a debt manager from a larger city reported:

I would say we're more sensitive with [selecting] underwriters [than financial advisors] because… bankers tend to complain more. Every single one of them thinks that they deserve to be selected on the deal. There's only so many deals we do, there's only so many spots there are. And so to avoid those type of complaints and them going above me or my group and start complaining to other people above me, we really stick to a RFP process and stick to what you have written on paper. They love to bring the politics involved, you know? Sometimes they even go to councilmembers and try to make their case… Not all of them are like that, but you've got your handful that will make your life difficult.

The process of 'going political' could be quite dramatic. One financial advisor reported a brief anecdote:

> *I have seen, and its unfortunate, that Black communities or Hispanic communities that want to engage a financial team that resembles their community, for example. I have seen where they pay more. It's kind of sad, actually. I mean, I've been in a meeting where a firm came forward and said, 'hey, you know, we think we're a better fit for you as an underwriter, we're a Hispanic firm.' And they're usually more politically engaged, for one. And they make it difficult for staff to do their staff job, because they are politically engaged… I've literally been in a council meeting where an underwriter has been added to a deal, at a council meeting. We've had one, and they [the city council] were like 'We want to add another one.' Its usually a minority that wants in, a minority firm. And it comes from a councilmember.*

In stories like these, financial advisors paint a picture where communities of color bring unfavorable terms upon themselves by 'being political' and failing to adhere to putatively race-blind market logics—selecting an underwriter based on racial or ethnic kinship instead of price or qualifications. Those cities reap their just desserts in the form of higher costs of credit.

The term 'going political' thus explicitly refers to the act of circumventing an implicitly expert and neutral administrative staff and their selected, also presumably neutral, outside consultants (the financial advisor) and appealing directly to directly elected representatives of the community. The result of 'going political' may be an overruling of bureaucratic expertise in favor of an interpersonal connection between individual councilmembers and the firm which had 'gone political.' Importantly, the role of race is always implicit in 'going political.' As described by subjects, the selection criteria used to justify overruling a presumed bureaucratic expertise is entirely a racial or ethnic one, with MBE underwriter firms playing the perpetrator and incompetent (or corrupt, the two are on a spectrum) councilmembers playing the rubes. The symbol of 'political' thus has two signifieds—the overruling of bureaucratic expertise, and a racialized failure to adhere to market-based logics.

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The use of MBE firms was not universally portrayed as a negative thing. One underwriter from a non-MBE firm argued:

> *I don't have a sense of high correlation between appointment of MBE firms and any particular thing, except for that it feels like the more frequent an issuer you are, the more likely you are from my perspective to take that into consideration. So California is an entity that uses a lot of MBE firms. The City of Los Angeles uses a lot of MBE firms. Those are not small. They're not primarily minority cities or states. But they are some of predominant users. I think its driven by sophisticated goals associated with business development.*

Similarly, a financial advisor who works primarily with larger issuers argued:

> *It may also be that a more ethnically diverse city is also really trying to make sure they are spreading the wealth around among smaller firms as well as larger firms. You probably see many of these firms that these cities have very specific diversity goals. They may be making conscious decisions to just pay folks more, because these are underrepresented firms, small firms... So you'll see in some of these situations that there are actually designation policies that actually require all the managers to be designated or try to fairly distribute takedown income so that it's not all in the pockets of the big firms.*

These superior motives were only attributed to larger issuers, though it is worth pointing out that the City of Los Angeles does not indicate in its RFQ for underwriters any preference for MBE firms (City of LA 2021). Indeed, the city cannot lawfully do so as a result of California Proposition 209, as the city's debt manager has pointed out in media interviews (Webster 2022).

Subjects tended to paint the process of favoring MBE firms in smaller communities in a less flattering light. Some concerns surrounded an underwriters access to institutional investors, with smaller

firms less connected to Wall Street less able to effectively place bonds at competitive interest rates. One financial advisor who focuses on small cities said:

> *I wouldn't say that smaller issuers are unsophisticated, it depends on who they are. I mean, some are... There's certain places with lots of change, lots of politics... I don't think institutional investors or a bond underwriting desk care much whether the issuer is a Black community or a white community. But I think what they do care about it, how political is a city... I think that plays a role in, maybe, some of the differentials... And I would also say, and it depends on the place, but some of those communities are very political on who they are giving assignments to and what underwriter they are using. So if they are going to give all of their business to a minority firm that doesn't have the same distribution or trading capacity, just because they are a minority firm, they may not get the best deal because of that.*

Another financial advisor recounted a specific story about a transaction they worked on in a Struggling Latino suburb. The city council, over the recommendations of the administration and the financial advisor, selected a MBE underwriter to handle the transaction. That underwriter was unable to sell all of the bonds, and indicated concerns about underwriting them in-house. In the end, the city had to bring on a second underwriter to successfully place all of the bonds. This story, as it turned out, was legendary, in Southern California at least; several other subjects mentioned the situation as a cautionary tale.

These financial advisors paint a picture of local officials, both electeds and administrators, who do not fully understand municipal bond markets and who might be susceptible to outside influence. That influence might be overtly corrupt. Or it might be simply because the smaller underwriter firm was unable to effectively market the bonds and lacked sufficient resources to underwrite the issue on their own. But either way, the nature of the municipality as a civil institution is ultimately to blame, to some degree. Simply by existing and attempting to engage with financial markets beyond their depth, these cities end up susceptible to exploitation. And unsophisticated elected officials being 'political' by engaging with

sophisticated financial services firms, particularly bankers, results in worse terms and higher costs of credit than relying on advisors.

The discourse of unsophisticated city councilmembers was not restricted to financial advisors. Though most city finance officers were circumspect about criticizing their own city councils, a few hints or more overt comments revealed a certain disdain for elected officials in the context of council forward governments.[48] One finance officer from a mid-sized Struggling suburb said:

> *That is always a challenge, to educate the city council about fiscal management,*
> *including bonds, municipal bonds. That's not the only area that is complicated for the*
> *councilmembers or the politicians, I think. I won't speak about non-financial areas, I'll*
> *stay within my lane and talk about financial management and council education, and*
> *about how much there's a gap given that all of our positions here, council positions,*
> *elected officials, are volunteers. They are not full-time politicians. They have their own*
> *jobs, in their own industries, and all of that… I think that the reputation, the branding of*
> *the city, is one part [of why we get worse terms]… I do believe that, in my opinion, the*
> *way that city council conducts themselves, its not very helpful to recoup the branding of*
> *the city.*

Or another finance officer from another Struggling Latino suburb:

> *Southeast LA County—there's a reason why the [cities in this area]… have made,*
> *financially, not the best moves in the past 10 to 15 years.[49] We get picked on. We're small*
> *cities… Maybe we have elected officials who aren't quite sure how to be an elected*

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[48] In California, cities by default are council-manager governments, with typically a five-member city council and annually rotating mayoral position. This is in line with the state's generally populist-era constitution. Though some cities in California do have directly elected mayors, they typically are at-large councilmembers with little in the form of unique administrative powers. This includes some of California's largest cities, like Sacramento, San Jose, Santa Clarita, Chula Vista, and Long Beach. Only five cities in the entire state of California have directly-elected mayors who are independent of city councils and act as the head of administration: Los Angeles, San Diego, San Francisco, Oakland, and Fresno.
[49] Southeast Los Angeles County is full of Middle-Class, Working Class, and Struggling primarily Latino communities, including Bell Gardens.

official. And they get preyed on. I've unfortunately dealt with some underwriters who maybe aren't the best—this has nothing to do with their ethics, they just are not the best suited. But they have an in. And next thing I know that's the underwriter we're using.

These finance officers express a lack of faith in the elected officials who govern their cities. Urban administrators in general have trended towards a skepticism of the motives of elected officials in recent years. The International City/County Management Association (ICMA), the professional association for chief administrators including city managers, instructs its members to think of city councilmembers in this way:

> *The characteristics and attitudes of members of governing boards have changed. Typically council members, particularly in council-manager cities, have been viewed as trustees who were concerned about the well-being of the entire community and who served from a sense of civic duty. But in the early years of the twenty-first century, more council members are activists who seek to tackle particular problems. It is still true that almost all council members have a desire to serve the city as a whole, but increasingly they also serve particular neighborhoods and promote specific projects and interests.*
> (ICMA 2004).

Even in their education, then, administrators are told from the jump that their own elected bodies may have more suspect motives, and that elections in local democracies might lead to minority or populist interests rather than the interests of the community at large. How could a reasonable administrator expect some local firebrand, elected to deal with a specific community concern, to understand the complex machinations of the global financial sector? I do acknowledge that these views were not universally shared by finance officer subjects; many indeed emphasized that their city councils often had members who had served for decades and were fairly accustomed to topics related to municipal debt. But they were limited to the Working-Class and Struggling cities that I interviewed.

To recap, racial difference is created through the municipal bond market in several ways: a perceived market risk channeled through underwriters, an overarching discourse of instability, and a stratification in the degree of government professionalism that translates into variation in the quality and caliber of underwriting firms available to cities. Yet there is a structural angle to the creation of racial difference, as well.

Structures of Debt Management

Putting aside the question of race for a moment, smaller and larger cities deal with some of the issues behind debt management distinctly. The biggest single difference between larger cities I interviewed and smaller ones was the presence of a debt management team. In short, larger cities have dedicated debt staff, smaller ones do not. Across the board, suburban finance directors have to figure out how to navigate the global US municipal bond market without dedicated in-house expertise in those markets. Finance officers are very aware of this dynamic. Cities have adopted distinct structural relationships between the cities and the financial advisor, and to a lesser extent with the underwriter, to mitigate their in-house lack of expertise. These structural relationships vary substantially by issuer. I turn now to some of the structural issues faced by issuers, and the arrangements they use to mitigate those concerns.

Big Borrowers and the Debt Desk

In California, large core issuers maintain stables of debt managers, either within their finance department, their treasury, or their chief administrative office. These civil servants are dedicated directly to the debt process from start to finish: identifying the most optimal channels of capital finance for the city given the city's overall financial picture, executing debt transactions, and following up on existing debt obligations through financial disclosures or, when optimal, refundings. This debt desk, typically a

team of multiple bureaucrats, acts as an in-house font of expertise who can make independent assessments on the quality of any proposed terms involved in a municipal bond transaction.

It is important to stress that even debt desks seek outside counsel before issuing municipal bonds. All of the largest cities in California use financial advisors for bond transactions. But the relationship is structurally managed in such a way as to limit the role of the advisor.

As discussed in the case involving Los Angeles in the introductory chapter, most large issuers maintain pools of financial advisors. While specifics vary by issuer, in general the pools work through a two-step process. The city first issues an overarching request for qualifications (RFQ) process, which allows advisors who wish to enter bond pools to submit their qualifications for review by the debt desk. Once authorized, the advisors sit in the pool until the city elects to issue a bond. At that time, the debt desk selects a qualified advisor to assist them in the specifics of the transaction. Generally, the debt desk has pre-determined that a municipal bond is the preferred manner of meeting a capital need by this time. The role of the advisor, then, is restricted to building the bond team and providing another evaluation on any terms presented by the underwriter, including the structure of the bonds involved in the transaction, the interest rates, and the underwriter's compensation and spread. The city's debt desk picks an advisor, either by selecting based on pre-existing knowledge garnered from the RFQ and past transactions, or by demanding an additional request for proposal (RFP).

The debt desk simultaneously keeps a pool of underwriters through a similar RFQ process. For negotiated transactions, subjects reported selecting underwriters through an RFP in the second stage of selection, again once they had determined the parameters of the transaction. In cases where a competitive bond is judged to be optimal, any underwriters in the pool can bid against each other for the right to underwrite the transaction and the city selects the most optimal offer. I personally witnessed one such selection while working as an intern with the City of Los Angeles Debt Management division of their Chief Administrative Office. Underwriters submitted their best offer to an on-line site, and representatives of the city's debt desk, along with staff from the city attorney's office and the financial advisor, watched

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the offers come in via a dedicated internet portal. Because all underwriters submitting bids had been pre-judged to be qualified via the initial RFQ, an algorithm within the portal allocated each bond series within the overall offering to whichever underwriter came in with the lowest interest rate and spread, calculated together to optimize the overall terms of the transaction for the city.

This arrangement favors city staff's in-house bureaucratic expertise and minimizes the role of outside contractors. In the case of underwriters, the role is extremely mitigated, particularly in competitive transactions. For their part, financial advisors assist city staff, but are not central to the transaction. Figure 5.1 shows a schematic of this arrangement.

