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Binay K. Adhikari
The University of Texas Rio Grande Valley

David C. Cicero

Johan Sulaeman

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Binay K. Adhikari*
University of Texas Rio Grande Valley

David C. Cicero
Auburn University

Johan Sulaeman
National University of Singapore

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Abstract:

We provide evidence that publicly listed firms respond to capital supply conditions shaped by local investing preferences. The local supply of credit is higher and more stable in areas where demographics suggest that local investors prefer safer portfolios. We find that firms headquartered in these areas use more debt financing. The demographics-leverage relation is more pronounced for non-investment-grade and unrated firms that cannot easily tap public markets (about two-thirds of U.S. public companies). Analyses of firms' financing activities around exogenous shocks to credit supplies – including interstate banking deregulation and the 2008-2009 financial crisis – support the capital supply effect. As demographics change slowly, local investors' preferences may contribute to the heterogeneity and persistence of public firms' capital structures.

* Corresponding author. Robert C. Vackar College of Business and Entrepreneurship, University of Texas – Rio Grande Valley, Edinburg, TX 78541. Email: binay.adhikari@utrgv.edu. Tel: 956-665-3827.

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We provide evidence that publicly listed firms respond to capital supply conditions shaped by local investing preferences. The local supply of credit is higher and more stable in areas where demographics suggest that local investors prefer safer portfolios. We find that firms headquartered in these areas use more debt financing. The demographics-leverage relation is more pronounced for non-investment-grade and unrated firms that cannot easily tap public markets (about two-thirds of U.S. public companies). Analyses of firms' financing activities around exogenous shocks to credit supplies – including interstate banking deregulation and the 2008-2009 financial crisis – support the capital supply effect. As demographics change slowly, local investors' preferences may contribute to the heterogeneity and persistence of public firms' capital structures.

Keywords: Investor Preferences, Local Demographics, Capital Structure, Segmented Markets, Fixed Income

1 Introduction

Our understanding of corporate capital structure largely comes from research on firms' demand for capital. The existing literature supports both trade-off and pecking order theories but also reveals their significant shortcomings. As highlighted by Graham and Leary (2011), these theories do not explain much of the cross-sectional variation in capital structures. They also cannot explain why firm-specific financial structures are so highly persistent over time (Lemmon, Roberts, and Zender, 2008). These issues have led researchers to explore other explanations for capital structure, some of which focus on capital *supply* conditions.[1]

We explore a new capital supply explanation by considering whether capital structures of publicly listed firms reflect the preferences of local investors. Our hypothesis is based on two main premises. First, firms often raise capital – especially debt capital – in local private markets, due to the higher costs of tapping the public markets. Second, the risk tolerance and investing preferences of the local populace shape the local supply of various forms of capital.[2] Using fundamental demographics to predict preferences, this paper provides new evidence that firms' financial policies reflect differences in the supplies of various forms of capital driven by local investors' risk preferences.

Although local preferences may seem irrelevant to the capital structures of publicly traded companies as they could presumably raise capital at low marginal costs in national (or even international) markets, a closer examination uncovers a different reality. A large majority of public companies seem to lack easy access to public capital markets. This is especially true for firms that are either not rated or rated below investment grade by credit rating agencies (Faulkender and Petersen, 2006; Sufi, 2009; Tang, 2009). Colla, Ippolito, and Li (2013) show that these firms, which together make up about two-thirds of all public companies, raise most of their debt capital in private debt markets. Moreover, even highly-rated companies raise public debt infrequently. Securities Data Corporation (SDC) issuance data show that the median investment-grade firm

[1] Recent advances in this area are substantial enough for Graham and Leary (2011) to note that "Several recent studies suggest that capital market segmentation and supply conditions significantly influence observed financial structures."

[2] Local preferences are relevant for capital supply conditions so long as investors and banks over-weight their portfolios towards locally headquartered companies. This pattern is strongest with private lending. Banks rely to a degree on local deposits, which affect the amount of capital available for bank loans (Kashyap and Stein, 2000). In addition, bank lending tends to be local (Petersen and Rajan, 2002; Becker, 2007); in fact, at least 50% of deposits must be used for loans within their state of origin (see the regulations promulgated under Section 109 of the Financial Services Modernization Act of 1999 (Gramm-Leach-Bliley Act)). In addition, Coval and Moskowitz (1999) and Ivković and Weisbenner (2005), among others, show this local preference to be substantial for stock investors.

issues public debt just once every 5 years, whereas the median non-investment grade firm issues public debt just once every 10 years, and the typical unrated firm never issues public debt.

We build on these facts to hypothesize that local investors' preferences affect capital structures of publicly listed firms. We use aggregate local demographics to proxy for local investors' risk preferences, and test whether these measures predict firms' financing and capital structure choices.[3] We construct our measures based on fundamental demographic variables, such as the average age of and the proportion of women in the local population. As discussed in more detail below, we expect women and older individuals to prefer holding safer assets, which would translate into a greater and more stable supply of bank loans and debt capital in areas where these demographics prevail. In contrast, a younger, male-dominated local populace may provide more equity capital, resulting in lower leverage in the capital structures of resident public firms.

It is instructive to begin with an example. The retail food industry is useful to consider in this context. Several grocery store chains have been operating in the U.S. for over a hundred years. Although they compete on product selection and quality, business models in this industry are relatively homogenous. Because most grocery stores have origins in their local communities, prominent publicly traded grocery chains are headquartered across the country, in areas with varied demographics. Figure 1 shows a map of the U.S. counties where grocery store chains in our sample were headquartered in 1995, the midpoint of our sample period. The colors of the county outlines indicate the variation in a composite measure of the average age and sex composition of the local demographics (a higher number indicates more females and an older population) across these grocery chain locations.

The two largest grocery store chains in 1995 are Safeway and Kroger. Both had about $5 billion in assets. Safeway was headquartered in Southern California (Alameda County), where there are about the same number of men and women, and an average age of 34, which is relatively young. In contrast, Kroger was headquartered in Cincinnati, Ohio (Hamilton County), where there are 1.1 females per male, and the average age of 36 indicates a considerably older population. If firms' financing decisions partially respond to the local capital supply – and thus the investing preferences of the local population – these contrasting demographics suggest that Safeway would

[3] Previous papers have shown other effects of local demographics on individual and corporate financial decisions. Graham and Kumar (2006) show that retail investors' demographics affect their portfolio holdings. Becker, Ivkovic, and Weisbenner (2011) provide evidence that local clienteles shape payout policy: firms pay more dividends when they are headquartered in areas with more senior citizens. They provide some evidence that managers cater to the preferences of local seniors because they hold their stock positions longer.

use less debt than Kroger. Indeed, we find this to have been the case. Safeway's leverage ratio (debt/total market value) in 1995 was 26%, whereas Kroger's ratio was 45%.

Going beyond this anecdote, we partition all grocery store chain firm-years in our sample according to a composite measure of the local population's age and gender characteristics.[4] Using the median of this composite measure, Figure 2 shows that across 1980s, 1990s, and 2000s, grocery stores headquartered in areas where demographics indicate that local investors prefer safer portfolios have consistently higher debt in their capital structures than those headquartered elsewhere. The results are quite striking. Grocery chains in areas with more female and older populations have leverage ratios that are 7.0%, 12.7%, and 17.1% higher than those in areas with fewer females and younger populations as we move across the three decades (each difference statistically significant at the 5 percent level). This simple analysis of firms from a homogenous industry that are naturally dispersed across the U.S. lends initial support for our hypothesis and motivates our more comprehensive analysis.

To conduct our full analysis, we must identify differences in risk preferences across communities. As mentioned above, we focus on two fundamental demographic characteristics, the average age of the local population, and the ratio of women to men in the population. These are not only salient features of a population (U.S. Census Bureau, 2010), they are also likely correlated with risk preferences. Prior research shows that people shift out of stocks and into fixed income securities and cash as they age (Bakshi and Chen, 1994; Brown, 1990; Dahlbäck, 1991; Fagereng, Gottlieb, and Guiso, 2017). Becker (2007) shows that this dynamic leads to higher levels of bank deposits in areas with an older population. Research also shows that women are more risk-averse than men, and gender-related attitudes toward risk affect the composition of investment portfolios (Hudgens and Fatkin, 1985; Johnson and Powell, 1994; Sundén and Surette, 1998; Bernasek and Shwiff, 2001; Barber and Odean, 2001). Based on these studies, we expect females and older investors to provide more debt capital than males and younger investors.

We use census data to identify differences in the average age and sex composition across counties in the United States using the decennial U.S. censuses. Some of our preliminary tests consider the impact of the local age and sex compositions separately, but we mainly focus on the relation between firms' financing choices and a composite index that captures both factors. The Local Age and Sex Composition Index (or *Local ASC Index*) combines areas' quintile ranks along

[4] We describe the demographic variables of interest and their construction later in this introduction.

each demographic dimension (1 to 5) into a composite measure, and therefore its values range from 2 to 10.[5] Figure 3 provides a U.S. map with our sample firms' headquarter counties shaded to indicate their *Local ASC Index* values. We identify a county as a *High ASC* area if its ASC index has a value of either 8, 9, or 10, and a *Low ASC* area if its index value is either 2, 3, or 4. The average age and ratio of women to men associated with *Low ASC* counties are 33.6 years and 1.01, respectively; whereas the corresponding figures are 37.8 years and 1.09 for High ASC counties, demonstrating the significant demographic heterogeneity across the U.S.

We find a robust relation between local risk preferences and firms' capital structure and financing choices. Variations in both age and sex compositions are independently linked to the level of debt in local firms' capital structure in the predicted directions. The combined effect is much stronger and holds in both simple univariate tests and panel regressions. In particular, panel regressions that include industry × year fixed effects and relevant control variables indicate that leverage ratios are approximately 2.5 percentage points higher in *High ASC Index* areas than in areas with a *Low ASC Index*. This represents a 10% difference compared to the average leverage ratio of 25 percentage points in our sample.[6]

We also evaluate security issuance decisions. It appears that firms located across areas with different demographics issue securities to raise new capital with similar frequency overall. However, the type of capital raised – either debt or equity – is correlated with proxies for local investors' preferences. Firms in *High ASC* areas issue more debt, whereas firms in *Low ASC* areas issue more equity. These patterns indicate that differences in capital structures across areas with different demographics are indeed related to firms' capital raising activities. This analysis also helps rule out the possibility that the demographics-leverage relation is driven by changes in leverage due to passive changes in book or market values.

Motivated by recent studies that find firms without credit ratings face significantly limited and segmented credit markets (e.g., Faulkender and Petersen (2006), Sufi (2009) and Tang (2009)), we partition firms by their credit rating status and evaluate the extent to which the subsamples are affected by local investors' preferences. We observe that the demographic-leverage relation is driven by firms without credit ratings and those with ratings below investment grades. These

[5] As shown in Table A3 results are robust to using modified versions of *Local ASC Index* calculated using either the decile or percentile rankings of the underlying demographic variables.

[6] The relation between local risk preferences and firms' financing choices is confirmed in tests evaluating new capital raising activities. Firms in High ASC areas are 14% more likely to issue debt and 11% less likely to issue equity in each year. These results suggest that the overall leverage results indeed reflect variation in capital raising activities rather than just differences in the growth of assets and market equity.

results indicate that among public firms, the preferences of local investors have a stronger impact on the capital structure choices of firms that face hurdles for accessing the broader capital markets.

Although the main results suggest that our demographic index reflects local capital supply conditions that are important determinants of public firms' capital structures, we consider alternative explanations for the results. For example, firms may choose their locations based on their industries or business models (Frank and Goyal, 2009). If location choices are related to firms' *demand* for capital, our results may reflect differences in firms' financing preferences rather than local capital supply conditions. Firms with more conservative strategies or less risky operations may locate in areas with a more risk-averse population, and those firms may optimally finance themselves with more debt. Fully disentangling supply and demand forces in this context is difficult, but we conduct a variety of tests that, collectively, suggest capital supply conditions play a role in determining capital structure decisions.

Our first strategy is to control for numerous firm characteristics and industry effects in our regressions. The demographic-leverage relation is robust to specifications that control for a broad range of covariates that seem relevant for capital structure decisions. The relation is also robust to the exclusion of firms in high-tech industries, indicating that it is not driven by the greater demand for equity capital in technology firms that tend to cluster in specific geographic regions. In some specifications, we include firm fixed effects to control for unobserved time-invariant heterogeneity. The results largely continue to hold though they are weakened, suggesting that firms respond to time-series changes in local investors' preferences. This is consistent with investor preferences being a causal determinant of firms' financing decisions.

Our second approach involves partitioning sample firms along dimensions that are expected to correlate with the importance of local capital markets, but not with firm heterogeneity along other dimensions. This strategy allows us to test if our index predicts financing activities of firms differently based on their reliance on local capital, while controlling for overall demographics, industry and firm characteristics. As discussed earlier, our index more strongly predicts debt ratios of unrated and non-investment grade rated firms. We also find that the relation between demographics and capital structure is concentrated in counties with higher personal incomes. This finding further supports a supply-side interpretation of the main results because local investor preferences are likely to matter more if residents have greater investible wealth.

Our third strategy is to directly analyze local debt supply conditions. If supply conditions vary with demographics as we propose, then a capital supply explanation for our results would be

more plausible. We propose two channels through which the preferences of a local population may influence debt supply conditions. Under a model of capital structure where firms trade off the costs and benefits of increased debt financing, both channels lead to a prediction that firms would rationally carry more debt when local investors are more risk-averse.

The first channel builds on the literature showing that individuals and banks have a local investing bias.[7] We find that higher ASC index values are associated with both elevated local bank deposits and greater borrowing by local firms through syndicated loans. Further, in high ASC index areas, a larger proportion of syndicated loans is funded by local banks and managed by a local syndicate lead. Importantly, however, we do not observe that these firms pay higher interest on their loans, even though they carry more debt overall. These results are consistent with a rightward shift in local debt supply curves allowing firms in high ASC areas to carry more debt without paying higher interest.

