County Employees Retirement System
Board of Trustees Special Called Meeting – Trustee Education Session
February 6, 2024, at 10:00 am ET (9:00 am CT)
Live Video Conference/Facebook Live

AGENDA

1.	**Call to Order**	**Betty Pendergrass**
2.	**Opening Statement**	**Eric Branco**
3.	**Roll Call**	**Sherry Rankin**
4.	**Public Comment**	**Sherry Rankin**
5.	**Investments Training Session**	**Wilshire/Steve Willer**
6.	**Adjourn**	**Betty Pendergrass**

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CERS – Investment Committee and Board Education

February 6, 2024

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Agenda

- Private Credit
- Rebalancing Ranges
- Fund Governance
- Sector Exposure

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Private Credit

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Understanding Private Credit

A shift to private credit lenders has occurred as banks move out due to regulatory changes

- How it works: Non-bank lenders (private credit managers) loan capital to companies (borrowers) often sourced from their proprietary networks
- Borrowers: typically, small/medium-sized and non-investment grade
- Loan terms are controlled by lenders
- Covenants/collateral help mitigate defaults
- Floating rate spread → the reference rate is beneficial in rising rate environments
- Fixed term, i.e. the agreement's "exit strategy" is pre-defined

Why invest in private credit?

- Control
- Higher yield than public credit with added downside protection
- Periodic cash flows
- Fixed income investment diversification

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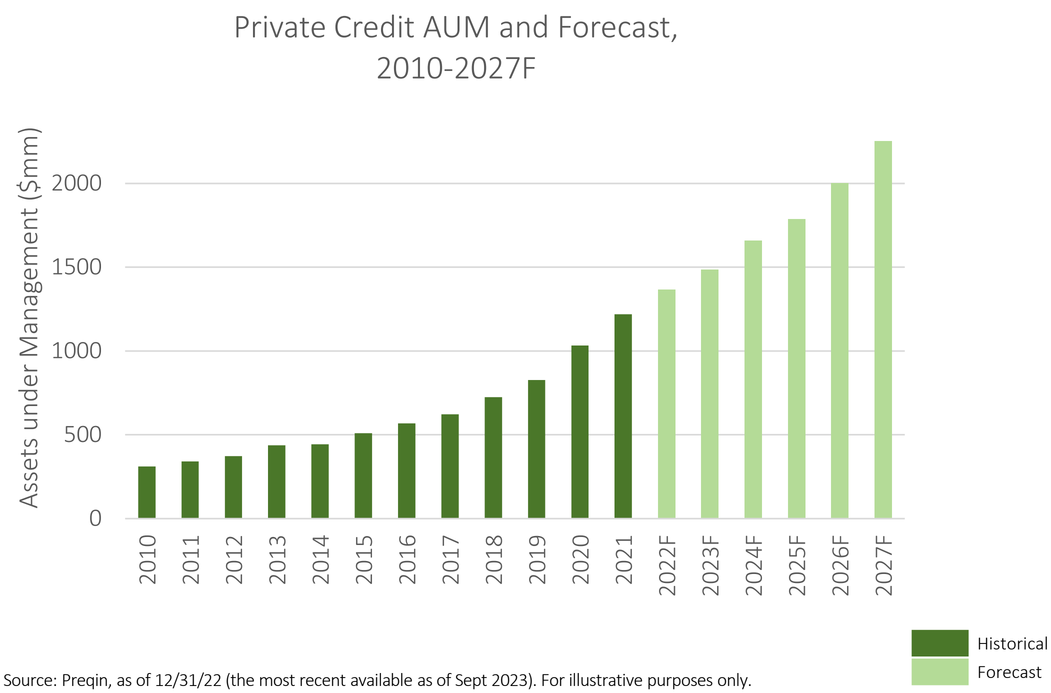
Private credit growth has escalated



Private Credit AUM by Strategy

Distressed debt	34%
Special Situations	30%
Mezzanine	24%
Direct Lending	12%

Source: Preqin, as of 12/31/22 (the most recent available as of Sept 2023). For illustrative purposes only.
AUM = Assets under management.

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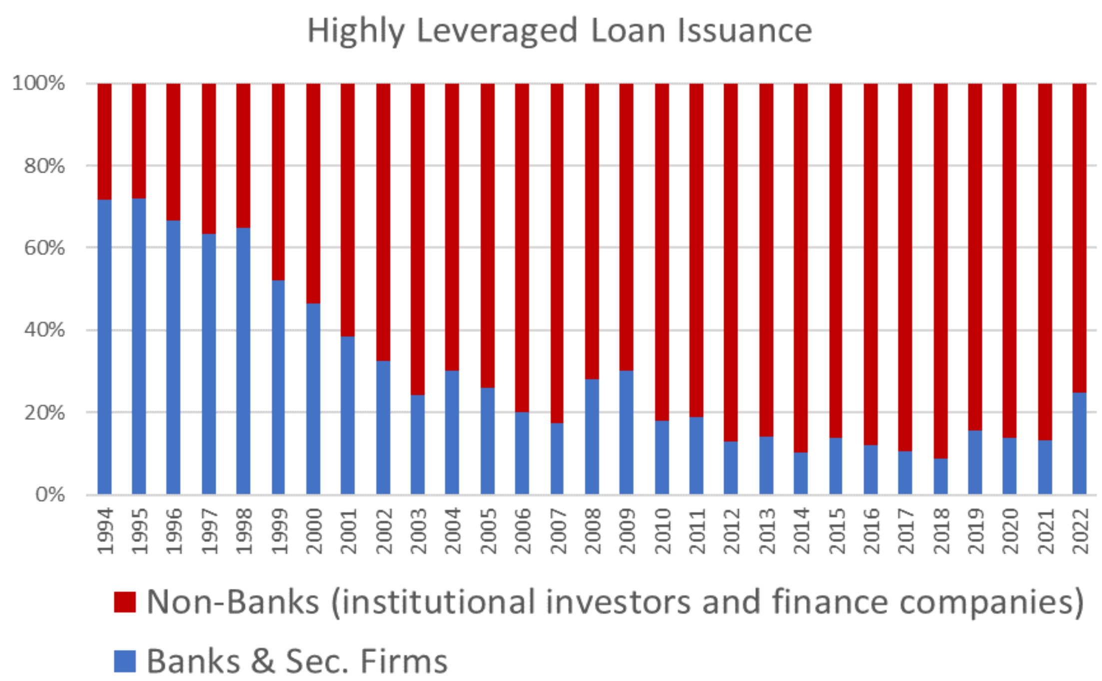
Private lenders have provided capital typically sourced from banks, especially since 2008



Source: S&P LCD. For illustrative purposes only.

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What does private credit look like?

