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A SURVEY OF PRIVATE DEBT FUNDS

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ABSTRACT

Despite its large and increasing size in the U.S. and Europe, there is relatively little research on the private debt (PD) market, particularly compared to the bank and syndicated loan markets. Accordingly, in this paper, we survey U.S. and European investors with private debt assets under management (AuM) of over $300 billion. These investors are primarily direct lending funds. We ask the general partners (GPs) how they source, select, and evaluate deals, how they think of private debt relative to bank and syndicated loan financing, how they monitor their investments, how they interact with private equity (PE) sponsors and how they view the future of the market. The respondents provide primarily cash flow-based loans and believe that they finance companies and leverage levels that banks would not fund. The direct lending funds target unlevered returns that appear high relative to their risk. They use leverage in their funds, but appreciably less than banks and collateralized loan obligation funds (CLOs). They use and negotiate for both financial and incurrence covenants to monitor their investments. The presence of PE sponsors helps them lend more and craft more effective covenants. U.S. and European funds are similar on many dimensions, but the European funds rely less on PE sponsors and compete more with banks. Overall, the private debt market is both different from, but shares characteristics with the bank loan and syndicated loan markets.

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1. Introduction

After the Great Financial Crisis triggered tightening of banking regulation, corporate lending has increasingly migrated out of the banking sector. Private debt (PD) funds and collateralized loan obligation funds (CLOs) are two of the major types of nonbank intermediaries that have filled this gap.[1] While there is no standard definition of private debt, we refer to private debt funds as investors that raise capital commitments through closed-end funds (like private equity) and make senior loans (like banks) directly to, mostly, middle-market firms.[2] CLOs, in contrast, invest in syndicated loans that are typically arranged by a large commercial bank. According to the 2022 Preqin Global Private Debt Report, private debt is projected to become the second-largest private capital asset class by 2023, following private equity (PE). While many researchers have studied how banks, PE funds, and CLOs affect corporate finance, the private debt market has received less attention.

What are private debt funds and what do they do? What do they invest in? How do they compare with banks, CLOs and PE funds? This paper provides some answers to these questions by surveying 38 U.S. and 153 European private debt investors with combined assets under management (AuM) of at least $136 billion and €180 billion, respectively. Their funds represent a meaningful percentage of the private debt universe. The predominant strategy of the funds in our sample is direct lending where the loan is bilaterally negotiated between a borrower and a single lender (or a small group of lenders) with the expectation that the lender holds the loan to maturity.[3] Roughly 25% of the U.S. respondents and 40% of the European respondents in our sample are affiliated with a PE firm; 45% of the U.S. respondents have a Business Development

[1] Fintech firms and finance companies also appear to have increased. See Gopal and Schnabl (2022).
[2] National Center for the Middle Market (2017) defines middle-market firms as firms with annual revenue between $10 million and $1 billion.
[3] This contrasts with most bank-originated loans that are syndicated to and subsequently traded in the secondary market among institutional investors.

Company (BDC)[4] although they usually also have other funds. Most of our results are similar for the different types of direct lenders. We note when they differ.

Our survey is timely because despite its explosive growth in recent decades, the private debt market remains relatively understudied.[5] Munday et al. (2018) study the performance of private debt funds. They report that private debt funds that focus on direct lending have outperformed the leveraged loan and high-yield bond markets on a risk-adjusted basis since 2004. Davydiuk et al. (2021) study direct lending to middle-market firms by BDCs. They find that BDCs charge rates on their direct loans that are at least 4% higher than on bank loans. Loumioti (2019) compares loans issued by commercial banks and those by private debt funds to private, non-PE-backed firms. Chernenko et al. (2022) compare contractual terms between bank- and nonbank-led loans to publicly-held middle-market firms. They find that firms with negative EBITDA and higher debt are more likely to borrow from nonbanks and pay higher interest rates. Their non-bank lenders, however, are primarily finance companies and include a small fraction of private debt funds. Jang (2022), in a complementary paper to this one, studies direct loans to PE-led middle-market buyouts (which make up the lion's share of the private debt market by direct lenders) and compares those loans to bank syndicated loans to both PE-backed and public middle-market firms. He finds that direct lenders charge higher interest rates, lend against cash flow to smaller firms, and provide more flexibility in distress than banks. This is consistent with private debt funds expanding capital to firms to which banks find too risky to lend. Table A summarizes some key aspects of the different types of corporate lenders.