Figure 5.1: Schematic of a Pool Arrangement
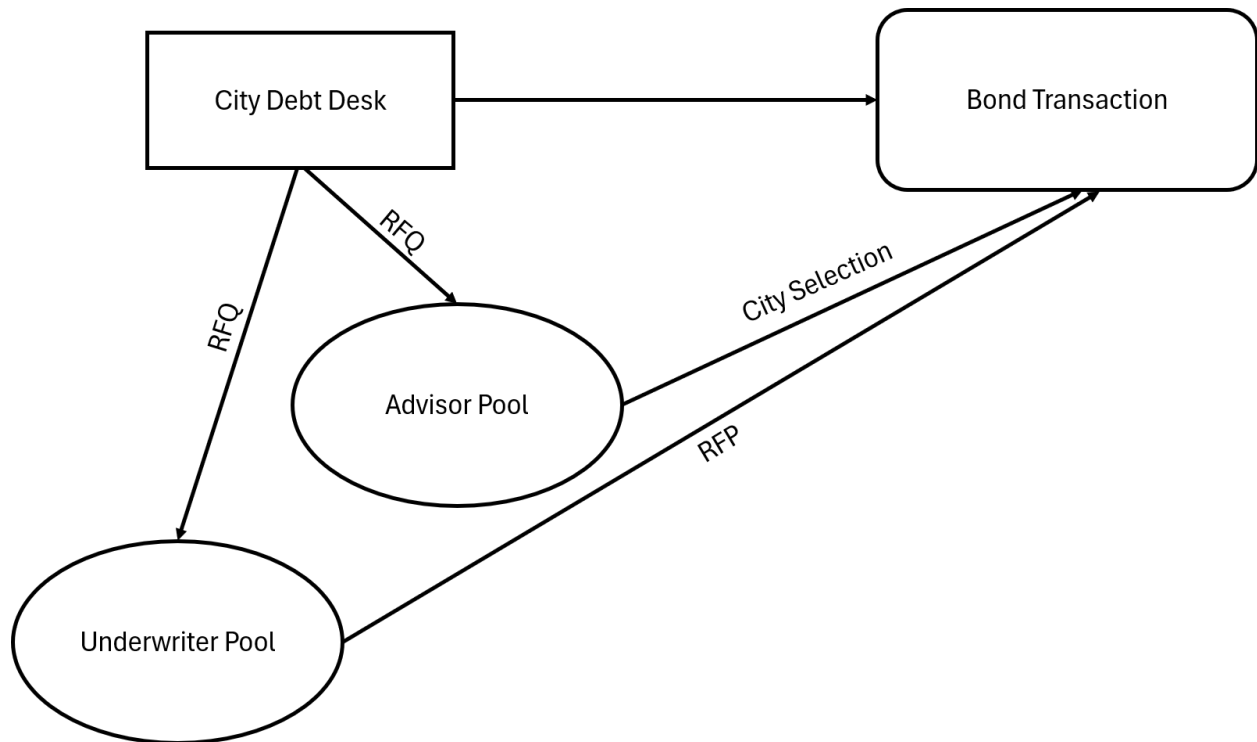
Most financial advisors did not like this arrangement. One financial advisor said:

It's [the pool model] this really weird hybrid, where they want us from a technical perspective to kind of stay in that narrow lane, because they don't need us to solve their pension problems, they don't need us to solve their budget problems, they only need us to help them issue debt… The fact that they've got us in the pool, in my mind… is a little inefficient, because you're effectively singing for your supper every time they need something [in the second tier RFP process].

This financial advisor preferred a system where they were in an advisory capacity, rather than merely contracted out to provide a second set of eyes and independent evaluation on terms presented by underwriters as being at market prices. The system of multiple checks within the city's system also created additional labor costs within the outside firms, because they are not compensated to participate in either the RFQ or RFP processes demanded by the city client. Smaller financial advisors in particular felt this process was undesirable, and even potentially disadvantaged them. One advisor, from a very small firm, who worked almost exclusively with mid-size and smaller clients, said:

One thing about larger clients, when I work on a bond issue [with a smaller client] I usually have control over the entire process. Whereas in a large client situation, it's a very large group. You're part of a very large team of service providers. And everybody has a status, and you are more of a player. You are sort of one among many providers, and so forth. You're really not in charge, of anything [laughs]. You are really more of a functionary, I guess… in large transactions, you have your role, but you have a much lower profile, much less discretion. You are feeding into a bigger picture.

…

It's very rare that I would ever get hired on an RFP, maybe once or twice but almost

never…. Usually its not as a result of any kind of formal process. I mean, if they're going

to do an RFP, then I probably wouldn't be the likely candidate to be hired anyways.

Another small firm advisor reported difficulty even breaking into municipal pools at larger agencies:

Things are very political in a big city… I think the bigger issuers are way more political

in that [the selection of vendors], not all of them but certainly a lot of them, have more

career bureaucrats… I think for the bigger issuers… that's totally political, who gets

hired in those places. That's a whole other thing. That's career staff people who have

their own agendas. The finance officers in sort of medium and smaller cities, they're not

invested in who the underwriter is, usually.

This financial advisor from a small firm, frustrated about his inability to crack into some larger issuers pools, even expressed this frustration resorting to the 'political' moniker, where a decision which did not include his firm getting the work must be the result of some sort of interference with a neutral process. The underlying expectation, then, is that 'going political' should not even be an option in larger cities, and if it does manifest, it does so via staff preference rather than meddling from elected officials.

As perhaps expected, the prevalence of and dynamics of a pool model have led to increased market specialization in both financial advisors and underwriters. On the financial advisory side, a handful of firms have changed their models to provide only the barest bones operations to larger issuer clients, ranging from state governments to highly populous cities and counties. These financial advisors do not tend to approach their relationships with their contracting cities holistically, but rather focus on gaining access to individual bond issuances. Unlike counterparts which focus on smaller issuers, these firms tend to be national in scope, viewing, say, New York City as a peer of Los Angeles, San Francisco, or San Diego rather than more geographically proximal agencies. By handling a large number of bond issues from frequent issuers, and by focusing on dynamics of strong mayor governments, these agencies are able to maintain a substantial market share from the nation's largest state and local issuers.

Yet it would be an overstatement to argue that trust does not matter for large issuers, particularly when it comes to the financial advisor. Although financial advisors do take on a back-seat role in large-city bond transactions, finance officers from large cities expressed that successful prior experience with a financial advisor was key in the selection process—not in the pre-qualification stage where firms get into the pool, but rather at the second tier when the transaction was about to take place. Financial advisors respond by preparing tight bids and stripping down outside proposals, but also by doing the best job they can in the hope of getting selected from the pool for the next transactions, typically only months away.

For underwriters, the logic is more about economies of scale. Large issuers issue large amounts of debt, frequently. These are prime targets for underwriters, since underwriters are commonly paid on a percentage basis through an underwriters spread. Even a proportionally smaller percentage of a massive bond is more than a larger percentage of an issue one order of magnitude smaller. For example, 1% of a $100 million dollar bond is $1 million dollars, whereas to get the same amount from a $20 million dollar bond the underwriter would need to bid at 5%—a challenging prospect in a highly competitive field where price matters. While the larger issuance does take more work in placing the bond, basic costs of bidding for and calculating the terms of the transaction are identical. In addition, the relative name recognition of the issuing client (which, again, tend to be large and well-known issuers) and larger distribution networks make marketing the bond to investors relatively easier.

As such, in the underwriters' world, large issuances tend to be dominated by major banks that can use their economies of scale in their trading desks and that can afford to underwrite any failures to sell the bonds. Smaller boutique firms tend to focus either on smaller cities, or on large issuers which include them as secondary or tertiary underwriters on a large transaction because of ownerships characteristics like MBE, WBE or VBE status.[50] Unable to underbid major firms like Goldman Sachs, Bank of America,

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[50] WBE stands for Woman-owned Business Enterprise. VBE stands for Veteran-owned Business Enterprise.

or (until recently) Citi,[51] these smaller firms have to carve out individual niches within the overall bond market to survive.

Larger firms enjoy an additional advantage when it comes to large issuers—a diversification of possible roles. A major financial institution takes on many roles in the banking market; indeed, the municipal bond desk tends to be a fairly small part of what a major firm like Bank of America or JP Morgan do. An underwriter reported that some major issuers would prefer his firm over competitors because of other services the bank could provide in other contexts:

> *A client will say 'we're hiring you because you've done a lot of really great work for us in other things besides municipal bonds.' And some people want a different service from the bank, and so sometimes my job is about mobilizing the resources of other teams in the bank to produce that value for clients, where the end result is us getting hired for a bond transaction.*

This quote reveals something about being able to provide multiple banking services to a firm, but also about the role of trust, which primarily manifests for large issuers through multiple transactions—possibly even beyond the municipal bond market.

The dynamics of market segmentation shown in the social network analysis of the last chapter are primarily a result of these factors. Some large underwriters, like Stifel, have an appetite for debt at any size. But most larger underwriters tend to circle around big fish, leaving the myriad of smaller agencies for their smaller competitors. Several subjects reported that large underwriters and the financial advisor firms which work with larger clients, understanding the key importance of relationships, would have even have individual dedicated staff assigned to key large issuers, places like the State of California or the City of Los Angeles. In this way, the issuing agency could build up trust with an underwriter after multiple

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[51] Citi shocked the municipal bond market when they abruptly abandoned it in late 2023 (Lerner 2023).

transactions which could potentially lead to additional selection out of the pool on future deals. Smaller agencies almost never receive dedicated staff.

The combined forces of frequent issuances, market segmentation, wider variety of possible financial services, and dedicated staff both at the contracted firm and the agency (debt desk staff who focus entirely on debt as their sole purview), create relatively strong bonds between major issuers and their outside contractors. Rigorous two-tier RFP systems keep those strong bonds in check, to some degree, while still enabling participants to establish trust with each other. But how do smaller agencies build up trust when interactions are infrequent?

Small Issuer Strategies For Advisory Services

Smaller cities almost universally lack in-house debt expertise. Instead, they rely on multi-purpose finance officers, who day-in and day-out engage in the routine business of running an organization—processing payroll, budget planning, and financial reporting. For these officers, interactions with the municipal debt market are a small part of their work. Although the transactions may concern large quantities of money, they tend to take a back seat to the more routine and daily aspects of the work of a finance officer.

Finance officers understand this relative lack of sophistication and in-house expertise when it comes to municipal bond markets. But they also reported qualitative differences in the degree of unsophistication depending on the issuer. Smaller cities with smaller tax bases might be less able to hire well qualified staff to manage their administrative states. One finance officer from a Working-Class Latino City said:

> *[In our city] you don't have as much property tax flowing into the state coffers, which*
> *means there's not as much money to spend on stuff, which means you're not going to*
> *spend as much money on parks, you're not going to spend as much money on your*

streets, you're not going to be able to pay enough to your fire fighters and police officers,

your finance director [laughs]… We don't have the most professional staff… I look at it

like the city can't afford the best because we aren't bringing in enough income, and we

don't want to spend more than we make. And so we have a problem with recruiting. I've

been trying for three and a half years to bring the best and brightest to my department,

just to professionalize it. That's tough when you can't pay the best. If you can't pay the

best to come work for you, now you're limited in what you can do as an organization.

Maybe you're going to be taken advantage of by underwriters who will say 'man, he

doesn't have anyone to do his analysis so we're just going to propose this price and

they're going to get stuck with it.'

This finance officer was expressing the relative challenges faced by his city from its overall revenue

picture for its general fund as bleeding even into debt management. In this context, a few extra basis

points on a municipal bond might be the least of the city's problem, even as the disparate terms faced by

the city exacerbated the issue in the form of higher debt service payments.

Some financial advisors noted that a blend of an inexperienced city council and an

unsophisticated staff could lead to bad outcomes in a bond deal. A financial advisor from a generalist firm

said:

I'm almost uncomfortable saying this, but it seems like those communities are more

subject to predatory bankers. And I say that with caution, because its kind of a harsh

judgment on some of my competitors and colleagues. And they're not all bad. But I do see

them doing things that are things that I would never have recommended. I don't think are

appropriate… When I work in communities that are more of color, I see stuff that is

uncomfortable. [A mid-sized historically Black Struggling suburb] has done some stuff

and I just thought that people just got them to do things that were too fancy… I worked

*with [a small Struggling Latino suburb that experienced a corruption scandal] after their*

crisis… boy, you could see just how easily they could be victims of firms doing things and getting them a little over their skis.

This issue is important, but not unrecognized. Most finance officers take steps to protect their cities from the bond market and garner the professional support they need to successfully complete bond transactions. Finance officers at smaller issuers recognize the key role trust plays in the municipal bond marketplace, particularly with the financial advisor. Most finance officer interview subjects reported successful prior interaction as a key selection criterion they used in whatever screening they may have for outside financial services providers. Although Dodd-Frank created a fiduciary responsibility for the financial advisor, subjects reported this legal formality just codified an already present dynamics of the interaction with the financial advisor.

Indeed, the financial advisor takes on a far more central role for smaller issuers than for larger ones, given the lack of a dedicated debt desk. For this project, I interviewed finance officers at 'smaller' cities ranging from roughly 250,000 down to 1500 residents in size. All of these cities reported using financial advisors in their bond transactions, with the advisor taking on a leadership role over the process. None of them reported having any staff in their finance departments who worked solely or even primarily on municipal debt.