Priority for Repayment

- Debt backed by assets
- If defaults, can seize/liquidate to repay the loan which decreases risk

Senior Secured Debt

- Not backed by any assets
- Greater risk means higher interest rate

Unsecured Debt

- Hybrid debt and equity not usually backed with any assets

Mezzanine Debt

- What's left after debt is repaid
- Value can go to $0

Equity

Private credit falls into the three debt segments of the capital structure

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The biggest difference between public and private debt is control

- Public credit: Pre-negotiated terms and no additional function to monitor
- Private credit: Terms, amount of control and monitoring functions all negotiated directly with the debtor

	Public Credit	Private Credit
Assets	Exchange listed; deep, efficient markets	Private, non-traded; performing and non-performing
Vehicle/Liquidity	Daily or intra-daily liquidity	3-10+ year liquidity with capital commitment and drawdown
Risk/Return	1%-5% expected	6%-25% expected with minimal volatility; can take on more risk
Yield	Low single-digit cash yields with regular distribution	High single-digit total yield; cash and payment-in-kind
Lender Control	None	High

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Private Credit Strategies

Strategy	Products/Features	Target Return[1]
Specialized Direct Lending	Small- and medium-sized businesses in return for debt securities • Sector-focused lending (health care, IT, utilities, consumer staples) • Senior secured term debt (1st lien) • Uni-tranche debt (1st and 2nd lien) • Sponsored and non-sponsored • Floating rate	8%-16%
Opportunistic	Private companies backed by cash flow from non-corporate, non-correlated, or unique and esoteric assets • Intangible assets • Specialized asset-backed loans • Risk transfer strategies	8%-20%
Distressed Debt/Special Situations	Companies currently in or likely filing for bankruptcy in near future • Distressed for influence/control and turnarounds • Distressed for non-control and restructurings • Distressed debt trading	12%-25%

[1]Target return is estimated unlevered gross IRR based on Wilshire assessment of manager expectations. There is no guarantee that any investment will achieve the Target Return.

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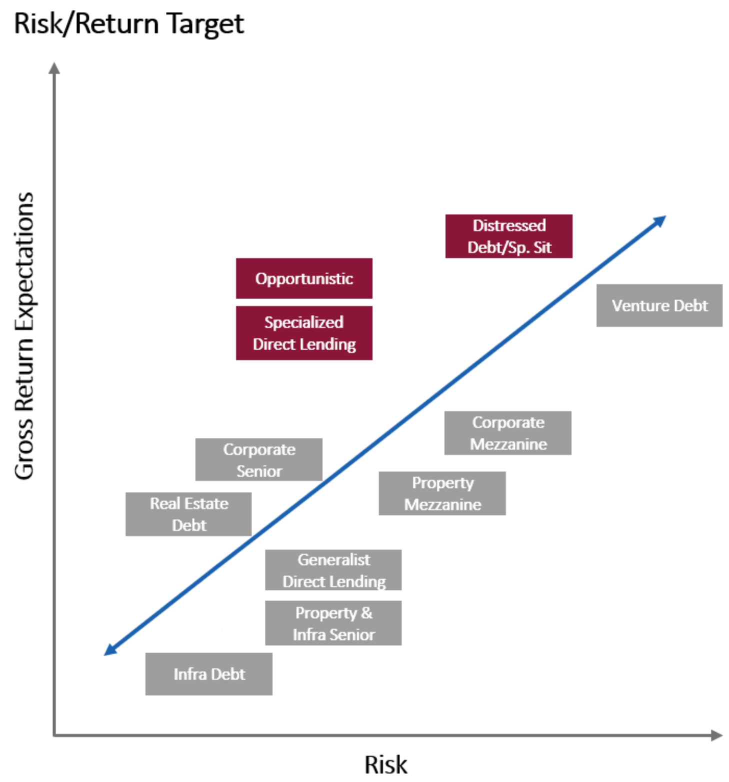
Private Credit Strategies: Risk-Return Targets



[1]Target return is estimated unlevered gross IRR based on Wilshire assessment of manager expectations. There is no guarantee that any investment will achieve the Target Return. For illustrative purposes only.

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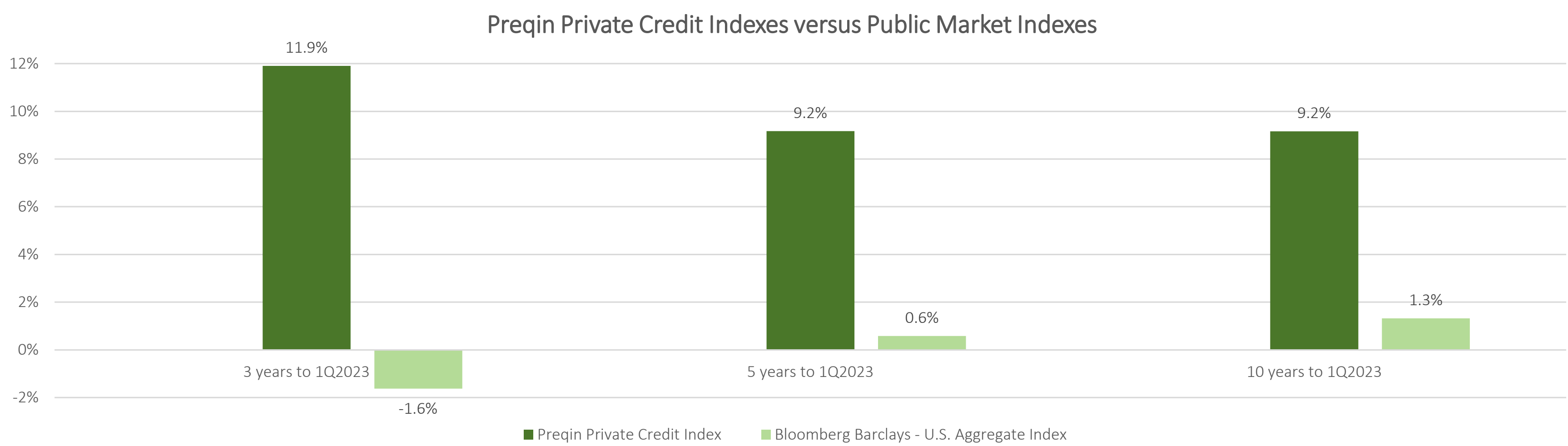
Differentiated return potential versus the public credit market



Past performance is not indicative of future results. Indexes are provided for illustrative purposes only. **The Preqin indexes are created from quarterly data as supplied by managers that may be audited or unaudited. The indexes are not transparent and cannot be independently verified and may be recalculated by Preqin each time a new fund is added, the historical performance of the index is not fixed, cannot be replicated, and will differ over time from the data presented in this communication. The funds included in the private capital data shown report their performance voluntarily and therefore the data may reflect a bias towards funds with track records of success.** Sources: Preqin and Wilshire as of March 31, 2023, which represents the most recent data available from Preqin due to the nature of private markets. Public market indices used include the MSCI World Index, the S&P 500 Index, and the Bloomberg Barclays US Aggregate Index. The Preqin Private Equity Index and the Preqin Private Credit Index quarterly returns include both the impact of cash flows (cash contributions and distributions) and gains (change in net asset value (NAV)) for each quarter and are net of management fees and carried interest charged by the general partners or sponsors of the underlying investments. Average annual compounded return calculations for both the private capital and public markets indices are time-weighted measures and are shown for reference and directional purposes only. Investors cannot invest directly in an index, and even if they had, there is no guarantee that investments could have been realized at any particular time or value to match a given index's results (including through the private secondary market). The Preqin Private Equity Index and the Preqin Private Credit Index are subsets of the overall Private Capital data set and are derived from the Preqin Private Capital Quarterly Index using the same methodology.