[4] Business Development Companies are a type of closed-end, private debt fund created to provide loans to middle-market companies. They are subject to particular regulatory and tax treatments, similar to REITs. In particular, they must invest at least 70% of their assets in private or public U.S. firms with market values of less than $250 million. See Davydiuk et al (2021) for more details.

[5] Erel and Inozemtsev (2022) provide a recent review of the literature on the role of nonbank lenders.

While these studies have broadened our understanding of the private debt market, there still is much that is not known about private debt funds, particularly compared to other types of intermediaries (banks, PE funds, and CLOs). Accordingly, in this paper, we ask a broad set of questions to a meaningful group of private debt investors or general partners (GPs), most of whom specialize in direct lending. We loosely follow the framework for PE investors presented in Kaplan and Stromberg (2009) and utilized in the Gompers et al. (2016 and 2022) surveys of PE GPs and Gompers, Gornall, Kaplan and Strebulaev (2020 and 2021) surveys of venture capital (VC) GPs. When possible, we compare the answers of the private debt investors to those of the PE and VC GPs.

Our survey also is of interest because it was conducted in August and September of 2021 before the volatility and economic headwinds of 2022. It allows us to understand the extent to which private debt investors were prepared for or concerned about economic instability.

We first ask how the GPs source, select, and evaluate deals. U.S. investors source largely from sponsored deals while European investors source both from sponsors and independently. In selecting deals, U.S. debt investors prioritize stable cash flows while European debt investors, consider management, the business and cash flows more equally – more like PE investors. The cash flow result for the U.S. is different from that of Chernenko et al. (2022), but consistent with Jang (2022). It also is likely related to the U.S. funds' reliance on PE sponsored deals. Because PE sponsors are actively involved in firm operations and governance (Gompers et al., 2016), their presence may mitigate lenders' concern over mismanagement.

Both U.S. and European private debt investors target unlevered gross returns that imply substantial premiums over the comparable risk-free Treasuries and BB-rated bonds. If these are indeed expected and realizable returns, they explain why the investors (limited partners) in the

private debt funds find those investments attractive. This result is consistent with the higher rates found by Munday et al. (2018), Chernenko et al. (2022) and Jang (2022). We also note that private debt funds generate these returns using appreciably less leverage than that used by banks and CLOs. In the conclusion, we discuss the implications of that result for the debate concerning the appropriateness of bank leverage.[6]

We also ask the GPs how they compare private debt relative to bank financing. Private debt investors believe that they provide financing to companies that banks would not otherwise provide. They also provide more leverage than most banks would allow. They attribute banks' reluctance to firms' small size, lack of accounting standardization/transparency, lack of commitment and lack of tangible assets. This is consistent with the existing evidence in Ares (2018), Chernenko et al. (2022), Davydiuk et al. (2021), Jang (2022) and Loumioti (2019).

Second, we ask how the GPs monitor their portfolio companies. Like high-yield leveraged loan investors (e.g. CLOs), they negotiate for and make use of negative or incurrence covenants.[7] Like banks, the private debt funds negotiate for and make use of (cash flow-based) financial covenants. Private debt loans, therefore, appear to incorporate a mix of traditional bank loans and covenant-lite leveraged loans by both ex-ante restricting borrowers' actions through negative covenants and still influencing borrowers' behaviors ex-post through renegotiation of financial covenant violations. They also use other methods used by banks to monitor their investments – periodic meetings and updates of financial statements – but appear to monitor them more frequently than banks do.

Third, given the importance of PE sponsors to the private debt market, we ask the private debt investors about their interactions with the sponsors. European and, particularly, U.S. debt

[6] See Admati et al. (2014) and DeAngelo and Stulz (2015).
[7] See Brauning et al. (2022).

investors find their interactions with the PE sponsors to be advantageous. The sponsors help with deal quality, with deal sourcing and in reducing information costs (through repeated interactions). These benefits allow the private debt lenders to lend more (at higher multiples) and to craft more effective covenants. These advantages are consistent with the benefits of leveraged buyouts described by Jensen (1989).

Finally, we survey the GPs' outlook on the current and future environment of the private debt market. At the time of the survey, both U.S. and European debt investors were very optimistic about the near-term and longer-term future of private debt investing. The U.S. investors were concerned with the influx of money coming from existing and new funds. The European investors also were relatively more concerned with competition from banks.