Figure 5.2 shows a typical arrangement for a smaller city. A city would select a financial advisor through some process and establish a contractual relationship with that advisor. The city would then work with the advisor to establish the parameters for the debt. Then an underwriter would be selected, either by the city working in tandem with the advisor, or in some cases solely by the advisor with the city exercising ultimate approval power but taking a back seat in the selection process. The parties would all work together to execute the transaction.

Figure 5.2: Schematic of a Smaller City Bond Transaction
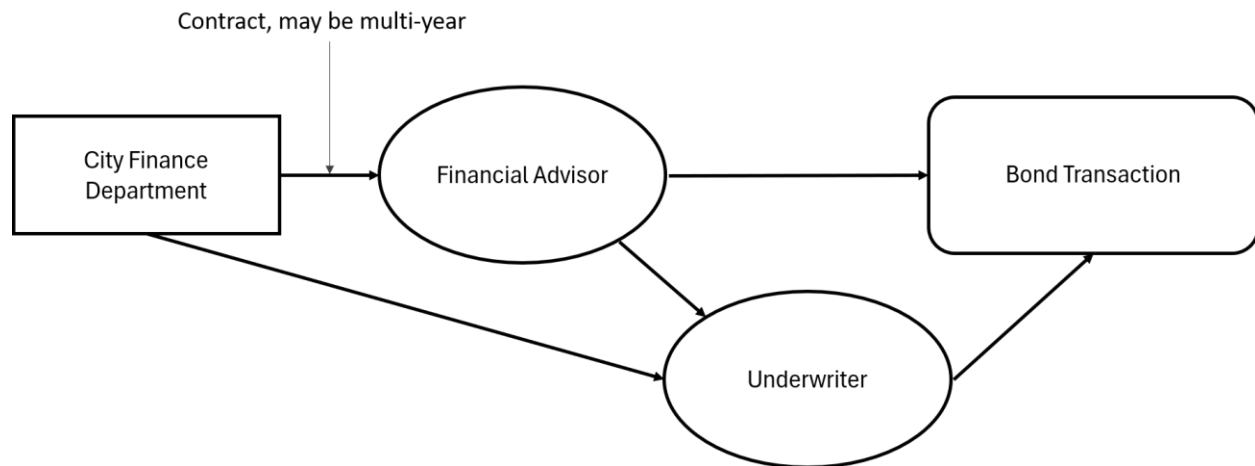
In this arrangement, the financial advisor takes on a central role within the transaction as a key facilitator. Far from merely crunching numbers as they might at a large city, the financial advisor is intimately involved in the selection of the underwriter and the framing of the terms of the transaction. The finance office, for their part, takes on a far more marginal role in the process. For them, the bond transaction is one of multiple competing priorities, most of which are more pressing, more applicable to the daily running of the city, and involve a skillset the finance officer is more comfortable with.

The financial advisor is endowed with substantial trust in this arrangement. However, unlike larger issuers which might enter the municipal bond market multiple times each year, individual bond transactions are far rarer at most smaller cities. These less-active issuers do not have the luxury of building stronger ties of trust over repeated interactions during high stakes transactions, where all parties stand to benefit from the proceeds. On the flip side, outside contractors, asked to take on a central role in the borrowing process, might not be familiar with the inner workings of the smaller cities, particularly the overall financial picture.

Faced with this dynamic, finance officers at smaller cities have opted for divergent strategies in structuring their relationship with their financial advisors. I will break these into three typologies of arrangements here, although perhaps the three are best understood as lying on a continuum.

Some finance officers reported very long-term arrangements with financial advisors, spanning decades in length; I will term this here a Type A arrangement. In Type A arrangements, the financial advisor might have to renew their contract with the city from time to time, but all parties understand that the likelihood of change is slim. In some instances, there may be an underlying contract between the agency and the firm, renewed at regular intervals. Or, in cases where capital needs seem distant, Type A arrangements might enter periods of relative dormancy, where contacts may be infrequent between the city and the advisor. If the agency requests advice from the advisor during these periods of inactivity, consultation may occur without compensation. Generally, however, the advisor would receive an hourly rate for consultation questions and a per-deal rate for bond transactions. Participants tended to describe Type A arrangements as 'an extension of staff' or as the advisor having deep 'institutional knowledge' about the contracting agency. One advisor described Type A arrangements as follows:

> *I've work with [a specific Wealthy Suburb] since 1992. It's a personal relationship where I'm the institutional knowledge. Me, personally, not the firm even. And therefore that they have relied on myself and our firm to really be the history and be the 'hey, why did we do this in 1996? What do we have to worry about for the next financing?' Because their staff has turned over, over time.*

Type A arrangements are uncommon, and becoming less common, in the industry. Nonetheless, the arrangement allows for deep trust, and indeed almost reliance, between the city and the firm. Small cities replicate the trust their larger counterparts enjoy by engaging in deep and long-term relationships, and by a transparency of data sharing which would be more challenging under a casual arrangement.

In what I term a Type B arrangement, some officers reported signing multi-year agreements with financial advisors. Like a Type A arrangement, Type B contracts were not restricted to any single bond

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transaction, and could include an hourly rate for routine consultations and a per transaction rate if a bond transaction were to occur. But Type B arrangements vary from Type A arrangements in that the former is between the firm and the agency, whereas the latter tend to be more interpersonal. Under a Type B arrangement, the financial advisor's connection to the city is more tied in to the specific finance office working in the city at the time. Finance officers and financial advisors alike argued that financial advisors often attained new client cities only when a finance officer or finance staff person they had worked with in the past moved on to another city. The connection under Type B, then, is far more interpersonal and less institutional. The same advisor described these relationships like this:

> *I'm going to say 75% of our clients are professional relationships, meaning the firm has a reputation the individual public servants, you know, finance directors, city managers, department heads, they know of our firm. And as they're coming up with projects or moving to other public agencies, they are effectively bringing us into their organization… so it's unsolicited marketing, I guess, is the way I would put it. Where it's our reputation that's really bringing them to us. Or they're talking to their peers, and peers are saying 'you should talk to [the subject's firm].'*

> *…*

> *They [put out] an RFP [that says] 'here's everything we do, but we don't have anything that we need you for right now. We know that these projects are going to be coming in the hopper over the next two to three years. But we need somebody who understands us before we get there, to be proactive, to help us… to get ahead of the project, understanding the funding strategies and the financing options before we actually get these things designed.*

These relationships are thus far less stable than Type A arrangements, or at any rate only as stable as the stability of the city's in-house staff. Subjects reported an increasing reliance on the RFP process for Type B relationships, though an existing contract between a city and a firm gives them a substantial leg up in

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the RFP process and plays a far more important role than price. Still, prior work between the agency and the firm would not guarantee a renewal of a standing contract, typically running three years in length with up to two renewal years built into the council's approval and the contract itself.

As with Type A arrangements, Type B arrangements allow city staff the flexibility to consult with financial advisors earlier in the process of borrowing, and seek their expertise on a range of issues before a decision is even made to issue a bond. Under a Type B arrangement, city staff might consult with an advisory firm about other capital finance options—for example, the state's revolving infrastructure fund, direct bank loans, or even moving money around to enable pay-as-you-go financing. Similarly, the financial advisory firm might bring their expertise to the city in the creation of novel revenue streams (one advisory firm reported having specialized in redevelopment TIF debt, for example, before California banned TIF during the Great Recession). They also create a financial stake at the advisory firm to work proactively with the client, since compensation is tied to hourly work rather than on a per bond transaction basis. Put more directly, under Type B, the advisor gets paid whether a bond is issued or not, and so they have little incentive to pressure the city to seek bond financing over other, potentially less expensive, options. Ties under Type B arrangements tended to be strong as well—perhaps not on an institutional level, but on an interpersonal one. Ties between the city and the firm thus travel between two individuals, typically the finance officer and a representative of the firm. One or the other party might even change employers—move to another financial advisory firm, for example, or to a new agency. The tie, however, remains, and at the first opportunity the firm has they could attempt to re-establish a contract between the new entities.

Because of the interpersonal nature of a Type B arrangement, trust is also core to the strategy. Under this arrangement, even if a finance office were brand new at the city, they bring in a partner they have successfully worked with in the past in another context. The city or agency has imbued that financial officer with trust by hiring them into a key position, and the finance officer in turn brings in an advisor they trust deeply. Thus, again, trust plays a core role in the relationship.

All financial advisors I spoke to indicated the extreme difficulty in breaking a Type B tie, even if an agency used a formal RFP process. Advisors primarily spoke of their outreach process as tracking which key staff people within their portfolio of clients were moving where. Whenever, say, a junior finance staff person went to another agency to take on a primary role in natural career advancement, the advisor would begin to closely monitor the new agency for an upcoming RFP or some other opening in the relationship between the city and their pre-existing competitor firm. These key moments created chances to nab a client away from what are otherwise static relationships between firms and cities.

Finally, some subjects reported signing agreements with financial advisors strictly on a per transaction basis and adhering tightly to a new RFP each time a transaction became evident; I term this a Type C arrangement. Type C arrangements are primarily transactional in nature. The city decides to issue a bond (instead of other capital sources) prior to putting together an RFP. They release the RFP for an advisor, and then hire them on based on their response to the RFP, privileging cost, expertise, and whatever other qualities the agency decides to include. The RFP may even allow the advisor to bid jointly with a pre-selected underwriter as a package for the transaction. The same advisor quoted above described these relationships like this:

> *Some are very project specific. So you will have public agencies who will say 'hey, we just need help doing a water conveyance project. It's going to be $100 million, its going to take us two or three years to figure is out. We want a firm to come and help us, and then we're done. We don't think we'll bid you to do any other work. So give us your history, give us your experience, around that type of project.'*

While some Type C arrangements might include contingencies for hourly work for the advisor, these were typically paid for on a per-deal basis, meaning the advisor would receive a lump sum upon the successful

completion of the bond transaction.[52] Because of this payment convention, Type C arrangements lead almost exclusively to bond deals rather than other capital financing methods.

Under Type C, unlike Types A and B, cities essentially try to circumvent the problem of trust by using structural safeguards. For one, the deal is transactional in nature, with contracted firms receiving a flat-fee payment which in theory incentivizes them to work as efficiently as possible. Second, because of RFP processes, financial advisors have to bid more aggressively to get the contract than in a Type B deal. Instead of trust, Type C cities rely on market logic to discipline firms.

Cities tend to elect Type C structures for one of two reasons: either they adhere strictly to RFP processes as a best practice, or they figure that since they only infrequently seek capital financing, they will never establish enough trust to make longer-term relationships worth the cost. They may also assume they have the necessary expertise for financial planning in-house, and simply need an additional set of eyes on underwriter behavior. Some of these qualities they share with their desk debt brethren from large active issuers.

Table 5.1 summarizes the key differences between Types A, B, and C.

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[52] Advisor fees in a transaction are usually paid in a flat dollar amount negotiated between the city and the advisor, unlike an underwriter spread which is typically a percentage of the par value of the bonds.

Table 5.1 – Common Arrangements Between Cities and Financial Advisors

Arrangement Name	Features	Results	Cities Most Likely to Use
Pool	Multiple financial advisors bid to an RFQ to enter a pool, and bid against each other via RFP for each transaction	Two-tier system of checks and balances, increased reliance on in-house expertise versus external knowledge	Large issuers
Type A	Long-term relationship between a city and a financial advisor	Heavy reliance by the city on the financial advisor for substantial institutional knowledge far beyond individual bond deals or even debt policy generally	Smaller issuers of most typologies
Type B	Close personal relationship between individual city staff and a financial advisor	Financial advisors follow city staff from agency to agency as they move. Substantial interpersonal trust but less long-term knowledge. Occasional RFPs.	Smaller issuers of most typologies
Type C	Strict adherence to RFPs on a per-deal basis	Relationship between financial advisor and city strictly contractual and short-term	Smaller issuers. In my sample, only Struggling suburbs

For underwriters, the arrangement is even more complex. Some cities have dedicated underwriters—not unlike a Type A arrangement for a financial advisor. They have worked with the same underwriter, sometimes for decades, and see little reason to change. They trust the underwriter based on past experience, and they rely on their even-more-trusted municipal advisor to ensure that the underwriter supplies decent terms on any future deals.

Other cities contract underwriters at the time of issuance through a RFP processes, viewing the relationship with the underwriter as more transactional. Underwriters do not view their relationships with cities in transactional terms, by and large, or at least the few subjects who were willing to speak with me

did not reveal such attitudes. But, unlike the financial advisor, an underwriter has no fiduciary obligation to the city. Indeed, federal regulations require them to disclose to their clients that their primary goal is to make money, as much of it as possible, on the transaction. Cities thus know this, and instead rely RFP processes to discipline underwriters into providing competitive terms.

All smaller cities which select an underwriter through some gradient of competitiveness rely on their financial advisor in the selection process, far more than their counterparts in larger agencies who reported selecting underwriters from their pre-established pools. Pool agencies reported limited consultation with the financial advisor for underwriter selection, but certainly did not rely solely or even heavily on their opinion. Smaller agencies, by contrast, tended to grant the advisor substantial leeway in determining who would underwriter the bonds. However, the degree of delegation varied. Some cities reported bidding the underwriter separately, and asking the financial advisor to review the resulting proposals and recommend one or two possible underwriting partners based on the responses which the finance officer would then review. Other cities reported deferring entirely to financial advisors to select an underwriter with very limited input from the city at all. In many Type C arrangements, the city allows the financial advisor to bid their own response to the RFP jointly with an underwriter as a package deal.

