

MUNICIPAL BOND, FIXED RATE DEFAULT STUDY OF NOT-FOR PROFIT CONTINUING CARE RETIREMENT COMMUNITIES

BOND SALE DATES 1990 THROUGH 2023

Mike Vitiello, CFA | Vice President | Credit Surveillance and Analytics | mvitiello@ziegler.com

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EXECUTIVE SUMMARY

The vast majority of not-for-profit CCRC borrowers who finance their accommodations with tax-exempt municipal bonds pay their debt commitments as originally planned. Success — defined as a CCRC borrower paying its bond debt as it comes due — is the norm in this mostly non-rated sector. However, certain CCRCs have not paid their debts as planned. This Special Report updates last year’s annual report and describes the universe of CCRC-related municipal bond debt of borrowers who accessed the municipal bond market. We present our calculated default rates and discuss the historical outcomes and recoveries of defaulted CCRCs to measure and illustrate the financial impact on bondholders.

Since our last publication we have recorded two new defaults- one in calendar year 2023 (there were also two 2023 defaults included in last year’s report) and one so far in 2024. Last year’s report recorded seven new defaults, a record high. Our Net Default Rate (Recovery Adjusted) increased slightly to 2.8% from 2.7% and the Gross Default Rate decreased slightly to 8.6% from 8.7%. While the number of new defaults in the past year are more in line with our expectations for normalcy, ZCS urges caution. We are tracking four borrowers delinquent on underlying payments that we believe will default this year, as well as a handful of other borrowers that are likely to default in 2024 or 2025. There are also multiple restructured bonds that have re-defaulted recently, and others that we believe are at risk for re-default.

ZCS sorts post-pandemic defaults into three categories. The first are borrowers who were already weak, and immediately defaulted. The next batch were strong enough to be propped up by PPP and PRF, but defaulted when those dried up. The final batch needed ERTC to stay solvent. In other words, most of the elevated default activity we have seen since 2020 was delayed by material government aid. We believe we are working through the final batch of COVID defaults now, and over the next 1-3 years will work back to a normal default level of around three annually. We believe that the vast majority of operators have been able to adjust to the new normal environment, and that the ongoing default rate will be similar to pre-pandemic.

UNENHANCED CCRC DEFAULT STATISTICS	2023 Rate	2022 Rate	2021 Rate
Net Default (Recovery Adjusted)	2.8%	2.7%	2.5%
Gross Default	8.6%	8.7%	8.4%

“Senior living” encompasses a multitude of borrower types. This report deals only with one subset of such borrower types: CCRCs. For the purposes of this report, we define a CCRC as a community that provides coordinated care and services for older persons through contractual agreements. The community must offer independent residential living and, in addition, offer assisted living and/or skilled nursing care. To provide such services, the CCRC accepts an entrance fee or other type of advance fee and/or charges a full or discounted periodic fee.

We also have not yet converted to the LeadingAge effort to rename CCRCs as “Life Plan Communities”. Many bond market industry participants have not yet begun using the new terminology. LeadingAge describes a Life Plan Community as offering more than one level of care on a single campus.

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Our default statistics include only the most severe bond default situations, where:

1. The Bond Trustee does not make — or only partially makes — a scheduled principal or interest payment to bondholders.
2. The borrower restructures its debt as a result of bondholders agreeing to a voluntary bond exchange offer that provides relief for the CCRC. The restructuring must result in bondholders agreeing to receive less than the outstanding promised principal and/or interest.
3. The borrower proposes a moratorium or forbearance on paying its debts and the requisite proportion of principal amount of principal outstanding bondholders accept. If the proposal involves the borrower ceasing payments to the Bond Trustee, but the Trustee commits to covering all payments from the Debt Service Reserve Fund (DSRF), this does not count as a default.
4. The borrower files for bankruptcy protection.

Because conduit issuer, municipal, fixed rate bond payments are made by Bond Trustees semi-annually, a missed payment to bondholders may not occur in certain situations involving bankruptcies, moratoriums or restructurings. Nonetheless, we count all of the previously mentioned events as the trigger for a “default” to have occurred.

We began our study by determining the best time period to use. We established January 1, 1990 as the start date; in other words, only bonds issued on or after that date would be included. We picked this date because before 1990, borrower continuing disclosure rules were not yet solidified and information about defaulted bonds is hard to come by. The cutoff date for issuance is December 31, 2023. We then created a list to identify the gross par principal amount “universe” of all CCRC tax-exempt municipal bond financings. By “par” we mean the face value at issuance from the Official Statement, ignoring initial issue discounts or premiums. We remove any fully enhanced issues to narrow this list to unenhanced fixed-rate plus unenhanced adjustable (variable) rate issues. For issues that included both enhanced and unenhanced series, only the unenhanced series was counted, unless both the underlying CCRC borrower and the enhancer defaulted (no enhancers defaulted). We excluded traditional private placements and new-issue bank placements due to the lack of public disclosure requirements. This total unenhanced issuance list came out to \$63.6 billion. The cutoff date for default and recovery information is March 1, 2024.

After establishing the universe list of \$63.6 billion total unenhanced issuance, we went on to identify:

1. Defaulted issues.
2. The amount of unenhanced debt outstanding at the time of default, by issue and borrower.
3. Recovery amounts received by bondholders: by issue and borrower, and then in the aggregate. Recovery includes principal and any paid accrued interest because 1) for many older defaults, principal and accrued interest recovery are not easily separated in the disclosures produced by Bond Trustees or Bankruptcy Court filings, and 2) we believe including both principal and accrued interest recovery provides a more complete picture of the effect on bondholders.

Net Default Rate (Recovery Adjusted) = (Amount of unenhanced original issuance - scheduled payments made - amounts received after default - estimated recovery of unresolved defaults) ÷ total unenhanced issuance

Gross Default Rate = Amount of unenhanced original issuance attributed to a borrower that ultimately defaulted ÷ total unenhanced issuance

1. Net Default Rate (Recovery Adjusted) – The Net Default Rate (Recovery Adjusted) takes into account any payments made by the borrower since the date of original issuance, including scheduled principal retirement payments and any payments made after default. It also applies our known and fully adjudicated Recovery Rate to unresolved defaults. The Net Default Rate (Recovery Adjusted for the studied period) is 2.8%.

2. Gross Default Rate – The Gross Default Rate measures the par principal amount of initial issuance defaulted on against the universe list of unenhanced original issuance. The Gross Default Rate for the studied period is 8.6%.

What follows is more detailed information about our methodologies, more specific definitions, and the limiting parameters of our study. We explain in more detail how we determined the principal amount of bonds: both at original issuance and the amount outstanding at time of default. We also present charts showing trends and common attributes surrounding defaulted CCRC bonds. We have also included brief descriptions of new CCRC defaults that have occurred since our last published report dated April 24, 2023.

- Chart 1: Default Statistics
- Chart 2: Default Rates by Issues
- Chart 3: Time to Default by Issue Count
- Chart 4: Default Rate by Year of Issue
- Chart 5: Defaults by Year of Default
- Chart 6: Recovery Distribution by Borrower
- Chart 7: Outcome by Defaulted Borrower
- Chart 8: Recovery Rates for Restructurings
- Chart 9: Recovery Rates for Sales
- Chart 10: Defaulted Bond Issuance Purpose by Borrower
- Chart 11: Defaulted Bond Issuance Purpose by Par Amount
- Chart 12: Default in Lifecycle by Defaulted Borrower
- Chart 13: Multi- vs. Single-Site Defaults
- Chart 14: Defaults by Size of Issue
- Chart 15: Issues by Size of Issue
- Chart 16: Defaults by Contract Type
- Chart 17: List of Defaulted Borrowers

We encourage readers to critically assess this study and suggest improvements. If a defaulted CCRC issue or borrower is known by a reader and is not listed in Chart 17, please contact us so that next year's iteration of this study can include the borrower.

METHODOLOGY DETAILS

Defining a Continuing Care Retirement Community (CCRC)

We define a CCRC borrower as a corporation (or set of corporations that comprise a single obligated group under a Master Trust Indenture) that provides more than one health-related accommodation or level of care, one of which must be independent living. We include CCRCs that provide independent living and assisted living without nursing care offered on site. Some CCRCs contract with non-owned nursing homes to provide this level of care for their residents, if needed. Similarly, our definition includes providers offering independent living and nursing care beds, without assisted living units offered on site because a number of CCRCs provide assisted living services to residents while they live in an independent living unit. We consider an entity that meets the above criteria to be a CCRC whether or not an entrance fee is charged.

We do not consider senior living providers offering only assisted living and/or nursing care beds as a CCRC, and exclude them from this study. If a borrower only includes an immaterial amount of ILUs compared to the other levels of care, we may choose to exclude that borrower from our CCRC issuance list. However, if that borrower subsequently defaults, we will revisit the decision to exclude.

Unlike other Ziegler Credit Surveillance Special Reports dealing with median financial ratios, we do not make a distinction with regard to entrance fee requirements in this study. Our universe of CCRCs for the purposes of this default study includes CCRCs that charge an up-front entrance fee as well as those that offer rental contracts.

Some municipal bonds are issued using Section 142(d) of the Internal Revenue Code. Under the code's criteria, some of these borrowers' units are constructed for "senior living" accommodations, either independent, or assisted, or nursing. A set number of units are reserved for residents whose income is below a certain threshold. Due to the operational and financial differences between traditional not-for-profit CCRCs and borrowers using a 142(d) financing to access tax exempt debt, we have decided to exclude all 142(d) borrowers from this study.

The count of borrowers used in this study is not a count of the gross number of CCRC "facilities" involved. Because we look to the legal entity obligated to repay the bonds, a bond issue may have multiple corporations obligated to make bond principal and interest payments. Many financings are done for borrowers that are "systems." A system is defined as having at least two separately located CCRCs. These distinct CCRC communities can be owned by one not-for-profit corporation

obligated on the debt or may be owned by two (or more) not-for-profit corporations that each have jointly obligated themselves to repay the debt under a Master Trust Indenture structure. Regardless of the legal structure of ownership, a default on a single bond issue may involve multiple physical communities, or so-called campuses.

Establishing the Issuance Period

The issuance dates used for this study cover a period from January 1, 1990 through December 31, 2023. The starting point was chosen because we believe information about both issuance and performance is more accurate and available than it was prior to that date, for the following reasons:

1. Pre-1990, the ability to do thorough online searches for information was limited.
2. Rating agencies were not materially involved in the CCRC industry pre-1990.
3. The SEC's Continuing Disclosure Rule 15c2-12 was adopted in 1989. Before this, continuing disclosure rules had not yet been solidified and information about potential defaults is hard to come by.

