

Direct lending

Private markets education

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- Direct lending funds currently have over USD 500 billion in assets under management (AUM), having grown from 0.5% of private markets AUM in 2007 to 5% in 2021.
- Direct lending strategies typically provide loans to middle-market, below-investment-grade companies, with returns driven by a floating-rate coupon referenced as a spread above a base LIBOR rate.
- Direct lending funds aim to generate attractive yields and limit credit losses for investors. Fund managers look to add value through their sourcing, due diligence, deal structuring, and risk management capabilities.



Source:UBS

Summary

- In private markets, direct lending is defined as the provision of loans originated by a non-bank lender.
 Target borrowers are typically middle-market, below-investment-grade companies.
- Banks have generally stopped providing middlemarket loans given regulatory changes and industry consolidation, providing an opportunity for private lenders to enter the market
- Direct loans are similar to publicly traded leveraged loans in that they are both senior in the capital structure, have floating-rate coupons, and are made to non-investmentgrade borrowers.
- The terms of direct loans, however, are often customized between borrower and lender, whereas terms of leveraged loans originated and syndicated by a bank are often standardized. Banks also typically focus on larger borrowers.
- Yields earned from direct lending come from a spread above a base LIBOR/SOFR rate. Illustrative spreads above LIBOR/SOFR are 400–500 basis points (bps) for firstlien loans, 700–800bps for second-lien loans, and

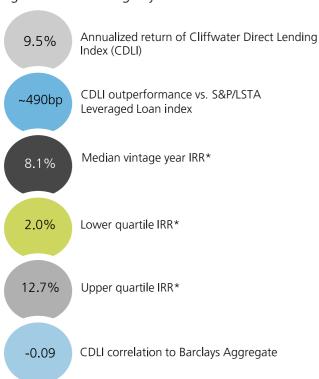
900bps or higher for subordinated or mezzanine debt. This compares with the historical average spread of 260bps earned above LIBOR/SOFR through publicly traded leveraged loans.

- Using the Cliffwater Direct Lending Index (CDLI) as a proxy for private direct lending, the direct lending strategy produced annualized total returns of 9.5% between 2005 and 2021, compared with 4.6% for the S&P/LSTA Leveraged Loan Index.
- Adding direct lending to a portfolio can shorten an investor's "J-curve" (illustrating the initial contribution then distribution pattern of private market investing) given that funds typically charge fees based on invested capital rather than committed capital, have shorter investment horizons, and make periodic interest payments that provide an earlier return of capital.
- Key risks include credit quality, illiquidity, leverage, portfolio concentration, limited control, and high fees.

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Fig. 1: Direct lending key statistics



*Reflects Pitchbook data for vintage year IRRs between 2010 and 2018. Lower and upper quartile IRRs reflect minimum and maximum values across vintage years, respectively. Source: CDLI based on historical data between 2005 and 2021 using Cliffwater data, UBS estimates. Data as of August 2022.

What does the direct lending strategy do?

Direct lending currently has over USD 500 billion in assets under management (AUM), having grown from 0.5% of private markets AUM in 2007 to 5% in 2021. The direct lending strategy is defined as the provision of a loan originated by a non-bank lender. Returns are primarily driven by a floating-rate coupon determined by a spread above a base LIBOR/SOFR rate.

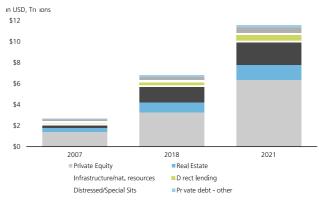
Target investments

- Direct lending borrowers are typically middle-market companies that are below investment grade in credit quality and are underserved by banks, given that banks typically target larger loans and borrowers.
- Potential deals are often sourced from the direct lending fund's proprietary network. Fund managers can screen out borrowers based on desired characteristics, including leading market positions with barriers to entry, defensive and recurring cash flow, and strong management.

- Fund managers can arrange protection provisions including covenants and collateral. Covenants ensure borrowers maintain debt ratios within a predetermined rate, while collateral provides liquidation value to back up the loan in case of a default.
- Loan proceeds can go toward an acquisition, refinancing
 of existing debt, dividend recapitalization (i.e. borrowing
 to pay a special dividend to investors), or general
 corporate use. Borrowers can be owned by a private
 equity firm (sponsored) or not (unsponsored).