These administrative safeguards help explain why underwriters, in some circumstances, are willing to circumvent city administrative staff. Faced with a financial advisor situated in a key role and enjoying a privileged relationship with chief administrators, is it any wonder that an underwriter might try to directly approach elected officials as another potential in with a new client?

While the use of a Type C model might help mitigate the impacts of a lack of established trust between a city and a specific firm or firms, the model relies on several assumptions. First, the overt prominence of the RFP process assumes a fully competitive market for the services. In a less-than-competitive market, RFPs generally lose their ability to discipline market actors. One underwriter said: "In general, I ascribe to the view that the market is a competitive place. If you have an ability to charge a higher fee for your service, you will… Our fee would probably be higher if we could charge it. What

drives our fee is competition for a service." This underwriter is saying that, in the absence of a competitive marketplace, underwriting fees will doubtless increase.

Second, Type C arrangements still rely on trust, although they are putatively transactional in nature. This is especially true for transactions which give financial advisors ultimate power over the selection of an underwriter. These arrangements assume, whether in contractual form or implicitly, that the financial advisor will select an underwriter who is best for the city's interest rather than the financial advisor's interests. This assumption is not made naively; the financial advisor has a fiduciary obligation to the issuer, codified in federal law, to put the issuer's interests above their own. Yet, in a marketplace where end terms of a deal are hard to compare given the vast array of issuers and the lack of true comparables, proving that an advisor violated a fiduciary duty is challenging. The client wanted money, and the financial advisor made it happen, most likely on terms which fall within the array of normal market activity. On need not be corrupt beyond compare to slide the scale a few basis points, such a selection would ultimately be well within the discretion of other categories in an RFP which values intangibles as well as the bottom line. As one financial advisor put it, arguing against this type of dynamic:

> *It's important to get different ideas from underwriters, look at the pricing, see what they are up to, and see if there's some money to be saved. Because even a couple of basis points on $50 or $100 million is a lot of money. You don't want to be in a situation where it's 'what's a few basis points between friends.'*

Here, especially, lies the crux of the issue with Type C arrangements. In this regard, the issuer is placing substantial trust in the financial advisor to put the city's interests first in their selection of the underwriter. Yet they treat the interaction with the advisor as a single deal, rather than a part of a longer pattern of trust building exhibited in Type A and B arrangements. The only guarantor of the trust is the federal obligation, and the possibility that a client that feels jilted damages a firm's reputation.

Yet I have already shown, in Chapter 4, that connections between financial advisors and underwriters are far stronger than connections between smaller suburbs and financial advisors. Trust is being built in these deals through multiple interactions, where only the city swaps out. Every successful bond is a new brick in the path of trust between the advisor and the underwriter, and each one leads to the possibility of future success. Cities which issue only occasionally, and bake in safeguards against trust through Type C arrangements, cut themselves out from this network.

It is worth taking a step back and saying that there are not established best practices for smaller cities, which helps explain the myriad arrangements possible between cities and outside financial services providers of all stripes. CDIAC, the California state agency which trains finance officers in debt transactions, does not provide any best practices beyond reminding issuers that RFPs are a sound choice and should be used. They provide no discussion of what qualities to look for in an RFP besides price, or how to rank criteria that an issuer might bake into an RFP.

Unequal Structures of Debt

The type of arrangement cities elected to use in their relationship with their financial advisors was highly correlated by city typology. Every single Struggling suburb where I interviewed city staff opted for a Type C arrangement with their financial advisors. No other suburban finance officers I interviewed used a Type C arrangement, regardless of the typology of the city. Even the Working-Class Latino suburb, just a few notches away from the Struggling category perhaps, had opted for a Type B structure. The two wealthy suburbs I interviewed, and one of the Growth suburbs, also had Type B arrangements. One suburb, a Growth suburb, had a Type A arrangement. As mentioned above, both of the larger core cities where I interviewed staff used pool models. This is not evidence of universal trends by any means, but the pattern is nonetheless striking in what were essentially randomly selected interview subjects.

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Looking at the cases from the introduction, we also exhibit differences in structure. Los Angeles uses a pool model, resulting in the vast ecosystem of debt exhibited in the graph shown in Figure 4.1. Calabasas used a Type B model (Figure 4.2). Beaumont formerly used a Type A model, but switched to Type B following their corruption scandal (Figure 4.3, left and right, respectively). And Bell Gardens used a Type C model (Figure 4.4), occasionally eschewing financial advisors entirely.[53]

Struggling city officials I interviewed all painted their relationships with their financial advisors in stark contrast to other city staff. Most city staff expressed substantial trust in their financial advisors, or at least more trust in them than in other parties to the bond transaction. Take this quote from a Working Class Latino suburb's financial officer:

> *What I've realized, the more of these I've done: the municipal advisor is always on our side, and the underwriter is on their own side. Underwriters care about nobody other than their bottom line. I've realized that through several bond issues. I can trust the municipal advisor… they are looking out for the city.*

Or this take by a finance officer from a Wealthy suburb:

> *We smaller cities work with an advisor. This isn't my job. My job on a day-to-day basis is not to just issue debt and only monitor our debt portfolio and understand all of the intricacies of the municipal debt process… that's why we use [an advisor]… Between the municipal advisor and the bond counsel, that's where the city's interests are most addressed and watched over. Because underwriters want to sell bonds and make money, that's their job.*

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[53] Municipal bond issuers are not required to use a financial advisor, but the option to not use one was viewed as a bad decision across the board by interview subjects. Even the underwriters I spoke to reported substantial value in the addition of a municipal advisor to the deal, despite the fact that the primary role of the municipal advisor is, to some degree, to check undue influence an underwriter might be able to exert over an unprepared city. One underwriter equated it to buying a house—while the seller's option to use a real estate agent might in the end cost more money, it would also be a far easier transaction due to the expertise a real estate agent brings to the process and thus is ultimately worth the extra cost.

Finally, recall the example discussed earlier in this manuscript of a city which had worked with the same financial advisor for 30 years.

Type C cities do not describe financial advisors in these terms. Contrast the above descriptions with those used by finance officers in Struggling suburbs which opt for a Type C structure. One finance officer was surprised when I asked him if they had ever explored a longer-term relationship with a financial advisor:

> *It's not really common [to have a long-term relationship with a financial advisor]. I'm shocked to hear that [other cities do]… for financial advisors, when it comes to bonds… it's a per deal agreement.*
>
> *…*
>
> *I would say no one is in your corner [during a transaction]. Everyone included is not by relationship, remember, but by selection. And they place a fee that we can ultimately negotiate [based] on what they are going to do for us.*

Or from another Struggling city, describing a bond deal that did not ultimately go through:

> *It [our contract with the financial advisor] was definitely a deal-by-deal situation where they came in and helped us do the assessment… I think it was a matter of them coming in, doing the analysis, helping us get through the process of council, staff report, that sort of thing. And I think we were under the assumption that if we in fact decided to move forward with issuing the bonds, they would be on the forefront of helping us with that… It's tough, because you have an idea, or you think you have an idea, of how this is supposed to pan out. But you're just touching the surface, if you think about it, man. It's like the iceberg that you see above the water, and everything else below it.*

Finally, a third officer put the relationship succinctly: "To us, a financial advisor is a vendor. There is a process that we have to go through to procure any vendor… I do think that we are more like based on the

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deals, like, 'hey, there's this transaction that we have to do, and we need an advisor to walk us through… this deal."

The key structural differences between Type A and Type B arrangements, and Type C arrangements, clearly have obvious and immediate ramifications for the issuer. Finance officers in Type C cities expressed that keeping a financial advisor on-call long-term was unnecessary, given their city's infrequent engagement with bond markets. These officers viewed financial advisors roughly in the same terms as their counterparts in large pool-model issuers: as a functionary vendor designed to marshal a city through a process. Type A and Type B city officers did not see financial advisors in this light, but rather as thought-partners for long-term capital finance planning. The thought partnership was not for free; financial advisors in these arrangements would receive hourly compensation for what might be occasional or regular contact. But the continued discussions could help finance officers, stretched thin by multiple competing duties, to better understand potential alternatives to bond finance or pro-actively get ahead of capital needs in the future.

Type C cities expressed few explanations as to why they did not keep financial advisors on retainer long-term. Most officers I spoke to in smaller cities seemed perplexed that other cities even had these types of arrangements, or at least peer cities of their size. One Type C officer did comment that he had heard of such arrangements, but that it would not be a good fit for his city given the infrequency of their participation in the municipal bond market.

Discussion

The role of trust in the municipal bond market it key, but cities use distinct strategies to build trust based on their degree of in-house expertise, frequency of bond transactions, and resources. Large-city issuers, with multiple transactions, build trust through rigorous two-stage qualification processes. Dedicated expert in-house staff then select from pools based on low-cost and past-experience. They rely

on the certainty of future work to motivate their partners to provide the best deals. Smaller issuers, who do not have this certainty, are faced with the difficult task of establishing trust in other ways. Some do so with financial advisors, signing long-term contracts with alternative channels of compensation for the outside firm. This places immense trust in the advisor, but also generates incentives for the advisor to continue performing well for the cities. But other smaller cities instead opt to rely strictly on RFPs for bidding work, relying on the process to weed out bad actors. In these cases, financial advisors are more likely to bring in their preferred partner firms. These latter work together in multiple transactions, and have a great deal of trust with each other. But the transitory nature of their arrangement with the client city does not create strong incentive to provide a deal on good terms.

Faced with an unfavorable predisposition by credit ratings agencies, a discourse of instability and risk, and professional admonition to adhere to rigorous RFP processes (and avoid 'going political') which their counterparts more or less ignore, Struggling Suburbs are in a difficult position in the municipal bond market. Add to this an uncompetitive, or at the least less-than-competitive, cadre of underwriters willing to service these types of cities, and a recipe for poor credit terms comes together. Struggling cities do not build trust with advisors, and prefer to treat bond issuances as impersonal transactions.

These combined factors explain the prevalence of certain financial advisor firms in Struggling suburbs discussed in Chapter 4. Some financial advisors simply do not work with Struggling cities, either because of their size or the lack of long-term work. The agencies that are willing to thus have larger market shares, in essence becoming specialists in smaller cities. But the engagements are shallower and less frequent than partnerships between underwriters and these firms.

This most likely also explains the concentration of ties between underwriter firms and advisors in small cities; see Figures 4.8, 4.9, and 4.10. Underwriters at major banking institutions, the firms which keep the sector competitive by taking advantage of their economy of scales simply do not service Struggling cities. The remaining firms bid against a few giants like Stifel, but ultimately financial

advisors are in the driver's seat when it comes to selecting an underwriter, especially in a Type C city where bidding is frequently done as a package deal.

The end result is a creation of racial difference in outcome. Suburbs have historically served as key sites of generation of racial difference under racial capitalism. Here, an underlying discourse of instability and overtly meddling city councils perform this role. By convincing the market as a whole that smaller cities of color are riskier investments, and granting that perception an imprimatur through the credit ratings process, that discourse means that cities of color start out with a pre-existing obstacle to the dreams they hope to finance through credit. An overall revenue picture of deprivation, largely via straitjacketed property taxes, minimizes in-house bureaucratic expertise. By adhering to structural arrangements designed by and for larger cities with deeper benches of in-house bureaucratic expertise, these cities also foreclose the formation of lasting institutional relationships with external experts. They operate in constricted markets for services compared to their counterparts. The end result is a series of casual and infrequent encounters, with each transaction essentially a leap of faith—masked by a putatively neutral contracting process—despite these cities' lack of opportunities to build true trust.

There is little evidence the Struggling cities 'go political' any more than any other cities. MBE firms do not dominate Struggling cities underwriter choices, for example. Indeed, larger cities seem to use MBE firms more regularly than most smaller cities. The largest MBE underwriter by market share captured only 4.5% of the Struggling city bond market as lead underwriter (for large cities the same firm captured 6.7%). Yet the discourse that low-income high-minority population suburban city councilmembers, unsophisticated amateur politicians, are predisposed and/or receptive to meddling by underwriters is widespread in the financial services sector. This idea or discourse, along with the instability discourse, can then be used to help justify the worse terms imposed on these cities by market failures and the inherently racialized credit rating process.

In short, Struggling suburbs do worse because everyone believes they should.

The findings in this chapter may not be generalizable, given the small size of the sample of cities I used in this study. Future research might make use of a broader survey instrument to assess how common certain types of arrangements between cities and financial advisors are. While beyond the scope of the present project, such a survey might provide evidence testing the generalizability of my claims. A survey might also provide better evidence of where finance officers receive their training concerning RFP processes and the reasons some cities opt for shorter-term arrangements than other cities.