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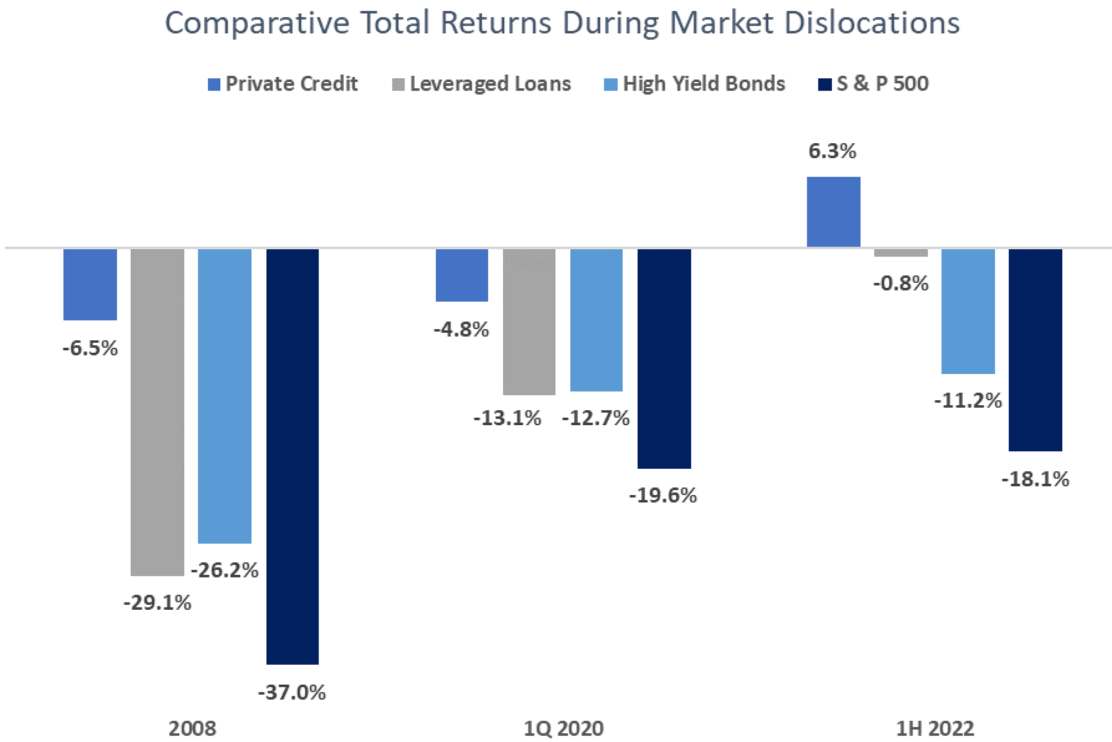
Private credit has outperformed public credit in difficult times

- 2008 → GFR
- 1q 2020 → Covid
- 1h 2022 → U.S. Fed Funds Rate Hikes



Private credit is represented by the Cliffwater Direct Lending Index. Leveraged loans is represented by Morningstar LSTA US Leveraged Loan Index. High Yield Bonds represented by Bloomberg Barclays US Corporate High Yield Bond Index.

Past performance is not indicative of future results. For illustrative purposes only.

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Private credit can be accessed via a variety of structures

	Private		Public	
	Closed-End Funds	Funds of Funds	Mutual Funds	Public BDCs
Minimum investment	High	High	Low	Low
Liquidity	Low	Low	High	Medium
Diversification	Low	High	Variable	Low
Opportunity set	Large	Medium	Small	Small
Pricing frequency	Quarterly or less	Quarterly or less	Daily	Quarterly or less
Accessibility by individuals	Low	Medium	High	Medium
Expenses	Medium	High	Low	Low

Private BDC: business development companies

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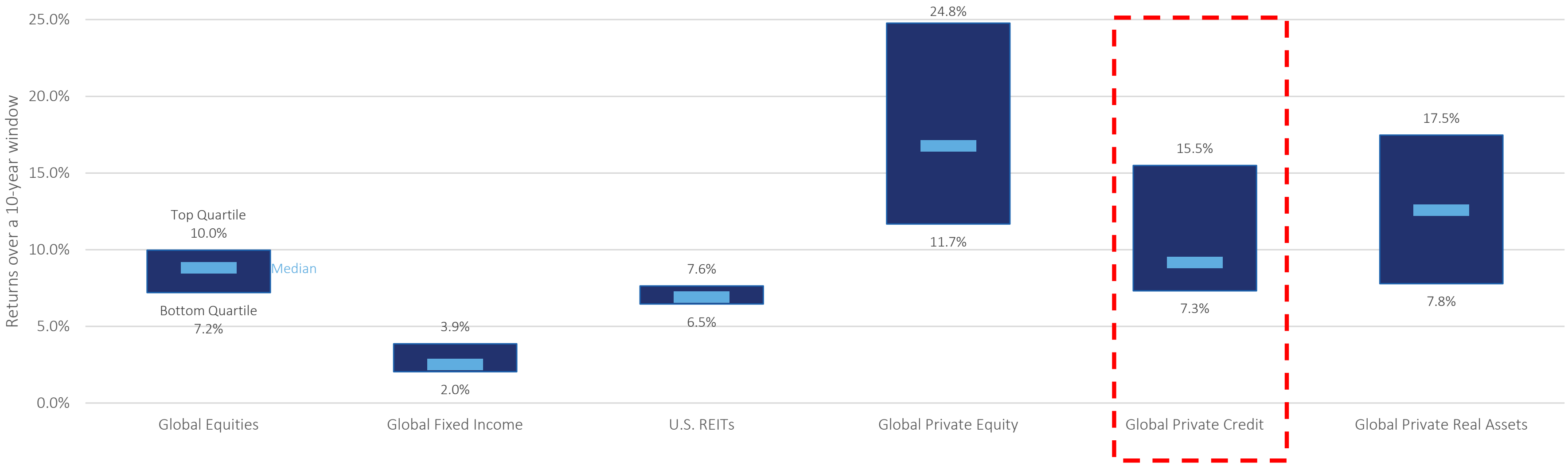
Private credit manager selection and access is important

Large performance dispersion, with average performers 8.2% below top performers – greater than most public asset classes.



Sources: Preqin and Wilshire Compass as of March 31, 2023. Wilshire Compass ratings comprised of global equity, global fixed income, and U.S. REIT manager separate account universes for the period 1Q 2013 – 1Q 2023.

The Preqin indexes are created from quarterly data as supplied by managers that may be audited or unaudited. The indexes are not transparent and cannot be independently verified and may be recalculated by Preqin each time a new fund is added, the historical performance of the index is not fixed, cannot be replicated, and will differ over time from the data presented in this communication. The funds included in the private capital data shown report their performance voluntarily and therefore the data may reflect a bias towards funds with track records of success. The Preqin Index quarterly returns include both the impact of cash flows (cash contributions and distributions) and gains (change in net asset value (NAV) for each quarter and are net of management fees and carried interest charged by the general partners or sponsors of the underlying investments. Compounded return calculations for both the private capital and public markets indexes are time-weighted measures. Investors cannot invest directly in an index, and even if they had, there is no guarantee that investments could have been realized at any particular time or value to match a given index's results (including through the private secondary market). **Past performance is not indicative of future results.** For illustrative purposes only.

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Private credit is complex: Deal and manager selection are key

Investors should also consider these factors before investing in private credit:

- Cannot be sold or exchanged for cash quickly or easily
- Generally, set up as 10 to 12-year investments
- Interest rate, default and credit risk potential
- Significant dispersion in returns, structure and variety
- Not typically quoted or traded on financial exchanges
- Loan structure and placement in the capital structure vary
- Some investments present more yield, others more capital gains
- Minimum financial eligibility requirements

Considerations

- Lack of Liquidity
- Long-Term Investment Horizon
- Investment Risk
- Valuation challenges
- Alignment to return profile
- Suitability

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Private Credit Glossary

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Strategies

Direct Lending	The practice of non-bank lenders extending loans to small- and medium-sized businesses in return for debt securities rather than equity.
Distressed Debt	Debt of companies that have filed for bankruptcy or have a significant chance of filing for bankruptcy in the near future.
Mezzanine	Investments in debt subordinate to the primary debt issuance and senior to equity positions.
Special Situations	Classification covering several areas including distressed and mezzanine, where loan decision or grade is defined by something other than underlying company fundamentals.