Identifying and Assembling the Universe of Tax Exempt Municipal Bond CCRC Issue Financings

Annual data aggregation on the CCRC industry has been performed by Ziegler for many years. Thus our publication involves data that has been collected and synthesized over many years. On an annual basis Ziegler associates gather the past calendar year's primary market issuance data from Refinitiv (or its predecessors) under the category classification of "senior living." This data includes fixed and variable rate, as well as enhanced and unenhanced bonds. Entrance fee waterfall debt (such as Ziegler TEMPS) are included in this study. If there is a small taxable component of the bond issue, we will include that as well. However, we exclude any subordinated debt components. Note that Refinitiv's "senior living" categorization is broad, capturing far more than our definition of CCRCs. For example, Refinitiv's senior living includes issuances for pure nursing care providers, so we examine every issue to determine eligibility.

Refinitiv's numeric classification codes for senior living include three "uses of proceeds" that could be included in our universe of CCRCs. Ziegler associates then check the accuracy of the Refinitiv information by comparing the list to Ziegler's underwritings. We then re-verify each issue (including those not underwritten by Ziegler) to determine whether or not the borrower fits our definition of a CCRC. The sources used to make this distinction are: 1) Ziegler Credit Surveillance data, 2) Official Statements, 3) The Membership directory of Leading Age (formerly known as American Association of Homes and Services for the Aging), 4) Bloomberg, 5) Press news stories, 6) Borrower websites, 7) Government websites, and 8) EMMA and its predecessors. The yearly lists are aggregated and added to our universe of CCRC bond issues. Because the original Refinitiv list is itemized by bond series, when multiple series of bonds were issued on the same date we counted each series as one issue. If a series of bonds was refunded (advance or current) by a later series, we do not remove the original series from the aggregate list. While an argument can be made that keeping refunded issues on the list inflates total unenhanced issuance, we believe this practice is in line with our goal of estimating financial losses to investors. Also, tracking and removing refunded issues would be time consuming and impractical.

Combining the above sources, we arrive at the final universe of unenhanced bonds issued in 1990 through 2023 on behalf of CCRC organizations. The total unenhanced issuance included in this study totaled \$63.6 billion. We identified 787 distinct CCRC borrowers who issued a total of 1,558 separate unenhanced bond issues over the study period.

Defining "Default"

Industry constituents, and some in the press, have differing views of exactly what "default" means. To focus our research, we define a default as a situation where:

1. The Bond Trustee does not make — or only partially makes — a scheduled principal or interest payment to bondholders.
2. The borrower restructures its debt as a result of asking bondholders to agree to a voluntary bond exchange offer that provides relief for the CCRC. The restructuring must result in bondholders receiving less than the outstanding promised principal and/or interest.
3. The borrower proposes a moratorium or forbearance on paying its debts and the requisite proportion of principal amount of principal outstanding bondholders accept. Cases that anticipate no missed payments to bondholders are not counted as defaulted.
4. The borrower files for bankruptcy protection.

A default on an underlying monthly, quarterly or semi-annual loan payment by the borrower to the Bond Trustee — possibly resulting in an invasion of the Debt Service Reserve Fund (DSRF) to make the scheduled semiannual bond payment — is not counted as a default in this study, so long as the scheduled payment was made to bondholders on time and in full. Similarly, if bondholders negotiate a forbearance agreement but full payments continue via draws from the DSRF, we do not consider a default to have occurred until the DSRF runs out and a payment to bondholders is missed.

Bondholder acceptance of an optional tender, as opposed to a mandatory tender, at less than outstanding principal amount is not considered a default for this study. However, it is possible for a bond issue to default under our definition, and be resolved by a subsequent optional or mandatory tender. We count these situations as a default. We do not count technical events of default such as un-remedied covenant violations in this study. Finally, proposed but uncompleted restructurings, where no monetary default occurs, are not considered defaults for this study.

We do not consider distressed tender offers to be default triggers. An optional tender offer is a situation in which the debtor offers to repurchase its debt from bondholders. In distressed situations, the purchase price offer is usually less than the amount owed. Acceptance by some bondholders causes these particular holders a loss. Those holders that do not tender (so called “holdouts”) are kept whole. We do not consider an optional tender offer to be a default for the purposes of this study because bondholders are essentially choosing to sell their bonds for less than the amount owed to them. Some would argue the loss of principal should be counted as a default. But because it is a voluntary (some would say “coerced”) action on the part of the bondholder, we do not count as a default. On the other hand, a mandatory tender is a situation in which the bondholders are forced to sell the bonds back to the debtor. A mandatory tender is also not considered a default trigger, mainly because we do not believe it would be possible without one of the other triggers occurring first. Thus, it comes later in the distress process, and most likely, the borrower has already defaulted. If we were to hear of a borrower going through with a mandatory tender without first experiencing one of the above default triggers, we would consider including it in this study. Of course, it is possible for a bond issue to first default under our definition, and then be remedied by an optional or mandatory tender. After a default has already occurred, we include any optional or mandatory tender offer as recovery.

Covenant violations sometimes escalate to a bond document, legally defined “event of default,” depending on the severity of the violation or lack of action of the part of the borrower to address the violation. We do not count covenant violations as defaults for the purposes of this study. Covenant violations serve as early warning signs that greater attention is needed. Covenant levels are typically set at minimums above a level that would indicate a looming monetary default.

Post-recession, covenant violations had increased due primarily to lower than expected occupancy levels and unsuccessful marketing efforts by borrowers who began new construction projects in the midst of the housing market collapse when move-ins across the country slowed. In some instances, debt service coverage ratio (“rate covenant”) violations occurred due to lower net entrance fees received. In some of these instances, refunds exceeded receipts of entrance fees resulting in negative net entrance fee receipts. Moreover, there were violations associated with liquidity covenants due to the equity market’s decline in value. Also contributing to increased violations, CCRC bond covenants have evolved over time to a much more sophisticated and detailed level. More covenants are being written into bond documents, and those covenants tend to be set at more restrictive levels. For example, bonds that were issued in 1990 may have a low (by today’s standards) or non-existent Days Cash on Hand requirement. Bonds that are issued today may have a multi-year Debt Service Coverage requirement mitigated by a certain minimum liquidity threshold. Violations of operating covenants typically require the borrower to take actions designed to result in the borrower exceeding minimum covenanted levels in the future. Again, borrowers experiencing these violations and possible non-monetary events of default are not counted as defaults for this study.

We have multiple reasons for not calling a covenant violation or even a missed underlying payment to the Bond Trustee a default. First of all is our reasoning that a monetary default to bondholders should be at the heart of a bond default study. Our study is not one of interim price or valuation declines on a bond, or a trading value evaluation. The prime motivation for this report is to determine if bondholders were paid on time and in full as originally promised. If yes, then the issue is not considered to have defaulted. Secondly, a threshold with absolute clarity in definition allows for a more obtainable and reliable demarcation of default. A monetary bond default is more likely to be in the public record than a technical event of default. Moreover, in earlier years, Bond Trustee notices of underlying borrower issues were generally not filed with EMMA or, before 2009, the historical four Nationally Recognized Municipal Securities Information Repositories (NRMSIRS). Thus, older information about these technical defaults is not generally available.

Another caveat surrounding monetary defaults involves fully enhanced debt. Enhancements for CCRC bond issues can be structured in a variety of ways: sometimes solely with Letter of Credit (LOC) backing Variable Rate Demand Bonds (VRDBs), sometimes with fixed rate bond insurance, or a combination of the two. In some instances the VRDBs may be enhanced with a standby bond purchase agreement instead of a direct pay LOC. Enhanced VRDBs, if an underlying borrower monetarily defaults, are called or a mandatory tender is required; payment to the bondholders comes from a draw on bank funds. Thus, unless the bank defaults as well, the bondholder is paid in full. As such, defaulted fully enhanced VRDB issues (or separate series within an issue) do not fulfill Ziegler Credit Surveillance's definition of a bond default and are excluded from the study. Both VRDBs and LOCs were heavily utilized by CCRCs pre-financial crisis but are now relatively rare. Similar to VRDBs, there are CCRC fixed rate bond issues completely enhanced with bond insurance, with no other unenhanced debt as part of the issue. An insurance enhancement can also come from a government entity, such as Cal-Mortgage. We do not count obligations from non-financial entities as enhancements- for example, a guarantee or Liquidity Support Agreement (LSA) from a parent organization.

If a borrower defaults on such bonds, and the insurance entity makes good on its policy with payment on the bonds on time and in full, such bonds are not counted as a default in our analysis. As such, these bonds are also not included in our unenhanced universe.

We note that in almost all cases involving CCRCs that have multiple debt issues, such issues are so-called parity debt. CCRC bonds tend to be highly secured. If the CCRC monetarily defaults, it will default on all its debt, and not favor one series of debt over another. If several issues of bonds are outstanding at the time of default, they are generally secured on a parity basis, and as such, all defaulted bonds become subject to our count of defaulted issues. However, in certain cases, a borrower will have subordinated debt along with typical senior secured debt. This debt is typically deeply subordinated and owed to an affiliate. If the CCRC defaults only on the subordinated debt, we do not consider the borrower to have defaulted for the purposes of this study. The reasoning behind this is that the subordinated debt is known to be more risky and is dissimilar from typical senior secured publicly-held CCRC debt, which is the focus of this study. We do not count subordinated debt in our total amounts issued or defaulted on.

Identifying Borrowers Who Defaulted

With the unenhanced CCRC issue list assembled, and with a clear and very specific definition of default, we set out to identify and verify defaulted borrowers. We research each borrower name on the total unenhanced issuance list that is suspected or noted as a potential defaulter to determine if a default, by our definition, had indeed occurred.

One source of defaulted borrowers is internal Ziegler distressed data. This is an anecdotal list of senior living (not only CCRCs) bonds that are known to have had credit problems at one time or another. The list includes both Ziegler and non-Ziegler underwritten bonds. The distressed list is reviewed for any borrower who defaulted on their bonds. To augment our default list, in 2006 Ziegler purchased from Income Security Advisors (ISA) a list of what it considered known defaulted senior living bonds. This list contained bonds that fell under ISA's definition of both senior living and default, including defaults due to covenant violations. While we found that relatively few issues counted by ISA satisfied our definition, we integrated the relevant issues into our list.

Readers should note that it is not practical to extensively verify that each and every issue appearing on our total unenhanced issue list did not default. We believe that nearly all CCRC defaults were identified and included in our study because we made extensive inquiries to industry professionals, websites, and other industry sources such as MMA's Default Trends. We encourage any reader with knowledge of a default not listed here to contact the author.

In one instance, we classified multiple borrowers under one name. This involved the bankruptcy of National Benevolent Association (NBA). Technically, NBA was parent organization to 17 separate borrowers with separate issues. However, due to the unique circumstances surrounding the NBA bankruptcy, we decided to combine them into one borrower.