Fig. 2: The private market industry has grown rapidly in the last decade

With over USD 500bn, direct lending represents 5% of total private markets $\ensuremath{\mathsf{AUM}}$



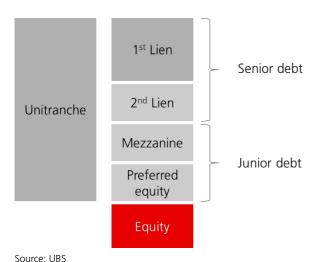
Source: Pitchbook. Total exposure as of year-end. Data as of August 2022.

Capital structure, leverage, and holding period

Returns can vary depending on how much leverage the fund employs. Yields differ based on the loan's position in a company's capital structure.

- A loan's position in the capital structure is categorized as first-lien, second-lien, or subordinated debt. Firstand second-lien debt have the highest claim to interest payments and collateral, while subordinated debt ranks junior to first- and second-lien debt. Subordinated, or mezzanine, debt sits between senior debt and equity.
- Some funds offer a unitranche structure that combines senior and subordinated debt
- Direct lending strategies focus on the senior (firstand second-lien) part of the capital structure, though exposure to subordinated tranches can enhance returns.
- However, subordinated debt carries higher risk, including lower prioritization for cash flows compared with senior tranches, the lack of collateral backing the loan in case of a default, and interest payments that can be deferred. These interest payments are added onto the principal amount and paid at maturity, a feature known as payment-in-kind (PIK).

Fig. 3: Illustration of borrower capital structure Direct lending funds can target various debt tranches



leveraged loans

Fig. 4: Illustration of sample yields
Private lending can provide attractive yields above publicly traded

14% L+980bp 1+790bc L+420bp L+260bp 6% 4% 2.9% 2% 0% Libo Broad Direct lending, Direct lending, Mezzanine syndicated 1st lien 2nd Lier leveraged loan

Note: LIBOR and broad syndicated leveraged loan data calculated based on averages between 2005 and 2021. Direct lending and mezzanine based on UBS estimates. Actual yields may differ from illustrations above. Source: Federal Reserve, S&P LCD, UBS.

- Yields earned are described as a spread above a base LIBOR/SOFR rate. Illustrative spreads above LIBOR/ SOFR are 400–500bps for first-lien loans, 700–800bps for second-lien loans, and 900bps or higher for subordinated or mezzanine debt. This compares to the historical average spread of 260bps earned above LIBOR/ SOFR through publicly traded leveraged loans.
- Senior direct loans can have amortizing features, which allow for repayment of principal along with interest. By contrast, bullet loans repay the entire principal at the end of the loan's term.
- Origination and prepayment penalty fees can provide an additional source of return on top of yield. For mezzanine debt, the total return can be enhanced with equity-like participation in the form of warrants or options convertible to equity features.
- The typical life of a direct loan is around 3–5 years, while the life of a fund ranges from 6–8 years with one-

- year extensions. In recent years, managers have adopted open-ended fund structure offering better liquid terms.
- Active portfolio construction and risk management incorporate diversification, prudent positioning sizes, and ongoing monitoring of borrowing companies.

Sources of direct lending valueadd

Direct lending funds aim to generate attractive yields and limit credit losses for investors. Fund managers look to add value through their sourcing, due diligence, deal structuring, and risk management capabilities.