Future research could also look into specifics in contracts signed between cities and financial advisors to explore them for uniformity—or not—of pricing structures. This could provide firmer evidence regarding the types of structural arrangements I propose in this chapter.

But within my sample the pattern is clear: key structural differences in the contractual relationships cities have with financial advisors and underwriters vary by city typology. Large cities use pools to maximize trust and limit undue influence. Most smaller cities rely purely on trust, but take steps to build up that trust by signing multi-year agreements and working together with financial advisors on non-bond labor. In my sample, only Struggling cities structured their relationships with financial advisors on a per-deal basis, with the structure favoring a package deal between the advisor and underwriter. The end result likely contributes, more than instability or some degree of unsophistication, to the worse terms these cities receive from the municipal bond market.

I turn now to the conclusion of this dissertation.

CHAPTER 6

Conclusion

When Bell Gardens entered the municipal bond market in 2014, they were already disadvantaged over many of their Southern California neighbors in the world of municipal finance. Saddled with lower property values, without a serious locus of sales tax generation like an automobile sales complex, and already built out, the city faced numerous limitations on its ability to raise money. This was exacerbated by California's Proposition 13, which can freeze property taxes below market levels, meaning Bell Gardens' already low property tax base was artificially depressed even further.

Yet the city had taken steps to solidify their revenue streams by seeking innovative tax solutions, like a tax on the city's casino, which set it apart from some of its neighbors. And the city had been sure to never default on a bond in its entire history, certainly not an uncommon choice given that defaults are rare but nonetheless an example of good credit history.

Despite these mitigating efforts, the city suffered worse terms than its counterparts in Beaumont or Calabasas, cities of a similar size but distinct racial makeups of their residents. I have argued in this dissertation that the experience of Bell Gardens was not uncommon for majority non-white suburbs. In Chapter 3, I showed that racial difference manifests in the US municipal bond market regardless of city size, with privilege accruing to cities proportional to the amount of non-Latino white residents who live there. While prior studies have shown this dynamic to be present in larger cities within a Black/white paradigm (Lovisek & Crowley 1990; Ponder 2021; Eldemire et al. 2022; Norris 2023), my study is the first contribution to demonstrate that racial difference exists beyond this paradigm, spilling to other racial groups, or to racialized minority groups like Latinos. This is a key finding given the diversifying nature of US suburbs (Kneebone & Berube 2014). I also demonstrated that this disparity exists when controlling for revenue stream or end use of bond, and that the racial difference does not

merely occur at the point of credit rating or of the interest rate assigned by the market, but rather that the issue is present at both stages, and spills even into the fees paid by the issuer. The problem, in other words, spreads across the entire borrowing experience, compounding at each stage. And consistent with prior studies (Norris 2023), this problem persists even when controlling for the underlying fundamentals credit ratings agencies claim to use when assessing credit. It also persists regardless of the type of bond issued or the relative security of the repayment revenue stream.

Bell Gardens accessed the municipal bond market through distinct channels and structures from its local counterparts. In Chapter 4, I showed that Bell Gardens, and similar cities with majority non-white residents earning lower that average household incomes, connect with bond investors through a largely distinct set of intermediary firms specializing in small issuers. Mainstream large financial institutions largely eschew cities like Bell Gardens when they borrow, leading smaller issuers to resort to more boutique firms which are segmented by the income level and the racial make-up of a city's residents. While some overlap exists between cities like Bell Gardens and other small cities (for example Calabasas or Beaumont, or any of the hundreds of other small suburban agencies throughout the state of California), in large part smaller Struggling Suburbs rely on a distinct set of financial advisors and underwriters when they borrow. Importantly, these same intermediaries work together with high degrees of frequency, while smaller issuers are left to the periphery of the market.

In Chapter 5, I showed that Struggling cities related to these firms through different structural arrangements than their counterparts. Unlike large cities, small cities universally lack dedicated debt professionals in their administrative states, people who understand the municipal bond market with a great degree of expertise honed by years of issuing multiple bonds. But smaller cities deal with this setback in distinct strategies, some of which are designed to recenter trust between the public agency and the private sector and others of which rely on a more impersonal RFP process to mitigate issues. Some smaller cities opt to foster deep degrees of trust with financial advisors, independent firms with a fiduciary responsibility to their client circumscribed in federal law by signing long-term agreements and

contracting them for multiple types of financial services. These structural safeguards build long-term trust between the agency and the firm. Cities frequently engage in this type of arrangement although the practice flies in the face of best practice advice, which pushes cities to use a rigorous Request For Proposal (RFP) process to select their contractors.

Struggling suburbs by and large do not buck best practices, preferring to rely on the same market logics large cities use when issuing debt—a reliance on an RFP process. But unlike larger cities, little trust is built in this arrangement. Larger cities establish long-term pools and work with RFP participants multiple times a year. By contrast, smaller suburbs which RFP each deal are generally rare market actors. Their relationships with outside advisory firms are far more transactional, existing for specific deals and fading away. For the next time the city must borrow, a new set of actors enters the field.

I have argued that this has several detrimental effects for smaller agencies. First, the market saddles them with the label of 'political,' a term which means that the city's relationships are tenuous and subject to interference by elected officials. While bemoaning the practice, some private sector firms are ready to attempt to take advantage of the dynamic. Second, the market describes these cities as 'unstable,' since relationships between the public and private sector are fleeting and not lasting. Precisely because Struggling Suburbs engage in transactional relationships with the private sector, lasting strong bonds cannot be built, creating a perception of instability in the market. Paradoxically, when financial advisors do enter into an arrangement with a Struggling Suburb, they are more apt to bring in their preferred underwriter as a package deal. Thus strong bonds enter into the arrangement, but the agency is not a party to the strong ties repeated interaction in the market can bring.

By adhering to strict RFP processes, in other words, Struggling Suburbs end up receiving the worst of both worlds. Lacking in-house expertise, they cannot effectively independently assess package deals. They know this and seek outside expertise, as recommended by best practices promoted by state agencies and professional associations. But by allowing financial advisors to partner with their preferred underwriters, Struggling Suburbs are left out of loops of trust which underpin the municipal bond market

to such a high degree. They enter into multiparty arrangements, where all other parties are working together frequently on transactions, and all other parties know the city will not likely issue debt again at any point in the near future. While fiduciary obligations exist, at least between the city and the financial advisor, the quality of the end product is subjective and reasonable people performing post-mortem assessments might come to differing opinions on the quality of the deal. And recall, Struggling Suburbs, like most small cities, lack the in-house expertise to assess such results anyway since they do not employ debt experts. Their only window into the good-ness of the terms offered by the market come through a financial advisor who has little incentive, besides a legal obligation, to share information which might cost it future work with other firms.

These mechanisms create, in part, the racial difference within the bond market. To borrow from environmental justice scholars, racial difference need not be an intentional (Ranganathan 2016). There need not be some racist pulling the string behind the magician's curtain of capitalism. The question of intent is in fact beside the point. Rather, systems and structural arrangements generate racial difference automatically within a racial capitalist political economy. Much like the financial advisors and underwriters I interviewed in this study, private enterprise can profess an innocence when presented with the facts of racial difference within their markets (Vasudevan 2021). The public servants who work for cities also do so; after all, they adhere to the best practices taught to them through the agencies the State of California has erected to instruct finance officers about the municipal debt market, the California Debt and Investment Advisory Commission (CDIAC). Everyone is following the rules, and so if racialized outcomes are occurring, the fault must lie elsewhere than the fundamentals of the market where they are practicing.

The Predatory Inclusion of Municipal Finance

Municipal finance has always been closely linked to entrepreneurial activity. Indeed, from its very origins, finance was aimed primarily at rapid economic development for otherwise uninteresting or

unappealing towns on the frontier of the US expansion into the west (Monkonnen 1984; Sbragia 1996). Municipal debt has come to take on further key roles for local governments. In an environment of constricting federal support for local infrastructure, and of state-level tax revolts, municipal debt now fills basic capital needs for many cities in addition to its key role for speculative entrepreneurial development (Hackworth 2007).

Yet suburbs are rapidly changing in demographics and income levels (Kneebone & Berube 2014). As the underlying economic and demographic bases of suburban communities shifts, the question of the terms on which communities will receive capital for development and maintenance of existing infrastructure takes on a key role.

Municipal debt markets are large enough to include all willing borrowers. No city officials I spoke with felt that they were shut out of municipal debt markets entirely, but rather believed that investment money would always be available. But the terms on which any community receives that money varies substantially by who lives there.

I argue this is yet another form of predatory inclusion into debt markets. Scholars of consumer finance and debt coined the term predatory inclusion to refer to the extractive ways credit markets can siphon wealth away from consumers through the expansion of the market base (Seamster & Charron-Chénier 2017; Taylor 2019). Any consumers enjoy more or less unbridled access to credit markets, from well-heeled CEOs seeking to purchase a fifth vacation home all the way down to a janitor seeking a payday loan to meet a car payment. But the terms on which they enjoy that access varies substantially. Consumers operate in highly segmented credit markets, and receive needed credit on distinct terms, with debt serving as a channel to unfulfilled dreams for some and a millstone around the neck of others. Seamster (2019) has called this dual aspect of debt white debt and black debt. The terms do not refer specifically to the skin color of the debt holder, but rather the potential debt has to either expand access to material goods (white debt) or extract wealth in the service of basic survival (black debt).

My findings, principally in Chapter 3, build out on this prior work on predatory inclusion and racial difference. Cities with larger populations of color pay more for borrowing at every stage of the process. This finding is consistent with prior work (Ponder 2021; Norris 2023) but expands upon it substantially. First, I look at smaller cities and find dynamics of racial difference that are similar to, or slightly more powerful than, those experienced by their larger counterparts. Second, I expand the idea of racial difference to other racialized communities beyond a Black/white paradigm in order to better reflect the changing nature of US suburbs. I find the dynamics of racial difference to be present for other communities as well. Third, I provide more adequate controls for the type of debt issued than prior studies which either ignored the question or restricted analysis to GO bonds, And finally, I looked not just to credit rating (Norris 2023) or interest rate (Ponder 2021), but to both using the former as a predictor variable for the latter. I also expand the analysis to fees paid for services. I find racial difference to be present and statistically significant at every stage. All of these findings paint a more holistic picture of the effects of municipal debt in a highly racialized capitalist system of credit which is more dramatic than prior studies have argued, and terms of credit which are predatory in nature.

Municipal debt is thus clearly an example of this white/black debt paradigm. Look no further than the case of Calabasas described in the introduction of this work. Calabasas borrowed money to refurbish their city hall, using essentially interest only loans to do so. Yet no one would look to Calabasas, arguably one of the most privileged local agencies in the US and thus the world, as a community suffering at the hands of global finance. Calabasas, it is fair to say, is going to be just fine. The community can afford the debt. And investors treated Calabasas as such, by granting the community lower interest rates than those enjoyed by larger nearby communities, even though the city was essentially not paying back any principal on the loans and even though Calabasas structured their underlying revenue stream through a lease arrangement that, while prevalent in the municipal credit market, could hardly be described as an arm's length transaction (through the city's finance authority). Indeed, despite some of these red flags, some of the largest financial institutions on Wall Street lined up to facilitate Calabasas's transaction, firms which

usually would not even deign to look at such smaller bond deals. This, surely, is white debt. Calabasas can fulfill their dream of a new city hall on interest only payments at reasonable rates. Debt is a channel to a better city for its residents.

Imagine as a counter-example the interest rates Bell Gardens might have had to pay on such a loan. The latter community was already paying twice what Calabasas did, even though their debt was backed by an arguably far more secure revenue stream.[54] Yet they had to resort to fly-by-night agencies and third tier underwriters just to get debt at twice the interest rate enjoyed by Calabasas.

The premiums paid by Bell Gardens, and communities like it, are the hallmarks of such predatory inclusion. Municipal debt markets make sure that low-income communities of color can receive the credit that they need. But they arrange the transactions through layers of knowledge building, like the credit ratings process, which subjectifies these suburban communities as communities of risk. That codified risk manifests in higher interest rates, or higher fees to mitigate the interest rates. And these communities of risk are forced to work with smaller firms which have less access to markets, further increasing the communities' cost of capital.

The flipside of predatory inclusion comes from dispossession. While outright seizing of assets is rare in the municipal context (unlike in the consumer credit market, where dispossession is the most common tool for investors to fulfill unpaid debts), local agencies instead must self-foreclose on other municipal responsibilities to their residents and public servants in order to honor debt service payments.

Manifesting Racial Difference

Interview subjects were for the most part skeptical that racial difference played a major role in the terms of debt cities were offered, however. Instead, they placed the blame on the cities themselves. When

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[54] While TIF debt is generally speculative, California law following the dissolution of finance authorities essentially earmarked any property tax for bondholders first under redevelopment successor agencies.

it came to credit ratings, they tended to argue that cities with proportionally larger non-white resident bases were unstable, not due to their residents' collective races but rather due to some intrinsic quality of their cities. To explain away higher fees, they tended to argue that cities with proportionally larger non-white populations tended to operate with less professional staff and less rigorous guardrails against meddling by elected officials, tempting unscrupulous firms to 'go political' in their approach to cities and try to circumvent city staff in the pursuit of more lucre. Minority-owned firms were perceived as the most likely to do this type of practice. Higher interest rates were explained off as a little bit of both—the city has a bad credit rating, and they either cut bad deals with underwriters because their staff is unable to spot an exploitative transaction or the city council got involved and brought in a sweetheart deal. Whatever the cause, interview subjects argued, they got a bad deal because of choices they made.