Overall, the results in the survey suggest that private debt is both different from and shares characteristics with the traditional bank loan and leveraged loan markets. Like the earlier studies, the results are strongly consistent with private debt funds lending to firms that banks find too risky and charging higher interest rates to do so. Banks provide both cash flow-based and asset-based loans, but historically manage risk by providing large-capitalization firms with cash-flow based loans in syndicated deals while limiting smaller, riskier firms to asset-based loans.[8] Private debt funds, in contrast, are mainly cash flow-based lenders to the latter types of firms. Hence, so long as the business generates stable cash flows, private debt funds appear to structure their investments with risks that banks try to avoid – lack of accounting transparency, low tangible collateral value, and firm sizes too small to qualify for syndication.

The paper proceeds as follows. In section 2, we describe the sample. Section 3 describes report private debt funds source, select, and evaluate deals as well as how they think of private

[8] See Lian and Ma (2021).

debt relative to bank financing. In section 4, we report how private debt funds monitor their portfolio companies and resolve distress. Section 5 considers how private debt funds interact with PE funds. In section 6, we report the private debt funds' outlook. In section 7, we summarize our results and discuss their implications.

2. Sample and Summary Statistics

We obtained potential survey participants in three ways. First, for U.S. respondents, we received introductions from an investment bank that works with many private debt investors. Second, for European investors, we received introductions from the European Investment Fund (EIF) which is part of the European Investment Bank (EIB) group.[9] Third, we used our private network.

We conducted the survey from August to September 2021. We sent several e-mail reminders during the data collection process. Moreover, we called several private debt fund managers by phone to convince them to take part in the survey.

We obtained survey responses from private debt investors from 38 U.S. and 119 European firms with combined fund AuM dedicated to private debt of at least $136 billion and €180 billion as of 2021, respectively.[10] The debt investors are the general partners (GPs) or investment decision makers for these funds. Table 1 reports the responses and notes that most of the respondents filled out the entire survey. Panel A of table 2 and figure 1 report the distribution of the firms' total AuM as well as AuM dedicated to private debt. Our sample represents more than $300 billion in AuM in private debt. To put these numbers in perspective,

[9] The EIF is a specialist provider of risk finance with a European focus. Shareholders of the EIF are the EIB, the European Union, which is represented by the European Commission, and a number of of public and private banks and financial institutions. See https://www.eif.org/who_we_are/index.htm (accessed July 17, 2022).
[10] We obtain complete answers from 34 and 147 of these respondents, respectively.

as of 2019, Preqin estimated the global Private Debt AuM to be around $812 billion.[11] Our sample, therefore, represents a meaningful fraction, likely at least 35%, of the private debt market.

Figure 2 indicates that virtually all the U.S. funds are primarily direct lenders, i.e., their primary strategy is to make direct loans to corporate borrowers. 80% of the European funds are primarily direct lenders with the others focusing somewhat on special situations, real estate debt and venture debt. Our results are qualitatively similar when we use only those European funds that are primarily direct lenders. Accordingly, we believe that both samples should be considered representative of direct lenders to corporate borrowers.

Panel A of table 2 and figure 3 also report that our survey respondents are experienced. A majority indicated that they have at least 15 years of financial industry experience and 12 years in the private debt industry. The U.S. GPs tend to have more experience in private debt than the European GPs, with a mean number of years of experience in private debt of 12.8 vs 9.9, respectively. Given their extensive years of experience and management of a meaningful portion of the global private debt AuM, we believe that the answers to this survey are likely to be representative of the entire private debt market.

The private debt funds obtain their capital from sources similar to those of PE funds. Figure 4 shows that their biggest capital suppliers or limited partners (LPs) are insurance companies, pension funds, and high net worth individuals.

We also asked the investors how leveraged they were. Panel A of table 2 and figure 5 show that U.S. private debt funds tend to rely on bank debt at the fund level. 95% of the US funds use non-zero leverage. The leverage is an average of 40% (median of 25%) of total

[11] Preqin Global Private Debt Report 2022.

capital, but generally does not exceed 60% of total capital (13% of funds). This is significantly less true of European funds. Leverage averages only 11% of total capital with 67% of funds not using any leverage.

Private debt fund leverage, therefore, even for the U.S. funds, is significantly lower than and contrasts with that of bank and other non-bank lenders such as CLOs and finance companies. Banks are normally more levered, predominantly with deposits and short-term debt. And CLOs, while they share a similar investor base as private debt funds, are usually highly leveraged with equity financing rarely exceeding 20% of total committed capital. Finance companies are primarily financed with long-term debt (Gopal and Schnabl, 2021). On the other hand, as table 2 shows, most private debt funds in both geographies, use equity financing that exceeds 45% of total capital.