Using the sources listed above, out of the 787 CCRC borrowers we identified 88 who defaulted on their bonds issued between 1990 and the March 1, 2024 cut-off date. The list of defaulted borrowers can be found in Chart 17.

Identifying the Number of Defaulted Issues

Most bond issues that default are situations where the original issuance is the only debt subject to our study. However, due to creditors and borrowers seeking alternatives to bankruptcy, it is possible for exchanged bonds issued under a restructuring plan to be issued and subsequently default. Eight borrowers fit these parameters, Amsterdam at Harborside, Clare at Water Tower, Clare Oaks, Greenfields of Geneva, Glenmoor, Mirador, Park Place, and Stayton at Museum Way. We do not include the restructuring/recovery bonds in our total issuance, though this treatment is subject to debate.

Technically, the borrower has defaulted twice. However, a main goal of this report is to determine the financial impact of defaults on bondholders, and treating these situations as two separate defaults would not conform to that goal. In default situations where a restructuring is involved, virtually all of the bondholders holding the defaulted bonds accept (or are forced to accept) in exchange the new issue in the same pro-rata proportion as the defaulted outstanding debt. Though there is a new issue with new terms, the bondholders are generally the same. If the new bonds default, all amounts paid (whether made as scheduled or as final payment, such as from a sale of assets) are counted as recovery towards the par amount outstanding of the original bond issue. We do not include the par value of the intermediate exchanged bonds as recovery or issuance. Greenfields of Geneva was sold and issued new, non-distressed bonds. We have chosen to include the new entity, Friendship Village of Mill Creek, as a separate borrower.

Out of the 88 defaulted borrowers, eighteen had multiple bond issues outstanding at the time of their initial default. Of these eighteen, twelve borrowers had two separate issues outstanding, three borrowers had three issues outstanding and two borrowers had four issues outstanding. The remaining one, National Benevolence Association, was associated with 17 different bond issues outstanding at time of default. Thus, we identified 128 distinct defaulted CCRC bond issues.

Determining the Original Issuance Principal of Defaulted Bonds

In determining the gross par amounts of defaulted issues, we include the entire par amount of unenhanced debt at issuance. For example, if an issue had serial bonds that matured prior to the default, we count the entire original par amount at issuance. Similarly, if collected entrance fees paid down some temporary debt prior to default, we count the entire original unenhanced par amount of debt at issuance. \$5.5 billion of debt issued by CCRC borrowers was defaulted on, based on the original par amount at the time of issuance. (Not based on amount defaulted on in bankruptcy documents, which may include accumulated interest up to the date of filing.)

Determining Time/Date of Default

We define the time of default as the date when a semiannual payment to bondholders was not paid, in full, by the Bond Trustee. In the case of a bankruptcy filing, we used the bankruptcy filing date as the date of default even though bondholders, in certain circumstances, may receive a scheduled full semi-annual payment a short time after that point. This involves Trustees paying the semiannual coupon with funds already on hand. Nonetheless, we count a bankruptcy filing as a default. If a mandatory restructuring was negotiated and completed ahead of a missed semiannual bond payment, the effective date of the exchange becomes the default date for the purposes of the study. The average time from issuance to default for borrowers in this study was 83 months with a median of 73 months.

Gross Default Rate

The Gross Default Rate measures the loss of principal as a percentage of principal at time of issuance. The statistic uses the original issuance amount without regard to any interim retirement of debt before default. We divide the dollar volume of defaulted bonds using the original issuance amount, by the total unenhanced original issuance during the period examined. The par amount (or dollar volume) of gross defaulted bonds came to \$5.5 billion compared to the total dollar issuance of \$63.6 billion for the period studied. By dividing the par amount of gross defaulted, original issuance debt, by the total issuance, we calculated a Gross Default Rate of 8.6% for the unenhanced CCRC bonds issued.

DETERMINING RECOVERY

The Gross Default Rate does not tell the whole story. Default statistics must take into consideration the fact that some principal may have been paid down by the time the bond issue goes into default. Also, bondholders usually see some principal recovery after default, such as a sale of assets after bankruptcy. Based on actual recovery dollars, estimates of recovery for unknown/still in progress defaults, can also be made. The remaining unpaid principal is the amount ultimately lost by investors. We note that our goal is to outline the monetary loss to bondholders, and not to discuss the timing or amounts of losses for tax purposes.

Determining the Principal Amount Outstanding at Time of Default

Some principal payments, as part of the regularly scheduled bond payments, may be made prior to a monetary default occurring. Thus, in the case of a default, the amount of outstanding debt is less than the original issuance amount. In other cases, at the time of default no principal has been retired. Thus, we believe a default study should examine multiple default rates. The Gross Default Rate described earlier uses the par value of the defaulted bonds at the time of original issuance. The next rate we will examine, the Net Default Rate, uses the par value of the outstanding bonds at time of default.

Various sources can be used to determine the exact principal amount of bonds outstanding at the time of default.

We try to use concurrent publicly available information, such as audited financial statements. Many CCRC borrowers also disclose interim unaudited financial statements. If disclosed, these financial statements are available on EMMA. Depending on the timing of the default, and the semi-annual bond payment that is missed, it may be difficult or easy to confirm the exact par amount of debt outstanding at the time of default. Other sources that frequently mention the principal amounts owed include Bond Trustee notices announcing the default, bankruptcy court filings, and exchange offers. If we cannot find reliable data relating to the amount of principal outstanding at the time of default, we go back further in time and use the last reliable outstanding amount. In the interest of conservatism, if we cannot verify the dollar amount outstanding at time of default or earlier, we make the assumption that the borrower did not make any principal payments between the time of issuance and default. This problem mainly affects older bond issues.

We do not include lost potential accrued interest in the amount defaulted on, though we count, subsequent to default, any paid accrued and owed interest as recovery. First, it can be difficult to tell from existing and available sources how much interest had accrued between the initial default and payout. Second, to reiterate, this study is examining the actual damage done to bondholders, not the amount of lost potential interest income. We believe that our methods are the most appropriate of those available to us, considering our goals and information limitations.

We were able to find data that about two thirds (60) of our defaulted borrowers made at least one principal payment before defaulting. Entrance fee waterfall payments are included in this figure. \$721 million of CCRC principal debt, of the original issuance \$5.5 billion defaulted on, was paid down before the time of default.

Determining Actual Recovery Dollar Amounts

Recovery amounts generally fall into three categories in regards to timing: final and paid; final and unpaid; and unknown / still in progress. There are no defaults in this study that we found to be final but unpaid.

In many restructurings, some of the new bonds may be subordinated or excess free cash flow zero coupon bonds with a long-dated single maturity, or bonds whose payments are tied to operational performance of the borrower. These bonds are sometimes referred to as “hope notes” or “hope bonds.” For reasons of conservatism, we do not include these bonds in the final recovery amount. These bonds are usually structured as subordinated cash flow debt. The likelihood that the bondholder will receive any payment on them in the future as they accrete to face value is remote in our opinion.

Bond Trustees sometimes include accrued, but unpaid, interest in the payout upon settlement of a bankrupt estates bond debt related claims. Bond Trustee notices and the court documents are reviewed in an attempt to discern what principal recovery was, and if any recovered interest payments were made. Regardless of how the interim and final settlement amounts are treated in the legal documents; i.e. as principal or interest; we include the total amount paid in our recovery figure. We have two reasons for lumping principal and interest recovery together as total recovery. First, it can be difficult (especially from older sources) to ascertain from accessible public information how much of the recovery amount is allotted to interest and how much to principal. Determining exactly when interest stops accruing as a liability, especially in a default situation, is extremely difficult. Second, the goal of this report is to show the financial impact of defaults on all bondholders, not an itemized recovery amount per maturity or CUSIP owned.

When dealing with multiple bond issues with various interest rates it is much more consistent to group all recovery, whether in the form of principal, interest, or new bonds, into one issue figure. We believe this makes our final results more relevant. Our report is not a substitute for tax loss justification arguments with the IRS. In cases of exchanges, we include the face value of the replacement bonds issued as the recovery amount, as long as those bonds have not defaulted. In some exchange situations, unpaid accrued interest from the defaulted bonds is incorporated into the principal amount of the exchange bonds.

In cases where a settlement amount can be estimated, has been announced, or has been accepted by all parties, but has not yet been actually paid out, we may include this anticipated amount as the recovery amount. We would only do this if the amount is confirmed and Bond Trustee-held prior to our study’s cutoff date. In the case of a restructuring, we will include the amount if we are reasonably certain the exchange will take place as indicated. As of the March 1, 2024 cutoff date, this report includes no such situations.

Ultimately, all of the known recoveries in this study were the result of 1) a sale, 2) a restructuring (at par but with a delayed amortization, or below par), or 3) a tender offer at some discount to the outstanding par. A sale involves the sale of the real estate and operations, with bondholders receiving a portion of the sale proceeds. A restructuring involves the defaulted bonds being replaced with exchange bonds under different terms, such as a lower principal amount and/or interest rate. In these instances, 100% of the debt is restructured. As described earlier, in a tender offer bondholders, voluntarily or not, sell their bonds back to the borrower at an agreed upon price, generally less than what they are owed.

Again, a tender offer by itself does not constitute a default for this study. Two defaults counted in this study were ultimately resolved through tender offers. Both cases began with an event we consider to be a default trigger.

Users of our default statistics should remember that, in certain instances, one sub-series of bonds within an issue could receive a better or worse recovery than another sub-series of bonds. This can happen depending on the outcome of intense negotiations in bankruptcy and because of Bond Trustee-held funds or security dedicated to a specific sub-series.

Of the defaulted borrowers that we have identified, 20 borrowers have not completed the recovery process. Thus, for 68 of the 88 defaulted borrowers, we were able to determine the actual known recovery outcomes. These known amounts represented \$2.2 billion ultimately recovered by bondholders after the time of default. By subtracting this \$2.2 billion and the \$720 million of principal paid before default (mentioned earlier) from the \$5.5 billion par amount at issuance defaulted on, we arrive at a dollar amount of \$2.9 billion. This figure represents actual lost value from issues that have completed the recovery process, as well as the outstanding value of issues still working through recovery.

Determining Actual Recovery Rates

For our purposes, we average the sub-series recovery amounts into a pro-rata by-issue recovery rate. Then we average the individual recovery rates, arriving at a 63% actual average Recovery Rate. When the \$2.9 billion amount is compared to the gross issuance of \$63.6 billion, it results in a Net Default Rate (Unadjusted) of 4.1%.

The weakness of the Net Default Rate (Unadjusted) is that it does not account for possible future recovery for default situations that have not yet been resolved. Pending or unknown recoveries are counted as if the recovery was zero. This is rarely the case. In fact, in all cases of default we examined there was some recovery.