Fund Structures

Closed-End Fund	A fund with a fixed life span that typically does not allow redemptions or the entry of additional investors after the initial formation of the fund. Closed-end funds typically acquire a portfolio of companies/assets during an initial investment period and do not invest the sales proceeds.
Co-investment	Direct investment made by a limited partner in a company/asset backed by a fund. The limited partner therefore acquires two separate stakes in the company/asset: one indirectly through the fund and one directly in the company/asset.
Fund-of-Funds	A fund that invests in other underlying portfolio funds.
Joint Venture (JV)	An arrangement where two or more parties agree to pool their resources for investment in a specific asset or company.
Separate Account	Customized investment accounts held with a fund manager that are financed by one institutional investor. The fund manager makes multiple investments from the account to meet the strategic and other portfolio management needs of the institutional investor.

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Investment Terms

Committed Capital	The amount of a limited partner's financial obligation to a fund. The sum of commitments to a private equity fund equals the total size of the fund.
Direct Investment	Company or asset acquired for investment purposes, that is not made through an investment in private funds or similar structures.
Drawdown	The actual act of transferring capital into the fund's portfolio companies. When the GP has decided where it would like to invest the fund capital, it will approach its LPs in order to draw down some of the capital that has already been committed to the vehicle.
Dry Powder	The amount of capital that has been committed to a private capital fund minus the amount that has been called by the GP for investment.
General Partner (GP)	The partner in a limited partnership responsible for all management decisions of the partnership. The GP has a fiduciary responsibility to act for the benefit of the limited partners (LPs) and is fully liable for its actions.
J-Curve	The illustration of the fund's IRR over time. Returns are often negative in a fund's first few years due to management fees.
Leverage	Borrowed money to finance the acquisition of an asset or company.
Limited Partner (LP)	Institutions or high-net-worth individuals/sophisticated investors that contribute capital to a fund.
Primary Fund	An investment vehicle that invests directly in a company or asset.
Secondary Sale	The sale of an established private equity fund or portfolio company to another limited partner.
Refinance	Revising or replacing an older loan with new debt offering more favorable terms for the borrower.
Revolving Credit	A line of credit allowing the borrower to use funds when they are needed, depending on cash flow needs.
Royalty-Backed Lending	An alternative loan to be repaid using a percentage of the borrowing business's revenue, traditionally found in industries such as mining, film production, and drug development.

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Investment Terms

Bridge Loan	A short-term loan providing immediate cash flow that is used until a company secures permanent financing. Loans are typically short-term, relatively high interest, and backed by collateral.
Collateralized Loan Obligations (CLO)	A security backed by a pool f debt, which includes several levels of credit ratings and repayment structures.
Covenant	An indenture in a formal debt agreement for certain activities to be carried or not carried out.
Covenant-Lite (Cov-Lite)	A loan with limited restrictions on the debt-service capabilities of the borrower, including fewer restrictions on collateral and payment terms than traditional covenants.
EBITDA	Earnings Before Interest, Taxes, Depreciation, and Amortization. Usually where cash flow for debt repayment is sourced.
First Lien	Primary rights of creditor to sell the collateral property of a borrower that fails to meet the obligations of a loan contract.
Floating Rate	A variable interest rate that moves with market factors or an index. Opposite of a fixed rate.
Non-Sponsored	A direct loan transaction between a lender and borrower without involvement of a private equity sponsor.
Senior Stretch	A type of loan to a business that includes characteristics of both asset-based and cash-flow loans. Senior stretch loans as the borrowing company has a healthy balance sheet.
Special Purpose Vehicle (SPV)	A company that has activities limited to buying and financing certain assets by issuing bonds to investors.
Sponsored	A deal involving a third-party purchase of a company, typically a private equity firm.
Subscription Credit Facility	Short-term loans provided to alternative asset fund managers to cover transactional costs, suppressing the need to immediately call up capital from limited partners.
Syndicated	A loan offered by group of lenders that work together to provide funds to a single borrower.

Performance Terms

Contributed Capital	The proportion of the LP's aggregate commitments to the partnership that have been contributed to the partnership. These figures are as reported by the LP, so that in cases where the GP and LP have treated part of a distribution as a refund of contributions (and potentially liable to being recalled at a later date) the called up % will be amended accordingly.
Distributed (DPI – Distributions to Paid-in) %	The proportion of the called-up capital that has been distributed or returned back to LPs. This will include cash and stock distributions, with the latter valued as at the date of distribution and treated in the same way as a cash distribution. Distributed % is one measure of the cash performance of the partnership that is not subject to judgmental factors (as for value and IRR).
Net IRR %	The net IRR earned by an LP to date after fees and carry. The internal rate of return (IRR) is based upon the realized cash flows and the valuation of the remaining interest in the partnership. IRR is an estimated figure, given that it relies upon not only cash flows but also the valuation of unrealized assets. The IRR estimates shown are both those as reported by the LP and/or GP and those that Preqin has calculated internally, based upon cash flows and valuations, provided for individual partnerships.
Net Multiple	The ratio between the total value that the LP has derived from its interest in the partnership – i.e. distributed cash and securities plus the value of the LP's remaining interest in the partnership – and its total cash investment in the partnership, expressed as a multiple. It is important to note that this measure does not reflect the time value of money, and therefore will not show whether one partnership has returned value to LPs more quickly or more slowly than another. However, it is one measure of 'profit' or 'loss' for the LP.
Quartile Ranking	This shows which quartile of the relevant peer group the fund falls into. When calculating the quartile ranking, equal weight is placed on IRR and multiple. Top-quartile funds are funds with an IRR or multiple equal to or above the upper quartile benchmark; second-quartile funds are funds with an IRR or multiple equal to or above the median-quartile figures but below the upper-quartile figures, etc.
Remaining Value (RVPI – Residual Value to Paid-in) %	The value of the LPs' remaining interest in the partnership, as derived from the GP's valuation of the unrealized portfolio and its allocation of this to the LP. Valuation of unrealized investments expressed as a percentage of called capital.
Total Value to Paid-in (TVPI) % / Multiple on Invested Capital (MOIC)	Sum of distribution to paid-in and residual value to paid-in, i.e. distributed cash and securities plus the value of the LP's remaining interest in the partnership.
Vintage Year	Defined as the first year of investment/drawdown from the investor.

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Fund Terms & Conditions

Carried Interest (Carry)	The percentage of realized gains (generally 20%) that general partners receive after returning investors' capital. For example, if a $100 million fund sells its investments for $250 million, the GP would receive a carry of $30 million (20% of the $150 million gain).
Clawbacks	A mechanism at the end of the term of the fund to recapture overpayments to the general partner if it receives more than its contractual carried interest. The general partner typically agrees to return to the investors amounts previously distributed to it as carried interest to the extent that such amounts exceed the carried interest percentage.
Preferred Return / Hurdle Rate	Mechanism that ensures that performance fees are only levied after a performance target or rate has been met.
Leverage	Borrowed money that amplifies the risk/return profile of an investment and in turn amplifies any subsequent gains and losses.
Management Fee	Annual fee charged by the manager to investors to cover the costs and expenses of a hedge fund. This has typically been charged at 2% of the net asset value of a fund over a 12-month period; however, the amount varies.
Minimum LP Commitment	Most funds impose restrictions on the minimum commitment that LPs can make to the fund. As might be expected, the minimum required size tends to be larger for funds targeting larger amounts of total capital.