My interviews challenge this perception, however. All Struggling Suburbs I interviewed reported a strict adherence to RFP processes in their pursuit of outside advice. They structured their relationships with outside expert financial advisors by transaction, rather than building long-term relationships with these firms. This was done in adherence to best practices espoused by their own professional organizations for city administrators, and taught to them by the California state agency which trains city administrators in knowledge about the municipal debt market. Yes, some cities have high staff turnover, but those I interviewed were generally less unstable than dominant narratives around instability interview subjects raised. In several of these 'unstable' cities, interview subjects reported city councils with decades of experience, far outstripping some wealthier cities I interviewed. Indeed, verifiably unstable cities with overt corruption, like Beaumont for example, have been able to command better terms in their debt despite clear patterns of uncreditworthy behavior. It is also worth pointing out that defaults are exceedingly rare for cities of any variety, even during the Great Recession, arguably the most challenging time in municipal finance history in the past 80 years.

Yet the arguments raised by my interview subjects do point to some real challenges faced by Struggling Suburbs. Interview subjects from Working-Class and Struggling Suburbs in some cases

admitted that these cities did have challenges attracting highly qualified staff because of budgetary issues. City finance officers in Wealthy Suburbs I interviewed tended to have long-term careers in multiple larger cities prior to coming to their current location. Struggling Suburban administrations were more likely to employ finance officers from the private sector who had little prior public experience. This relative lack of experience in municipal finance markets might make them susceptible to worse deals. The relative low quality of their present positions at the time of the deal might also make them more likely to want to complete deals which might otherwise be disadvantageous to the city in pursuit of career advancement, in line with work by Pacewicz's (2013) assessments around small- to mid-size agency administrative staff.

Interview subjects from Struggling Suburbs also relied far more heavily on RFPs to weed out firms than those from Wealthy or Working-Class Suburbs I interviewed. This is ironic, given the charge that these cities were the most likely to experience political interference in the contracting process. While it is possible that city councils were more involved than revealed in the interviews I performed, I saw little evidence that they had put their fingers on the scale in any of the cases I selected for interviews. Rather, there were clear indications from the administrators themselves that the RFP process was their primary safeguard against political interference and to ensure the best possible deal for the city. If anyone was in the driver's seat besides administrators themselves, it was arguably the financial advisor which would dominate the selection of the underwriter.

The combination of these two dynamics—lower levels of bureaucratic expertise, and a reliance on transactional interactions with outside firms—put these cities at a structural disadvantage in the overall municipal bond market. Outside firms have little incentive to treat the city to the best possible terms because future work is doubtful—the city may not issue debt again for some time, and even if they do, the firm will be in an RFP process little better than a crap shoot, potentially with a new administrator at the helm. By contrast, financial advisors work with banks (underwriters) with whom they engage in multiple and repeated transactions, often coming in as a package deal. If repeated interactions do build trust, some public agencies are being left behind.

Their structural disadvantages are furthered by a highly fractured market for outside vendors. In short, my findings in Chapter 4 reveal that Struggling Suburbs operate in a field with far less potential partner firms willing to collaborate with them on bond transactions than their larger or their more well-heeled counterparts. Far from being segmented along racial lines, as interview subjects argued, the firms willing to operate in these fields are by and large non-MBE firms. But they are more limited in number, and represent a set of the field which cannot benefit from economies of scale. Put another way, large banks will not touch these transactions because of the fixed costs involved, and perhaps for other reasons as well (recall that Merrill Lynch/Bank of America made an exception for the small issuance at Calabasas, for example). Although the administrative staff in Struggling Suburb contexts structure their deals to appeal to multiple bids, they are simply working in a smaller pool. Because the deals are infrequent and because they are monetarily of relatively smaller size, the issuers simply have less potential dance partners when the music starts.

These dynamics primarily speak to the higher fees paid by these cities, as well as the higher interest rates they pay when they borrow to a lesser degree. But what about their lower perceptions of creditworthiness?

Suburbs of Risk

My findings from the regression analyses in Chapter 3 challenge the notion that credit ratings agencies are the primary actors to blame in the racialized dynamics of extraction an exploitation in the municipal credit market. Others have pointed to the primacy of ratings as a tool of governance (Hackworth 2007) and explicitly in the formation of a legitimized racial difference within the market (Norris 2023). I do not dispute these findings, but rather argue here that credit ratings agencies alone are insufficient to account for the racial difference experienced by communities in the market. Nonetheless, important differences exist in how ratings agencies assess borrowing communities, and these differences cut fairly cleanly along racial lines independent of possible exogenous explanatory variables like property

tax base and communal income, despite the agencies arguing that they should not. My findings here are largely consistent with prior findings, though mine are more nuanced in their approach to debt typologies and draw from a wider variety of issuer typology.

Recall my earlier discussion: credit ratings agencies are designed as a technology to transform uncertainty about an issuer into a quantifiable and knowable risk, a value the bondholder can refer to with the comfort of knowing what they are buying relative to other possible investment products. In the aggregate, investors use this knowledge to know not so much whether the debt will be paid (municipal debts, once again but it bears repeating, are almost always satisfied in full) but whether the debt will be liquid in the future. The closer a bond is to BBB+ or below in rating, the less likely that bond will be off-loadable for an investor seeking to hedge against interest rate fluctuations.

Keynes described investments with high degrees of uncertainty as appearing in a kind of beauty pageant vis-à-vis investors, with investors flocking to the products most other investors agrees were the most appealing (Keynes 1936). The beauty pageant idea aptly describes to some degree the municipal bond market for cities with large communities of color. Investors expect these cities to fare poorly, though track record has not evinced any elevated propensity for default on debt. Credit ratings agencies codify this belief in their ratings, which in turn reify the uncertainty surrounding unreliability or instability into a knowable risk quantity. The belief is not necessarily true—defaults will most likely not occur, for example. But the *perception* of possible issues in repayment shared generally by the market generates the underlying racial difference held within the bond because the bonds become less liquid.

At no stage is this process explicitly hung on race, yet race alters the outcome. Everyone has understood this to be the case for decades (Lovisek & Crowley 1990), so a narrative around correlation with instability performs the role of justifying the racial difference in credit rating.

My study, though it approaches the question in a novel and expansive way, is hardly the first to point this out. And indeed, ratings agencies themselves have been at times forced into commenting on the problem. Norris (2023: 920) quotes the S&P President, for example, justifying the problem of racial

difference in his agency's assessment as highly correlated with other fundamental markers of creditworthiness: 'a certain mix of population… (is) more of a drain as opposed to being more of a contributor.' This is barely veiled as far as racism is concerned.

Yet there need not be a racist in the captain's chair for racialized outcomes (Ranganathan 2016). The fact remains that lower credit ratings correlate with higher interest rates, and as such make the bonds more attractive as investments for investors who seek the steady and reliable (and tax-free) revenue that municipal bonds supply. It is a win-win solution for finance, with the municipality left holding the bag of a larger debt obligation.

Is it, then, the agency or the investors who generate this racial difference? Bobo Kluegel and Smith (1997: 16) put forward an argument of laissez-faire racism, which includes "a tendency to blame blacks (sic) themselves for the black-white gap in socioeconomic standing, and resistance to meaningful policy efforts to ameliorate US racist social conditions and institutions." This description in some ways best describes the majority of interview subjects I spoke with, or indeed the industry as a whole's approach to decades upon decades of scholarship showing that credit ratings have an inherent problem with race. The discourse of blame circles around claims of instability and unprofessionalism—claims that I argue are in fact shared stereotypes about suburbs that shape their financial reality. My research challenges this stereotype not just by pointing to data which clearly shows an independent correlation between race and worse ratings (as others have done), but also by challenging the discourses of instability and risk and presenting another, more plausible effect.

Building a Debt Machine

I turn now to a set of considerations for possible future research. This study has looked at the differential outcomes suburban cities received when they issued debt, and explored the differences in market experience and structural outcome those cities had when they accessed that market. This

dissertation did not ask the equally important question, how the consensus around municipal bonds arose at all. The municipal bond market is a monolith within public finance precisely because of the length of its position of power (Sbragia 1996). Yet it is not without issues. The findings in this dissertation, and in multiple other studies spanning decades of scholarship from multiple disciplines, make it clear that for all of its benefits for municipal issuers, the municipal bond market contributes to racially disparate outcomes. Why, then, do cities use it instead of other means for accessing capital? Who is telling them this is a good idea?

Although beyond the scope of this dissertation, a few interviews hinted that the consensus around municipal bonds was learned. Most city finance officers were trained in municipal bonds at CDIAC, a state agency which hosts a series of seminars annually throughout California, as well as maintains an on-line database of training webinars around the municipal bond market. CDIAC relies on a mix of public servants (typically finance officers) and private firm staff to run these training sessions. In 2019, for example, CDIAC gave 41 seminars and webinars, led in the aggregate by 22 finance officers, 12 bond counsel lawyers, 10 underwriters, and 9 financial advisors (CDIAC nd). Many of the public sector representatives appeared on panels together following presentations by private sector employees to comment on their trainings, inflating their numbers to some degree.

CDIAC teaches a few key things to finance officers. First, debt is a desirable way to fund projects because it allows for inter-generational equity in public goods. Several finance officers, when pressed about why the use of bonds was desirable, stressed this. For example, one advisor from a growth suburb said:

> *CDIAC has a guide. And it basically tells you if you have something that's, say, a long-term project, if you are going to build a police station, it might have a 50-year lifespan. So you are not going to want to use current cash because that's all going to be your current residents paying the upfront costs for people who are going to be using this asset for over fifty years. There's some inter-generational inequity if you do that. And so*

how do you get whoever is using the asset to be able to pay over the long-term, usually

that's going to be through a bond.

Other finance officers related similar reasoning. By allowing the tax-payers of tomorrow to pay for a public good, finance officers were able to spread equitable use of the good throughout the lifetime of the good itself. Putting aside the question of whether future generations of potential abolitionist minded people might want a public good like a police station, the solution also entails a cost—capital is more expensive.

The idea of inter-generational equity came up as a key reason for debt finance for several, but not all, municipal finance officers. As one finance officer who preferred pay-as-you-go over capital finance whenever possible said, "When you are in your 4-5% interest rate environment, over 30 years you are spending a lot on interest. And so my philosophy has always been I can get twice the amount of infrastructure by doing it on a pay-as-you-go basis." This take has a certain degree of logic to it. And yet most finance officers I spoke to felt the inter-generational equity aspect outweighed the additional costs to infrastructure. Perhaps the skeptical finance officer's take was affected by their lengthy multi-decade relationship with a financial advisor (the city was the sole Type A city I interviewed, where the city had a longstanding relationship with a firm), where all parties were not tied to each other merely via channeled of bonded debt. But this is mere speculation which future research might clear up.

Yet, taking as a given the idea of inter-generational equity as a key reason for multi-year interest-based debt, this does not fully explain: why bonds? Other channels exist to borrow money over time and spread equity around—direct bank loans for one, and for some types of infrastructural projects grants or state-backed loans. Indeed, several interview subjects expressed that the California State Revolving Loan Fund (SRLF), earmarked for utility infrastructure, was a highly appealing alternative in the low-interest terms of debt it offered (though all parties I interviewed who discussed the SRLF admitted the application process was overly burdensome).

CDIAC clearly emphasizes bonds in its training. Of the 41 seminars and webinars offered in 2019, 12 included the word 'bond' in their title. None were dedicated to other types of long-term debt, not even multiple state-run options for low-interest debt. This intriguing oversight on the part of the state's debt training agency is striking, given that the state itself runs the SRLF and other similar programs.

While state-run training agencies are certainly a part of the picture, policy diffusion is also key in a neoliberal political economy, with ideas changing and adapting rapidly to local contexts and receiving state sanction at key moments (Peck & Theodore 2010). In the municipal bond market, policy ideas spread quickly from city to city—perhaps unsurprising, given the relatively small bench of financial advisory firms. Controversial debt practices like TIF spread like wildfire throughout the state of California, and then beyond (Black 2014). While the use of traditional TIF-funded redevelopment agencies is now forbidden in California, new technologies allowing cities to access the municipal bond market through unique TIF-like revenue streams are constantly innovated like Enhanced Infrastructure Financing Districts and Community Revitalization and Investment Authorities (CALED 2016). Further research might track the spread of these technologies on the ground in California, which would help to better understand how financial services providers build consensus around types and uses of debt. Are they associated with specific firms, for example? And at what point does CDIAC grant a state imprimatur to a risky endeavor like TIF-based finance?