Examples of how we calculated individual actual recovery dollars and rates for defaulted borrowers are listed below:

Villa de San Antonio (defaulted in 2010): The amount of principal originally issued and outstanding at the time of default were the same: \$11,310,000. The assets were sold, and the total recovery amount, including recovery of accrued interest, was \$3,703,000. We simply divide the recovery amount by the par amount outstanding to arrive at a Recovery Rate of 33% (\$0.33 on the dollar of principal outstanding). As mentioned earlier, we do not include outstanding accrued interest as principal outstanding, but do include recovered accrued interest at recovery.

Clare At Water Tower (defaulted in 2010, was restructured, defaulted again in 2011): The amount of fixed rate principal originally issued was \$91,500,000. The amount of principal outstanding at the time of default was also \$91,500,000.

Again, note that we do not include the \$125,000,000 of Variable Rate Demand Bonds in this study. To remedy the initial default, a restructuring plan was accepted by a majority of bondholders where technically no par value was lost. However, approximately 30% of the principal outstanding was issued as zero coupon bonds. As stated earlier, we exclude zero coupon bonds from our recovery amount calculations. Therefore our recovery amount is approximately \$60,405,000 (some bondholders did not exchange their bonds). We divide the amount of current interest bearing bonds by the amount of principal outstanding at default to arrive at a Recovery Rate of 70% (\$0.70 cents on the dollar of principal outstanding). However, in 2011 the Borrower filed for Chapter 11, resulting in the eventual sale of the facility. No principal payments had been made on the restructured bonds in the interim. The total recovery amount was \$21,515,000. To determine our final recovery amount, we ignore the restructuring and divide the final recovery by the initial par amount defaulted on to arrive at a Recovery Rate of 24% (\$0.24 on the dollar of principal outstanding).

Linden Ponds (defaulted in 2011): The amount of principal originally issued was \$101,365,000. The amount of principal outstanding at the time of default was \$98,285,000. A restructuring plan was accepted by bondholders where technically no par value was lost. However, approximately 19% of the principal outstanding was issued as zero coupon bonds. As stated earlier, we exclude zero coupon bonds from our recovery amount calculations. Therefore our recovery amount is \$79,611,000. We divide the amount of current interest bearing bonds by the amount of principal outstanding at default to arrive at a Recovery Rate of 81% (\$0.81 cents on the dollar of principal outstanding).

Determining Time to Recovery

Once a default has occurred, an investor's next concern is to reclaim as much residual value as possible. However, drawn out proceedings add expenses, drain reserve funds, and monopolize valuable time. To determine how long bondholders can expect recovery efforts to take, we need to define a beginning and end time of the "recovery period". The beginning is the date of default, as defined above. We define the end as the dated date of the new Official Statement in the case of restructurings, or as the date of the first material payment to bondholders in the case of a facility sale or a mandatory tender. If a borrower has to restructure their debt twice, or restructures then sells the facility, we ignore the interim recovery. If we cannot find an exact date, we make an educated determination.

The recovery period took 2.1 years on average, with a median of 1.4 years. Unsurprisingly, there was a great deal of variation. The shortest times were effectively zero, for prepackaged bankruptcies. The longest time was 14 years for a facility sale. The median restructuring recovery period was longer at 1.5 years, continuing an upward trend, versus a median sale recovery period of 1.4 years. Again, we count the time from initial default to final recovery in these cases. We could not determine an accurate end date in two cases, and they were not included in this statistic. We count borrowers that defaulted on restructuring debt in a different category so those are excluded from the median restructuring and sales recovery period. Anecdotally, currently pending defaults seem to be taking longer to resolve, so we believe recovery period stats will continue to increase once they eventually resolve.

Pending Recovery Treatment and Net Default Rate (Recovery Adjusted) Statistics

As of March 1, 2024, 20 recent defaults had yet to reach finality with bondholders. See the “Default Updates” section for more detail on new and pending defaults. A total of \$1.3 billion in principal outstanding at the time of default is involved for these defaults. We applied our calculated Recovery Rate of 63% to these pending defaults. We used the average Recovery Rate on already-resolved defaults as a proxy for unresolved defaults, and applied the estimated recovery to our Net Default Rate (Unadjusted) results to get to our Net Default Rate (Recovery Adjusted). We used the average Recovery Rate as opposed to the median because the actual rates were evenly distributed between \$0.03 and \$1.10. There were no statistical outliers. Note that the average we use is the total of all the recovery rates, divided by the number of defaults. We chose this method as opposed to using the total recovery dollars divided by the total outstanding par amount at default to ensure defaults with extraordinarily high or low amounts outstanding would not skew the figure.

Using the actual average Recovery Rate as a proxy for unresolved defaults is not without controversy. Actual recovery for individual cases may be materially different from the 63% average rate. Restructurings over forced sales of the facilities tend to result in higher recovery rates, though they carry the risk of re-default. The average Recovery Rate on a CCRC sale is 59% as opposed to 74% for restructurings. We note that recovery rates, especially from sale proceeds, have been very erratic. Nonetheless, we are not focusing on individual situations in this report and felt using an observed recovery rate as a proxy is more reasonable than assuming the recoveries in these cases will be zero. After following all the steps outlined thus far, Ziegler Credit Surveillance calculated a Net Default Rate (Recovery Adjusted) of 2.8%.

DEFAULT UPDATES

Since the cutoff date of last year’s Special Report (March 1, 2023), there have been two additional defaults and four recoveries. One borrower defaulted on recovery bonds and is back in pending status. The outline below provides a brief narrative of the defaults and status of the borrowers undergoing the recovery process through the cutoff date of March 1, 2024. Many of these borrowers had existing financial problems that may have led to a payment default in the next few years, COVID notwithstanding. However, we believe we are starting to see defaults sparked by the new economic environment. None of the new defaults are for bonds issued on behalf of a pure start-up, all are refunding or expansion / repositioning. Many recent defaults can be traced to skilled nursing issues.

As discussed earlier, while new defaults this year were low, we know of a relatively high number of borrowers with very likely near term defaults. However, the number of borrowers that we consider generally distressed is declining. Based on this, we believe default activity will remain elevated in the near term, but will start to slow over the next few years.

Crest View Senior Communities: Mature CCRC with three campuses north of Minneapolis MN, totaling 135 ILUs, 138 ALUs, 48 MSUs and 122 NCBs. Outstanding bonds were issued in 2015, to refund prior debt and construct an IL/AL/MS new campus. New units were behind on fill-up pre-COVID, leading to occupancy covenant violations. The Borrower ceased making underlying payments in July 2022. The July 2023 principal payment was missed, though the interest payment was made from the DSRF.

Canterbury on the Lake: Mature CCRC in Waterford MI with 74 ILUs, 39 ALUs, 32 MSUs and 128 NCBs. Outstanding bonds were issued in 2015 to refund prior debt and construct an MS expansion. The expansion filled ahead of schedule. In mid-2019, there was a Medicare take back, prompted by incidents in the nursing center. Nursing leadership was replaced, and the ED and Healthcare Administrator resigned. This event contributed to DSC and NOM covenant violations. Shortly after, COVID started and the borrower experienced one of the first outbreaks in the area. Nursing and MS occupancy were materially impacted and still have not recovered. The January 2024 interest payment was not made, with underlying payments being missed beforehand.

This borrower is in our database as a 1999 default on a 1993 issue as well, but we have chosen to treat the two defaults as distinct borrowers due to the amount of time in between.

CURRENTLY PENDING RECOVERIES

Amsterdam at Harborside (NY): Facility sold, no public information on distribution to bondholders.

Atrium of Racine (WI): Sold and distributed 100% to bondholders. Filed under pending due to legal challenges over the outcome. ZCS believes bondholders are currently favored, but will remain pending until we can confirm.

Canterbury on the Lake (MI): Operating, no known current forbearance agreement.

Casey's Pond (CO): Operating, no known current forbearance agreement.

C.C. Young (TX): Operating, no known current forbearance agreement.

Clare Oaks (IL): Operating under forbearance agreement, expires December 2024.

Crest View (MN): Operating, no known current forbearance agreement.

East Ridge at Cutler Bay (FL): Operating, no known current forbearance agreement.

Eden Home (TX): Operating, no known current forbearance agreement.

Friendship Village of Mill Creek (IL): Operating under forbearance agreement, expires February 2025.

Friendship Village of Schaumburg (IL): Facility sold, no public information on distribution to bondholders.

Glen Arden (NY): Executed Asset Purchase Agreement in 2022, operating, no known current forbearance agreement.

Glen at Oconee Village (GA): Facility sold, no public information on distribution to bondholders.

Kansas Masonic Home (KS): Facility sold, no public information on distribution to bondholders.

Odd Fellows Home – Friendship Health Center (OR): Operating, no known current forbearance agreement.

Redstone Village (AL): Operating, no known current forbearance agreement.

Richfield Living (VA): Facilities sold, bond exchange in process.

Sierra Winds (AZ): Operating under forbearance agreement, expires April 2024.

St. John's Lutheran Home of Albert Lea (MN): Operating, may have made all payments in arrears.

Stayon at Museum Way (TX): Facility sold, in bond exchange process anticipated to complete early 2025.

COMPLETED RECOVERIES SINCE LAST REPORT

Arlington of Naples (FL): Sale completed, recovery 60% of par.

Asbury Place (TN): Sale completed, recovery 25% of par.

Edgemere (TX): Sale completed, recovery 17% of par.

Epworth Villa (OK): Restructure completed, recovery 87% of par.

DEFAULT CHARTS

CHART 1: UNENHANCED CCRCs: DEFAULT STATISTICS

1990-2023

	2023 Par	2023 Rate	2022 Rate
Net Default (Recovery Adjusted)	\$1,780,174,150	2.8%	2.7%
Gross Default	\$5,487,927,000	8.6%	8.7%
Par Amount Issued	\$63,648,104,000		

Our calculated default rates are shown in Chart 1. They are presented using two methods:

1. The Net Default Rate (Recovery Adjusted)
2. The Gross Default Rate

CHART 2: UNENHANCED CCRCs: DEFAULT RATES BY ISSUES

1990-2023

	2023 Total	2023 Defaulted	2023 Rate	2022 Total	2022 Defaulted	2022 Rate
Par Amount	\$63,648,104,000	\$5,487,927,000	8.6%	\$62,247,064,000	\$5,397,342,000	8.7%
Issue	1,558	128	8.2%	1,545	126	8.2%
Borrower	787	88	11.2%	783	86	11.0%

As shown in Chart 2, the default rate by number of issues for the studied period was 8.2% with 128 out of 1,558 issues defaulting. The default rate by number of borrowers for the period was 11.2% with 88 out of 787 borrowers defaulting.