- Extensive sourcing network: Direct lenders that have an extensive network of private equity sponsors or company management can cast a wider net of opportunities, allowing a higher degree of selectivity. Completed deals set up a base for repeat borrowers, reducing friction costs.
- Industry/regional specialization: Due to the idiosyncratic nature of the types of borrowers targeted by direct lenders, funds that specialize and understand the dynamics within a sector or region can build stronger sourcing relationships, aid in credit analysis, and facilitate deal customization. Importantly, experience with and understanding of each country's laws enhance the due diligence process.
- Due diligence skills: Rigorous fundamental credit analysis and due diligence lie at the core of screening out risky companies and compiling a pool of strong borrowers. Private company credit analysis can be more robust than that of public company analysis, as direct lending funds typically obtain access to financial information in a more updated and transparent manner.
- Employ leverage: While leverage can be a source of risk, successful managers can skillfully deploy leverage to enhance returns.
- Structuring and restructuring expertise: Successful negotiation for terms such as maintenance covenants, collateral, board observation rights, and call protections can provide structural protections for investors. Upon default, having dedicated legal and operational resources to manage a company through bankruptcy can aid in extracting maximum recovery value.
- **Stringent risk monitoring process:** A tight risk-monitoring process can proactively flag troubled credits and limit losses in the portfolio.

How does direct lending differ from syndicated leveraged loans?

Given that traditional investors are more familiar with publicly traded leveraged loans, we highlight comparisons between leveraged loans and direct lending.

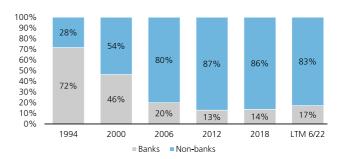
- Similarities include: senior position in the capital structure, floating rate coupon, and non-investment-grade borrowers.
- On origination, leveraged loans are underwritten by an arranger (usually a bank) on behalf of multiple lenders, while direct lending involves a bilateral negotiation between the lender (private fund) and the borrower.
- With bilateral negotiation, direct lending terms can be structured with potentially stronger protections and more detailed financial reporting. Leveraged loans are underwritten with standardized documentation, while direct lending terms can be customized to both the lender's and the borrower's specifications.
- Key benefits to borrowers using direct lending as opposed to syndicated loans include speed of execution, structural flexibility (unitranche, first- and second-lien, etc.), and one-stop-shop convenience.
- Syndicated leveraged loans are typically issued to larger borrowers, while direct lending focuses on smaller, middle-market companies. Investors in leveraged loan mutual funds and ETFs typically own syndicated leveraged loans as the underlying investments.
- Leveraged loans are usually syndicated and distributed to other banks or investors, while direct lending funds hold onto the loan and are much more illiquid. Leveraged loans can trade on the secondary market and can have a more volatile investment profile.

How has bank disintermediation provided an opportunity for direct lending?

- Industry consolidation has reduced the number of US banks (as measured by FDIC-insured institutions) by about half between 2000 and 2021, with various middle-market lenders vanishing and larger banks being left to service larger borrowers.
- After the global financial crisis, increased regulation in both the US (Dodd Frank, Leveraged Lending Guidance) and Europe (Basel III) have restricted lending activity and expanded demand for non-bank or alternative lenders such as private credit funds.
- Although the European direct lending market is less mature than that of the US, dynamics have followed a similar pattern of bank consolidation and restrictive

regulation. Today, banks account for 20% of European syndicated loans, compared with 17% in the US, indicating continued potential for market share gains for European non-bank lenders.

Fig. 5: Banks' share of participation in US syndicated leveraged loan market



Source: S&P LCD. Data as of August 2022.

Fig. 6: Banks' share of participation in European syndicated leveraged loan market



Source: S&P LCD. Data as of August 2022.

Performance analysis

In this section, we analyze performance in two ways: vintage year internal rate of return (IRR) of direct lending funds, and time-weighted returns of US business development companies (BDCs).

Vintage year IRR is the standard measure for private market performance, which reflects net cash flows from funds incepted in the reference year.

- When observing vintage year IRR performance from Pitchbook (a widely followed data provider in the private market industry), median vintage year IRRs were 8.1% from 2010–2021.
- We observe a wide range of IRRs for each vintage year, highlighting the importance of manager selection when considering direct lending strategies.

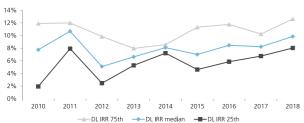
Given the limited history of direct lending data in Pitchbook, we supplement the above with the Cliffwater Direct Lending Index, which provides performance of over 8,000 direct loans originated and held by US BDCs. BDCs are exchange-

traded vehicles investing in private non-syndicated middlemarket debt, and therefore reflect the loan characteristics held by direct lenders in a time-weighted return series comparable with public market investments.