In short, further study might explore how the consensus around bonds are built—how city officials are taught that meeting capital needs through bonds is in their best interests, and how ideas about what types of bonds to use spread.

I have argued in this study that the financial advisor takes on a key place of trust in the municipal bond process, particularly for smaller borrowers without substantial in-house expertise in debt management. I have further argued that the market for such advisors is highly segmented within the market overall, by the racial makeup of a city's residents but also by their income. In short, we know why cities pick these firms, and something about how. How these firms learn about policy innovations and

spread convince smaller cities to use them is a key outstanding question. We know why larger cities adapt these technologies (Weber 2010; Ashton Doussard & Weber 2014, Farmer & Weber 2023). But to borrow a term from Peck and Whiteside (2016), how smaller cities become debt machines in the first place is underexplored.

Who Governs Municipal Debt?

Urban studies scholarship has yet to resolve a core dispute around the precise role of debt in governing cities. It is clear that debt has both disciplining and more direct fiscal impacts on local agencies (Peck & Whiteside 2016; Farmer & Weber 2023), though substantial dispute surrounds the exact mechanisms. My dissertation presents a more nuanced approach to this core problem. The research in this work argues that neither the financial sector (meaning, Wall Street banks) nor cities themselves are necessarily in the driver's seat when it comes to urban debt; rather, the situation is substantially more complex and varies by city.

Large cities seem to be largely in command of their municipal debt processes, a finding in tune with other scholarship which argues that issuers generally play an active role in the financial transactions they utilize to fund their infrastructure, though they may do so in a way which emphasizes financial logics at their own ultimate expense (Ashton Doussard & Weber 2014; Weber 2010, 2021). These findings cut away from recent arguments by scholars who argue that local players in the bond industry push development onto cities (Jenkins 2021). Nothing in my findings point to a major city like Los Angeles being pressured into issuing any debt, for example. The city has a stable of eager partners, none of who are in the driver's seat of municipal policy.

However, the situation in smaller city contexts is clearly far more complex. Some cities, those with what I have deemed Type A and Type B arrangements, have ceded substantial authority over their financial governance to an outside party—the financial advisor. The breadth of this authority ranged

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substantially, but often goes far beyond merely advising the city on how to issue a bond or whether a proposed deal from an underwriter was a good one.

Unsurprisingly, advisors expressed a preference for this type of arrangement, where they could have substantial input into a city's financial planning rather than simply finding the money. In this work, I have shown that individual financial advisor firms tend to work in market segments, with some preferring larger issuers, some mid-sized and small issuers with resources, and some gravitating towards Struggling cities. These latter two types of financial advisors can take on over-sized roles in the mechanisms of debt a city might utilize to access capital funding.

One financial advisor described the origins of his firm to me. The firm started out not to issue bonds per se, but rather as a one-stop shop for small cities seeking to access TIF through redevelopment agencies in the 1990s and 2000s. The firm specialized in promoting this speculative channel as a backdoor to financing urban entrepreneurial activity, with successful transactions throughout their region of preference. Cities embraced this model, not because of some fiat from credit ratings agencies or an outside class of bondholders pulling the strings of governance (Streeck 2017), but because of good old-fashioned salesmanship. Only the dissolution of the redevelopment agency structure in California forced the advisor to embrace other types of bond transactions as a survival measure. The firm has since diversified their strategies, but continue to promote funding solutions arguably in search of a problem: pension obligation bonds, other types of land-backed debt, and TIF workarounds described above. All of these technologies can make a balance sheet look better in the short-term, but create substantial additional costs for cities. Though the firm has many clients it demonstrates a strong preference for working with low-income cities.

Combining this finding with work by Pacewicz (2013), who argued that city economic development staff pushed development projects at least partially to better their chances for career advancement, it is easy to imagine how ideas like TIF take on a life of their own outside of a larger agency context. Local administrative officials are looking for quick wins. And financial advisors are

looking for long-term projects which require deep planning and stretch multiple years of contractually guaranteed income. The two meet in a win-win scenario, with taxpayers shouldering the risk of success or failure from the economic development project. Far from being pushed into debt by major banks as a measure of financial control, TIF and projects like it are promoted through word of mouth, through staff turnover at agencies, and through direct contact with city officials and (occasionally, by 'going political') to elected officials themselves. The banks play little role in this process, besides waiting in the wings to grab up the largest spread they reasonably can.

This dissertation has not delved deeper into consensus building within a region (or beyond) around technologies of finance. But the findings here clearly could inform future inquiries in how outside agencies promote ideas like TIF using unique channels better suited to a smaller agency context. Future inquiry might try to better understand how these ideas become 'good' choices for the smaller city.

Extraction, Interest Rents, and Race

One last core question left unanswered by this dissertation concerns the flows of money. Recent work by economic geographers has called for a renewed interest in following flows of money as a methodology to better understand relationships of power under capitalism (Hughes-McLure 2022, building on Christophers 2011). Bondholder secrecy makes this inherently a difficult prospect in the political economy of the US municipal bond market (Hager 2016), but not a completely impossible one. But the question remains: would such an inquiry be worthwhile?

Bonds create a stream of interest payments to an investor class—this is their primary purpose, after all, and their primary appeal to convince individuals or institutions to share their capital with a local government. Interest is paid to the bondholder, not the primary lender, though the owed interest may by capitalized in the monetary value underlying any exchange. Indeed, bondholders frequently exchange their bonds for cash or other considerations on the secondary bond market. The control of the instrument

thus generates economic rents for the investor, in line with a general trend towards rentiership under capital (Christophers 2020).

I have shown in this dissertation that higher interest rates accrue from cities proportional to the percentage of non-white residents who live there. Interview subjects indicated that these higher interest rates were justified reflections of underlying credit assessments of some inherent municipal instability, though substantial evidence casts doubt on these claims. But the question remains, who benefits, ultimately, from these higher economic rents? Is the investor class, like the underwriter class or even the financial advisor class, similarly stratified? And if not, who seeks out these higher yield bonds? Are underwriters telling the truth when they argue these lower-rated bonds are harder to sell? Is it accurate to say they trade less easily and on worse terms on the secondary bond market? And who buys them up there?

The identity of bondholders is a key but missing piece of the puzzle of the US municipal bond market. The present work concerns primarily the point of issuance of the bond, not the lifespan of the instrument which can last up to 30 years in time. Future inquiry might make use of bond transaction data to paint comparative pictures of bonds throughout their life, and assess some of the core claims raised by interview subjects of this work but beyond the scope of the project.

If indeed racialized communities are sought after by specific types (or even specific) bondholders, the finding would be a key one. Keynesians believed that bonds were a sometimes advisable alternative to taxation as a funding stream not only because they allowed for stimulus without the side-effects of taxation, but also because they allowed for the recirculation of money through a community when bondholders lived within the community where interest was paid. When bondholders are citizens of the bond issuing community, public money spent on debt service interest payments actually remains within the community and is available for spending locally, further pumping up local economic activity (Hansen 1946). In short, Keynesians believed that 'who owns the government debt obligations and who pays the taxes required to service the interest on the debt is a matter of great significance' (Hansen 1947). While it

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is clearly not the case today that most municipal bondholders are residents of the bond issuing community in the US municipal bond market, a finding that most municipal debt leaving communities of color ends up in the hands of a concentrated class of investors would be a substantial revelation of monetary extraction from communities. Following the money might lead to startling revelations about the nature of wealth redistribution in the US political economy.

Is another way possible?

Many cities opting for what I have termed a Type C arrangement, meaning, a one-transaction relationship with financial advisors, have probably done so as a cost-saving measure. And why not? Beyond the mere costs of a long-term relationship with an outside firm, additional costs might add up. As I have discussed above, Type B advisory arrangements might arguably easily lead a city down a primrose path to risky financial products like those mentioned above far more easily than a Type C arrangement. Is the best answer to this problem really to have private firms on retainer?

I would argue that other solutions might be possible. While no small city can realistically afford an in-house debt expert, there is no reason that these tasks must be left to private firms. Regional joint powers authorities could overcome the shortcomings small cities have in terms of scalability, or even approach borrowing much like Los Angeles does—using short-term debt for quick buys, and pooling multiple issuers for larger debt transactions at strategic moments. Such regional entities could collectively employ debt management desks which would minimize the roles of outside contractors but also create the expectation of future deals. Scaling up as a policy solution can bring new resources to bear on a problem and collectivize resources. Cities already collaborate through coalitions of governments (COGs) or joint powers authorities (JPAs) on a wide range of things. Why not on finance? Or perhaps a county (or even the state of California itself) might be better suited to capitalize on economies of scale and on in-house bureaucratic expertise. This is hardly the first call for such a tactic; Bhatti (2015) argued as much on the heels of the Great Recession. Even a major issuer like Los Angeles utilizes MICLA to benefit from

bundling smaller debt transactions and achieve both economies of scale and mitigate interest risk. The cost of organizing a similar inter-municipal collective would almost certainly outweigh the benefits on any single bond transaction, but over time it would create substantial savings for disadvantaged suburbs.

While this might challenge the problem of scale smaller infrequent issuers struggle with, what might challenge the stereotype of unprofessionalism and instability which is associated with lower credit ratings? It is harder to see a potential avenue for change here beyond scaling up to a more regional approach to borrowing, which could lump together communities as security for debt and thus obviate the perception of instability investors bring to bear. While some advances in litigation have improved credit outcomes for some consumers, the fact remains that (like for credit scoring) the credit ratings system is controlled by an oligopoly that has proven incredibly difficult to break into. Just as the credit scoring system has continued to experience near constant litigation around racial discrimination with little success in reform, litigation seems an unlikely pathway out of the problem of credit ratings. The credit rating system is, after all, designed with the goal of creating difference. That some of that difference under racial capitalism is based on race should hardly be surprising. And suing one of three credit rating agencies for an opinion (recall that unlike credit scores, ratings are merely opinions) that has racialized effects or is even overtly racist in character, might not have the desired effect, and it might well make it harder to get a credit rating the next time around. Even states, after all, rely on credit ratings agencies; the State of California routinely contracts with members of the oligopoly to rate its own bonds.

Rather, cities with large proportions of people of color might consider other alternatives for meeting credit needs beyond the municipal bond market. While direct bank loans may offer less reasonable terms for cities than bonds, the disadvantages of this channel might be lower for cities with solid track records of repayment and otherwise decent revenue environments.

State policymakers from these communities might also want to discuss possible pathways for the State of California to help disadvantaged cities access needed capital. California deals with the municipal bond market much as LA does, though it is arguably even larger and more influential. The state, in short,

brings considerable heft to conversations with the municipal bond market that smaller suburbs could never have. In the extreme, the state could even consider financing municipal debt itself. North Dakota's public bank at times underwrites local municipal debt within the state, for example, though this practice is not the public bank's primary role.

Conclusion

In 2015, one year after issuing the refunding bonds discussed in the introduction to this work, Bell Gardens again entered the municipal bond market. The city used a new financial advisor and a new underwriter, and borrowed $5.8 million to refund a ten-year old debt via a lease revenue bond. The initial debt, borrowed in 2005, had been for $4.8 million; this new debt was split roughly in half between refunding the old debt and providing additional funds for improvements at city hall. In 2015, S&P rated the city as A+. At the time of this dissertation's writing, Bell Gardens is still paying off the 2015 lease revenue bonds. Issued for $5.8 million, ten years later the city still owes $4.2 million in principal after paying over $400,000 each year. Bell Garden's residents will continue paying for this debt until at least 2040, unless the city opts to refinance it again. The underwriter netted $87,000 on the deal—1.5% of the bonds' par value. The city spent another $150,000 on bond counsel, the financial advisor, and other support in the issuance. Overall the costs amounted to 4% of the par value of the bonds, slightly less than the 2014 issue I explored in the introduction but still a quite high rate (Bell Gardens 2015). Annually, the debt service typically amounts to about 1% of the city's overall revenues, though in a recession this might change quickly. As discussed in Chapter 2, Bell Gardens is highly reliant on funding from its local casino, which are cyclical in nature and fluctuate substantially (Bell Gardens 2022).

Was the 2015 bond transaction a good deal? There is no simple answer to this question. We do know, however, that Bell Gardens had issued a second bond in as many years with a completely new set of outside partners. The underwriter on the 2015 deal, BOSC, a subsidiary of Tulsa-based BOK financial, was a rare actor in the California market. For the financial advisor, it was also a one-transaction deal.

Neither firm would work with Bell Gardens again; for the underwriter, they would only work a few more deals in the state at all. In short, neither firm had a strong incentive to offer Bell Gardens their best possible deal.

The structural arrangements used by the city would have pleased best-practices adherents who emphasized the importance of putting out an RFP for each transaction. But in the end, it may have contributed to the elevated costs Bell Gardens paid to borrow the money. The city also likely paid a premium on its interest rate due to a lower assessed credit rating. At both stages, the high amount of Latino residents would typically correlate with worse terms.