CHART 3: UNENHANCED CCRCs: TIME TO DEFAULT BY ISSUE COUNT

1990-2023

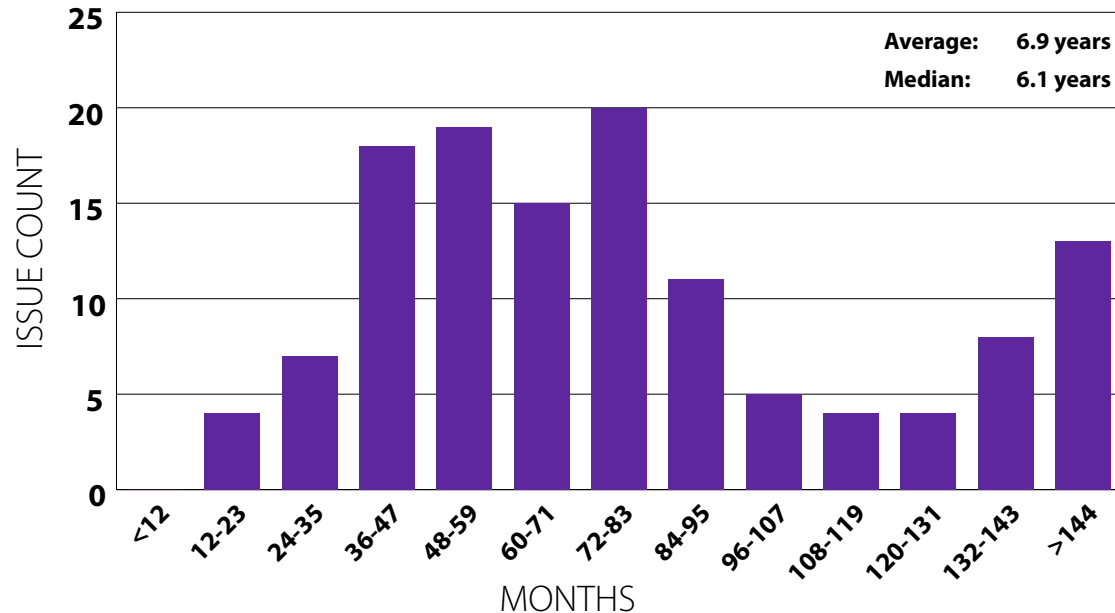


Chart 3 illustrates the distribution of time from initial issue to default, by months, for the 128 issues identified as defaulted. The fastest default, 3030 Park in 2005, occurred just 17 months after issuance. The slowest default, C.C. Young in 2021, occurred after 275 months (22.9 years). On average, defaults occurred 83 months (6.9 years) after issuance, with a median default time of 73 months (6.1 years). In recent years we have seen a trend towards older bond issues defaulting, with both the average and median increasing slowly but consistently. Four of the five oldest defaulted issues occurred in 2021 and 2022. This year however, we saw the gap between the average and median continue to shrink slightly as the average stayed the same but the median increased slightly.

CHART 4: UNENHANCED CCRCs: DEFAULT RATE BY YEAR OF ISSUE

1990-2023

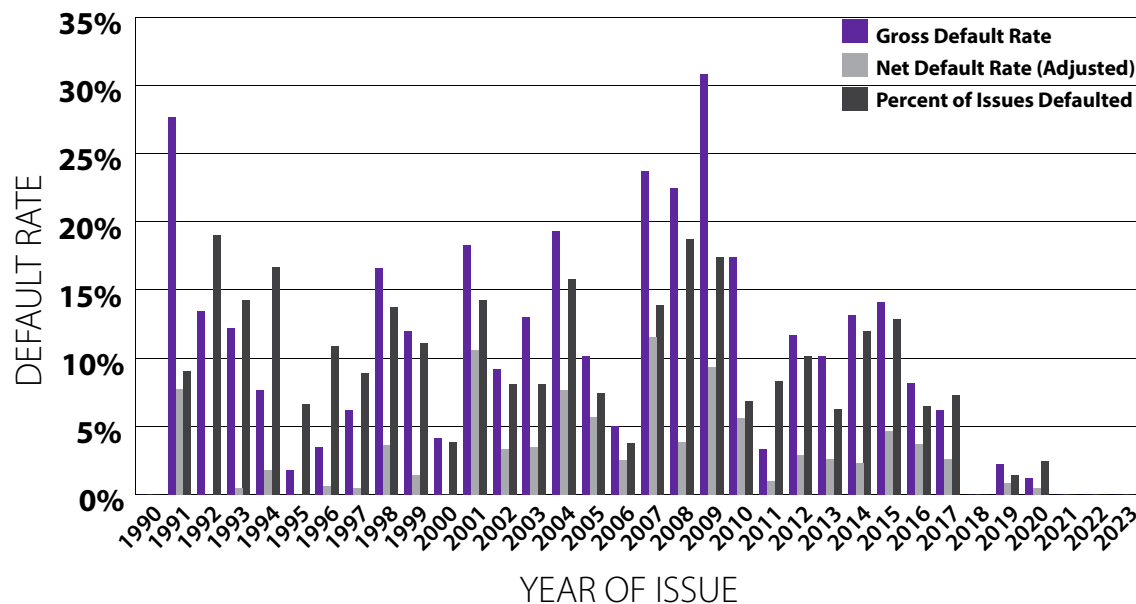
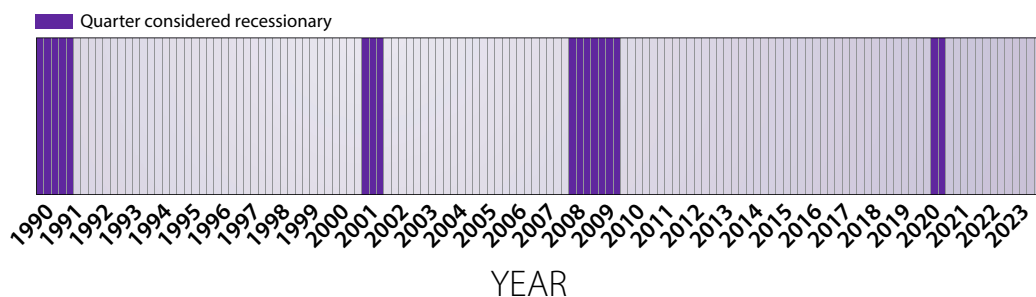


CHART 4A: DATES OF U.S. RECESSIONS AS INFERRED BY GDP-BASED RECESSION INDICATOR

1990-2023



Source: Hamilton, James, Dates of U.S. recessions as inferred by GDP-based recession indicator [JHDUSRGDPBR], retrieved from FRED, Federal Reserve Bank of St. Louis; <https://fred.stlouisfed.org/series/JHDUSRGDPBR>, April 1, 2024.

Chart 4 illustrates the Gross and Net (Recovery Adjusted) Default Rates for bonds issued in each year, as well as the default rate by number of issues. Note that because of the 6.9 year average time to default presented in Chart 3, bonds issued after 2016 would not, on average, have been outstanding long enough to default. As time passes, we do expect the default rate for bonds issued within the last several years to increase.

For reference, we have incorporated Fed data (<https://fred.stlouisfed.org/series/JHDUSRGDPBR>) showing the years that the U.S. economy was in recession. Years shown in purple (1990, 1991, 2001, 2007, 2008, 2009, 2020) showed at least one quarter in recession status. ZCS interprets this chart as showing that CCRCs that issue debt during recessions are at slightly higher risk of default- which should not be a controversial statement.

When defaulted bonds are categorized by their year of issuance, and then compared to total issuance for that year, 1990 stands out as unusual as no bond issues from 1990 have defaulted. While an outlier, 1990 accounted for both the fewest number of issues (8) and the smallest par amount (\$135 million) of all the years studied. The blip of defaults in Chart 4 for 2019 and 2020 are the two Richfield Living issues.

In our above graph, for bonds issued in three years (1992, 1995, and 2000) the Net Default Rate (Recovery Adjusted) was actually slightly negative, signifying more recovery dollars paid out than principal defaulted on, because accrued interest was paid in addition to a 100% principal recovery.

CHART 5: UNENHANCED CCRCs: DEFAULTS BY YEAR OF DEFAULT
1995-2024

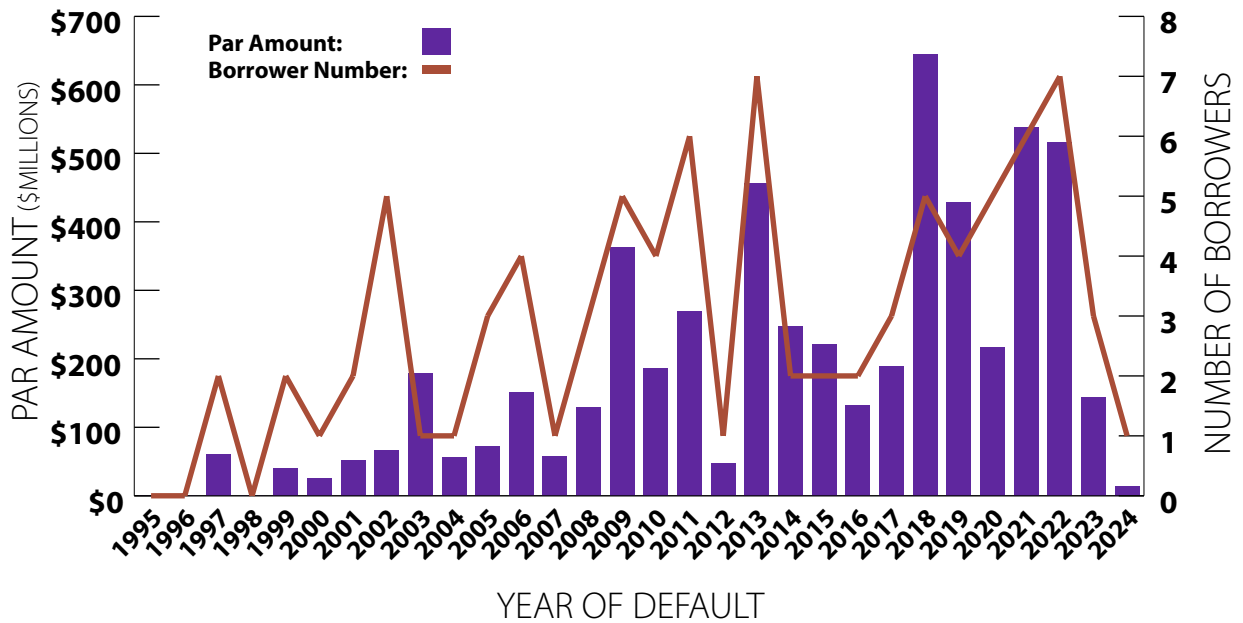


Chart 5 illustrates yearly defaults by gross par amount and number of initial defaulted borrowers. Borrowers that subsequently defaulted on restructuring bonds are only shown in the year of the initial default. No defaults are shown until 1997. Certainly, defaults may have occurred in the years 1990 through 1996; however, these bonds were issued prior to the 1990 start date of this study. Furthermore, the number of issues and borrowers that defaulted in studied years may be higher if bonds issued prior to 1990 were included in the study. The number of borrowers and number of issues that defaulted each year are closely matched, with the largest variance occurring in 2003, as one borrower (NBA) defaulted on 17 separate unenhanced debt issues. 2014 through 2017 saw a baseline amount of defaults, followed by five in 2018 and four in 2019. When assessing changes in risk over time, it should be noted that three 2018 defaults and one 2019 default can be partially attributed to actions of a corporate parent (SQLC and Asbury Communities) and may not be indicative of a deteriorating operating environment. Pandemic related stress caused a highly elevated default level between 2020 and 2023. We expect two or three defaults per year in this sector in a stable operating environment.