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Rebalancing Ranges

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Importance of Rebalancing

- Rebalancing is important for keeping the actual allocation close to the long-term policy targets
  - This maintains the risk and return profile intended when the asset allocation policy was set
- Rebalancing also helps control behavioral biases
  - There is a tendency to favor what has done well lately and "let it ride" when a manager or asset class has added value, but outperformance is often caused by cyclical factors that are difficult to time

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Rebalancing Range Considerations

- Actual allocations are always fluctuating around the asset allocation targets
  - By design, a diversified portfolio will have differing returns and cash flows among its varying investments, continually moving stronger performers above target and underperformers below
  - On top if this, tactical allocation decisions may underweight or overweight assets based on short- or medium-term market outlook
- Constantly reallocating to target is not possible or practical
  - Rebalancing costs time and money
  - Illiquid asset class cash flows (calls and distributions) are out of the investor's control

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Rebalancing Range Sizing

- Rebalancing ranges should be sized to account for asset class volatility, tactical positioning, managing costs, and maintaining exposure close to that of the long-term asset allocation policy targets
    - Active risk that is introduced from positioning should be quantified and understood
    - Perhaps counterintuitively, more volatile asset classes should have wider allowable ranges
    - Safety assets such as core fixed income should have narrower ranges, not only because the underlying assets are less volatile, but also to maintain sufficient "ballast" in the portfolio
    - Ranges set on higher level composites can also help ensure the portfolio maintains factor exposures aligned with the long-term policy

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Fund Governance

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Rules for Institutional Investors

- Focus on decisions that matter
- Time horizon is key to the asset mix choice
- Control risk through diversification
- Have an investment policy and stick to it
- Focus on the “big picture” when monitoring investment performance
- Past performance can be a misleading indicator of future performance
- Market timing doesn’t work
- Pay attention to management fees and other expenses

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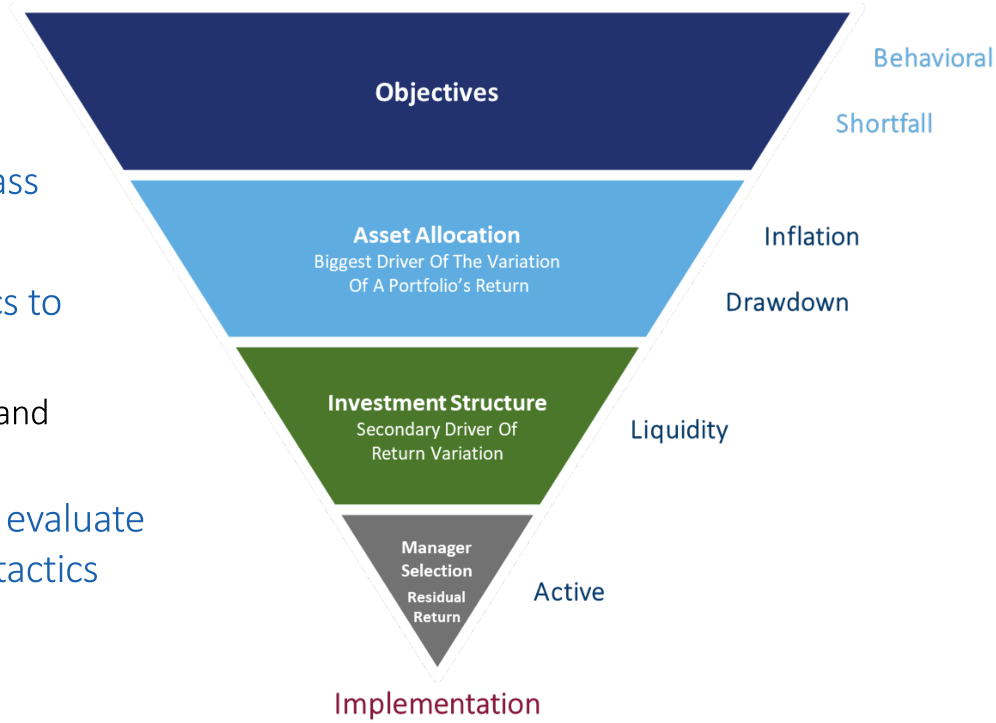
Investment Decision Making Framework

- Establish investment philosophy
- Establish appropriate asset allocation policy
- Determine investment objectives for each asset class
  - Target value-add, active risk level
- Select appropriate investment strategies and tactics to achieve investment objectives
  - Asset class benchmarks, structures for asset classes, and implementation activities
- Establish monitoring and evaluation procedures to evaluate the success of investment program strategies and tactics
- Risk management should play a role in each step



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Investment Policy Statement

- Articulate investment philosophy and long-term investment objectives
- Delineate duties and responsibilities of Board, key subcommittees, investment staff, and other professional advisors
- Codify asset allocation policy and implementation plan
- Specify when to rebalance
- Establish procedures for investment services selection and performance monitoring
- Establish risk tolerances
- Act as a document of continuity in the case of Board and staff turnover
- Avoid frequent changes to policy in both design and action

Navigating Choppy Waters, Charting the Appropriate Course

An Investment Policy is a customized, living document tailored to the unique considerations of each institution

As needs evolve over time, iterative adjustments help maintain course towards stated goals

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Keys to Strong Governance

- Clear delineation of roles and responsibilities
  - Stakeholders can have responsibility even without decision-making or implementation authority
  - Examples of roles for different aspects of fund governance include advising, reporting, execution, and monitoring
- Formally defined procedures and documentation
  - The IPS and associated policies spell out the appropriate process for various activities and decisions
- Lines of communication
  - Clear and timely communication between various stakeholders facilitates strong decision making and controls

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Sector Exposure

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Observations

- The public asset class portions of the portfolio are well diversified, with sector allocations that are largely aligned with broad industry benchmarks
  - US equity and core fixed income in particular have less active management relative to sector allocation
  - Some asset classes, within fixed income particularly, are managed less to economic sector allocations and more focused on fixed income sectors (Treasury, credit, ABS, MBS, etc.)
- The private asset class allocations, which are also well diversified, are driven by the opportunity set can therefore result in more sector/industry concentration
  - For example, private equity and particularly venture are focused on early stage, higher-growth potential companies, so technology and healthcare can be outsized allocations compared to public markets
  - Benchmarks with measurable sector weights don’t exist for private assets like they do on the public side, and using a public market proxy would not result in a meaningful comparison

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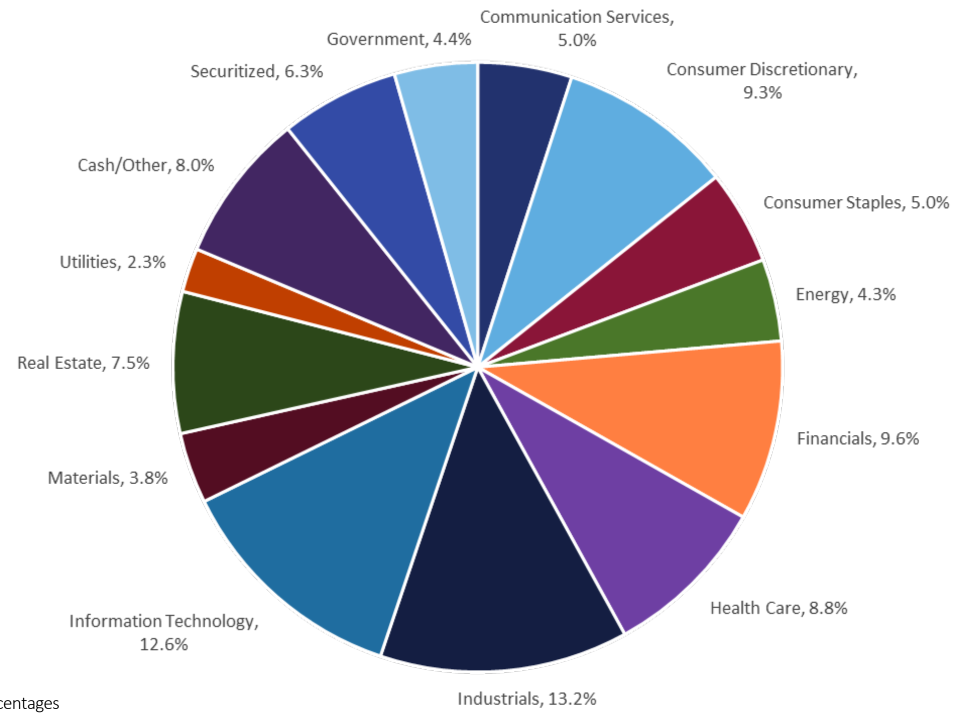
Total Portfolio