The racial capitalist economic system, of which the municipal bond market is only a small part, creates racial difference, often using the discourses of risk and best practices. I have endeavored to show the structural arrangements and differences experienced by low-income suburbs with small percentages of white residents. These cities are largely isolated from mainstream financial institutions, rely on a subset of providers who work largely in a parallel market to larger cities or other issuers. These suburbs structure their relationships casually, and do not seek out long-term arrangements for financial planning or advice. They do this in adherence to accounting best practices, practices largely eschewed by other small issuers. Size also matters, with larger cities able to some degree to mitigate these impacts better than smaller cities. Suburbs thus continue, in part, their role of loci of racial difference, with some entities able to capitalize on a white resident base and others paying a premium for their debt.

The beauty of the US municipal bond market is its seeming invincibility. Even Destin Jenkins, arguably the most important recent scholar to research and publish about municipal debt, has commented on the trickiness of articulating an effective abolitionist approach to the municipal bond market as a whole that does not in the end simply further restrict credit to communities made up of people of color (Appel 2021). The key role of racial difference in municipal credit systems may be inevitable as long as our political economy continues to rely on a system of municipal borrowing structured to inherently generate value for investors through perceptions of difference.

Yet policymakers are not without options. The City of Los Angeles, for example, requires annual disclosures from any bank doing business with the city (City of LA nd). Though the city could demand more of its partner financial institutions, the practice does establish that government agencies which are large enough can effectively make some demands on finance and win. Similarly, state-level policymakers in conservative states have begun to restrict access to municipal credit markets to banks which require environmental, social, and governance (ESG) disclosures in their offering statements. Even S&P caved in to the State of Texas's demands to cease using ESG benchmarks in its assessment of Texas municipality creditworthiness (Paxton 2023). While the goals could hardly be described as progressive, the fact remains that the financial services sector can and will respond to pushback from policymakers when their access to the municipal bond market is threatened.

In a progressive state like California, with rapidly diversifying suburbs, a lack of higher-scale support for infrastructure development, and one of the largest municipal bond markets in the world, the time for action could not be better to take steps to mitigate the role of racial difference in the municipal bond market. Steps by the State of California would reverberate beyond the borders of the state itself; no other state is as key to the functioning of the market overall. If anything, technologies like TIF and the lease revenue bond have demonstrated the amazing ability of the municipal bond market to adapt. Innovations at the regional level would doubtless by copied by other states or agencies and readily accepted by investors still thirsty for the tax-free yields municipal bonds provide.

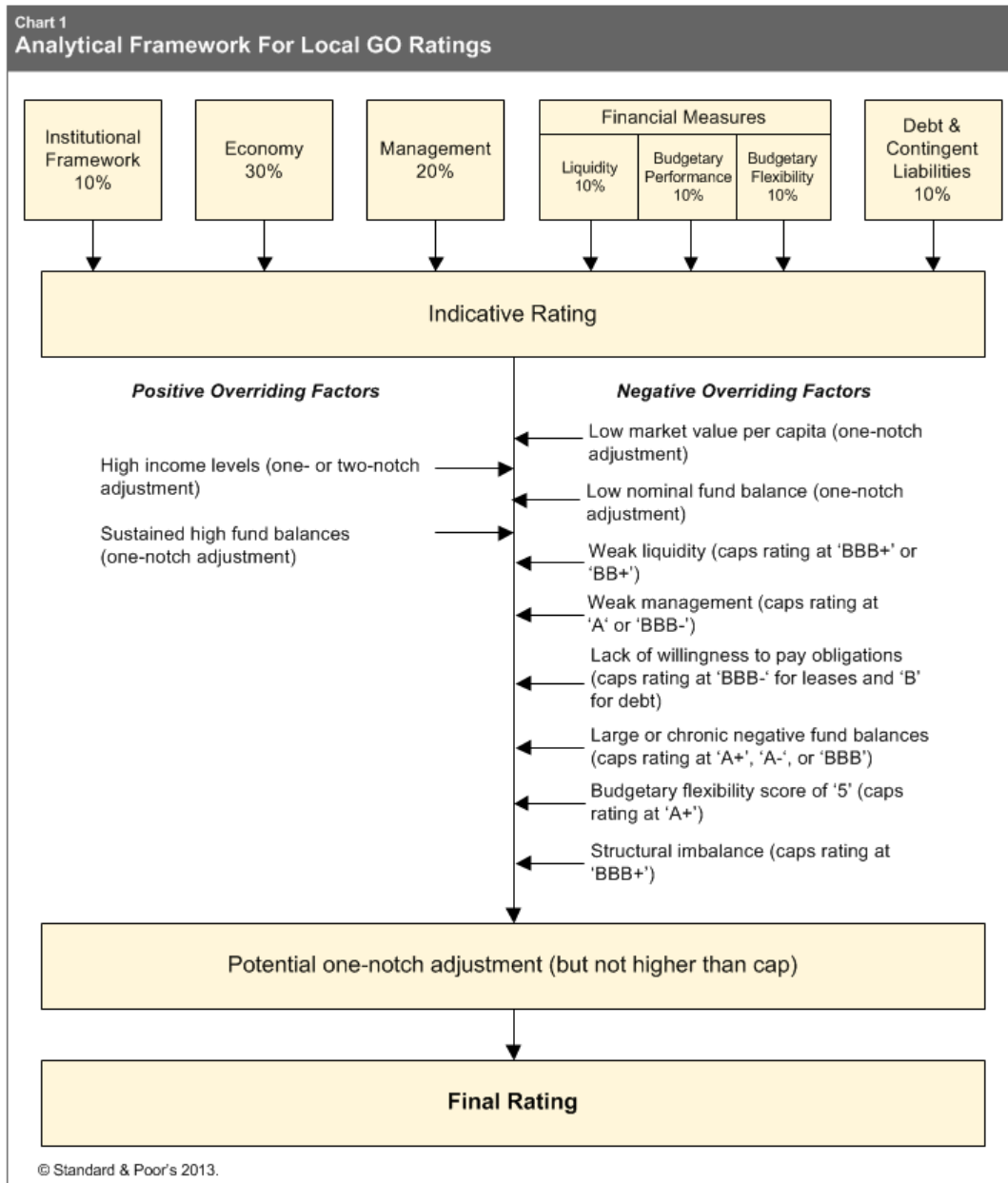**Appendix 3.1: Credit Ratings Scorecards from Moody's, S&P, and Fitch**

Figure A1.1: Moody's.

Methodology Scorecard: Analytical Starting Point

Appendix A: US Local Government General Obligation Scorecard

	Very Strong	Strong	Moderate	Weak	Poor	Very Poor	
	Aaa	Aa	A	Baa	Ba	B & Below	Weight
Economy/Tax Base (30%)							
Tax Base Size: Full Value	> $12B	$12B ≥ n > $1.4B	$1.4B ≥ n > $240M	$240M ≥ n > $120M	$120M ≥ n > $60M	≤ $60M	10%
Full Value Per Capita	> $150,000	$150,000 ≥ n > $65,000	$65,000 ≥ n > $35,000	$35,000 ≥ n > $20,000	$20,000 ≥ n > $10,000	≤ $10,000	10%
Socioeconomic Indices: MFI	> 150% of US median	150% to 90% of US median	90% to 75% of US median	75% to 50% of US median	50% to 40% of US median	≤ 40% of US median	10%
Finances (30%)							
Fund Balance as % of Revenues	> 30% > 25% for School Districts	30% ≥ n > 15% 25% ≥ n > 10% for SD	15% ≥ n > 5% 10% ≥ n > 2.5% for SD	5% ≥ n > 0% 2.5% ≥ n > 0% for SD	0% ≥ n > -2.5% 0% ≥ n > -2.5% for SD	≤ -2.5% ≤ -2.5% for SD	10%
5-Year Dollar Change in Fund Balance as % of Revenues	> 25%	25% ≥ n > 10%	10% ≥ n > 0%	0% ≥ n > -10%	-10% ≥ n > -18%	≤ -18%	5%
Cash Balance as % of Revenues	> 25% > 10% for School Districts	25% ≥ n > 10% 10% ≥ n > 5% for SD	10% ≥ n > 5% 5% ≥ n > 2.5% for SD	5.% ≥ n > 0% 2.5% ≥ n > 0% for SD	0% ≥ n > -2.5% 0% ≥ n > -2.5% for SD	≤ -2.5% ≤ -2.5% for SD	10%
5-Year Dollar Change in Cash Balance as % of Revenues	> 25%	25% ≥ n > 10%	10% ≥ n > 0%	0% ≥ n > -10%	-10% ≥ n > -18%	≤ -18%	5%
Management (20%)							
Institutional Framework	Very strong legal ability to match resources with spending	Strong legal ability to match resources with spending	Moderate legal ability to match resources with spending	Limited legal ability to match resources with spending	Poor legal ability to match resources with spending	Very poor or no legal ability to match resources with spending	10%
Operating History: 5-Year Average of Operating Revenues / Operating Expenditures	> 1.05x	1.05x ≥ n > 1.02x	1.02x ≥ n > 0.98x	0.98x ≥ n > 0.95x	0.95x ≥ n > 0.92x	≤ 0.92x	10%
Debt/Pensions (20%)							
Net Direct Debt / Full Value	< 0.75%	0.75% ≤ n < 1.75%	1.75% ≤ n < 4%	4% ≤ n < 10%	10% ≤ n < 15%	> 15%	5%
Net Direct Debt / Operating Revenues	< 0.33x	0.33x ≤ n < 0.67x	0.67x ≤ n < 3x	3x ≤ n < 5x	5x ≤ n < 7x	> 7x	5%
3-Year Average of Moody's Adjusted Net Pension Liability / Full Value	< 0.9%	0.9% ≤ n < 2.1%	2.1% ≤ n < 4.8%	4.8% ≤ n < 12%	12% ≤ n < 18%	> 18%	5%
3-Year Average of Moody's Adjusted Net Pension Liability / Operating Revenues	< 0.4x	0.4x ≤ n < 0.8x	0.8 x ≤ n < 3.6x	3.6x ≤ n < 6x	6x ≤ n < 8.4x	> 8.4x	5%

Source: Moody's (2019:18).

Figure A1.2: S&P

Chart 1
Analytical Framework For Local GO Ratings

Institutional Framework 10%	Economy 30%	Management 20%	Financial Measures			Debt & Contingent Liabilities 10%
			Liquidity 10%	Budgetary Performance 10%	Budgetary Flexibility 10%	

Indicative Rating

Positive Overriding Factors   *Negative Overriding Factors*

High income levels (one- or two-notch adjustment)

Sustained high fund balances (one-notch adjustment)

Low market value per capita (one-notch adjustment)

Low nominal fund balance (one-notch adjustment)

Weak liquidity (caps rating at 'BBB+' or 'BB+')

Weak management (caps rating at 'A' or 'BBB-')

Lack of willingness to pay obligations (caps rating at 'BBB-' for leases and 'B' for debt)

Large or chronic negative fund balances (caps rating at 'A+', 'A-', or 'BBB')

Budgetary flexibility score of '5' (caps rating at 'A+')

Structural imbalance (caps rating at 'BBB+')

Potential one-notch adjustment (but not higher than cap)

Final Rating

© Standard & Poor's 2013.

Source: S&P (2013)

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Figure A1.3: Fitch

Key Rating Drivers

Key Rating Driver	Metric Profile	Additional Analytical Factors
Financial Profile	• Financial Resilience • Revenue Volatility	• Fiscal Oversight • Revenue Capacity • Contingent Risk • Nonrecurring Support or Spending Deferrals • Political Risk • Management Practices
Demographic and Economic Strength	• Population Trend • Employment Trend • Adjusted Median Household Income (MHI) Level • Unemployment Rate • Educational Attainment • Economic Concentration • Population Size	• Economic and Institutional Strength • Concentration Risk • School District Enrollment
Long-Term Liability Burden	• Overall Debt and Fitch-Adjusted Net Pension Liabilities to Personal Income • Direct Debt and Fitch-Adjusted Net Pension Liabilities to Governmental Revenues • Carrying Cost of Long-Term Liabilities to Governmental Expenditures	• Pension Assumptions • Pension Contributions • OPEB Contributions • Debt Structure • Capital Demands

Source: Fitch Ratings

Source: Fitch (2023:4).

Appendix 3.2

Descriptive Statistics for the Model 1 Dataset, Cities Under 100,000 in population

Variable Name	n	Mean	Median	Maximum	Minimum	Standard Deviation
WHITE	5237	0.502	0.540	1.000	0.000	0.254
AREA	5257	12.49	8.33	94.55	0.44	12.89
POP	5241	38,039	33,629	99,949	91	26,476.8
MED_INC	5232	9.282	8.518	29.698	3.155	4.345
RENT	5236	0.342	0.335	0.898	0.010	0.150
SF_HOME	5236	0.651	0.638	1.000	0.044	0.216
GROWTH	4964	0.0077	0.0039	0.2914	-0.2819	0.0194
PROP	4443	0.285	0.259	0.899	0.000	0.170
EMPLOYEE	4443	0.316	0.317	1.000	0.003	0.119
DEBT	4443	0.056	0.032	3.921	0.000	0.129

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