For reference, we have incorporated Fed data (<https://fred.stlouisfed.org/series/JHDUSRGDPBR>) in Chart 4A showing the years that the U.S. economy was in recession. 1990, 1991, 2001, 2007, 2008, 2009, 2020 showed at least one quarter in recession status. ZCS interprets this chart as showing that CCRC defaults increase with a lag from the beginning of a recessionary period — another uncontroversial statement.

While 2023 and 2024 YTD have experienced a decreased and more normalized level of defaults, we advise caution. Credits in our monitoring program in general are recovering, but there are still an elevated number of borrowers that we believe are at imminent risk of payment default. We believe ERTC receipt has delayed some defaults, but will not save them in the long run. We reiterate that we expect two or three defaults per year in a normal operating environment; we leave it up to the reader to decide when that normal operating environment will return.

CHART 6: UNENHANCED CCRCs: RECOVERY DISTRIBUTION BY BORROWER
1990-2023

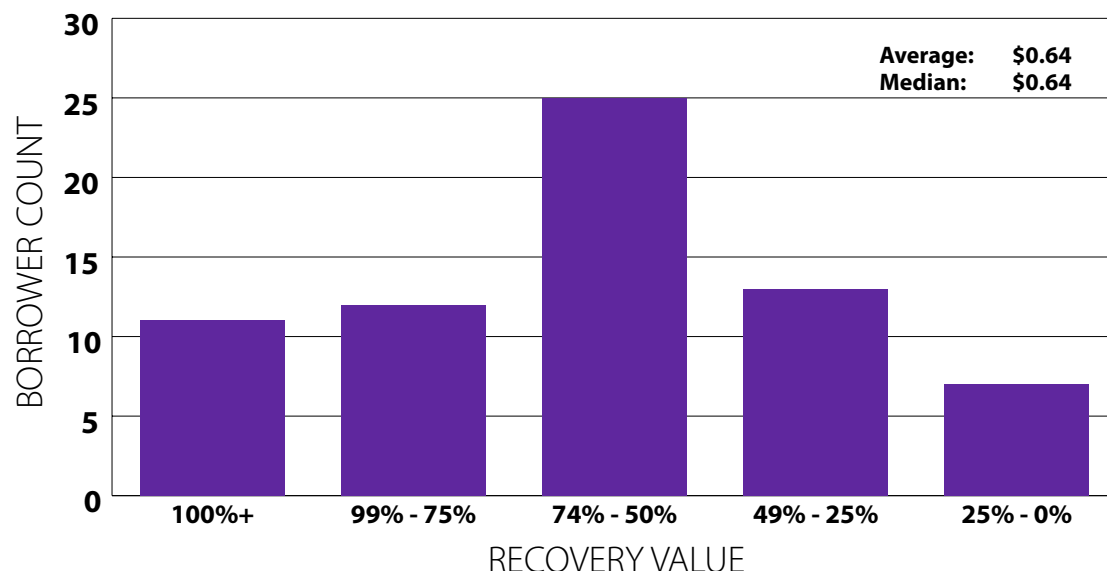


Chart 6 presents the Recovery Rate of 68 out of 88 borrowers. Twenty recoveries are still pending. The average Recovery Rate for defaulted borrowers is 63%, with the median at 64%. Recoveries are highly dispersed across individual defaulted bonds with some bonds recovering 100% or more and one recovering as little as 3%. Strong post-COVID recoveries had driven up the average/median. However, we would note that more recent recoveries have been less favorable and there are many pending recoveries that could bring that average down.

CHART 7: UNENHANCED CCRCs: OUTCOME BY DEFAULTED BORROWER
1990-2023

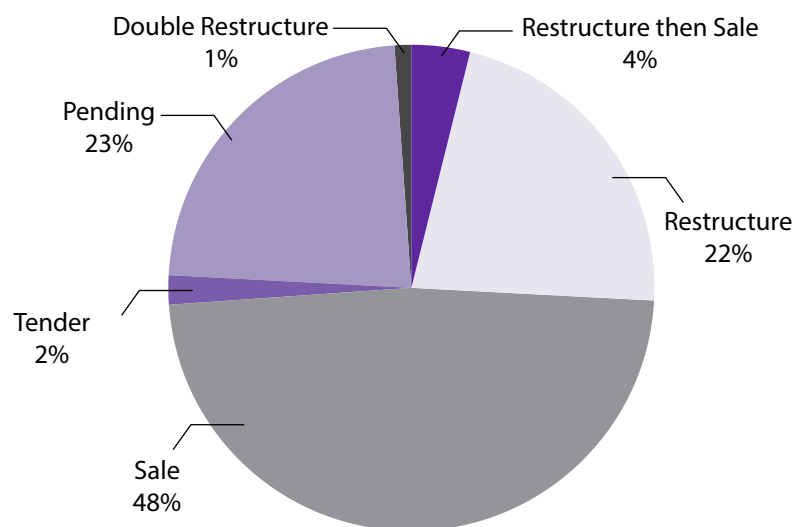
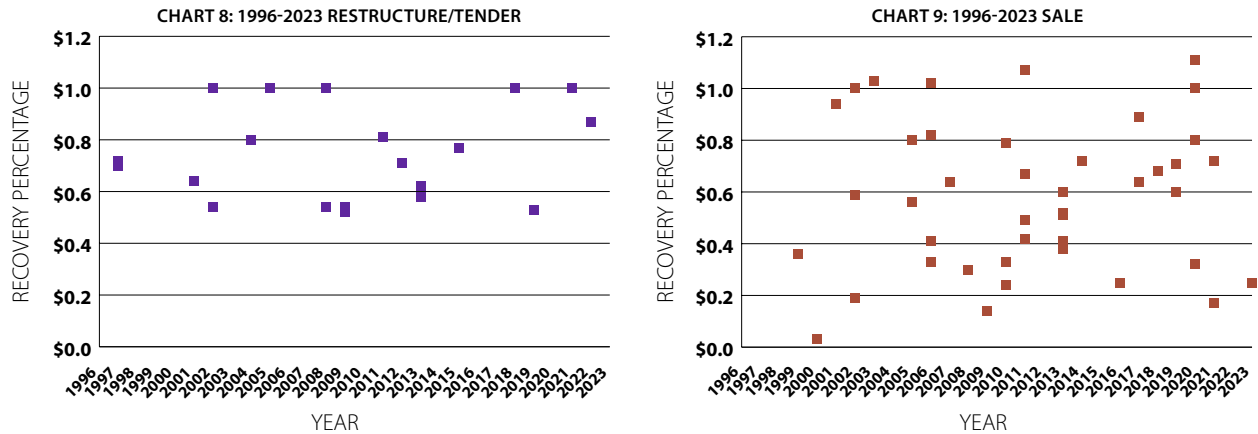


Chart 7 illustrates the outcomes of the completed defaults, by borrower. The two most common outcomes are a sale of real property, with bondholders receiving a portion of the proceeds, and a restructuring with bondholders receiving new bonds with modified payment terms. For 23% of the borrowers who defaulted, the resolution is still pending. “Pending” borrowers may be in bankruptcy or operating under a forbearance agreement as of the cut-off date for this report, so the final outcome is yet to be determined. Seven “Pending” borrowers are in the final stages of the recovery process, with most of those being sales that have not distributed funds to bondholders yet. The rarest outcome was a tender offer with all bonds being bought from the bondholders at a certain dollar amount below par.

We have separated out the borrowers with an interim restructuring before final resolution. We could find post-restructuring data on 27 borrowers. We consider seven to have failed (four facilities sold, three in bankruptcy after a double restructure). We consider fifteen successful, meaning either the bonds were refunded in the normal course of business or we believe that operations are currently sustainable. We believe it is too early to judge the remaining five, including the one remaining double restructuring- though some currently seem more successful than others.

CHART 8 AND 9: UNENHANCED CCRCs: RECOVERY RATES BY OUTCOME
1990-2023



Charts 8 and 9 show recovery amounts by year of default, with Chart 8 showing restructurings and Chart 9 showing sales. There have been approximately double the number of sales compared to restructurings (40 vs 22). These figures include borrowers with an interim restructuring. We can see that the restructurings have generally ended with a higher Recovery Rate and smaller range of recovery for bondholders. However, sales executed for bonds that defaulted 2017 and later have showed an increased recovery trend. We note that this may be skewed due to characteristics of the individual borrower and by market conditions at the time of sale.

The average Recovery Rate on a CCRC sale is 59% as opposed to 74% for restructurings. While restructurings present the opportunity for a higher recovery, over the last few years we have begun to see re-defaults of restructured bond issues coming out of the 2007 recession. We cannot determine whether the interim restructuring harms the final recovery rate. The average restructuring then sale recovery value was 41% (four borrowers). Two failed restructured borrowers are completing a cash recovery process. ZCS believes the recoveries will generally be lower than the 59% average sale. One double restructuring is left outstanding. We leave it to the investor to decide whether a lower cash recovery is preferable to a higher restructured bond recovery. The two tender offers are excluded from this analysis.