The *stability* of capital supply is the second channel through which local preferences may impact debt market conditions. We build on the insights of Massa, Yasuda, and Zhang (2013), who find that firms decide how much to borrow in part based on the stability of assets under management at the institutional investors holding their securities. We predict a similar relation between firms' financing decisions and the stability of the local capital supply resulting from local preferences. We expect that aggregate investible wealth is less volatile in areas where individuals are more risk-averse because more wealth is allocated to cash and fixed income securities. This allows local banks to have more stable deposits to fund loans. Local firms may therefore carry more debt because they are more confident that those debts can be rolled over at fair prices when they come due (Baker, 2009).[8] In support of this channel, we show that bank deposits are indeed less volatile in high ASC areas.[9]

Our final identification strategy evaluates how firms' financing activities change when they are faced with exogenous shocks to capital supply. This approach helps determine whether there

[7] See, for example, Coval and Moskowitz (1999), Ivković and Weisbenner (2005), Kashyap and Stein (2000), Petersen and Rajan (2002), and Becker (2007).

[8] For example, Choi and Choi (2016) argue that loanable bank deposits will be less sensitive to monetary policy and therefore more stable when the local population is more motivated to maintain bank deposits to store wealth as opposed to using them as an investment option.

[9] Prior research shows considerable time-series variation in the supply of both public and private debt capital, but private loans are more volatile overall. Moreover, bank lending varies with the economy to a much greater degree than public debt financing. Becker and Ivashina (2014) show that the cyclical nature of bank lending is driven by shocks to credit supply. These patterns may explain why firms in high ASC areas raise a greater fraction of private debt: the less risky portfolios of investors in these areas may stabilize the supply of bank capital and thus reduce the volatility of this particularly unstable form of debt capital.

is a causal relation between local investor preferences and capital structures.[10] First, we examine the staggered introductions of interstate banking deregulation under the Interstate Banking and Branching Efficiency Act (IBBEA), which relaxed state-level geographic barriers to lending. Previous studies provide extensive evidence of greater local capital supply and financing activity when states lowered these barriers.[11] In this context, we expect that the integration of banking markets had a greater impact on firms' financing decisions in areas where local debt supplies were previously constrained because the local population provided less debt capital. This analysis is similar in spirit to D'Acunto, et al.'s (2018) analysis of the differential impact of banking integration across firms conditional on the flexibility of output pricing. We find that local banking deregulation is followed by increased borrowing by public companies in low ASC areas, but not in high ASC areas. This is consistent with our expectation that high ASC areas represent local investors' stronger preference for safer assets, so firms in these areas already had ample supplies of local bank financing even before the deregulation. Firms in low ASC areas respond to this exogenous increase in debt capital supply by borrowing more to move closer to their optimal debt ratios.

Second, we analyze the 2008-2009 financial crisis, which was an extreme unexpected shock to capital markets. This period was a particularly difficult time to raise new capital, especially from banks, and many firms failed or experienced financial distress (Gorton, 2010; Almeida, et al., 2012). We find that how firms fared during the crisis varied with the stability of their local capital base. Firms in high ASC areas, particularly in wealthier counties, were more likely to raise new capital during this period. These firms were also more likely to survive the crisis as stand-alone companies than those in low ASC areas. Interestingly, these results suggest that firms in high ASC areas fared better even though they entered the crisis with higher leverage on average.

Although we cannot completely rule out alternative explanations, our collective results provide considerable evidence that local demographics influence local capital supply conditions and affect local firms' capital structures. As such, local investor preferences may help explain the

[10] Ideally, we would evaluate shocks to local preferences, but this type of analysis is challenging to conduct since demographics are quite stable over time. We focus instead on shocks to capital supply conditions.

[11] Examples include Jayaratne and Strahan (1996) Dick and Lehnert (2010), Goetz, Laeven, and Levine (2013), Amore, Schneider, and Zaldokas (2013), Favara and Imbs (2015), and Shenoy and Williams (2015). Some studies find mixed evidence on the link between banking deregulation and the capital raising activities of small, young and private firms that may suffer from acute agency problems (Rice and Strahan, 2010; Zarutskie, 2006). Our sample of public firm is less likely to suffer from agency issues to the same extent, so one may expect a stronger relation between deregulation and financing activities in our sample.

two empirical regularities highlighted at the beginning of this introduction. First, because local demographics change slowly, and firms rarely move their headquarters, supply effects could contribute to the persistence in firm-level capital structures observed across the economy. Second, the considerable variation in local demographics across regions may help explain the cross-sectional heterogeneity of capital structure across firms. Furthermore, this work shows that the investing preferences of firms' local capital base may affect firms' ability to weather harsh economic conditions as were seen during the financial crisis.

Our work extends the current literature on capital supply conditions and corporate financing. The results extend the insights of Becker (2007), which shows the importance of local capital for small private firms. Our paper finds that because of the high costs of tapping the public capital markets, local capital conditions also matter for publicly traded firms. It also builds upon the insights of Massa, et al. (2013) that the stability of the capital supplied by institutions that hold corporate bonds affects the amount of bond issuance. Massa, et al. (2013) also relate firms' capital structure choices to the stability of capital flows to nearby institutions, but they do not explore the fundamental determinants of capital flow stability. We go further and provide insights about how firms' financing choices are related to the investing preferences of the local population, and how these preferences are related to fundamental local demographics. In addition, we relate firms' capital structure choices to both the level and the stability of capital supply.

2 Data and variables

We obtain demographic data and county-level variables from the 1980, 1990, 2000 and 2010 U.S. Censuses. We also obtain decennial county-level data on religious adherence from the American Religious Data Archive (ARDA), and annual data on county income from U.S. Bureau of Economic Analysis (BEA) website. For county level data that are available only decennially, we follow the previous literature (Alesina and La Ferrara (2000); Hilary and Hui (2009); Kumar, Page and Spalt (2011)), and linearly interpolate the data to obtain estimates for the intermediate years. We follow previous literature and match the county level demographic information to the counties of the firms' headquarters (Coval and Moskowitz (1999, 2001); Ivković and Weisbenner (2005)).

We construct the main explanatory variable of interest, *Local Age and Sex Composition (ASC) Index*, as follows. For each year in our sample, we independently rank into quintiles the average age and female to male ratios of the counties where firms are headquartered. A higher quintile ranking for age and female to male ratios, respectively, represents a local population which

is older and has more women compared to men. We add these two quintile rankings at the county level to construct our composite *Local ASC Index*, which varies from 2 to 10.

For most of our analyses, we consider an area's population to have a *Low ASC* if its ASC index takes a value of 4 or less. Similarly, we consider an area to have a *High ASC* if its ASC index has a value of 8 or more. Each of the two groups – Low and High ASC – contains about one third of our sample of firm-years.

The county-level distributions of these fundamental demographics are summarized in Table 1 Panel A. There is considerable heterogeneity. For example, although on average there are 1.05 women for every man, the bottom and top quintiles have averages of 0.99 and 1.11 women per man, respectively. There is also variation in the average age of the local population. The average age of a county's population is 35.7 years, but the averages for the bottom and top quintiles are 32.9 and 38.8 years, respectively. The meaningful variation is demonstrated by contrasting Low ASC counties with the levels in High ASC counties. The averages ratio of women to men and average age in Low ASC counties are 1.01 and 33.7 years, respectively. In contrast, these measures average 1.09 and 37.8 years in High ASC counties.

Figure 3 provides color shaded U.S. county maps showing variation in the Local ASC Index across the counties where our sample firms are headquartered in 1980, 1995, and 2010. The sample firms are dispersed across the United States, and there is a great deal of demographic heterogeneity across corporate headquarter locations. The local populations tend to be older and there are more females in the Northeastern, Southeastern, and much of the Midwestern United States. The populations are younger and there are relatively more males in the Western United States, Texas, and in the upper Midwestern states of Michigan, Wisconsin, and Minnesota. These summary statistics suggest that there may be substantial differences in risk preferences across U.S. counties.[12]

[Table 1 here]

[12] Married couples are more likely to share the financial decisions and responsibilities, and own joint bank accounts. In these situations, including them in our analysis may generate noise, which may give rise to attenuation bias. In an unreported analysis, we have calculated the gender ratio, excluding the married couples. The correlation between "unmarried" gender ratio and the raw gender ratio is 0.98, indicating that our results are unlikely to be affected by the choice of gender ratio. Moreover, the distribution of the "unmarried" ratio is wider than that of the raw ratio used in our main analysis. The interquartile range is 0.11, which is almost twice the 0.06 range for the raw ratio. This indicates that the raw gender ratio used throughout this paper provides a conservative estimate of the dispersion of the demographic measures – and consequently local preferences for safe assets – across regions in the US.

Some of our analyses include firm fixed effects, and therefore require changes in demographics over time. While demographics do not change quickly, there is meaningful variation across the thirty-year period we consider. The maps in Figure 3 illustrate the dynamics of U.S. demographics during three time-periods. Over time the Pacific Northwest becomes older and has more females, and the upper Midwest becomes younger and has more males. We examine the variation in U.S. county-level demographics more formally in Table 2. Panel A provides statistics on the extent to which our demographic measures change over a decade. The standard deviations of change in both the age quintiles and the female/male ratio quintiles is 1.2. In Panel B, we consider what fraction of counties remain in the same demographic quintiles over different time horizons ranging from two to ten years. Counties begin migrating across rankings even in the two-year horizon. After ten years, from 20% to 50% of counties migrate to a different quintile ranking. Overall, about 25% of firms leave their original ASC group (low, mid, or high index level) during an average 10-year period.

[Table 2 here]

We gather additional data from other sources. Data on firm characteristics, firms' location, and stock prices come from the CSRP/Compustat merged dataset. We exclude financials (2-digit SIC codes 60 to 69) and public utilities (2-digit SIC code 49) because they are highly regulated. Our sample period for the main analysis starts in 1980 and ends in 2010, the last available census year.

Part of our analysis employs data on syndicated commercial loans, which we obtain from DealScan for the years 1987 through 2010. For an analysis of bank deposits, we obtain data on commercial banks from their call reports. Our main analysis is based on an unbalanced panel of about 81,000 firm-years over the period from 1980 to 2010 for about 8,700 unique firms headquartered in about 700 different US counties. The numbers of observations vary across the tables based on data availability.

Table 1 Panel B reports descriptive statistics for our sample of firms. At the firm-year level, we report the distributions of our main variables of interest, leverage and security issuance and other firm characteristics used as control variables in the regressions. Table 1 Panel C describes county-level variables used in our analysis. Other important demographic characteristics that are used as control variables include the total population of a county, whether it is a rural or urban

area, the per capita income, and the fraction of the population that can be classified as religious. The construction of these control variables is described in the Appendix.

3 Local Demographics and Firm Financial Policy

We begin by examining the relation between local demographics and the capital structure levels and security issuance decisions of resident firms.

3.1. Main Analysis of Capital Structure

The first set of tests examine the link between local demographics and firms' market or book leverage. The focus is on whether leverage varies with the composite measure of local demographics (*Local ASC Index*), although we provide a complimentary analysis focused on the impact of local age or gender ratios separately in Table A.2 in the Appendix. We conduct panel regressions of firm leverage onto year and industry fixed effects, additional control variables, and *Local ASC Index* (or *Low ASC* and *High ASC* dummies). The results from baseline regressions that include year, industry, and firm size decile indicators only are represented in Figure 4. The figure shows a monotonic increase in both market and book leverage across low, middle, and High ASC areas.

Table 3 reports regressions with a large set of control variables related to leverage, including industry × year fixed effects.[13] Model (1) reports the market leverage model with the *Local ASC Index*. Consistent with our prediction, the *Local ASC Index* obtains a positive coefficient in the market leverage regression, indicating that firms headquartered in areas whose population is likely to have a stronger preference for safe assets have higher market debt ratios. In model (2), we replace *Local ASC Index* with the *High ASC* and *Low ASC* dummies. The baseline comparison group in this regression is firms located in areas with a medium index value (*Local ASC Index* = 5, 6, or 7). Firms in *High ASC* areas have a 1.4 percentage point (t=2.86) higher level of market leverage than the baseline firms, while those in *Low ASC* areas have a 1.1 percentage point (t=2.44) lower level of leverage than the baseline. The difference in market leverage between *high ASC* and *Low ASC* areas is 2.5 percentage points, which is about 10 percent of the unconditional market leverage of 25 percent. This is an economically significant result given that these regressions control for industry and time trends as well as a broad variety of covariates and

[13] Unless mentioned otherwise, all of our linear models include industry (Fama-French 48) and year interaction fixed effects (industry × year). Our nonlinear models control for industry and year fixed effects separately.

determinants of leverage. We repeat the analysis in model (3) on a sample that omits the middle ASC Index group. The point estimate on *High ASC* indicates that the difference in market leverage between high and Low ASC areas is a statistically and economically significant 2.7 percentage points (t=4.79), again around 10 percent of the average.

[Table 3 here]

Models (4) to (6) of Table 3 present a similar analysis of firms' book leverage. The parameter estimates on the variables of interest are similar to those from the market leverage regressions. The last model (6) indicates that the difference in book leverage between high and Low ASC areas is around 2.2 percentage points (t=4.18), which is, again, about 9.2 percent of the average book leverage of 24 percentage points.[14]

Next, we examine whether the main results are stronger among firms that may not have easy access to the broad public capital markets. As discussed in the introduction, we hypothesize that firms with no or below investment-grade credit ratings likely have difficulty accessing the pubic markets and therefore rely more on local sources of capital (Colla, Ippolito, and Li, 2013). In Table 4, we analyze the capital structures of three subsamples of firms separately: those with investment grade credit ratings from S&P (8,790 firm-year observations), those with below investment grade ratings (8,280 obs.), and those that are unrated by S&P (52,537 obs.). Panels A and B provide analyses of market and book leverage, respectively. We do not find a significant relation between local demographics and capital structures for the investment grade firms, but we do find a relation for both the low rated and unrated firms. These results suggest that public firms that face higher barriers to accessing the public capital markets depend more on local debt supply and are therefore influenced more by the local population's investing preference. Because most firms are either unrated or have low credit ratings, these relations are also apparent in the overall cross-section of firms.

[Table 4 here]

[14] We also conduct this analysis where we calculate the index using decile and percentile rankings of the underlying demographic variables. The results are similar and are reported in Table A.3 in the Appendix.

This analysis also helps to rule out alternative capital demand-based explanations for our baseline results. As discussed in the introduction, one concern is that capital structures may vary with local demographics because firms may locate in areas with different demographics based on operating characteristics important for their demand for debt. The fact that the demographics-leverage relations hold only for firms that face barriers to accessing the capital markets supports the capital supply explanation.