- With some simplifying assumptions being made, the approximation of total portfolio sector diversification shows a well diversified aggregate exposure

Total Portfolio Sector Allocation Approximation



Assumes remaining Lord Abbett and internal fixed income being managed consistent with NISA and Loomis percentages

Groups real return managers into best fit sector at a total portfolio level

Groups all real estates manager exposure into real estate sector

Some mandates without data are assumed to have similar allocation as the overall asset class

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Public Equity

- Sector exposure is well aligned with a broad benchmark, which is to be expected given the large share of passive and enhanced indexed strategies used in this very efficient market

US Equity Composite

Periods Ended September 30, 2023

	US Equity Composite	Russell 3000 Index
Cash	0.85	0.00
Communication Services	7.77	8.19
Consumer Discretionary	10.60	10.77
Consumer Staples	6.74	6.06
Energy	4.63	4.83
Financials	13.15	13.33
Health Care	13.85	13.30
Industrials	9.96	9.77
Information Technology	24.70	25.84
Materials	2.62	2.72
Other	0.00	0.00
Real Estate	2.40	2.84
Utilities	2.74	2.34
Total	**100.00**	**100.00**

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Public Equity

- Non-US equity is a less efficient market and therefore more active management is used, leading to modest deviations from a broad benchmark allocation

Non-US Equity Composite

Periods Ended September 30, 2023

	Non-US Equity Composite	MSCI AC World ex USA IMI
Cash	2.67	0.00
Communication Services	4.89	5.25
Consumer Discretionary	11.00	11.90
Consumer Staples	6.70	8.09
Energy	3.39	5.79
Financials	18.86	19.78
Health Care	13.42	9.29
Industrials	15.38	14.10
Information Technology	15.79	11.36
Materials	5.29	8.36
Real Estate	1.03	2.98
Utilities	1.59	3.10
Total	**100.00**	**100.00**

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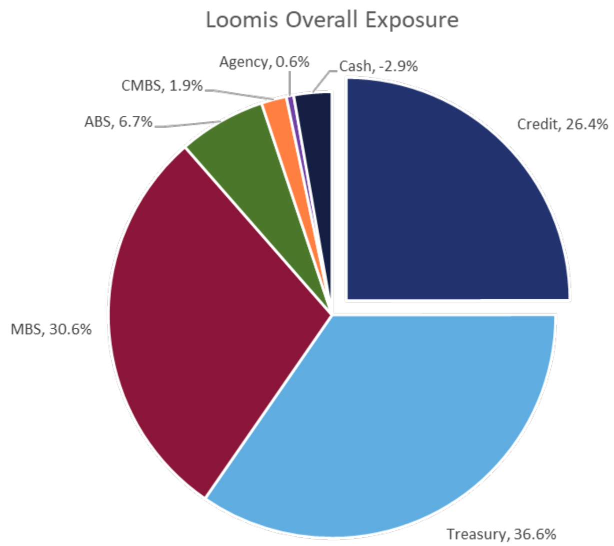
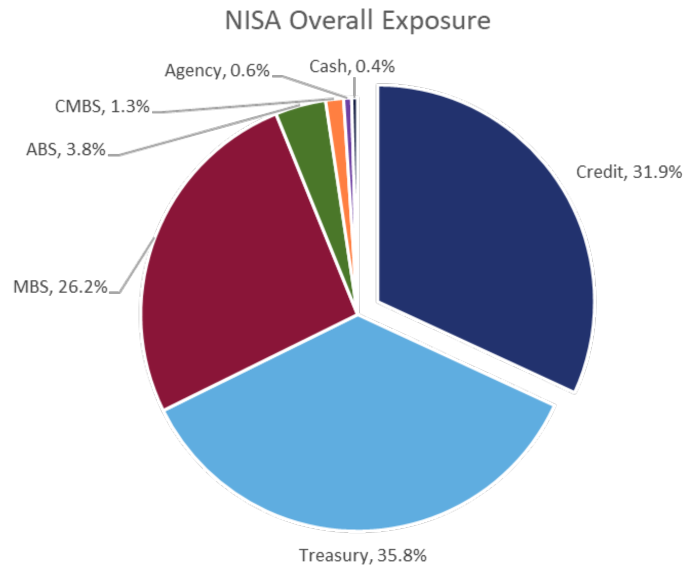
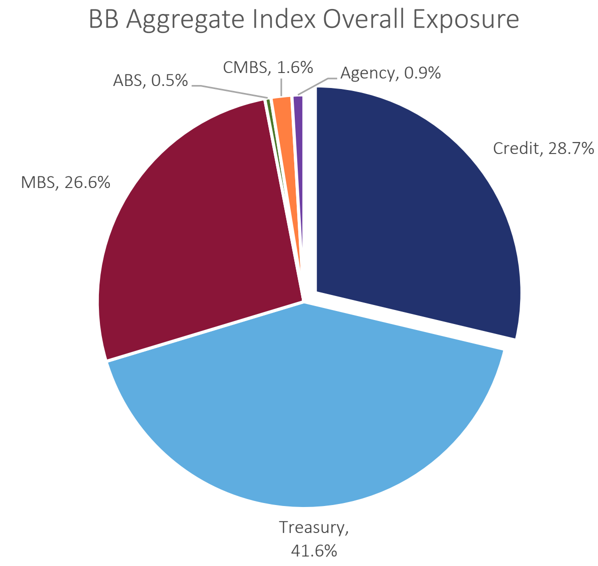
Core Fixed Income – Overall Exposure