CHART 10 AND 11: UNENHANCED CCRCs: DEFAULTED BOND ISSUANCE PURPOSE
1990-2023

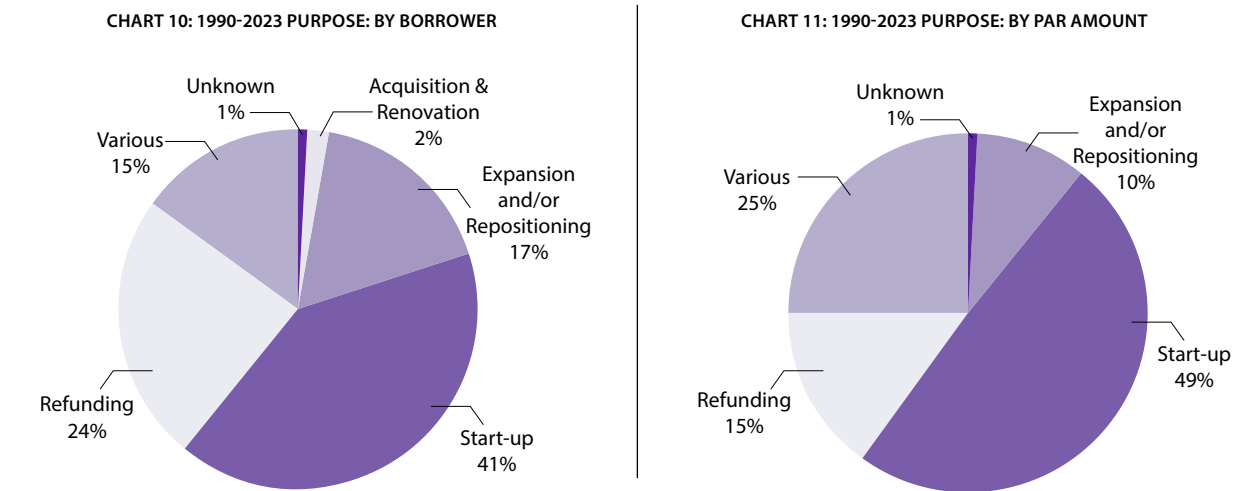


Chart 10 illustrates defaults by primary use of bond proceeds, by number of borrowers. For example, 41% of defaulted borrowers defaulted on bonds issued for a start-up CCRC. Chart 11 shows the same data, but by par amount. We can see that 49% of the total defaulted amount (on a gross basis) was issued for a start-up. Both shares have been slowly shrinking over time. **We do not have data on the purposes of the non-defaulted issues on the unenhanced issue list, and it is impractical to gather this information. Therefore we can not compare the percentage of defaults for each purpose to the percentage of bonds originally issued for each purpose.**

CHART 12: UNENHANCED CCRCs: DEFAULT IN LIFECYCLE BY DEFAULTED BORROWER
1990-2023

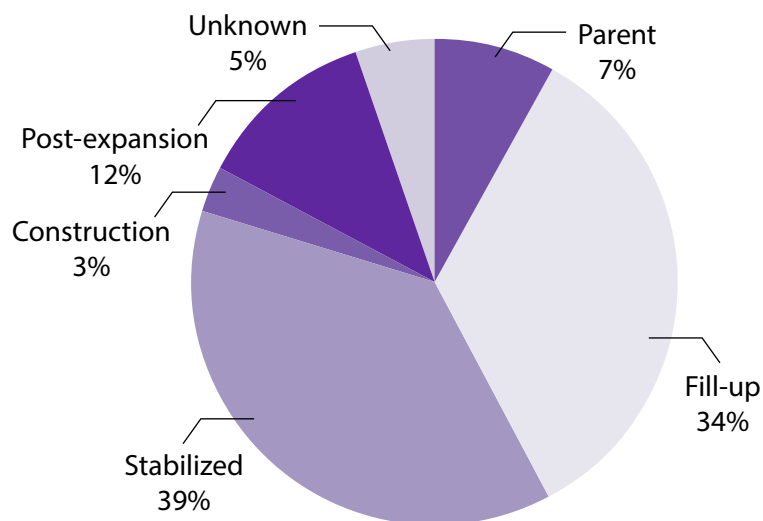


Chart 12 illustrates the phase in the CCRC lifecycle that each borrower was in at the time of default. The proportion of stabilized borrowers increased this year, and is now over borrowers that were in fill-up. In 7% of defaults, Ziegler Credit Surveillance determined that actions by a parent organization were the main drivers of the default (SQLC, NBA and Erickson communities). Twelve percent occurred post-expansion or repositioning, but before the community could reach stabilization, generally defined as approximately 90% occupancy of new units. Only 3% occurred during construction. We were unable to gather enough background information on 5% of (mostly older) defaults to confidently determine which phase they were in at the time of default.

CHART 13: MULTI- VS. SINGLE SITE DEFAULTS
1990-2023

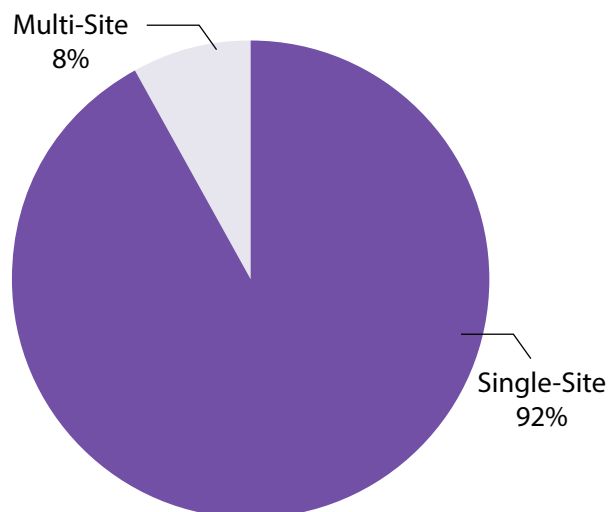
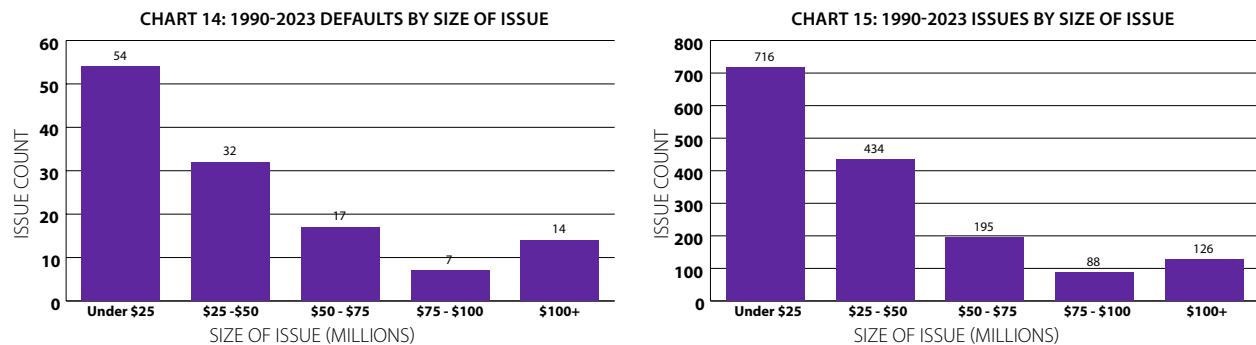


Chart 13 shows the breakdown of defaulted borrowers by number of facilities in the Obligated Group. Only one facility is involved in most defaulted senior living bonds. Seven entities with more than one facility defaulted; Asbury Place, Appalachian Christian Village, Christian Care Centers, Crest View, Fairview, NBA and Sears Methodist. Coincidentally, Asbury Place and Appalachian Christian Village both serve the Tri-Cities area in TN. The proportion of multi-site has grown slightly over the past few years. While we do not know the breakdown of multi- and single-site borrowers in this data set, 37% of the borrowers included in the latest Ziegler Credit Surveillance Entrance Fee CCRC median report use a multi-site Obligated Group structure. We would expect multi-site CCRCs to be less likely to default, as some financial risks are spread throughout the Group, potentially mitigating one weak facility. We note that many defaulted borrowers counted as single-site were part of a larger organization, however bondholders were only secured by the one facility and did not have the same protections as a formal, multi-site Obligated Group.

We generally define a multi-site borrower as a single corporation or multiple corporations owning and operating more than one senior living campus within the same Obligated Group. While NBA did not exactly meet the definition, we believe that the loan guarantee by the parent and default process made it more appropriate to include that organization as one multi-site instead of 17 different single-sites. Some other defaulted borrowers may have a parent organization or other association with other senior living facilities, but this categorization focuses only on the Obligated Group.

CHART 14 AND 15: DEFAULTS BY SIZE OF ISSUE
1990-2023



Charts 14 and 15 are based on the original par amount at issuance. Chart 14 shows the distribution of defaulted issues by par amount. Chart 15 shows the distribution of original issuance by par amount. If we only examined Chart 14, we may be tempted to conclude that smaller issues are more likely to default. However, issues under \$25 million make up almost half (46%) of the original issuance included in this study, and a similar proportion (42%) of defaults. Similarly, issues over \$100 million accounted for 11% of defaults, but 8% of issues. Issues of that size are often for start-up facilities, with a higher expected chance of default, but may also be for large, stable, multi-site groups. Recently we have seen a shift towards defaults in the middle of the size band, and away from small and large issues. With this more recent data, we can see that the three middle brackets for both charts are almost equal. Therefore, we have at best weak evidence that large issues may be slightly more vulnerable to default risk. The exclusion of private placement, VRDB and LOC backed components of original issuance also complicates direct comparison, as some borrowers may have additional debt outstanding excluded from our issuance data.

CHART 16: UNENHANCED CCRCS: DEFAULTS BY CONTRACT TYPE
1990-2023

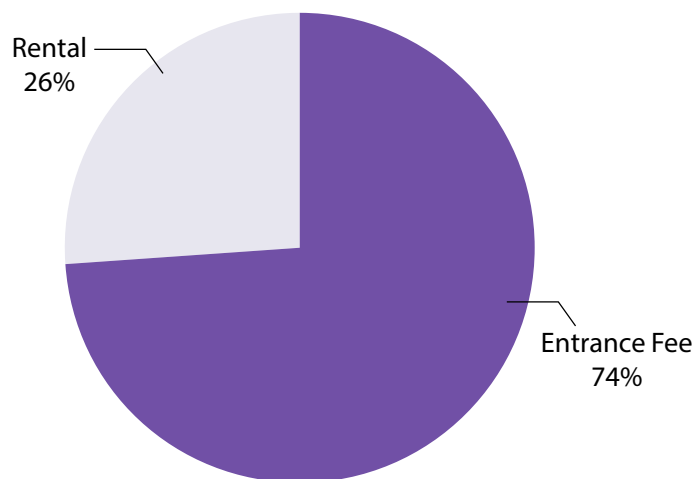


Chart 16 shows the breakdown of defaulted borrowers who offer some type of entrance fee product and those who only offer a rental pricing structure. If a borrower offered both, we included them as an entrance fee borrower. Unfortunately, there is a lack of data on the contract types offered by the non-defaulted issues on the unenhanced issue list, and we deemed it impractical to gather this information. Therefore we do not compare the percentage of defaults associated with each contract type to the percentage of bonds originally issued for each type. The proportion of rental defaults has fluctuated around 25% since we started tracking.

We note that one borrower, Appalachian Christian Village, converted from an entrance fee model to a rental model just before default. We chose to include this borrower under the entrance fee model.

CHART 17: LIST OF DEFAULTED BORROWERS
1990-2023

The borrower names listed here are not necessarily the legal names obligated on the debt. In many instances the names have been shortened for ease of identification.