3.2. Robustness

3.2.1. Security Issuance

We examine the link between local preferences and security issuance by constructing the following dummy variables: (1) *Debt Issuance* and (2) *Equity Issuance*. Following Hovakimian, Opler, and Titman (2001) and Leary and Roberts (2014), we set *Debt Issuance* dummy as 1 (0, otherwise) if the net change in the firm's total debt outstanding between years *t* and *t*-1 is greater than 1% of the firm's total assets. We set *Equity Issuance* dummy as 1 (0, otherwise) if the difference between common stock issuance and repurchases in year *t* is greater than 1% of total assets.

[Table 5 here]

Table 5 reports logit regressions modeling the probability of security issuance during a year. The regressions include year and industry fixed effects, and other control variables related to capital structure choices. Consistent with our prediction, *Local ASC Index* positively predicts *Debt Issuance* in model (1) and negatively predicts *Equity Issuance* in model (4). The contrasting estimates on the dummy variables in models (3) for debt issuance and (6) for equity issuance allow us to analyze the economic magnitude of this relation. The coefficients indicate that firms in *High ASC* areas have about 11 percent higher probability of issuing debt and about 14 percent lower probability of issuing equity, relative to firms in *Low ASC* areas. As these coefficients are quite similar in magnitude, they suggest that firms in high and Low ASC areas raise outside capital with similar frequency. However, consistent with the leverage results above, the forms of capital they raise appear to vary with the preferences of their local investor bases.

These results suggest that the observed relations between local demography and capital structure is driven by differences in firms' actions related to debt and equity issuances, not by "passive" differences in book and market values affecting the leverage ratios.

3.2.2. Debt Structure

We now turn to an analysis of debt structure, i.e., whether firms carry more short- or long-term debt. In Panel A of Table 6 we conduct an analysis similar to that of Table 3 but replace the dependent variable with short- and long-term debt ratios. The estimates indicate that firms in *High ASC* areas have higher levels of both short- and long-term debt. This suggests that supply conditions in *High ASC* areas allow for greater debt utilization by firms without increasing concerns about roll-over risk. In an untabulated analysis, we also observe that debt maturity, measured as the ratio of long-term debt to total debt, is positively related with the *Local ASC Index*. This result is weaker, however, which could reflect that fact that two conflicting effects are at work. On one hand, a local preference for safer securities may allow firms to increase debt maturity because long-term debt may be more readily available from local sources. On the other hand, it may lead firms to reduce the duration of borrowings because short-term debt is cheaper and, in these areas, roll-over risk is lower.[15]

[Table 6 here]

3.2.3. Local Income

We expect local investing preferences to matter to firms more when the local population has greater investible wealth. We therefore hypothesize that the link between corporate capital structure and local preferences for safe assets is weaker in lower income areas. The first two sets of results in Panel B of Table 6 report the regression estimates from subsamples partitioned by whether the firms are located in counties with above or below median total income levels. We find that the link between local demographics and capital structure is more prominent in high income areas.

[15] Another channel through which ASC can affect financing decisions is through cash holdings. In an untabulated analysis, we observe a strong negative relation between the ASC index and cash holdings. The effects are statistically significant, and economically material. Firms in high ASC areas have 2.5 percentage point lower cash holdings (as a fraction of total assets) than firms in low ASC areas, after controlling for various firm and area characteristics. This combination of higher debt levels and lower cash holdings is consistent with high ASC firms being more comfortable with having a higher leverage with less cash buffer due to the availability of local capital.

3.2.4. Excluding Small Employers

Becker (2007) finds that the higher local bank deposits associated with an older population positively impact the proliferation of small private firms (those with fewer than 500 employees) in the local area. To examine if our results are concentrated in the subsample of firms that, while public, are similar in size to Becker's sample, we exclude firms with fewer than 500 employees and re-estimate our regressions. As seen in the third set of results in Panel B of Table 6, the results are similar to the full-sample results in Table 3. This indicates that local preferences have a wider influence on corporate financing decisions than suggested by previous studies.

3.2.5. Excluding High Tech Firms

Another potential concern is that the results are related to the clustering of high tech firms. Technology firms may sort together along two dimensions: (1) geographically, particularly in areas with a younger population (e.g., Silicon Valley) and (2) in terms of financial policy, carrying less debt. Indeed, the high-tech firms in our sample have more than 12 percentage point lower market leverage relative to other firms (15.3% vs. 27.7%). To determine whether these patterns drive our results, we estimate regressions on subsamples that exclude high tech firms. As seen in the fourth set of results in Panel B of Table 6, limiting the sample reduces the significance of the *Low ASC* coefficient, but it does not change the inference that firms in *High ASC* areas have higher debt ratios.

3.2.6. Dispersion of Operations

Garcia and Norli (2012) and Bernile et al. (2015) argue that firms with more geographically dispersed operations have a wider investor base. In our context, dispersed firms may have better access to non-local sources of financing, including debt financing. Following these studies, we partition the sample based on the number of states mentioned in the firms' 10-K filings. We partition our sample firms by the median number of states mentioned. The last two results in Panel B of Table 6 are regression estimates from each of these dispersed (above median states) and concentrated subsamples. Firms in High ASC areas continue to have higher debt ratios in both subsamples, although the effect is slightly more prominent among less geographically dispersed firms.

3.2.7. Non-Linearity and Fixed Effects

Panel C of Table 6 is devoted to concerns about omitted variables. First, we address the potential non-linearity in the relation between firm size and leverage, as larger firms may have easier access to the public debt market. A related concern stems from the non-linearity in the effect of relative market valuations (equity vs. debt) on the propensity to issue certain types of securities (see, e.g., the non-linear effect of returns and institutional demand documented in Alti and Sulaeman, 2012). To address these concerns, we conduct regressions that control for firm size and book-to-market with decile dummies in addition to their continuous counterparts. The results are largely unaffected, indicating that our earlier results are not driven by the failure to account for these non-linearities.

One may also be concerned about potential omitted variables at the geographic area or firm level. The demographics of an area may attract firms that are similar and thus have similar financing policies. Moreover, variation in state laws (e.g., individual and corporate income taxes) may simultaneously affect corporate leverage and individuals' choice of residence. To account for these possibilities, we employ two levels of fixed effects. We first include state fixed effects to control for time-invariant differences in leverage across states. As shown in panel C, the coefficients on *High ASC* continue to be positive and statistically significant, with similar economic magnitudes to our baseline analysis. We then employ firm fixed effects. This is a high hurdle for establishing an empirical relation because this test's power comes from locations that change in the ASC index rankings. Even so, *High ASC* continues to be significant, and the point estimates are similar to those obtained in the main analysis of Table 3. However, these regressions show weak or insignificant patterns for *Low ASC*, reflecting the fact that local demographics tend to be largely time-invariant.

3.3. Channels

Thus far we have documented an association between area demographics and the capital structure of resident firms. We next examine two possible channels that may drive this relation: variations in the level and the stability of local capital.

3.3.1. Local Capital Supply

Our underlying assumption so far is that areas with higher ASC have greater supplies of local fixed income capital. Our first test to evaluate this assumption focuses on the level of bank

deposits because bank loans are one of the most prominent sources of debt capital even for public companies. The data comes from banks' quarterly call reports available from Bank Regulatory database on WRDS. Our hypothesis is that *Local ASC Index* should be positively correlated with deposit levels. Table 7 reports the results. We regress the log of aggregate bank deposit per capita in each county on various county characteristics and the *Local ASC Index* using specifications similar to Becker's (2007). Model (1) uses the full sample and model (2) uses observations in *High ASC* and *Low ASC* areas only. The results are consistent with our hypothesis. For instance, the point estimate on *High ASC* from model 2 suggests that the deposit per capita is 23 percent higher in High ASC areas than in Low ASC areas. These results support our underlying assumption that local preferences for safer investments lead to higher bank deposits available for local firms to borrow.

[Table 7 here]

Our second approach to testing the bank-debt channel involves an examination of the relation between ASC Index and firms' banking relationships. To do this, we use data from DealScan, which contains various characteristics of syndicated loans, including the loan amount, each lender's role in the syndicate (manager, co-manager, or member), and their locations. We define a bank to be local if it is located in the same state as the borrower firms' headquarters.

Table 8 reports the parameter estimates from several regression models. We include various firm- and location-level controls, and industry and year fixed effects to control for potential confounding factors. We construct the ASC Index and other location-level variables by taking the population-weighed averages of county variables within a state in this sample. First, we analyze the broad effect of ASC Index on the size of the loan in Model (1). We find a positive coefficient on ASC, indicating that firms in High ASC states take out larger syndicated loans. This result is consistent with our earlier results that in these areas, banks have more deposits and firms issue more debt and have higher leverage.

[Table 8 here]

Models (2) through (4) report logit regressions in which the dependent variables are dummies indicating that at least one syndicate member is local [Model (2)], at least one syndicate

leader is local [Model (3)], or at least one of the non-lead members is local [Model (4)]. The results show that syndicated lending to firms in High ASC areas are more likely to include local financial institutions as both lead and non-lead members. In Models (5) through (7), we do similar tests using the fraction of local syndicate members and find similar results.

We also regress the loan interest rate spread (relative to the prevailing benchmark rates) on ASC Index and various firm and county controls in Model (8). If our ASC Index represents omitted variables related to debt demand, not supply, the higher quantity of loans should result in higher interest rates or spreads. However, if the supply channel is dominant, loan spreads should not be affected in equilibrium. The coefficient estimate on ASC when predicting the rate spread in Model (8) is not statistically different from zero, suggesting that variation in corporate demand for debt is unlikely to drive our results.

3.3.2. Local Capital Stability

The stability of local capital may also affect the relation between local investor preferences and capital structures. Capital stability is particularly important in the context of short-term debt, because a more stable source of local capital can mitigate roll-over risk. To examine this potential channel, we analyze the volatility of local deposits as a function of local demographics.

[Table 9 here]

Table 9 evaluates the volatility of aggregate bank deposits in a county. The dependent variable is the log of the standard deviation of quarterly percentage changes in total deposits at banks headquartered in a county, calculated over three-year windows. Accordingly, we use non-overlapping three-year windows as observations in the regression.[16] Our empirical specifications are similar to those evaluating deposit levels in Table 7. The results indicate that banks in *High ASC* areas have lower deposit volatility. In model 2, the coefficient on *High ASC* indicates that compared to a bank in *Low ASC* group, a bank in *High ASC* group is associated with a reduction in deposit volatility of about 6 percentage points. These results suggest that firms located in *High ASC* areas have access to more stable sources of local capital if they need to roll over their debt

[16] Our results are similar regardless of the choice of measurement windows.

during episodes of system-wide credit contractions. We come back to this issue in the final analysis of the paper where we evaluate how firms fared during the financial crisis.

3.4. Exogenous Variation in Capital Supply - Bank Branching

The results from the firm fixed effect analysis suggest that the relationship between local demographics and corporate financing decisions is at least partially driven by time series changes in local investors' preferences. However, ascertaining causality is challenging in this context because, as discussed earlier, the static nature of demographics makes it difficult to identify exogenous shocks to or instruments for local preferences.

A possible challenge for our study is separating demand versus supply effects because our main explanatory variable, *Local ASC Index*, may also be correlated with omitted firm characteristics that drive firms' demand for debt. In this section, we address this concern by designing an experiment that exploits the following fact. If our ASC Index captures differences in firms' demand for debt only, then any exogenous change in debt capital *supply* should have no effect on the relation between the index and debt financing. On the other hand, if the index reflects local supply of debt capital, then an exogenous shock to supply conditions should affect its relationship with debt financing.

Accordingly, we evaluate the impact of regulatory shocks that relaxed geographical constraints on lending activities. The setting is the staggered deregulation of interstate banking under IBBEA, which led to the integration of banking markets. Banking deregulation likely evened out firms' access to private debt capital as banks moved capital into areas where there was unmet borrowing demand. Our main hypothesis implies that the impact of deregulation on corporate borrowing should be more acute in areas where existing debt capital supplied by local populace was relatively scarce. Geographic integration of debt market should matter less in areas where there was already ample supply of local debt capital.

We evaluate changes in debt issuances patterns following local banking deregulation from fiscal year 1970 to 1997, the period during which different states amended their banking laws.[17] For each firm, we define indicator variables that capture recent interstate banking deregulation in the state of the firm's headquarters. $Interstate_{t+0}$, $Interstate_{t+1}$, $Interstate_{t+2}$, $Interstate_{(t+3\ or\ later)}$

[17] Our analysis ends in 1997 as the process of interstate banking deregulation is completed by the passage of Riegle-Neal Act in 1994. By 1997, all states have effectively removed restrictions on geographic expansion for banking institutions. The list of the staggered deregulation by each state is obtained from Kroszner and Strahan (1999), which uses Amel (1993) as a primary source.

represent, respectively, the year of local deregulation, a year after deregulation, two years after deregulation, and three or more years since deregulation. Following Francis, Hasan, and Wang (2014), we exclude young firms (i.e., firm's age < 4 years) from the analysis as they are likely to wind down the substantial amount of external funding raised in cash during initial public offerings.

[Table 10 here]

The results are reported in Table 10. Following previous literature, we control for firm fixed effects in addition to industry × year fixed effects in all the specifications. The first three regressions (1, 2 and 3) predict debt issuance activity, and the next three regressions (4, 5 and 6) predict equity issuance. To begin, model (1) shows that, on average, firms are more likely to be net debt issuers in the years following deregulation.

To identify any differential effect of deregulation across areas, we perform regressions predicting debt issuances for two separate subsamples of firms: those in areas with *High ASC index* values (Column 2), and those with *Low ASC Index* values (Column 3). The results are consistent with our expectations. In particular, banking deregulation is statistically significant only in the subsample of firms headquartered in low ASC areas. These results suggest that areas with high ASC Index values already have enough supply of local bank financing to meet public firms' capital needs, which in turn diminishes the impact of banking deregulation on corporate financial policy.

Models (4), (5) and (6) present results for equity issuance. In the full sample in column 4, we find no effect of interstate bank deregulation. This suggests that, as expected, bank deregulation only affects firms' debt financing choices. In (5) we find weak evidence of decreased equity issuance by firms in High ASC areas, but no evidence of any change in such activities in low ASC areas. Overall, these results suggest that our findings are not driven by changes in firm growth and investment opportunities due to deregulation (otherwise, it would affect equity issuance too), but mainly due to change in local debt supply conditions.