- Between 2005 and 2021, the CDLI produced an annualized total return of 9.5%, compared with 4.6% for the S&P/LSTA Leveraged Loan Index and 6.7% for the BofA US High Yield Index. On a gross basis, excluding fees or leverage, this represents a 200–490bps return premium versus publicly traded non-investment-grade fixed income, primarily driven by higher yields. We note that the CDLI includes both senior and subordinated debt.
- Between 2005 and 2021, annualized CDLI volatility is 3.6%, compared with about 10-11% for both the S&P/ LSTA Leveraged Loan and BofA US High Yield indices. We note that the use of less frequent and subjective valuation standards to assess illiquid assets suppresses volatility on the CDLI.
- While performance may not be directly comparable given the difference in valuation standards versus public markets, the CDLI outperformed on a risk-adjusted basis, with the CDLI return-risk ratio at 2.57 versus 0.46 for the S&P/LSTA Leveraged Loan index and 0.69 for the BofA US High Yield index.
- We note the CDLI tracks underlying loan performance within BDCs, but not the BDC vehicles themselves. Investors obtaining exposure to private debt through BDC vehicles can experience higher volatility as some are listed on an exchange, similar to that of a closed-end fund.

Fig. 7: Direct lending IRR dispersion per vintage year 2010–2018

High level of dispersion within each vintage year highlights importance of manager selection



Source: Pitchbook, UBS. Note: Given most funds take a few years for performance to settle, performance of recent vintage years may be less meaningful. Data as of August 2022.

Table 1: Annualized return and risk, 2005–2021

	Ann. Return	Ann. Vol	Return /Risk
CDLI	9.5%	3.6%	2.60
S&P/LSTA Leveraged Loan Index	4.6%	10.0%	0.46
BofA US High Yield	6.7%	10.6%	0.63

Source: Cliffwater, S&P, UBS. Data as of August 2022.

Direct lending and the business cycle

- Direct lending returns are modestly tied to economic cycles, with corporate earnings growth, low default rates, and higher leveraged buyout activity (given that buyouts utilize debt in transactions) supportive of loan demand and performance.
- Direct lending can provide stable cash flows in benign economic environments given that loans are typically senior in the capital structure, which provides cash flow priority and collateral in case the borrower defaults.
- However, later in the credit cycle, transactions can reflect heightened risk to the lender via higher borrower leverage multiples (debt-to-EBITDA, a proxy for debt in relation to cash flows), lower interest coverage ratios (EBITDA-to-interest costs), and looser lender protections.
- Weakening credit conditions can lead to higher default rates and portfolio losses, particularly for subordinated or mezzanine debt.
- Using S&P LCD data on broadly syndicated leveraged loans as a proxy for direct lending, default rates (calculated as last 12 months' dollar defaults divided by total outstanding) have averaged around 2.8% historically between 2005 and 2021. Recovery rates for first lien loans lied around 75 cents on the dollar over the past decades.
- With interest payments tied to LIBOR/SOFR, direct lending strategies can help protect against interest rate
- Opportunistic managers can move between senior and subordinated tranches in the capital structure. Investing in subordinated tranches can increase portfolio risk in later stages of the business cycle, but can add to returns during the expansion phase.

Direct lending in your portfolio

- Direct lending can improve an investor's cash flow and total return profile above that offered by traditional fixed income investments given the strategy's exposure to the middle market, direct origination, flexible capital structure, and leverage.
- Direct lending may exhibit lower volatility than publicly traded leveraged loan and high yield funds. Public vehicles are subject to inflows and outflows, which may have no connection to underlying loan fundamentals, whereas direct investments are usually held to maturity.
- Direct lending origination can establish stronger lender protections, greater influence over terms and structures, and closer monitoring of individual credits versus broad syndicated loan origination.
- Exposure to middle-market companies can improve diversification by adding idiosyncratic exposure to companies often not traded on public markets.
- Adding direct lending to a portfolio can shorten an investors` "J-curve" given that direct lending funds: 1) typically charge fees on invested capital rather than committed capital as private equity does; 2) have a shorter investment horizon of about three years compared with 4–5 years for private equity; and 3) make periodic interest payments that provide earlier return of capital.