We also classify our respondents by whether they are affiliated with a PE firm and, for U.S. respondents, whether their firm has a BDC. (There are no BDCs in Europe.) Panel B of table 2 divides the European funds by PE affiliation; panel C divides U.S. funds by PE affiliation; and panel D divides U.S. funds by BDC.

The PE and non-PE affiliated funds do not differ markedly. Just under 40% of the European funds are affiliated with a PE firm. European PE-affiliated funds are not meaningfully or significantly different from the non-PE funds except that they are modestly larger. Similarly, just under 25% of the U.S. funds are affiliated with a PE firm. The PE affiliated funds are somewhat larger and use less leverage, but do not differ significantly on any of those characteristics in the table.

In the U.S. sample, 45% of the funds are BDCs. The BDCs are somewhat different from the non-BDCs in that they are (significantly) larger with more private debt experience. They also target modestly (but not significantly) higher leverage.

In most instances in the results that follow, we do not find meaningful differences based on PE-affiliation or BDC-affiliation. When we do, we report them in the text.

3. Pre-investment

3.1 Sourcing, selecting, and evaluating

In this subsection, we study how private debt funds source, select, and evaluate their deals. To source deals, private debt funds rely heavily on PE sponsorship, especially in the US. Table 3 reports that U.S funds invest significantly greater fraction of capital in PE-sponsored deals, 78%, compared to European funds at 42%. The results are similar for PE- and non-PE-affiliated funds as well as for BDCs and non-BDCs. Maintaining relationships with PE sponsors for a constant stream of deal flow, therefore, appears to be at least as important as the ability to self-originate a deal and particularly important for U.S. investors.

Despite their heavy reliance on PE sponsors for deal flow, private debt funds spend substantial resources on pre-investment screening. We asked the U.S. investors how much time they spent on due diligence. The average U.S. private debt investor spends 100 hours conducting due diligence per deal. The 100 hours is a similar order of magnitude to the due diligence reported by VC firms in Gompers et al. (2020).[12]

[12] The BDC-affiliated funds report spending significantly less time on due diligence, roughly half as much as the non-BDC funds.

Outsourcing some due diligence to a third party is a more common practice among the European funds. Table 4 reports that 58% (32%) of the European (US) private debt funds outsource due diligence to third parties such as accountants, consultants, and lawyers.

We next asked how the private debt funds evaluate their deals. Figure 6 indicates that US debt funds consider track record / stable cash flows as the most important criterion by a wide margin when evaluating a deal. The company's industry, management team and competitive position are next in importance.

The criteria chosen by the U.S. private debt investors are related to, but different from the criteria cited by the PE sponsors surveyed by Gompers et al. (2022). Those sponsors rated competitive position as most important, followed by the management team. Positive cash flow and the ability to add value came next. It is not surprising that direct lenders would care more about stable cash flows.

European investors rank the management team first, followed closely by stable cash flows and business model / competitive position. These criteria put them somewhat closer to the PE sponsors than to the U.S. private debt investors. This, along with their higher propensity to outsource due diligence, can be attributed to the European investors' lower reliance on PE sponsored deals. To the extent that PE sponsors regularly engage in operational and governance engineering (Gompers et al., 2016), their presence can mitigate lenders' concern over mismanagement. Further, anecdotal evidence from industry practitioners suggests that private debt funds benefit from accessing and reviewing PE sponsors' due diligence materials when investing in their deals.[13]

[13] See the interview with Twin Brook Capital Partners (https://www.twincp.com/wp-content/uploads/2017/09/Twin-Brook-Capital-Partners-QA-FINAL.pdf) and the report from Oaktree Capital (https://www.oaktreecapital.com/insights/insight-commentary/education/direct-lending).

Finally, table 6 reports the managers' gross target IRR, both unlevered and levered (using the bank debt described earlier). The mean unlevered target IRRs in Europe and the U.S. are similar at, respectively, 8.70% and 8.16%. At the time of the survey, the German 5-year bonds had interest rates of -0.7%; U.S. five-year Treasury notes had interest rates of roughly 0.8%; U.S. BB-rated bonds, which are unsecured and of longer duration, had rates of roughly 3.2%.