We also report regressions indicating whether firms' debt levels, measured by natural log of one plus total debt, were affected by banking deregulations in Columns (7) to (9) of Table 10. In the full sample, we observe significant changes in debt levels with some lag following deregulation. However, the effect is immediate and significant in the subsample of firms headquartered in areas with low ASC Index values. This result is consistent with the patterns of debt and equity issuance presented in earlier columns.

Finally, we report regressions indicating whether firms' capital structures were affected by banking deregulations in Models (10) to (12) of Table 10. We examine book leverage because changes in market leverage are complicated by the fact that firms could also experience increases in market valuations following deregulation. We find significant changes in leverage at a couple year lag to deregulation. However, the impact is more immediate in the subsample of firms headquartered in low ASC Index areas, consistent with our earlier findings.[18]

While this analysis does not involve exogenous shocks to local investors' preferences, it allows us to measure firms' responses to shocks in supply conditions. The differential impact of banking deregulation across areas sorted by local investor preferences provides further evidence that the correlation between local preferences and capital structure decisions is causal in nature and is driven by the debt supply channel.

3.5. Outcomes During the Financial Crisis

The financial crisis of 2008-2009 was a massive unexpected shock to the capital markets. The extent to which financial institutions experienced distress and the capital markets tightened had not been seen since the Great Depression. Most firms almost certainly did not anticipate such a severe crisis and were unlikely to factor in the possibility of such a crisis in choosing their capital structures. This setting allows us to examine if local investors' preferences matter for financing by analyzing firms' responses and their outcomes during the crisis.

We expect that firms in *High ASC* areas will have greater access to new capital during the financial crisis. The most obvious prediction is a greater ability to issue new debt. However, if local debt capital was more abundant and stable, this may also have allowed firms to issue more new equity if investors were less concerned about firms' ability to roll their debt over. Finally, if they had greater access to new capital, we expect that firms in High ASC areas were more likely to survive the crisis.

We sharpen this analysis by incorporating our earlier findings in section 3.2.3 (Panel A of Table 6) that local preferences for capital supply should matter more in high income areas where there are more investable assets, and should be diminished in low income areas. Accordingly, we interact with our demographic variables with a *Low Income* dummy (1 when the county's total

[18] We note that the effect of deregulation on capital structures are nosier than those on the levels of debt because firms also increased their assets significantly after the deregulation, which affected both the numerator and the denominator of book leverage.

income is below the median, 0 otherwise) in logit regressions in Table 11. The dependent variables include dummy variables for: (i) any security issuance, (ii) debt issuance, (iii) equity issuance, and (iv) whether the firm disappear due to merger or bankruptcy, during years 2008 and 2009. The first two models evaluate security issuance overall. Both Local ASC Index (Model 1) and High ASC (Model 2) have positive significant relations to security issuance. However, in both regressions the relation is offset by the interaction of the demographic variable with *Low Income*. This indicates that firms located in higher ASC index areas were better able to raise capital during the crisis only if they were also in high income counties. Similar patterns hold in the regressions evaluating debt issuance only in Models (3) and (4). When evaluating equity issuance, a similar pattern holds in Model (6), which contrasts firms in *High ASC* areas to those in *Low ASC* areas, but the coefficients are insignificant in the Model (5) regression evaluating all firms along the continuum of the *Local ASC Index*. Finally, Models (7) and (8) predict whether a firm is acquired or goes bankrupt during the crisis. In both specifications, the odds of not surviving are significantly lower for firms headquartered in areas with greater ASC index values. Taken together, these results suggest that one benefit from being headquartered in areas where investors prefer safer portfolios is greater capital availability during a downturn. These findings corroborate our expectation that firms use more debt financing in these areas in part because of the greater stability of capital and ability to access the market when new capital is scarce.

[Table 11 here]

4 Conclusion

This paper provides new evidence that local capital supply conditions are an important determinant of firms' financing policies. Because a majority of public firms rely on private debt capital, they are likely to be affected by local debt market conditions, which partly depend on the preferences of local investors. In particular, we show that firms utilize more debt financing when their local populations are older and have more women relative to men, which proxies for local investors' preference for safer portfolios.

Local capital conditions appear most important for public firms that may face greater barriers to accessing the public capital markets, such as firms without credit ratings or with non-investment grade ratings. This is an important finding because these two types of firms constitute the large majority of public firms. Because aggregate investing preferences vary substantially

across locations but remain relatively stable over time within a location, our results may partly explain puzzling patterns of the large variation in capital structure across firms and the strong persistence of capital structure within firms over time.

Local investor preferences appear to affect capital supply conditions through two important channels: (1) differences in investing preferences cause firms to face distinct local supply curves for different forms of capital, and (2) they also cause differences in local capital supply stability. The first channel is reflected in the higher level of bank deposits and locally-arranged syndicated loans in areas with and older population and more females, whereas the second channel is supported by the evidence that deposits are more stable in these areas. The value of robust local capital markets is reflected in the better quality outcomes secured by firms in these areas during the financial crisis in 2008-2009.

References

Alesina, A. E. La Ferrara, 2000, "Participation in Heterogeneous Communities," *Quarterly Journal of Economics* 115, 847–904.

Almeida, H., M. Campello, B. Laranjeira, and S. Weisbenner, 2012, "Corporate Debt Maturity and the Real Effects of the 2007 Credit Crisis," *Critical Finance Review* 1, 3–58.

Altı, A., and J. Sulaeman, 2012, "When do high stock returns trigger equity issues?" *Journal of Financial Economics* 103, 61–87.

Amel, D. 1993, "State Laws Affecting the Geographic Expansion of Commercial Banks," Manuscript, Board of Governors of the Federal Reserve System.

Amore, M., C. Schneider, and A. Zaldokas, 2013, "Credit Supply and Corporate Innovation," *Journal of Financial Economics* 109, 835-855.

Baker, M., 2009, "Capital Market-Driven Corporate Finance," *Annual Review of Financial Economics* 1, 181–205.

Bakshi, G. S., and Z. Chen, 1994, "Baby Boom, Population Aging, and Capital Markets," *Journal of Business* 67, 165–202.

Barber, B. M., and T. Odean, 2001, "Boys will be boys: Gender, overconfidence, and common stock investment," *Quarterly Journal of Economics* 116, 261–292.

Becker, B., 2007, "Geographical segmentation of US capital markets," *Journal of Financial Economics* 85, 151–178.

Becker, B., and V. Ivashina, 2014, "Reaching for Yield in the Bond Market," *Journal of Monetary Economics* 62, 76–93.

Becker, B., Z. Ivkovic, and S. Weisbenner, 2011, "Local Dividend Clienteles," *Journal of Finance* 66, 655–683.

Bernasek, A., and S. Shwiff, 2001, "Gender, Risk, and Retirement," *Journal of Economic Issues* 35, 345–356.

Bernile, G., A. Kumar, and J. Sulaeman, 2015, "Home Away from Home: Geography of Information and Local Investors," *Review of Financial Studies* 28, 2009–2049.

Brown, D. P., 1990, "Age clienteles induced by liquidity constraints," *International Economic Review* 31, 891–912.

Choi, D., and H-S. Choi, 2016, "The Effect of Monetary Policy on Bank Wholesale Funding," Working Paper, Singapore Management University.

Colla, P., F. Ippolito, and K. LI, 2013, "Debt Specialization," *Journal of Finance* 68, 2117–2141.

Coval, J. D., and T. J. Moskowitz, 1999, "Home bias at home: Local equity preference in domestic portfolios," *Journal of Finance* 54, 145–166.

Coval, J. D., and T. J. Moskowitz. 2001. "The geography of investment: Informed trading and asset prices," *Journal of Political Economy* 109, 811–841.

D'Acunto, F, R. Liu, C. Pflueger, and M. Weber, 2018, "Flexible Prices and Leverage," *Journal of Financial Economics* 129, 46-68.

Dick, A., and A. Leynert, 2010, "Personal Bankruptcy and Credit Market Competition," *Journal of Finance* 65, 655-686.

Dahlbäck, O., 1991, "Saving and risk taking," *Journal of Economic Psychology* 12, 479–500.

Fagereng, A., C. Gottlieb, and L. Guiso, 2017, "Asset Market Participation and Portfolio Choice over the life Cycle", *Journal of Finance* 72, 705–750.

Faulkender, Michael, and Mitchell A. Petersen, 2005, "Does the source of capital affect capital structure?" *Review of Financial Studies* 19, 45-79.

Favara, G. and J. Imbs, 2015, 2015, "Credit Supply and the Price of Housing," *American Economic Review* 105, 958-992.

Francis, B., I. Hasan, and H. Wang, 2014, "Banking deregulation, consolidation, and corporate cash holdings: U.S. evidence", *Journal of Banking & Finance* 41, 45–56.

Garcia, D., and O. Norli, 2012, "Geographic Dispersion and Stock Returns," *Journal of Financial Economics* 106, 547–565.

Goetz M., L. Laeven, and R. Levine, 2013, "Identifying the Valuation Effects and Agency Costs of Corporate Diversification: Evidence from the Geographic Diversification of US Banks," *Review of Financial Studies* 26, 1787-1823.

Gorton, G., 2010, "Slapped in the Face by the Invisible Hand: The Panic of 2007," Oxford University Press.

Gorton, G., Winton, A., 2003. Financial intermediation. In: Constantinides, G., Harris, M., Stulz, R. (Eds.), Handbook of the Economics of Finance, vol. 1. , Elsevier, North Holland, Amsterdam, pp. 431–552.

Graham, J. R., and A. Kumar, 2006, "Do Dividend Clienteles Exist? Evidence on Dividend Preferences of Retail Investors," *Journal of Finance* 61, 1305–1366.

Graham, J. R., and M. T. Leary, 2011, "A Review of Empirical Capital Structure Research and Directions for the Future," *Annual Review of Financial Economics 3*, 309–345.

Hilary, G., and K. W. Hui, 2009, "Does religion matter in corporate decision making in America?" *Journal of Financial Economics* 93, 455–473.

Hovakimian, A., T. Opler, and S. Titman, 2001, "The Debt-Equity Choice," *Journal of Financial and Quantitative Analysis* 36, 1–24

Hudgens, G. A. and L.T. Fatkin, 1985, "Sex Differences in Risk Taking: Repeated Sessions on a Computer-Simulated Task," *Journal of Psychology* 119, 197–206.

Ivković, Z., and S. Weisbenner, 2005, "Local Does as Local Is: Information Content of the Geography of Individual Investors' Common Stock Investments," *Journal of Finance* 60, 267–306.

Jayaratne, J., and P. Strahan, 1996, "The finance-growth nexus: evidence from bank branch deregulation," *Quarterly Journal of Economics* 111, 639-670.

Johnson, J., and P. Powell , 1994 "Decision Making, Risk and Gender: Are Managers Different?," *British Journal of Management* 5, 123–138.

Kashyap, A., and J. Stein, 2000, "What Do a Million Observations on Banks Say about the Transmission of Monetary Policy?" *American Economic Review* 90, 407–428.

Kroszner, R., and P. E. Strahan, 1999, "What Drives Deregulation? Economics and Politics of Relaxation of Bank Branching Restrictions," *Quarterly Journal of Economics* 114, 1437–1467.

Kumar, A., J. Page, and O. Spalt, 2011, "Religious beliefs, gambling attitudes, and financial market outcomes," *Journal of Financial Economics* 102, 671–708.

Leary, M. T., and M. R. Roberts, 2014, "Do peer firms affect corporate financial policy?" *Journal of Finance* 69, 139–178.

Lemmon, M., M. Roberts, and J. Zender, 2008, "Back to the Beginning: Persistence and the Cross-Section of Corporate Capital Structure," *Journal of Finance* 63, 1575–1608.

Massa, M., A. Yasuda, and L. Zhang, 2013, "Supply uncertainty of the bond investor base and the leverage of the firm," *Journal of Financial Economics* 110, 185–214.

Petersen, M., and R. Rajan, 2002, "Does Distance Still Matter? The Information Revolution in Small Business Lending," *Journal of Finance* 57, 2533–2570.

Rice, T., and P. E. Strahan, 2010, "Does Credit Competition Affect Small-Firm Finance?" *Journal of Finance* 55, 861–879.

Shenoy J., and R. Williams, 2015, "Trade Credit and the Joint Effects of Supplier and Customer Financial Characteristics," *Journal of Financial Intermediation* 29, 68-80.

Sufi, Amir, 2007, "The real effects of debt certification: Evidence from the introduction of bank loan ratings," *Review of Financial Studies* 22, 1659-1691.

Sundén, A., and B. Surette, 1998, "Gender Differences in the Allocation of Assets in Retirement Savings Plans," *American Economic Review* 88, 207–211.

Tang, Tony T. (2009), "Information asymmetry and firms' credit market access: Evidence from Moody's credit rating format refinement," *Journal of Financial Economics* 93: 325-351.

U.S. Census Bureau, 2010, "Age and Sex Composition: 2010," *2010 Census Briefs*, available at https://www.census.gov/prod/cen2010/briefs/c2010br-03.pdf.

Zarutskie, R., 2006, "Evidence on the effects of bank competition on firm borrowing and investment," *Journal of Financial Economics* 81, 503–537.

Table 1: Summary Statistics

This table provides descriptive statistics for the sample of firms in this paper. All variables used in the regressions are defined in the Appendix. The sample consists of non-financial, non-utility firms in Compustat from fiscal year 1980 to 2010. Panel A reports the distribution of county age and female to male ratio across their respective quintiles and Local ASC indices. Panel B presents summary statistics of firm-level variables; panel C presents the summary statistics of county-level variables.