Table 2: Correlation versus CDLI, 2005–2021

Barclays Aggregate	-0.09
S&P/LSTA Leveraged Loan Index	0.78
BofA US High Yield	0.75

Source: Cliffwater, S&P, Bloomberg, UBS. Data as of August 2022

Risks

- Direct lending exposes portfolios to idiosyncratic credit risks given the nature of middle-market borrowers, which typically are below investment grade and have fewer business lines, less resources, and more customer concentration compared with larger borrowers.
- Investing lower in the capital structure increases credit risk given subordination in payments or collateral.
- Direct lending funds are illiquid in nature and require multi-year lock-up periods, with the average fund life ranging from 6–8 years. We note that in recent years, managers have adopted open-ended fund structure offering better liquid terms. Monthly or quarterly investor and fund level liquidity restrictions may still apply.

- Private direct lending is still a relatively young asset class (particularly in Europe) and performance has yet to be fully tested through various credit cycles.
- Direct lending funds tend to have concentrated positions due to time intensity in sourcing and originating credits.
- Leverage usage can enhance or detract from portfolio returns. Fees are higher than traditional leveraged loan vehicles.
- Higher interest rates can increase leverage costs or be detrimental to the health of the underlying borrowing companies.
- Increased competition from other direct lenders, BDCs, collateralized loan obligations (CLOs), and hedge funds can reduce loan spreads and lead to a deterioration of lending standards.

Appendix

Selected definitions

- **Correlation**: the degree to which the fluctuations of one variable are similar to those of another.
- **Leverage**: the use of borrowed capital or instruments to increase the potential return (but also potential losses) of an investment, a simple example is a mortgage used in real estate transactions.
- **Leveraged buyout funds**: a private equity strategy using borrowed capital to gain control of a company.
- **Illiquidity premia**: the premium that an investor can demand depending on how difficult it is to convert the underlying security can be converted to cash.
- **Multiples**: a term that measures some aspect of a company's financial well-being, determined by dividing one metric by another metric. The metric in the numerator is typically larger than the one in the denominator, because the top metric is usually supposed to be many times larger than the bottom metric.
- **Multiple expansion**: describes the way a particular valuation metric increases to reflect a higher value assigned to an underlying investment.
- **Value add**: describes the operational, business, or structural improvements private market managers seek through underlying portfolio investments.
- **Cash flows**: cash flow is the net amount of cash and cash-equivalents being transferred into and out of a fund.
- **Public Market Equivalent (PME):** a method that converts public market returns to a benchmark that can be compared to private market returns.
- **IRR**: a return method used to evaluate private market investments and reflects the discount rate at which the present value of an investment's future cash flow equals the cost of the investment.
- **TVPI (Total Value to Paid In**): a return metric that describes the total capital distributed back to the investor + residual value left in the fund divided by invested capital.
- **Exit**: the time period in which an investor can convert holdings into cash to be liquidated over a designated period of time.
- **IPO**: the first sale of stock by a private company to the public. Also referred to as an "initial public offering."
- **Standard deviation**: a measure of the degree to which individual values vary from the distribution mean. The higher the number, the greater the risk.
- **Dry powder**: refers to cash reserves kept on hand by a private markets firm to cover future obligations, purchase assets or make acquisitions.
- **J-curve**: illustrates a period of initial negative cash flows (contributions) towards positive cash flows (distributions back to the investor) over a period of time.
- **Sponsor**: the general partner in a limited partnership who organizes and signs up investors.
- **Secondary buyout**: describes a sale between private market firms
- **Trade sale/strategic sale**: describes a sale of a business to another business operating in a similar industry.
- **Senior debt**: loans or debt securities that have claim prior to junior obligations and equity on a corporation's assets in the event of liquidation.