Data from Loomis and NISA

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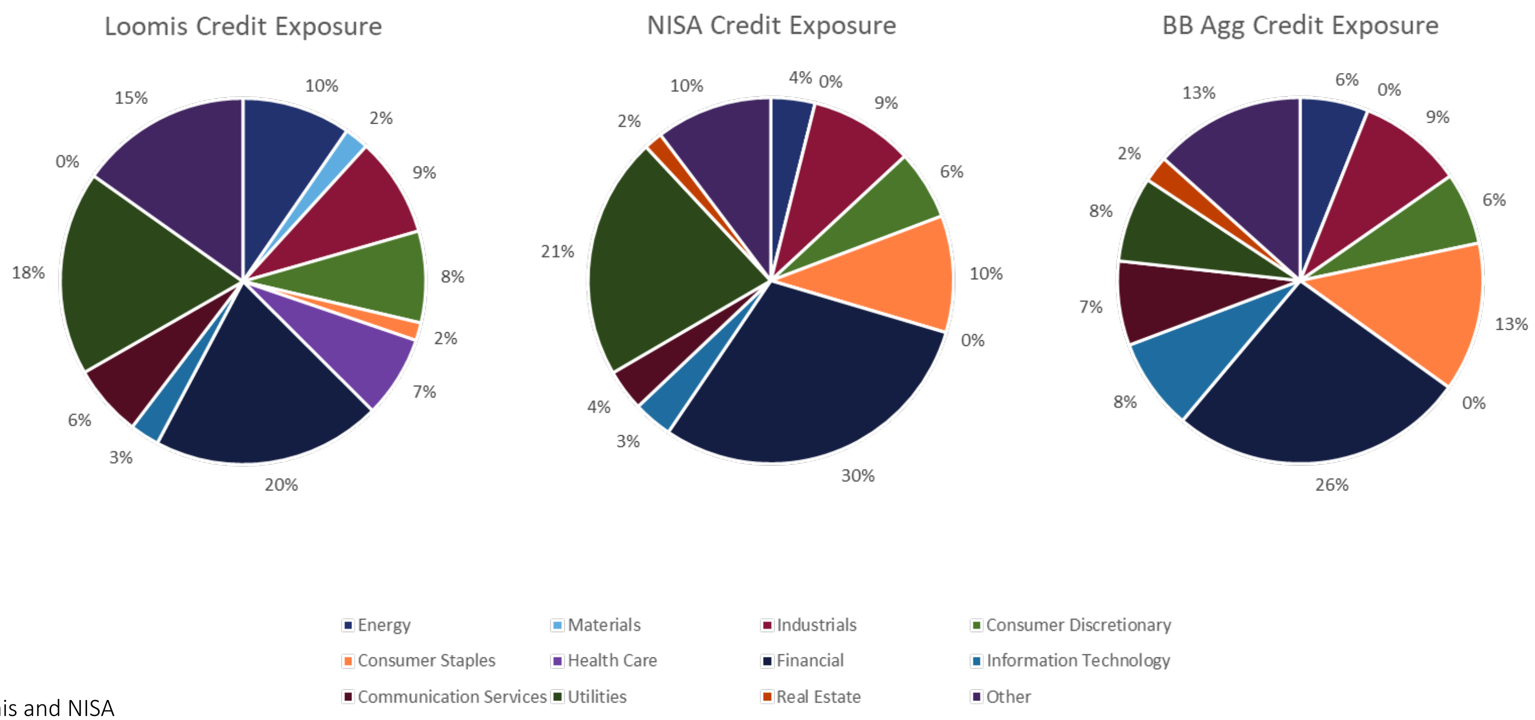
Core Fixed Income – Credit Detail



Data from Loomis and NISA

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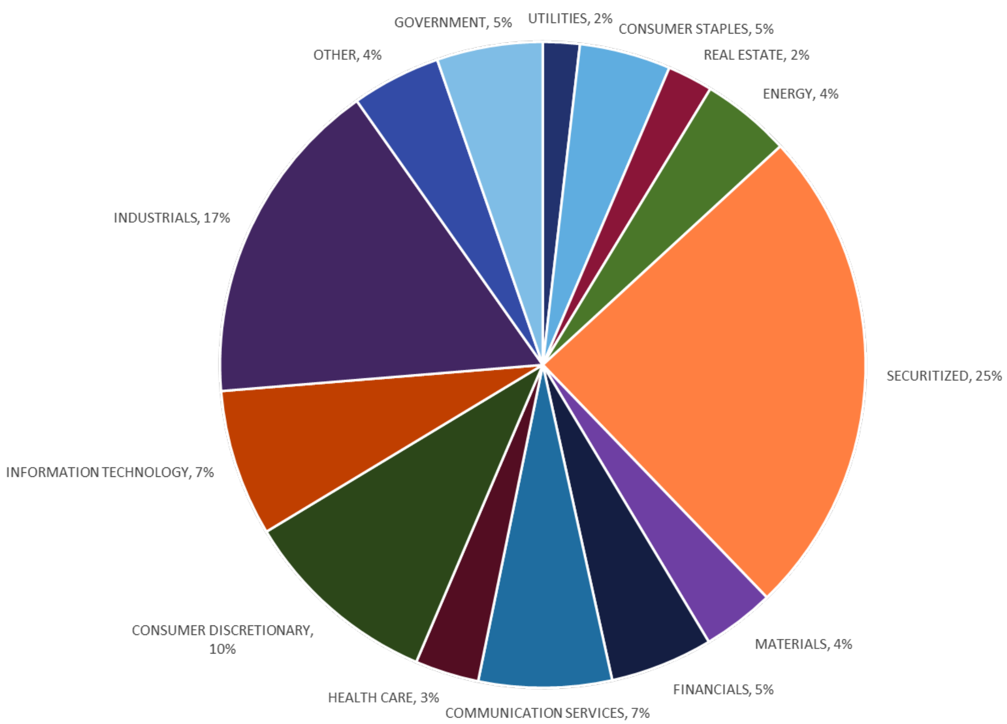
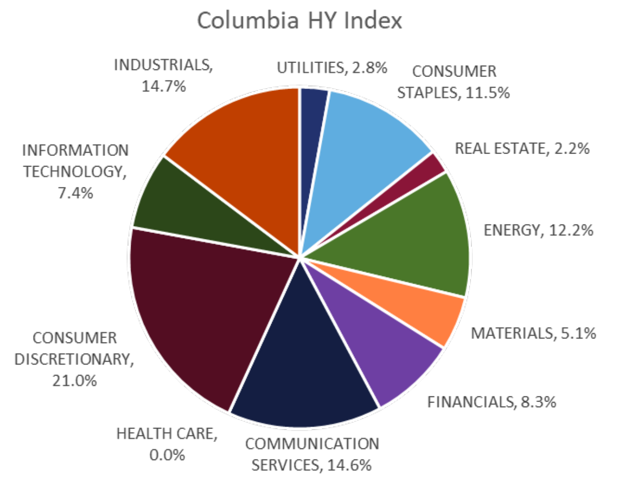
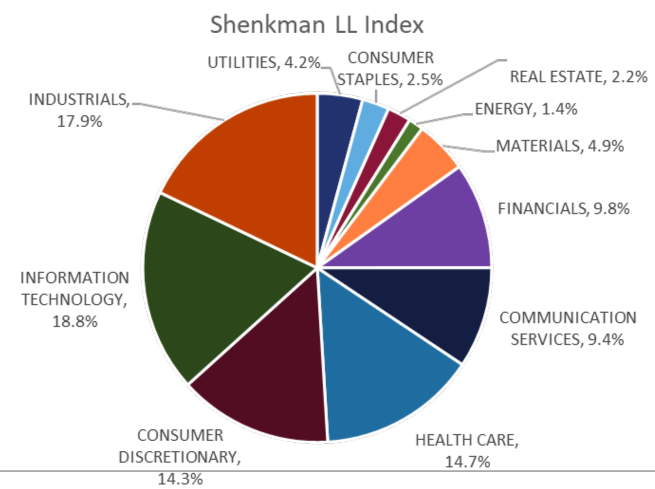
Specialty Credit - Public







Data from Manulife, Shenkman, Waterfall, and Columbia.