Panel A: Average County Age and Female to Male Ratio

Average Age Quintile	Average County Age	Female Ratio Quintile	Female to Male Ratio	ASC Index	Average County Age	Female to Male Ratio
Q1	32.86	Q1	0.99	Low (2, 3, 4)	33.65	1.01
Q2 - Q4	35.64	Q2 - Q4	1.06	(5, 6, 7)	35.73	1.05
Q5	38.79	Q5	1.11	High (8, 9, 10)	37.82	1.09

Panel B: Firm-level descriptive statistics

	N	Mean	Std. Dev.	P1	P25	Median	P75	P99
Main Dependent Vars								
Market Leverage	81,267	0.25	0.24	0	0.03	0.18	0.40	0.89
Book Leverage	81,290	0.24	0.21	0	0.05	0.20	0.36	0.92
Debt Issuance	81,290	0.36						
Equity Issuance	81,290	0.25						
Firm Controls								
Total Assets (millions $)	81,290	1800.75	9786.37	2.36	37.72	156.48	732.85	28764
Market-to-Book	81,236	1.78	1.41	0.59	1.02	1.33	1.96	8.08
Profitability	81,289	-0.02	0.23	-1.11	-0.03	0.04	0.08	0.24
Tangibility	81,290	0.3	0.22	0.01	0.12	0.24	0.42	0.88
Stock Return	81,290	0.16	0.7	-0.83	-0.23	0.06	0.38	2.76
Stock Volatility	81,281	0.15	0.09	0.04	0.08	0.12	0.18	0.50
Firm Age	81,290	18.56	12.2	4	9	15	25	55
Dividend Payer	81,290	0.37						
R&D/Sales	81,290	0.16	1.14	0	0	0	0.05	3.61

Panel C: County variables

	N	Mean	Std. Dev.	P1	P25	Median	P75	P99
Avg. County Age	81,290	35.7	2.34	30.65	34.08	35.66	37.24	42.59
Female to Male Ratio	81,290	1.05	0.04	0.96	1.02	1.05	1.08	1.15
Local ASC Index	81,290	6	2.57	2	3	6	8	10
High ASC	81,290	0.33						
Low ASC	81,290	0.34						
Per Capita County Income	81,290	40,333	14,111	20,390	30,855	37,441	46,472	96,825
Population (000)	81,290	1417.31	1761.28	32.22	470.28	867.39	1542.87	9519.32
Rural Urban Continuum	81,290	1.06	1.11	0	0.3	1	1	6
Religious (per 1000 people)	81,290	535.38	119.08	289.93	438.05	541.44	615.35	797.68

Table 2: Change in Demographics over Time

Panel A presents summary statistics of county-level changes in age and the sex composition of U.S. counties during non-overlapping ten-year periods beginning in 1980, 1990, and 2000. Panel B presents the fraction of firms in our sample that maintain the same demographic quintile rank across different time horizons, from 2 to 10 years.

Panel A: Changes in Demographics Over 10 years

	Average	**SD**	**p10**	**p25**	**Median**	**p75**	**p90**
Change in:							
Average Age	0.05	2.98	-2.46	-1.80	-1.08	1.34	4.70
Female/Male Ratio	0.00	0.04	-0.04	-0.02	0.00	0.02	0.04
Average Age Quintile	0.00	1.21	-1	0	0	1	1
Female to Male Ratio Quintile	0.00	1.20	-1	-1	0	0	1
ASC Index Value	0.00	1.96	-2	-1	0	1	2

Panel B: Percent of Counties Remaining in Same Quintile

	Years Following Formation:				
Quintile	2	4	6	8	10
Age					
Lowest quintile	0.96	0.92	0.89	0.85	0.81
2	0.90	0.82	0.73	0.65	0.58
3	0.88	0.78	0.67	0.60	0.53
4	0.91	0.81	0.71	0.61	0.54
Highest quintile	0.97	0.93	0.89	0.84	0.81
Sex					
Lowest quintile	0.95	0.90	0.85	0.80	0.75
2	0.87	0.76	0.66	0.59	0.52
3	0.86	0.73	0.62	0.55	0.47
4	0.89	0.79	0.69	0.62	0.55
Highest quintile	0.95	0.91	0.86	0.83	0.79
ASC Index					
Low ASC	0.94	0.90	0.86	0.81	0.78
Mid ASC	0.95	0.91	0.86	0.82	0.78
High ASC	0.93	0.88	0.83	0.78	0.74

Table 3: Local demography and firm leverage

This table presents baseline regressions of firm leverage on Local ASC Index. All variables are defined in the Appendix. The sample consists of non-financial, non-utility firms in Compustat from fiscal year 1980 to 2010. The sample excludes financial (SIC codes between 6000 and 6999) and utility (SIC codes between 4900 and 4999) firms. Standard errors are robust to heteroscedasticity and are clustered at the firm level. T-statistics are in parentheses. ***, ** and * denote statistical significance at the 1%, 5% and 10% levels respectively.

	(1) Mkt Lev	(2) Mkt Lev	(3) Mkt Lev	(4) Book Lev	(5) Book Lev	(6) Book Lev
Local ASC Index	0.004***			0.003***		
	(5.21)			(4.26)		
High ASC		0.014***	0.027***		0.014***	0.022***
		(2.86)	(4.79)		(3.13)	(4.18)
Low ASC		-0.011**			-0.005	
		(-2.44)			(-1.21)	
Log Income	-0.024***	-0.021**	-0.014	-0.015*	-0.013	-0.008
	(-2.59)	(-2.27)	(-1.40)	(-1.70)	(-1.47)	(-0.79)
Log Population	-0.004*	-0.005*	-0.005*	-0.005**	-0.006***	-0.006**
	(-1.84)	(-1.93)	(-1.71)	(-2.39)	(-2.60)	(-2.15)
Log Religious	0.006	0.007	-0.005	0.001	0.002	-0.009
	(0.63)	(0.77)	(-0.45)	(0.12)	(0.20)	(-0.88)
Rural Urban Continuum	-0.003	-0.003	0.002	-0.003	-0.003	-0.000
	(-1.03)	(-1.03)	(0.67)	(-1.58)	(-1.62)	(-0.13)
Size	0.027***	0.027***	0.028***	0.026***	0.026***	0.027***
	(21.92)	(21.89)	(19.24)	(23.32)	(23.28)	(19.60)
Market-to-Book	-0.043***	-0.043***	-0.042***	-0.014***	-0.014***	-0.014***
	(-37.94)	(-37.98)	(-31.59)	(-12.30)	(-12.32)	(-11.05)
Profitability	-0.139***	-0.139***	-0.136***	-0.166***	-0.166***	-0.167***
	(-21.84)	(-21.83)	(-18.11)	(-20.41)	(-20.41)	(-16.98)
Tangibility	0.192***	0.192***	0.186***	0.203***	0.203***	0.206***
	(15.89)	(15.89)	(13.47)	(17.90)	(17.93)	(15.44)
Stock Return	-0.033***	-0.033***	-0.033***	-0.015***	-0.015***	-0.015***
	(-26.95)	(-26.95)	(-22.95)	(-13.27)	(-13.26)	(-11.00)
Stock Volatility	0.330***	0.330***	0.334***	0.245***	0.245***	0.252***
	(20.16)	(20.15)	(17.36)	(15.79)	(15.76)	(13.56)
Firm Age	0.000	0.000	-0.000	-0.001***	-0.001***	-0.001***
	(0.10)	(0.19)	(-0.52)	(-3.00)	(-2.92)	(-3.15)
Dividend Payer	-0.088***	-0.088***	-0.087***	-0.069***	-0.069***	-0.068***
	(-19.23)	(-19.20)	(-16.50)	(-16.99)	(-16.96)	(-13.76)
R&D/Sales	-0.006***	-0.006***	-0.007***	-0.007***	-0.007***	-0.008***
	(-5.81)	(-5.78)	(-5.61)	(-4.43)	(-4.41)	(-4.24)
Fixed Effects	Ind. × Year	Ind. × Year	Ind. × Year	Ind. × Year	Ind. × Year	Ind. × Year
N	81,267	81,267	54,573	81,290	81,290	54,587
R^2	0.342	0.342	0.352	0.237	0.236	0.246

Table 4: Local demography and firm leverage: Subsample analyses

This table presents baseline regressions of firm leverage on Local Age and Sex Composition (ASC) Index using the subsamples of firms with investment grade long-term credit rating (i.,e, firms with a rating of BBB- or higher from S&P in a given year), non-investment grade credit rating, and no credit rating. The dependent variable in Panel A (B) is Market Leverage (Book Leverage). All variables are defined in the Appendix. The sample consists of non-financial, non-utility firms in Compustat from fiscal year 1985 to 2010. The sample excludes financial (SIC codes between 6000 and 6999) and utility (SIC codes between 4900 and 4999) firms. Standard errors are robust to heteroscedasticity and are clustered at the firm level. T-statistics are in parentheses. ***, ** and * denote statistical significance at the 1%, 5% and 10% levels respectively.

Panel A: Dependent Variable: Market Leverage

	(1)	(2)	(3)	(4)	(5)	(6)
Subsample:	Investment Grade	Non-investment Grade	Unrated	Investment Grade	Non-investment Grade	Unrated
Local ASC Index	0.002	0.006***	0.005***			
	(1.28)	(3.03)	(4.89)			
High ASC				0.016	0.035**	0.026***
				(1.30)	(2.55)	(4.12)
Firm Controls	Yes	Yes	Yes	Yes	Yes	Yes
County Controls	Yes	Yes	Yes	Yes	Yes	Yes
Fixed Effects	Ind. × Year	Ind. × Year	Ind. × Year	Ind. × Year	Ind. × Year	Ind. × Year
N	8,790	8,280	52,537	5,886	5,923	35,210
R^2	0.522	0.467	0.308	0.534	0.489	0.318

Panel B: Dependent Variable: Book Leverage

	(1)	(2)	(3)	(4)	(5)	(6)
Subsample:	Investment Grade	Non-investment Grade	Unrated	Investment Grade	Non-investment Grade	Unrated
Local ASC Index	0.002	0.005**	0.003***			
	(1.17)	(2.33)	(3.57)			
High ASC				0.015	0.025*	0.018***
				(1.26)	(1.78)	(3.10)
Firm Controls	Yes	Yes	Yes	Yes	Yes	Yes
County Controls	Yes	Yes	Yes	Yes	Yes	Yes
Fixed Effects	Ind. × Year	Ind. × Year	Ind. × Year	Ind. × Year	Ind. × Year	Ind. × Year
N	8,791	8,283	52,551	5,887	5,925	35,217
R^2	0.296	0.349	0.215	0.315	0.387	0.223

Table 5: Local demography and securities issuance decisions

This table presents logit regressions of a firm's decision to issue equity and debt on Local ASC Index. All variables are defined in the Appendix. The sample consists of non-financial, non-utility firms in Compustat from fiscal year 1980 to 2010. The sample excludes financial (SIC codes between 6000 and 6999) and utility (SIC codes between 4900 and 4999) firms. Standard errors are robust to heteroscedasticity and are clustered at the firm level. T-statistics are in parentheses. ***, ** and * denote statistical significance at the 1%, 5% and 10% levels respectively.

Dependent Variable:	(1) Debt Issuance	(2) Debt Issuance	(3) Debt Issuance	(4) Equity Issuance	(5) Equity Issuance	(6) Equity Issuance
Local ASC Index	0.019***			-0.030***		
	(4.07)			(-4.46)		
High ASC		0.080***	0.118***		-0.055	-0.142***
		(3.11)	(3.83)		(-1.47)	(-3.24)
Low ASC		-0.028			0.095***	
		(-1.08)			(2.65)	
Firm Controls	Yes	Yes	Yes	Yes	Yes	Yes
County Controls	Yes	Yes	Yes	Yes	Yes	Yes
Fixed Effects	Ind., Year	Ind., Year	Ind., Year	Ind., Year	Ind., Year	Ind., Year
N	81,290	81,290	54,587	81,290	81,290	54,587
Pseudo R^2	0.033	0.033	0.033	0.183	0.183	0.184

Table 6: Robustness

The following table presents several robustness checks for our main results. We report estimates for High ASC and Low ASC dummies in models identical to those presented as columns 2 and 5 of Table 3 with the following differences. In Panel A, we replace the leverage ratio as the dependent variable with short-term debt ratio and long-term debt ratio, respectively. Panel B estimates the regressions using the following subsamples: firms sorted by whether they are in high- and low-income counties, divided by median income; a subsample that excludes firms with fewer than 500 employees (Becker, 2007); a subsample that excludes high-tech firms; and subsamples of firms divided by whether their operations are more or less dispersed than the median firm (as defined by Bernile, Kumar, and Sulaeman, 2015). Panel C includes various fixed effects in the regressions. Standard errors are robust to heteroscedasticity and are clustered at the firm level. T-statistics are in parentheses. ***, ** and * denote statistical significance at the 1%, 5% and 10% levels respectively.

Panel A. Debt Structure

	Coef. on	**Mkt Lev**	**N**	**Book Lev**	**N**
Short-term debt	High ASC	0.005**	81,267	0.004**	81,290
		(2.20)		(2.37)	
	Low ASC	-0.002		-0.001	
		(-1.33)		(-0.41)	
Long-term debt	High ASC	0.009**	81,267	0.009**	81,290
		(2.20)		(2.44)	
	Low ASC	-0.008**		-0.004	
		(-2.20)		(-1.15)	

Panel B. Subsample Analysis

	Coef. on	**Mkt Lev**	**N**	**Book Lev**	**N**
High-Income Counties	High ASC	0.012	40,171	0.017**	40,181
		(1.48)		(2.32)	
	Low ASC	-0.022***		-0.008	
		(-2.91)		(-1.20)	
Low-Income Counties	High ASC	0.013**	41,096	0.011**	41,109
		(2.14)		(2.00)	
	Low ASC	-0.005		-0.003	
		(-0.80)		(-0.61)	
Excluding firms with <500 employees (Becker, 2007)	High ASC	0.015***	51,648	0.014***	51,661
		(2.61)		(2.85)	
	Low ASC	-0.012**		-0.008	
		(-2.19)		(-1.56)	
Excluding high-tech firms	High ASC	0.015***	63,777	0.012**	63,796
		(2.74)		(2.51)	
	Low ASC	-0.006		-0.001	
		(-1.05)		(-0.27)	
Dispersed operations	High ASC	0.019**	20,274	0.016**	20,278
		(2.33)		(2.13)	
	Low ASC	0.001		0.000	
		(0.08)		(0.01)	
Concentrated operations	High ASC	0.015**	24,824	0.016**	24,827
		(2.12)		(2.31)	
	Low ASC	-0.015**		-0.002	
		(-2.39)		(-0.32)	

Panel C. Fixed Effects

	Coef. on	**Mkt Lev**	**N**	**Book Lev**	**N**
Size and market-to-book ratio decile fixed effects	High ASC	0.011**	81,218	0.013***	81,236
		(2.58)		(3.15)	
	Low ASC	-0.007*		-0.005	
		(-1.76)		(-1.21)	
State fixed effects	High ASC	0.012**	81,165	0.011**	81,188
		(2.14)		(2.06)	
	Low ASC	-0.006		0.000	
		(-1.11)		(0.07)	
Firm fixed effects	High ASC	0.016**	81,267	0.012*	81,290
		(2.28)		(1.92)	
	Low ASC	-0.002		0.006	
		(-0.31)		(0.99)	

Table 7: Local demography and deposit levels

This table shows the influence of local demography on the level of local bank deposits using quarterly data from 1980 to 2010. The dependent variable is log of aggregate deposits per capita in a county based on the county of the bank's main office. The main explanatory variables are county-level demographic variables and our ASC index. Standard errors are robust to heteroscedasticity and are clustered at the county level. t/z-statistics are in parentheses. ***, ** and * denote statistical significance at the 1%, 5% and 10% levels respectively.