- **Junior debt**: loan or security that ranks below other loans or securities with regard to claims on assets or earnings. In the case of borrower default, creditors who own subordinated debt won't be paid out until after senior debt holders are paid in full.
- **Vintage year**: is the year in which the first influx of investment capital is delivered to a project or company. This marks when capital is contributed by venture capital, a private equity fund or a partnership drawing down from its investors.
- **M&A**: mergers and acquisitions is a general term that refers to the consolidation of companies or assets through various types of financial transactions. M&A can include a number of different transactions, such as mergers, acquisitions, consolidations, tender offers, purchase of assets and management acquisitions.
- **Blind pool**: money collected from several people which is put into a fund and invested for their profit. It is left unspecified which properties are to be acquired.
- **Unit economics**: a measure of direct revenues and costs on a unit basis for a particular business model.
- **Minority stake**: reflects a non-controlling interest that is less than 50% of a particular entity.
- **Spin off**: describes the separation of an independent company from a larger parent.
- **Control provisions**: designed to provide a level of influence over significant operational and business matters.
- **Redemption rights**: gives investors the right to force a company to repurchase their shares after a period of time.
- **Idiosyncratic risk**: risk associated with a narrow set of factors pertaining to a particular company. Risk that has little association with overall market risk.
- **Tag-along provisions**: provides a minority shareholder the right to join in on a sale of a company that is initiated by a majority shareholder.

Non-Traditional Assets

Non-traditional asset classes are alternative investments that include hedge funds, private equity, real estate, and managed futures (collectively, alternative investments). Interests of alternative investment funds are sold only to qualified investors, and only by means of offering documents that include information about the risks, performance and expenses of alternative investment funds, and which clients are urged to read carefully before subscribing and retain. An investment in an alternative investment fund is speculative and involves significant risks. Specifically, these investments (1) are not mutual funds and are not subject to the same regulatory requirements as mutual funds; (2) may have performance that is volatile, and investors may lose all or a substantial amount of their investment; (3) may engage in leverage and other speculative investment practices that may increase the risk of investment loss; (4) are long-term, illiquid investments, there is generally no secondary market for the interests of a fund, and none is expected to develop; (5) interests of alternative investment funds typically will be illiquid and subject to restrictions on transfer; (6) may not be required to provide periodic pricing or valuation information to investors; (7) generally involve complex tax strategies and there may be delays in distributing tax information to investors; (8) are subject to high fees, including management fees and other fees and expenses, all of which will reduce profits.

Interests in alternative investment funds are not deposits or obligations of, or guaranteed or endorsed by, any bank or other insured depository institution, and are not federally insured by the Federal Deposit Insurance Corporation, the Federal Reserve Board, or any other governmental agency. Prospective investors should understand these risks and have the financial ability and willingness to accept them for an extended period of time before making an investment in an alternative investment fund and should consider an alternative investment fund as a supplement to an overall investment program.

In addition to the risks that apply to alternative investments generally, the following are additional risks related to an investment in these strategies:

- Hedge Fund Risk: There are risks specifically associated with investing in hedge funds, which may include risks associated with investing in short sales, options, small-cap stocks, "junk bonds," derivatives, distressed securities, non-U.S. securities and illiquid investments.
- Managed Futures: There are risks specifically associated with investing in managed futures programs. For example, not all managers focus on all strategies at all times, and managed futures strategies may have material directional elements.
- Real Estate: There are risks specifically associated with investing in real estate products and real estate investment trusts. They involve risks associated with debt, adverse changes in general economic or local market conditions, changes in governmental, tax, real estate and zoning laws or regulations, risks associated with capital calls and, for some real estate products, the risks associated with the ability to qualify for favorable treatment under the federal tax laws.
- Private Equity: There are risks specifically associated with investing in private equity. Capital calls can be made on short notice, and the failure to meet capital calls can result in significant adverse consequences including, but not limited to, a total loss of investment.
- Foreign Exchange/Currency Risk: Investors in securities of issuers located outside of the United States should be aware that even
 for securities denominated in U.S. dollars, changes in the exchange rate between the U.S. dollar and the issuer's "home" currency
 can have unexpected effects on the market value and liquidity of those securities. Those securities may also be affected by other
 risks (such as political, economic or regulatory changes) that may not be readily known to a U.S. investor.

Appendix

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