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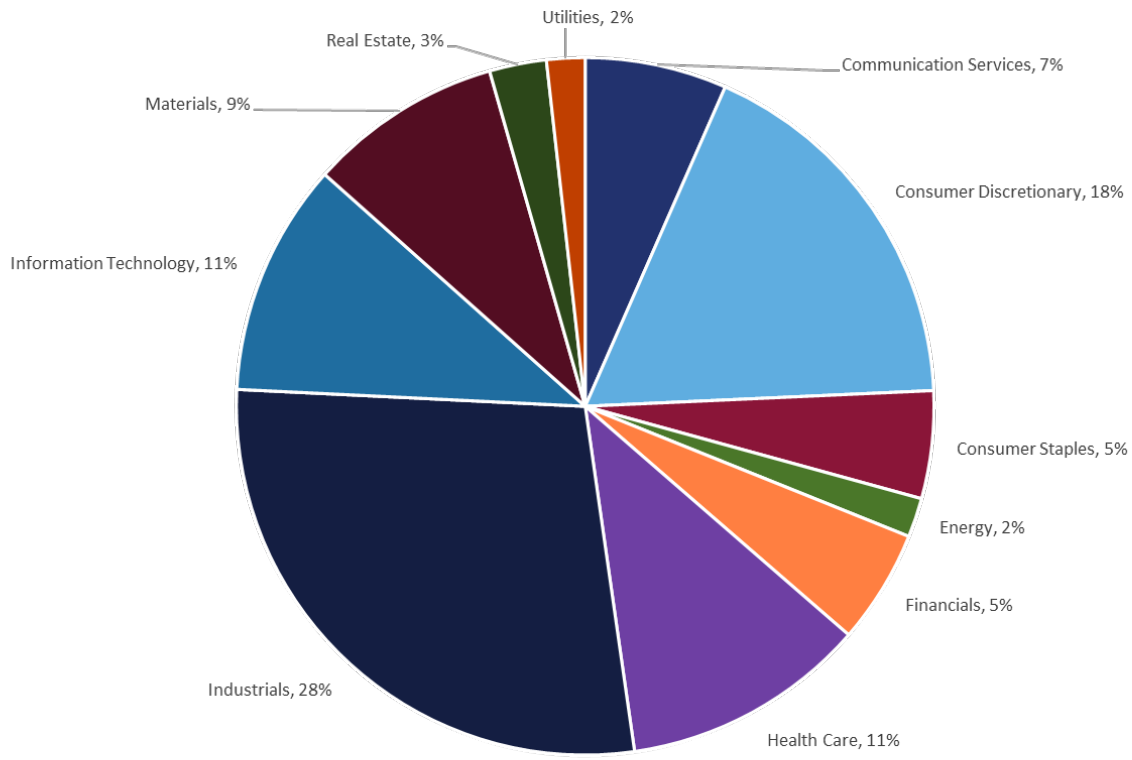
Specialty Credit - Private



Data from Cerberus, Arrowmark, and Burgiss (excludes Cash, Liabilities, and "Other")

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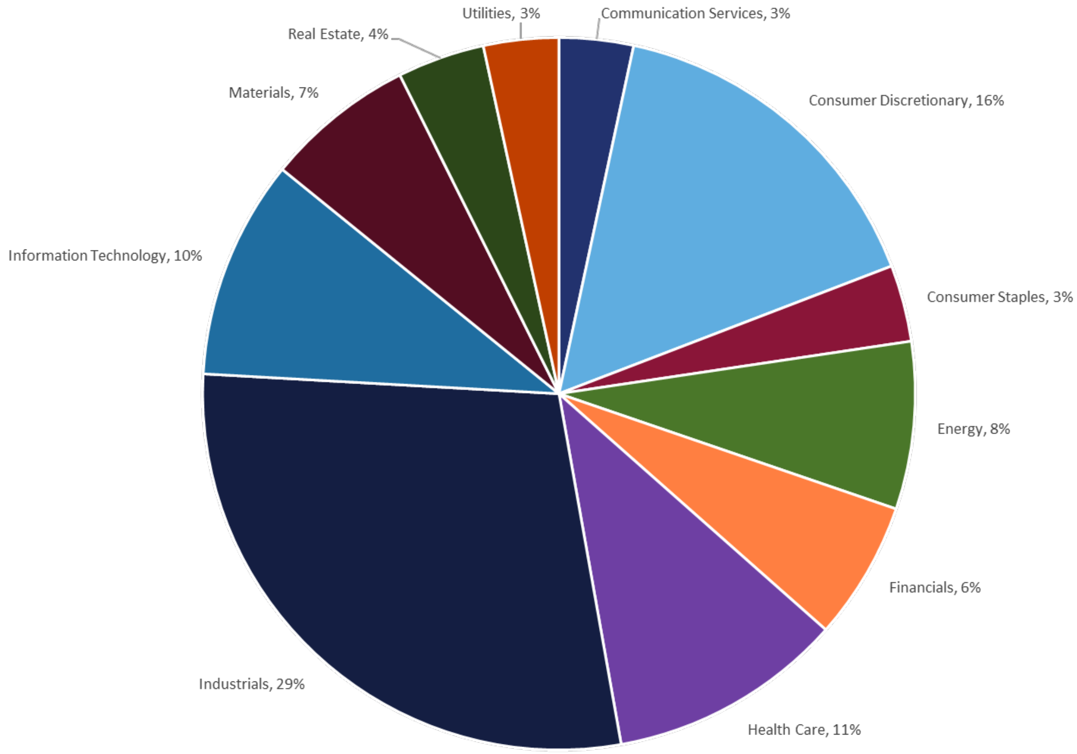
Private Equity



Data from Burgiss as of 9/30/2023 – excludes Cash, Liabilities, and "Other"

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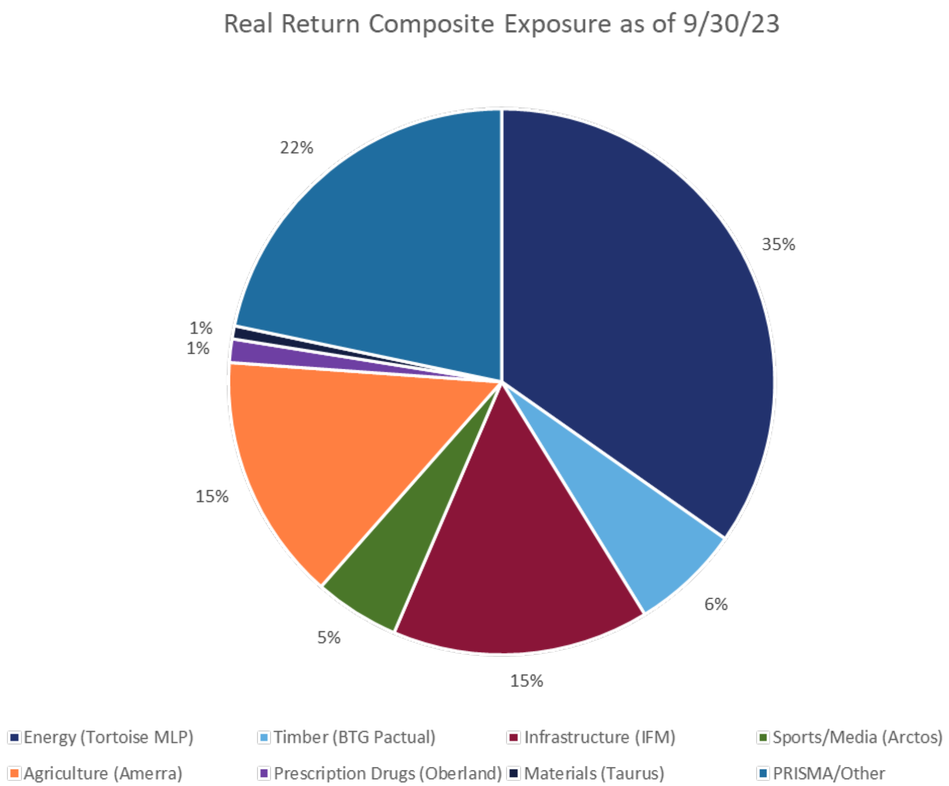
Real Return



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