	Log(Deposits Per Capita)	
	(1)	(2)
Local ASC Index	0.0392***	
	(7.64)	
High ASC		0.2331***
		(7.74)
Log(Income)	0.000***	0.000***
	(7.51)	(6.55)
Log(Population)	-0.1286***	-0.1206***
	(-9.16)	(-6.83)
Housing Index	0.0017***	0.0018***
	(17.45)	(13.37)
Fixed Effects	State × Year	State × Year
N	299,985	157,488

Table 8: Local demography and syndicated loan members

This table shows the influence of local demography on syndicated loans. The data come from Thomson Reuters *DealScan* dataset and covers the years 1987 to 2010. Column 1 shows the results of an OLS regression of facility amount scaled by the borrowers' book asset, where the facility amount is actual amount of the facility committed by the facility's lender pool over a year. This analysis includes all firms that appear in DealScan database at least once during the sample period. Columns (2) to (4) are logit regressions where the dependent variables are, respectively, indicator variables for whether the syndicate has: any member (Model 2), the lead member (Model 3), and the non-lead member (Model 4) from the same *state* as the borrower's headquarters. State-level control variables are constructed as the county-population-weighted averages of variables measured at the county level. Columns (5), (6) and (7) are analogous OLS regressions for the fractions of same-state syndicate members (lead or non-lead), lead members, and non-lead members in the syndicate, respectively. Column (8) shows an OLS regression of facility-level interest-rate spread over a benchmark. Standard errors are robust to heteroscedasticity and are clustered at the state level. T-statistics are in parentheses. ***, ** and * denote statistical significance at the 1%, 5% and 10% levels respectively.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
		Presence of:			Fraction of:			
	Facility Amount/ Asset	Local Syndicate Member	Local Lead Syndicate Member	Local Non-Lead Syndicate Member	Local Syndicate Members	Local Lead Syndicate Members	Local Non-Lead Syndicate Members	Loan Rate Spread
Local ASC Index	0.002***	0.242***	0.229***	0.258***	0.022***	0.028**	0.022***	-0.378
	(3.00)	(3.88)	(2.85)	(4.14)	(2.63)	(2.52)	(3.01)	(-0.67)
Facility Amount / Asset		0.351**	-0.811***	0.345	-0.155***	-0.133***	-0.115***	9.989
		(2.32)	(-3.53)	(1.57)	(-4.94)	(-3.92)	(-4.14)	(0.98)
Firm Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
County Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Fixed Effects	Ind. × Year	Ind., Year	Ind., Year	Ind., Year	Ind. × Year	Ind. × Year	Ind. × Year	Ind. × Year
N	39,249	10,801	9,642	7,854	10,802	9,643	7,857	11,460
R^2	0.064				0.282	0.258	0.234	0.517

Table 9: Volatility of local bank deposits

This table reports the relation between local demography and the volatility of deposits of local banks. The sample starts in year 1980 and ends in year 2010. *Deposit Volatility* is the natural logarithm of standard deviation of percentage change in the aggregate deposits of banks located in a county for twelve quarters in the future using non-overlapping time-series. Standard errors are robust to heteroscedasticity and are clustered at the county-level. t/z-statistics are in parentheses. ***, ** and * denote statistical significance at the 1%, 5% and 10% levels respectively.

	Deposit Volatility	
	(1)	(2)
Local ASC Index	-0.0105***	
	(-2.84)	
High ASC		-0.0615***
		(-2.74)
Log(Income)	0.000***	0.000***
	(9.28)	(6.89)
Log(Population)	0.0432***	0.0379***
	(5.51)	(3.64)
Housing Index	0.0046	0.0005
	(1.26)	(0.11)
Fixed Effects	State × Year	State × Year
N	25,077	13,275

Table 10: Effect of Interstate Bank Deregulation

This table presents the firm fixed effects regressions that estimate the effect of interstate bank deregulation on debt issuance activities and leverage. The sample consists of non-financial, non-utility firms in Compustat from fiscal year 1970 to 1997, excluding those with less than four years of *Firm Age*. $InterstateBranch_{t+0}$, $InterstateBranch_{t+1}$, $InterstateBranch_{t+2}$, $InterstateBranch_{(t+3\ and\ later)}$ are indicator variables which represent, respectively, the same year of the deregulation, a year after deregulation, two years after deregulation, and three years and later after deregulation in the state of the firm's headquarters. Debt Issuance (Equity Issuance) equals one if Net Debt Issuances (Net Equity Issuance) > 1%; 0 otherwise. All variables are defined in the Appendix. Columns (1), (4), (7) and (10) use the full sample, (2), (5), (8) and (11) include firm-years in High ASC areas and (3), (6), (9) and (12) include firm-years in Low ASC areas. Standard errors are robust to heteroscedasticity and are clustered at the firm level. T-statistics are in parentheses. ***, ** and * denote statistical significance at the 1%, 5% and 10% levels respectively.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	Debt Issuance Dummy			Equity Issuance Dummy			Log(Total Debt+1)			Book Leverage		
	Full Sample	High ASC Areas	Low ASC Areas	Full Sample	High ASC Areas	Low ASC Areas	Full Sample	High ASC Areas	Low ASC Areas	Full Sample	High ASC Areas	Low ASC Areas
$InterstateBranch_{t+0}$	0.020	-0.012	0.084***	-0.003	-0.031*	0.015	0.029	-0.007	0.118***	0.004	0.001	0.015*
	(1.47)	(-0.45)	(2.79)	(-0.33)	(-1.68)	(0.58)	(1.54)	(-0.23)	(2.72)	(1.15)	(0.09)	(1.91)
$InterstateBranch_{t+1}$	0.027*	-0.015	0.084**	0.014	0.001	0.007	0.052**	0.025	0.102*	0.007	-0.000	0.017
	(1.71)	(-0.51)	(2.26)	(1.15)	(0.03)	(0.23)	(2.01)	(0.55)	(1.69)	(1.46)	(-0.01)	(1.59)
$InterstateBranch_{t+2}$	0.027	0.017	0.114**	0.004	-0.007	-0.022	0.042	0.025	0.132*	0.009	0.008	0.025*
	(1.55)	(0.52)	(2.58)	(0.29)	(-0.33)	(-0.68)	(1.35)	(0.44)	(1.75)	(1.48)	(0.85)	(1.80)
InterstateBranch (t+3 and later)	0.051***	0.023	0.151***	0.004	-0.026	-0.024	0.076*	0.035	0.140	0.013*	0.011	0.025
	(2.69)	(0.66)	(3.10)	(0.24)	(-1.03)	(-0.67)	(1.89)	(0.48)	(1.42)	(1.82)	(0.92)	(1.39)
Size	-0.062***	-0.079***	-0.063***	-0.046***	-0.039***	-0.060***	0.911***	0.935***	0.847***	0.041***	0.049***	0.036***
	(-10.95)	(-6.71)	(-5.95)	(-9.76)	(-4.66)	(-6.31)	(53.94)	(29.70)	(28.41)	(12.17)	(8.62)	(5.99)
Market-to-Book	0.029***	0.036***	0.022***	0.057***	0.060***	0.051***	-0.021**	-0.000	-0.012	-0.002	-0.003	-0.004*
	(7.86)	(4.75)	(3.72)	(17.03)	(9.85)	(8.49)	(-2.02)	(-0.01)	(-0.87)	(-1.64)	(-0.95)	(-1.90)
Profitability	0.345***	0.378***	0.274***	-0.077***	-0.056*	-0.060*	-0.653***	-0.611***	-0.565***	-0.197***	-0.199***	-0.170***
	(14.94)	(8.14)	(7.07)	(-4.03)	(-1.69)	(-1.78)	(-14.67)	(-7.32)	(-7.82)	(-19.19)	(-10.13)	(-10.48)
Tangibility	0.132***	0.116*	0.091*	0.074***	0.065	0.127***	1.034***	1.110***	1.018***	0.156***	0.160***	0.164***
	(4.25)	(1.86)	(1.67)	(3.19)	(1.37)	(3.19)	(12.23)	(6.75)	(7.37)	(9.85)	(5.55)	(6.00)
Stock Return	-0.285***	-0.311***	-0.263***	-0.140***	-0.136**	-0.131**	0.362***	-0.035	0.381***	0.170***	0.144***	0.156***
	(-6.64)	(-3.87)	(-3.53)	(-4.22)	(-2.21)	(-2.03)	(4.44)	(-0.20)	(2.89)	(10.55)	(4.58)	(5.98)
Stock Volatility	0.016***	0.014	0.020***	0.083***	0.078***	0.087***	0.026***	0.034***	0.019*	-0.014***	-0.013***	-0.013***
	(3.79)	(1.64)	(2.67)	(23.72)	(11.87)	(13.75)	(3.96)	(2.73)	(1.66)	(-11.27)	(-5.73)	(-6.39)
Firm Age	-0.102	-0.097***	-0.023	-0.076	-0.018**	-0.020	-0.044	-0.595***	0.033	0.002	-0.123***	0.015
	(-0.03)	(-11.53)	(-0.00)	(-0.08)	(-2.38)	(-0.00)	(-0.02)	(-28.21)	(0.00)	(0.00)	(-31.59)	(0.00)
Dividend Payer	0.116***	0.117***	0.113***	-0.002	0.002	-0.007	-0.046**	-0.058	-0.012	-0.030***	-0.032***	-0.019**
	(12.41)	(6.44)	(6.45)	(-0.28)	(0.13)	(-0.47)	(-2.16)	(-1.43)	(-0.28)	(-7.50)	(-4.13)	(-2.53)
R&D/Sales	0.087***	0.087*	0.067*	-0.001	-0.069**	0.041	-0.131***	0.069	-0.206***	-0.033***	-0.006	-0.044***
	(4.03)	(1.80)	(1.82)	(-0.07)	(-2.22)	(1.08)	(-2.93)	(0.87)	(-3.33)	(-4.67)	(-0.40)	(-4.08)
Fixed-effects	Firm, Ind. × Year											
N	66,550	20,471	21,047	66,550	20,471	21,047	66,550	20,471	21,047	66,550	20,471	21,047
R^2	0.222	0.260	0.287	0.396	0.428	0.443	0.916	0.922	0.922	0.718	0.728	0.749

Table 11: Ability to raise capital and survival during the crisis

This table presents logit regressions on the propensity of the firms to raise capital (debt and equity) and not survive the crisis. Columns 1 through 7 are cross-sectional logit regressions where the dependent variables indicate whether a firm issued debt and/or equity, defined similar to Table 3, either during the fiscal year 2008 or 2009. The sample for columns 1 through 7 consist of all firms that survived the crisis and have some debt in their capital structure in 2007 (defined as book leverage >0.01). All explanatory variables are fixed at the end of FY 2007. Columns 7 and 8 are logit regressions where the dependent variable is whether a firm disappeared from our sample due to merger or bankruptcy during the fiscal years 2008 or 2009. Standard errors are robust to heteroscedasticity. T-statistics are in parentheses. ***, ** and * denote statistical significance at the 1%, 5% and 10% levels respectively.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Debt or Equity Issue	Debt or Equity Issue	Debt Issue	Debt Issue	Equity Issue	Equity Issue	Bankrupt or Merged	Bankrupt or Merged
Local ASC Index	0.121***		0.143***		0.059		-0.167***	
	(3.13)		(3.76)		(1.41)		(-2.71)	
High ASC		0.804***		0.777***		0.690**		-1.097***
		(3.09)		(3.16)		(2.52)		(-2.74)
Low Income *	-0.130***		-0.140***		-0.079		0.141*	
Local ASC Index	(-2.62)		(-2.81)		(-1.38)		(1.85)	
Low Income *		-0.910***		-0.875***		-0.745**		1.053**
High ASC		(-2.83)		(-2.78)		(-2.08)		(2.26)
Low Income	0.250	0.074	0.432	0.200	0.302	0.263	-0.545	-0.330
	(0.69)	(0.25)	(1.18)	(0.68)	(0.72)	(0.78)	(-1.01)	(-0.79)
Market Leverage	-0.236	-0.107	-1.030***	-0.898**	0.712*	0.645	-0.203	-0.138
	(-0.65)	(-0.25)	(-2.85)	(-2.11)	(1.68)	(1.23)	(-0.41)	(-0.23)
Log Income	-0.738***	-0.636**	-0.742***	-0.563*	0.032	-0.065	0.765*	0.540
	(-2.74)	(-2.10)	(-2.79)	(-1.93)	(0.11)	(-0.19)	(1.77)	(1.09)
Log Population	-0.090	0.014	-0.042	0.011	0.065	0.218	0.029	-0.131
	(-0.87)	(0.10)	(-0.40)	(0.08)	(0.52)	(1.31)	(0.16)	(-0.61)
Log Religious	0.057	-0.109	0.273	0.081	-0.127	-0.222	-0.759*	-0.355
	(0.19)	(-0.29)	(0.99)	(0.23)	(-0.39)	(-0.51)	(-1.78)	(-0.66)
Rural Urban Continuum	-0.015	0.099	0.010	0.103	-0.055	-0.049	0.125	-0.088
	(-0.15)	(0.78)	(0.10)	(0.79)	(-0.48)	(-0.30)	(0.74)	(-0.37)
Size	0.020	0.014	0.053	0.043	0.010	0.019	-0.116**	-0.153***
	(0.52)	(0.30)	(1.42)	(0.96)	(0.23)	(0.38)	(-2.31)	(-2.64)
Market-to-Book	0.252***	0.236**	0.104*	0.073	0.306***	0.337***	-0.241***	-0.175*
	(3.00)	(2.36)	(1.68)	(1.01)	(4.25)	(3.88)	(-2.85)	(-1.93)
Profitability	-0.714	-0.696	0.084	0.099	-2.416***	-2.014***	0.450	0.446
	(-1.64)	(-1.43)	(0.20)	(0.21)	(-4.07)	(-3.13)	(1.05)	(0.81)
Tangibility	1.495***	1.462***	1.862***	1.544***	0.177	0.316	-1.241**	-1.138
	(4.05)	(3.27)	(5.23)	(3.63)	(0.43)	(0.64)	(-1.97)	(-1.51)
Stock Return	0.303**	0.308*	0.104	0.071	0.380**	0.216		
	(2.04)	(1.68)	(0.73)	(0.41)	(2.39)	(1.12)		
Stock Volatility	-0.060	0.868	-1.222	-1.230	1.632	2.594*	0.215	0.178
	(-0.05)	(0.65)	(-1.08)	(-0.96)	(1.34)	(1.83)	(0.15)	(0.11)
Firm Age	-0.002	0.001	-0.000	0.001	-0.013**	-0.011*		
	(-0.41)	(0.20)	(-0.09)	(0.27)	(-2.48)	(-1.74)		
Dividend Payer	-0.158	-0.137	0.064	0.033	-0.439***	-0.436**		
	(-1.15)	(-0.85)	(0.48)	(0.21)	(-2.60)	(-2.16)		
R&D/Sales	0.152	0.095	-0.044	-0.042	0.218	0.179		
	(1.44)	(1.26)	(-0.84)	(-0.69)	(1.47)	(1.44)		
Current Ratio							-0.060	-0.068
							(-1.31)	(-1.28)
Lag(Profitability)							-0.649	-0.456
							(-1.35)	(-0.73)
Fixed-effects	Ind., Year	Ind., Year	Ind., Year	Ind., Year	Ind., Year	Ind., Year	Ind., Year	Ind., Year
N	1,583	1,121	1,583	1,121	1,551	1,081	2,201	1,467
Pseudo R^2	0.088	0.100	0.087	0.084	0.151	0.174	0.073	0.072