Borrower Name	State	Issuance Year	Unenhanced Par at Issuance	Default Year	Long Bond CUSIP	Number of Issues
3030 Park	CT	2005	\$43,500,000	2006	108178AD6	1
AHF/Gull Creek	MD	1996	\$7,930,000	2001	574205BZ2	1
Air Force Village West	CA	1999	\$62,790,000	2017	76912GAJ0	1
American Baptist Elder Ministries of MA	MA	1994 & 1996	\$24,195,000	2002	575925AQ5	2
Amsterdam at Harborside	NY	2007	\$176,395,000	2014	63166UAF8	1
Appalachian Christian Village	TN	2013	\$19,520,000	2020	4782R4AP6	1
Arbor Glen	NJ	1998	\$71,270,000	2014	645916D20	1
Arlington of Naples	FL	2013, 2015	\$211,220,000	2019	194638AN2	2
Asbury Place	TN	2016	\$23,170,000	2023	094900BG1	1
Atrium at Racine	WI	2002	\$8,050,000	2017	645916D20	1
Avery's View	NC	1998	\$25,820,000	2000	339342AC1	1
Baptist Home of Philadelphia	PA	1998	\$28,375,000	2011	71781PAX8	1
Barrington of Carmel	IN	2012	\$119,020,000	2019	143298AA5	1
Brandermill Woods	VA	1991	\$50,727,000	1997	166406AC2	1
Buckingham Senior Living Community	TX	2007, 2014, 2015	\$198,175,000	2018	87638REZ6	3
Canterbury Health Care	MI	1993	\$30,930,000	1999	941458AU	1
Canterbury on the Lake	MI	2016	\$34,935,000	2024	94136PAD6	1
Capstone Village	AL	2005	\$31,300,000	2008	900637AB5	1
Carillon	TX	1999	\$44,075,000	2005	549208DA1	1
Carlton Cove	AL	2001	\$44,155,000	2006	447201AD6	1
Casey's Pond	CO	2012	\$45,110,000	2015	19648AYC3	1
CC Young	TX	1998, 2007, 2009, 2016	\$211,000,000	2021	87638RHM2	4
Christian Care Centers	TX	2014, 2016	\$56,975,000	2021	590743CU2	2
Clare at Water Tower	IL	2005	\$91,500,000	2010	45200BTF5	1
Clare Oaks	IL	2006, 2012	\$70,365,000	2011	45203HNN8	2

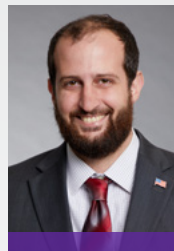
Borrower Name	State	Issuance Year	Unenhanced Par at Issuance	Default Year	Long Bond CUSIP	Number of Issues
Conyers Retirement	GA	1997	\$9,000,000	1999	773008AK3	1
Cottage Grove	IA	1998 & 2004	\$34,605,000	2010	150571AJ6	2
Covenant at South Hills	PA	2001	\$42,510,000	2006	01728AXU5	1
Crest View	MN	2015	\$55,650,000	2023	092792AA8	1
Deerfield	IA	2007	\$44,165,000	2013	46247CAG4	1
East Hill Woods	CT	1994	\$9,800,000	1997	207910CM0	1
East Ridge at Cutler Bay	FL	2014	\$68,950,000	2022	010685JV8	1
Eden Home	TX	2012	\$52,550,000	2016	75687RAC6	1
Edgemere	TX	2015, 2017	\$115,875,000	2021	87638RHV2	2
Epworth Villa	OK	2004, 2005, 2012	\$107,545,000	2022	67868NBX6	3
Fairview	IL	2008	\$24,735,000	2011	45200FDN6	1
Friendship Village Dayton	OH	1997	\$21,415,000	2006	613518BW8	1
Friendship Village of Mill Creek	IL	2017	\$65,000,000	2023	45204EZd3	1
Friendship Village of Schaumburg	IL	2017	\$122,500,000	2022	45204EA73	1
Garden Valley Ret Vlg	KS	1993	\$4,650,000	2005	365079AR3	1
Glebe	VA	2003	\$55,540,000	2008	769834AN2	1
Glen Arden	NY	1998	\$28,020,000	2021	684604AS0	1
Glen at Lake Oconee Village	GA	2015	\$31,925,000	2019	394376BT3	1
Glenmoor	FL	2006	\$59,555,000	2013	79039NAS7	1
Green Country Village	OK	1996 & 1998	\$14,255,000	2001	069296AP6	2
Greenfields of Geneva	IL	2010	\$117,600,000	2017	45200F5M7	1
Groves in Lincoln	MA	2009	\$117,265,000	2013	57563TAD7	1
Hamilton Communities	IN	1998	\$21,000,000	2002	454798GF0	1
Henry Ford Village	MI	2008 & 2017	\$56,720,000	2020	242563AX2	2
Hillside Village	NH	2017	\$93,015,000	2020	64461XBH7	1
Huntington Common	ME	1997	\$29,815,000	2002	56042BAE7	1
Inverness Village	OK	2012 & 2013	\$71,240,000	2018	67884WAV1	2
Kansas Masonic Home	KS	2016	\$32,780,000	2022	967249PW7	1
Kendal at Granville	OH	2015	\$39,850,000	2020	53166PAE3	1
Kingswood	MO	2016	\$51,770,000	2019	48504LAC7	1
Las Ventanas	NV	2004	\$59,270,000	2009	25457VBK1	1
Linden Ponds	MA	2007	\$101,365,000	2011	57583RPX7	1
Marsh's Edge	GA	2004	\$57,360,000	2007	11701PAA1	1
Mirador	TX	2010	\$79,040,000	2016	87638RDM6	1
Monarch Landing	IL	2007	\$128,745,000	2009	45200FCR8	1
NBA	VAR	1992-2000	\$171,015,000	2003	196474RJ1	17
Odd Fellows Home	OR	2013	\$7,280,000	2020	62551PCB1	1
Park Place	IL	2010	\$175,540,000	2015	45200F3C1	1
Peabody Retirement Comm	IN	2002	\$46,900,000	2009	660712AG5	1
Redstone Village	AL	2007, 2008, 2011, 2012	\$98,070,000	2018	447297AY8	4
Reeds Landing	MA	2006	\$29,115,000	2009	57583RJH9	1
Regency Pointe	AL	2001	\$23,305,000	2005	75080NAH7	1
Richfield Living	VA	2019 & 2020	\$131,215,000	2022	77008PAD6	2
River Terrace	IN	2001	\$15,985,000	2013	096325AG0	1
Sears Methodist	TX	1998, 1999, 2003	\$121,260,000	2013	003453BR7	3
Sears Tyler Methodist	TX	2009 & 2011	\$49,345,000	2013	42833NAV6	2
Sedgebrook	IL	2007	\$98,145,000	2009	45200B7N2	1
Sierra Winds	AZ	2014	\$32,800,000	2022	71284MCA5	1
St. James Place	LA	1999	\$55,785,000	2004	546279EK2	1
St. John's Lutheran Home of Albert Lea	MN	2014 & 2017	\$19,665,000	2022	421307AR0	2
St. Mary of the Woods	OH	2004	\$15,800,000	2011	889260BZ7	1
Stayton at Museum Way	TX	2009	\$166,575,000	2018	87638RCX3	1
Terraces of Boise	ID	2014	\$103,185,000	2021	45129SVR7	1
The Ranch	OK	2016	\$110,960,000	2018	704387AG4	1
Trousdale Foundation	FL	1999	\$6,280,000	2002	59283TCA6	1
Villa de San Antonio	TX	2004	\$11,310,000	2010	42833NAM6	1
Villa St. Benedict	IL	2003	\$42,260,000	2008	45200PZS9	1
Village at Penn State	PA	2002	\$25,765,000	2010	092849BH0	1
Vista Grande Villa	MI	2015	\$22,585,000	2021	74442PBH7	1
Wedum Walnut Ridge	IA	2007	\$42,710,000	2011	46245FAH7	1
WindsorMeade	VA	2007	\$48,325,000	2013	47029WAW7	1
Woodlands at Furman	SC	2007	\$46,930,000	2012	837036DA7	1
Woods at Cedar Run	PA	1998	\$14,360,000	2002	23061EAK3	1

ZIEGLER CREDIT SURVEILLANCE AND ANALYTICS

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ABOUT THE AUTHOR

Mike Vitiello joined the surveillance team at Ziegler in April of 2013. He is primarily responsible for monitoring a portfolio of Ziegler and non-Ziegler underwritten senior living, healthcare and education credits. Mike is responsible for authoring borrower-specific credit research reports, commenting on each borrower's financial condition and highlighting any significant changes for the benefit of investors and Ziegler's internal business groups. His responsibilities also include the ZCS annual CCRC Financial Ratio Median Analysis and Default Study. Mike sits on Ziegler's origination Credit and Risk Committee.



Mike received a B.S.B.A. from Boston University in 2009, an M.B.A. from Pace University in 2018, holds Series 7 and 52 licenses from FINRA, is a CFA charterholder, and belongs to several healthcare and municipal bond-related organizations.

ANALYST CERTIFICATION

I, Mike Vitiello, hereby certify that the views expressed in this research report accurately reflect my personal views about the subject securities, issuers and borrowers. I also certify that no part of my compensation was, is, or will be, directly or indirectly, related to the specific recommendation or view expressed in this research report. The opinions expressed here reflect my judgment and are subject to change. This is not a complete analysis of every material fact regarding any company, industry or security. Information has been obtained from sources considered reliable, but Ziegler cannot guarantee the accuracy. Additional information is available upon request. Other departments of Ziegler may have information, which is not available to Ziegler Credit Surveillance and Analytics, about companies mentioned in the report. Ziegler may execute transactions in the securities mentioned in the report, which may not be consistent with the report conclusions. Past performance should not be taken as an indication or guarantee of future performance. Ziegler may perform investment banking or other services for, or solicit investment banking business from, any company mentioned in this report. This document may not be reprinted without permission.

ZIEGLER CREDIT SURVEILLANCE AND ANALYTICS ASSOCIATES

Lavinia Criswell

Director
Credit Surveillance and Analytics
312-705-7310
lcriswell@ziegler.com

Mike Vitiello

Vice President
Credit Surveillance and Analytics
212-284-5419
mvitiello@ziegler.com

Victoria Neitzel

Junior Analyst
Credit Surveillance and Analytics
414-978-6464
vneitzel@ziegler.com

Jill Kuehn

Assistant
Credit Surveillance and Analytics
414-978-6461
jkuehn@ziegler.com

ZIEGLER CREDIT SURVEILLANCE AND ANALYTICS

143 Cora's Path
Blowing Rock, NY 28605

800 366 8899

www.ziegler.com