Figure 1. Demographics in Counties where Grocery Stores were Headquartered in 1995

This figure shows the U.S. counties where the 36 public grocery store chains in our sample were headquartered in 1995. We assign quintile ranks to each county based on the average age in the county and the ratio of women to men in the county, respectively. The quintile ranks are added together for each county into a composite Local Age and Sex Composition (ASC) Index, which ranges from 2 to 10. Counties are shared according to this composite index.

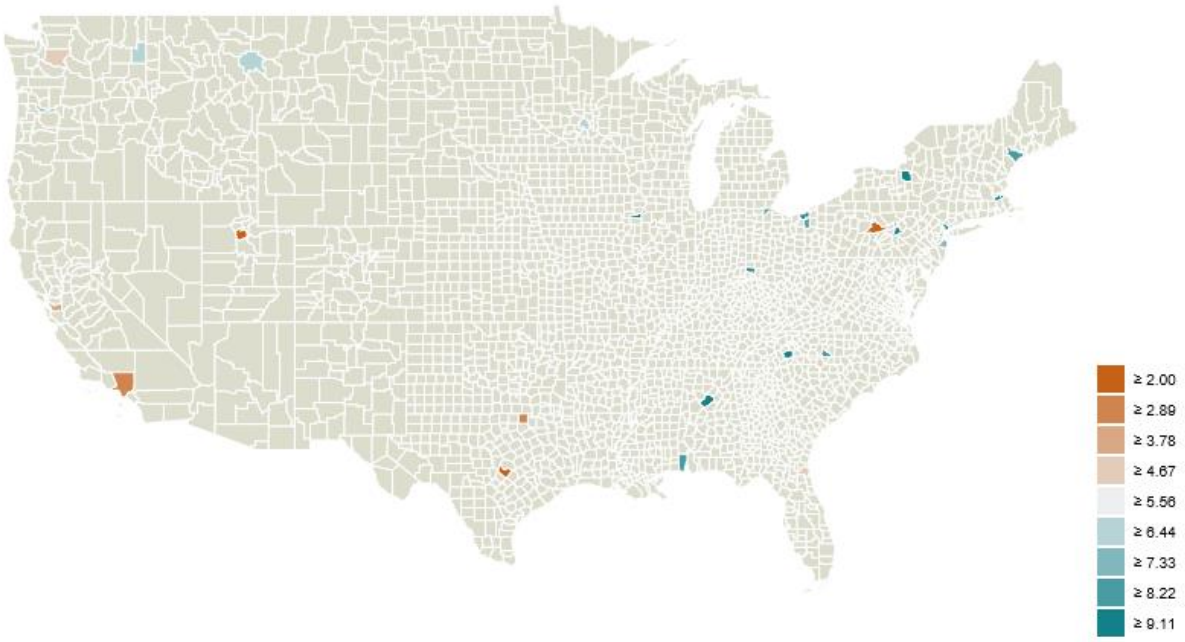


Figure 2. Market Leverage in Grocery Store Chains

This chart shows the average market leverage of publicly-traded grocery store chains, sorted by their headquarter locations. We assign quintile ranks to each county based on the average age in the county and the ratio of women to men in the county, respectively. The quintile ranks are added together for each county into a composite Local Age and Sex Composition (ASC) Index, which ranges from 2 to 10. Counties are considered to have High ASC if the index is between 6 and 10, and Low ASC if the index is between 2 and 5.

	# Obs.	
	High ASC	**Low ASC**
1980s	166	230
1990s	165	156
2000s	74	106

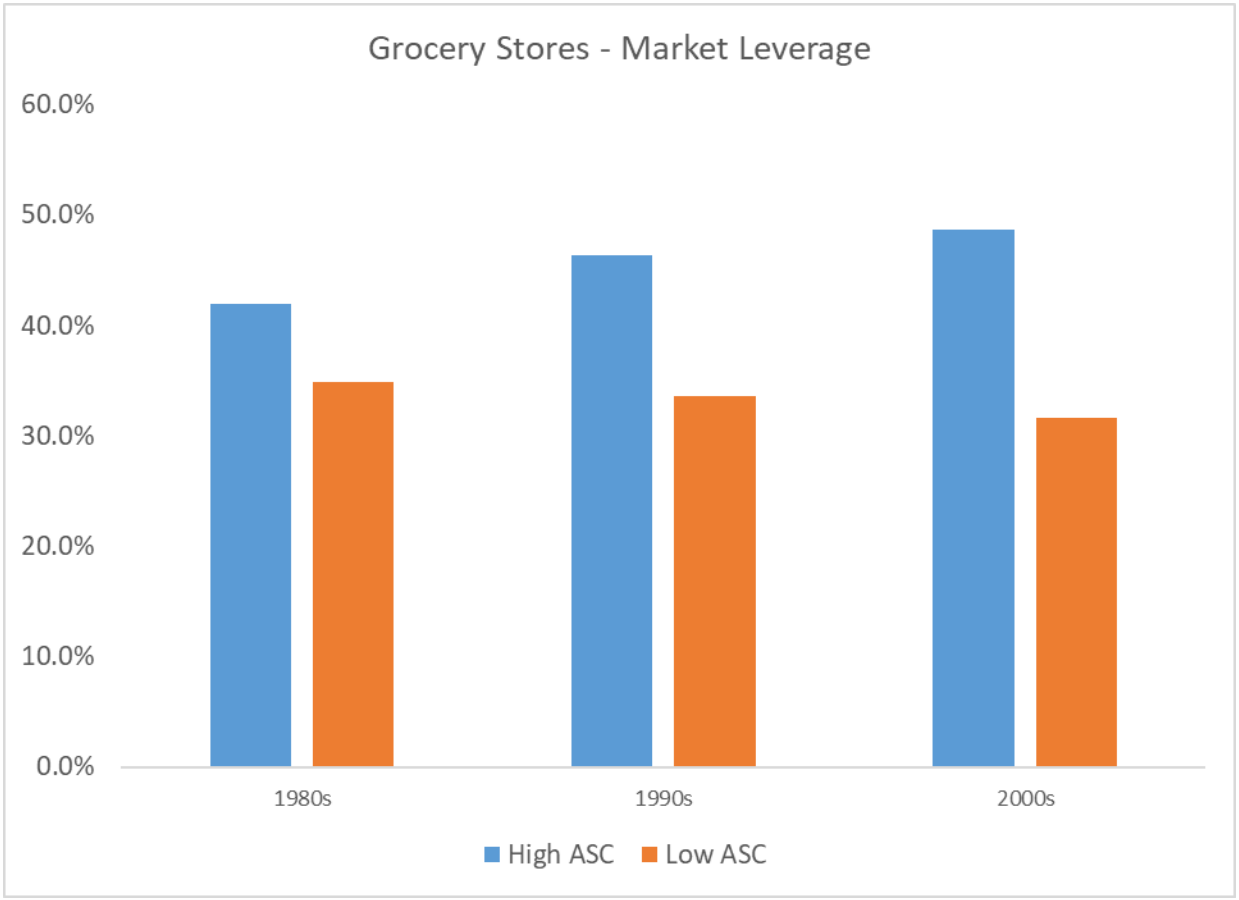
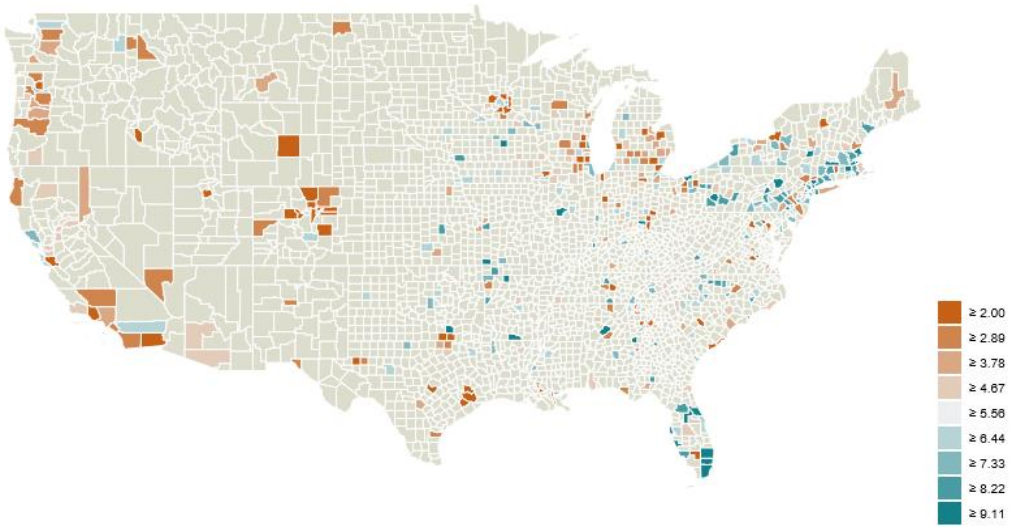


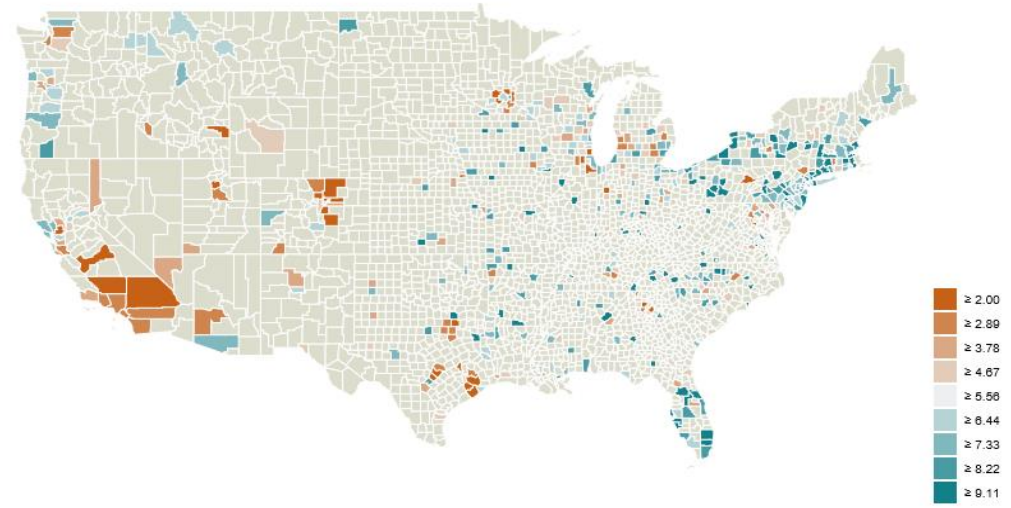
Figure 3. Local ASC Index for counties where sample firms are headquartered

This figure provides maps of the counties where the firms in our sample are headquartered in 1980, 1995, and 2010. The counties are shaded according to their Local Age and Sex Composition Index value (Local ASC Index), which is a composite measure of the counties' quintile rankings along two demographic dimensions: (i) the average age of the population in the county, and (ii) the ratio of women to men in the county. The Local ASC Index ranges from 2 to 10.

1980



1995



2010

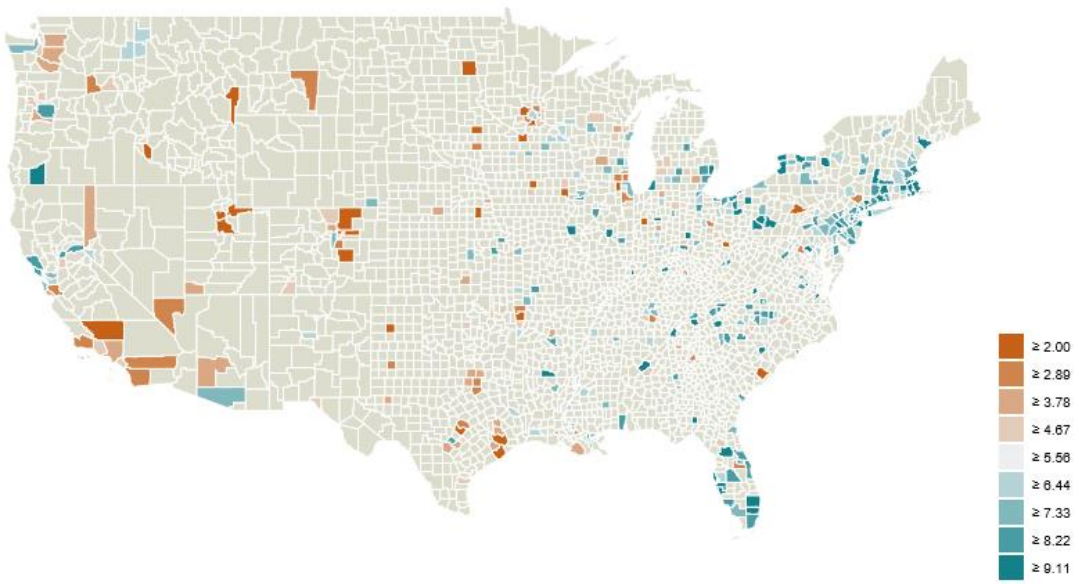
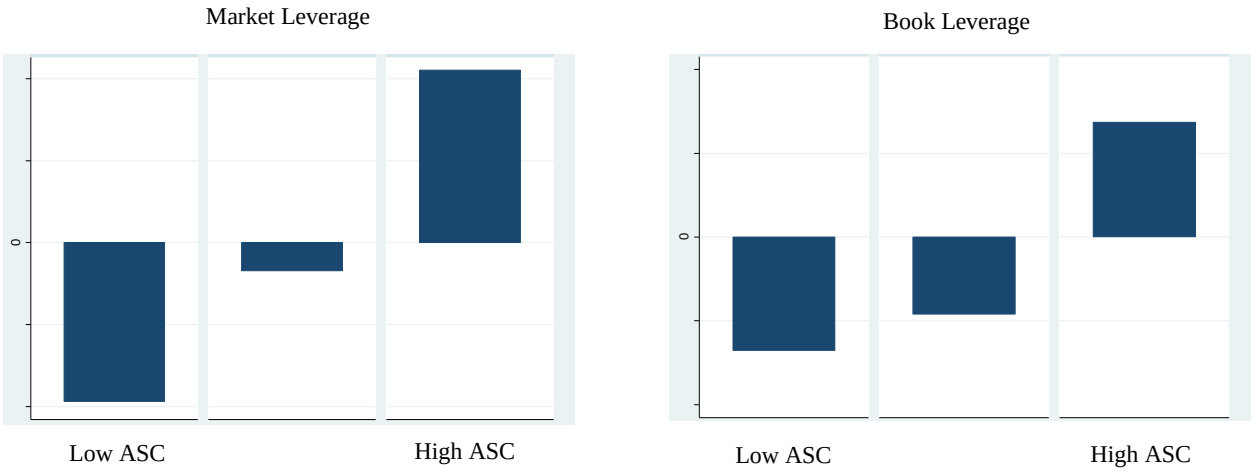


Figure 4: Adjusted market and book leverage across ASC indices

The following charts show the average market and book leverage, respectively, across Low, Middle and High ASC indices, relative to size decile, industry and year benchmarks.



Appendix

Table A.1: Variable definitions

Variable	*Definitions*
Market Leverage	Total Debt / Market Value of Assets, where Total Debt = Short-Term Debt + Long-Term Debt = dltt + dlc, and Market Value of Assets = prcc f * cshpri + dlc + dltt + pstkl - txditc, from Compustat
Book Leverage	Book Leverage = Total Debt / Total Book Assets, where Total Book Assets = at, From Compustat
Debt Issuance	1 if Net Debt Issuances > 1%; 0 otherwise, where Net Debt Issuances = [(dltt(t) + dlc(t)) - (dltt(t-1) + dlc(t-1))] / at(t-1)
Equity Issuance	1 if Net Equity Issuances > 1%; 0 otherwise, where Net Equity Issuances = (sstk - prstkc(t) / at(t-1), from Compustat
Size	Natural logarithm of Total Assets (at), from Compustat
Market-to-Book	Book value of assets minus book value of equity plus market value of equity minus investment tax credit scaled by book value of assets (at - ceq + csho*prcc_f - txditc)/at, from Compustat
Profitability	Net income (NI) divided by total assets, from Compustat
Tangibility	Ratio of net property, plant and equipment (PPENT) to total assets, from Compustat
Stock Return	Stock return of the firm in a given year, from CRSP
Stock Volatility	Standard deviation of monthly stock return in a given year, from CRSP
Firm Age	Firm age approximated by the difference between current fiscal year and the year the firm first appeared in Compustat database
Dividend Payer	1 if a firm paid cash dividends this year; 0 otherwise, from CRSP
R&D/Sales	The ratio of R&D expenditure (XRD) to Sales, from Compustat
Current Ratio	The ratio of Current Assets (ACT) and Current Liabilities (LCT), from Compustat
InvestGrade	1 if a firm has long term credit rating by S&P of BBB- or better
Average Age	Average age of a county's residents (mid-point of the age group in years). Linearly interpolated between census years. Source: U.S. Census Bureau.
Female to Male	Ratio of female to male residents of the county in a given year. Linearly interpolated between census years. Source: U.S. Census Bureau.
Female Q5	1 if a firm belongs to a county in for top quintile of *Female to Male* in a given year; 0 otherwise
Female Q1	1 if a firm belongs to a county in for bottom quintile of Female to Male in a given year; 0 otherwise
Age Q5	1 if a firm belongs to a county in for top quintile of *Average Age* in a given year; 0 otherwise
Age Q1	1 if a firm belongs to a county in for bottom quintile of Average Age in a given year; 0 otherwise
Local ASC Index	Local Age and Sex Composition Index: Sum of quintile order of Average Age and Female to Male
High ASC	1 if the firm headquartered in a county with ASC Index of 8 to 10; 0 otherwise
Low ASC	1 if the firm is headquartered in a county with ASC Index of 2 to 4; 0 otherwise
Log Income	Natural log of median per capita county income adjusted for inflation. Source: The U.S. Bureau of Economic Analysis (BEA)
Low Income	1 if a firm belongs to a county with below median total income in a given year
High Income	1 if a firm belongs to a county with above median total income in a given year
Log Population	Natural log of population of a county in a given year. Source: U.S. Census Bureau.
Log Religious	Natural log of number of religious adherents per 1000 population in a county. Source: American Religious Data Archive (ARDA)
Rural Urban Continuum	A classification scheme that distinguishes metropolitan (i.e., metro) counties by the population size of their metro area, and nonmetropolitan counties by the degree of urbanization and adjacency to a metro area(s). Scaled from 1 to 9, where a higher number means more rural (1 to 3: metro areas; 4 to 9: non-metro areas).
Housing Index	State-level quarterly house price indices. Source: Federal Housing Finance Agency

Table A.2: Local demography and capital structure: Regressions using underlying variables

This table presents baseline regressions of firm leverage on the underlying variables used to construct Local Age and Sex Composition (ASC) Index. Female (Age) Q1 [Q5] is a dummy variable indicating whether the firm is headquartered in a county with lowest [highest] quintile of Female to Male ratio (Avg. County Age). All other variables are as defined in the Appendix Table A.1. The sample consists of non-financial, non-utility firms in Compustat from fiscal year 1980 to 2010. Standard errors are robust to heteroscedasticity and are clustered at the firm level. T-statistics are in parentheses. ***, ** and * denote statistical significance at the 1%, 5% and 10% levels respectively.

	MktLev	MktLev	MktLev	MktLev	BookLev	BookLev	BookLev	BookLev
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Avg. County Age	0.004***		0.001		0.003***		0.001	
	(3.74)		(1.11)		(3.20)		(0.79)	
Female to Male		0.251***	0.210***			0.209***	0.182***	
		(4.89)	(3.28)			(4.35)	(3.03)	
Female Q5				0.005				0.005
				(0.89)				(1.06)
Female Q1				-0.012***				-0.011**
				(-2.60)				(-2.43)
Age Q5				0.022***				0.015***
				(3.85)				(2.96)
Age Q1				0.003				0.005
				(0.67)				(1.13)
Log Income	-0.025***	-0.016*	-0.020**	-0.026***	-0.016*	-0.009	-0.012	-0.015*
	(-2.59)	(-1.76)	(-2.08)	(-2.70)	(-1.76)	(-1.06)	(-1.29)	(-1.66)
Log Population	-0.006**	-0.005**	-0.005**	-0.005**	-0.006***	-0.006***	-0.006***	-0.006***
	(-2.37)	(-2.25)	(-2.16)	(-2.09)	(-2.81)	(-2.68)	(-2.61)	(-2.94)
Log Religious	0.019**	0.004	0.006	0.009	0.011	-0.002	-0.001	0.001
	(2.20)	(0.43)	(0.60)	(0.95)	(1.37)	(-0.21)	(-0.09)	(0.06)
Rural Urban Continuum	-0.004	-0.001	-0.002	-0.003	-0.004**	-0.002	-0.003	-0.004*
	(-1.52)	(-0.58)	(-0.81)	(-1.13)	(-2.01)	(-1.13)	(-1.29)	(-1.89)
Size	0.027***	0.027***	0.027***	0.028***	0.026***	0.026***	0.026***	0.026***
	(21.94)	(21.80)	(21.91)	(22.00)	(23.32)	(23.25)	(23.27)	(23.30)
Market-to-Book	-0.043***	-0.043***	-0.043***	-0.043***	-0.014***	-0.014***	-0.014***	-0.014***
	(-37.95)	(-37.86)	(-37.88)	(-37.73)	(-12.34)	(-12.30)	(-12.29)	(-12.77)
Profitability	-0.139***	-0.139***	-0.139***	-0.139***	-0.166***	-0.166***	-0.166***	-0.160***
	(-21.80)	(-21.86)	(-21.85)	(-21.89)	(-20.39)	(-20.43)	(-20.42)	(-19.98)
Tangibility	0.192***	0.192***	0.192***	0.192***	0.202***	0.203***	0.203***	0.206***
	(15.86)	(15.90)	(15.90)	(15.92)	(17.88)	(17.92)	(17.92)	(18.53)
Stock Return	-0.032***	-0.033***	-0.033***	-0.032***	-0.015***	-0.015***	-0.015***	-0.015***
	(-26.93)	(-26.93)	(-26.94)	(-26.87)	(-13.25)	(-13.27)	(-13.27)	(-13.65)
Stock Volatility	0.330***	0.331***	0.331***	0.330***	0.245***	0.246***	0.246***	0.232***
	(20.12)	(20.17)	(20.17)	(20.15)	(15.76)	(15.80)	(15.81)	(15.41)
Firm Age	0.000	0.000	0.000	0.000	-0.001***	-0.001***	-0.001***	-0.000***
	(0.30)	(0.18)	(0.14)	(0.17)	(-2.85)	(-2.97)	(-3.00)	(-2.79)
Dividend Payer	-0.088***	-0.089***	-0.088***	-0.088***	-0.069***	-0.070***	-0.069***	-0.069***
	(-19.14)	(-19.31)	(-19.30)	(-19.18)	(-16.92)	(-17.06)	(-17.05)	(-17.15)
R&D/Sales	-0.006***	-0.006***	-0.006***	-0.006***	-0.007***	-0.007***	-0.007***	-0.005***
	(-5.73)	(-5.81)	(-5.80)	(-5.69)	(-4.39)	(-4.43)	(-4.43)	(-3.00)
Fixed-effects	Ind. × Year	Ind. × Year	Ind. × Year	Ind. × Year	Ind. × Year	Ind. × Year	Ind. × Year	Ind. × Year
N	81,267	81,267	81,267	81,267	81,290	81,290	81,290	81,290
R^2	0.342	0.342	0.342	0.343	0.236	0.237	0.237	0.237

Table A.3: Local demography and firm leverage using alternative ASC index construction methodologies

This table presents baseline regressions of firm leverage on Local ASC Index constructed based on decile- and percentile-based rankings of average county age and female ratio. In Panel A, *Local ASC Index-D* combines the decile rankings of the demographic variables and takes values ranging from 2 to 20. *High ASC-D* indicates the index value >= 15, and *Low ASC-D* indicates the index value <= 7. In Panel B, *Local ASC Index-P* combines the percentile rankings of the demographic variables and takes values ranging from 2 to 200. *High ASC-P* indicates the index value >= 140, and *Low ASC-P* indicates the index value <= 60. All regressions include the full set of control variables reported in Table 3. The sample consists of non-financial, non-utility firms in Compustat from fiscal year 1980 to 2010. The sample excludes financial (SIC codes between 6000 and 6999) and utility (SIC codes between 4900 and 4999) firms. Standard errors are robust to heteroscedasticity and clustered at the firm level. T-statistics are in parentheses. ***, ** and * denote statistical significance at the 1%, 5% and 10% levels respectively.

Panel A: Local ASC Index constructed with decile-based rankings

	(1) Mkt Lev	(2) Mkt Lev	(3) Mkt Lev	(4) Book Lev	(5) Book Lev	(6) Book Lev
Local ASC Index-D	0.002***			0.002***		
	(5.11)			(4.28)		
High ASC-D		0.013***	0.029***		0.011***	0.024***
		(2.70)	(4.85)		(2.64)	(4.44)
Low ASC-D		-0.013***			-0.009**	
		(-2.93)			(-2.06)	
Control variables	Yes	Yes	Yes	Yes	Yes	Yes
Fixed Effects	Ind. × Year	Ind. × Year	Ind. × Year	Ind. × Year	Ind. × Year	Ind. × Year
N	81,247	81,247	50,584	81,270	81,270	50,598
R^2	0.342	0.342	0.352	0.236	0.236	0.248

Panel B: Local ASC Index constructed with percentile-based rankings

	(1) Mkt Lev	(2) Mkt Lev	(3) Mkt Lev	(4) Book Lev	(5) Book Lev	(6) Book Lev
Local ASC Index-P	0.0002***			0.0002***		
	(5.02)			(4.23)		
High ASC-P		0.014***	0.032***		0.012***	0.027***
		(3.03)	(5.07)		(2.85)	(4.77)
Low ASC-P		-0.015***			-0.012***	
		(-3.25)			(-2.76)	
Control variables	Yes	Yes	Yes	Yes	Yes	Yes
Fixed Effects	Ind. × Year	Ind. × Year	Ind. × Year	Ind. × Year	Ind. × Year	Ind. × Year
N	81,247	81,247	46,755	81,270	81,270	46,768
R^2	0.342	0.342	0.353	0.236	0.237	0.249