Gross unlevered target returns are the returns that investors model or underwrite their deals to. In other words, these are arguably their expected returns. The gross unlevered target IRRs are particularly interesting because they imply risk premiums, respectively in Europe and the U.S., of 9.4% and 7.36%. These are more like equity risk premiums (which are traditionally on the order of 6%) than bond risk premiums.

The gross levered target returns for the European and U.S. investors average, respectively, 9.55% and 11.18%, reflecting the fact that the U.S. investors use more leverage in their portfolios.[14] Again, these represent what appear to be even more substantial risk premiums above the corresponding BB-rated bonds. These returns also appear greater than those that would be expected on equity investments with a traditional equity risk premium of 6%.

Of course, net returns to LPs of private debt funds will be lower because of the fees charged. These are traditionally a 1% management fee and a carry or profit share of 15%. Cliffwater (2022) estimates this works out to an annual fee of roughly 3% which would still leave an equity-like risk premium.

Overall, then, in selecting deals, U.S. debt investors prioritize stable cash flows while European debt investors, more like PE investors, consider management, the business and cash

[14] In the U.S., there were no significant differences in targeted returns by PE- and BDC-affiliation. In Europe, PE-affiliated funds targeted modestly higher unlevered (9.25% versus 8.36%) and levered returns (10.43% versus 9.00%).

flows more equally. Both U.S. and European private debt investors target unlevered gross returns that imply substantial premiums over the comparable risk-free Treasuries and BB-rated bonds. If these are indeed expected and realizable returns, they explain why investors might find private debt funds attractive.

3.2 Portfolio company characteristics

Private debt managers in both geographies target profitable, modestly sized companies in a number of industries. Figures 7 and 8 report the managers' preferences for their portfolio companies by industry, size (by number of employees and sales), and profitability.

In both the U.S. and Europe, managers target the same top 5 industries: Healthcare and Life Sciences, High Tech (e.g. software/IT), Industrial/Manufacturing, Consumer Products, and Media and Telecommunications.

U.S. and European managers target firms of roughly similar size with the U.S. managers averaging $289 million in revenue and 1,026 employees and the European managers averaging €170 million in revenue and 797 employees. Both sets of managers also target firms with meaningful operating margins, averaging 27% and 25%, respectively. These are not negative EBITDA companies like those found by Chernenko et al. (2022) for publicly traded middle market firms in the U.S.

3.3 Loan characteristics

In this subsection, we consider how the private debt managers structure their debt investments by asking questions about debt characteristics (capital structure, facility type, purpose, size, maturity, and repayment schedule) and syndication.

Figure 9 indicates that the most common investment for both the U.S. and European funds is senior debt. For U.S. funds, unitranche debt – funding a company with just one class of debt – is the second most common investment and somewhat more so than in Europe. Junior debt investments (e.g. second lien debt and subordinated/mezzanine debt) are, more commonly used by the European funds. These differences may reflect the fact that almost all the U.S. funds are direct lenders compared to only 80% of the European funds. European investors' preference for junior debt investments may also be related to their being more like PE investors in their deal selection criteria.

Consistent with the emphasis on direct lending and senior debt, roughly 90% of the U.S. and 75% of the European respondents report that term loans are the most important debt type (in panel 2 of figure 9).[15] Revolving credit facilities, while secondary to term loans in terms of importance, are more frequently used among the U.S. funds, with 58% indicating it as the second most important loan type. European funds, on the other hand, tend not to provide revolvers. The private debt funds in both geographies rarely make asset-based loans. This differs from banks which specialize in provide revolving credit.[16]

Panel 3 of figure 9 shows that U.S. funds are primarily focused on buyout loans with secondary roles for recapitalizations and refinancings. This differs markedly from the debt purposes of European investors that are spread relatively evenly among buyouts, expansion and capital expenditure financing.

Panel 4 shows that the mean loan sizes are different, being markedly higher for the U.S. funds (mean of $226 million) than for the European funds (mean of €70 million). This is

[15] Term loans and revolving credit facilities are types of credit facility that are mostly used for senior debt.
[16] See Kashyap et al. (2002).

consistent with U.S. funds focusing more heavily on buyout transactions and moderately larger firms.

Panel 5 shows that both the U.S. and European funds typically provide loans with 5 to 7 years of maturity, with the European funds tending to provide at a bit shorter term (mean of 5.10 vs 5.48).

Panel 6 shows that U.S. funds are more likely to require some ongoing principal repayments using amortizing loans while European funds are more likely to use bullet payments and, therefore, less likely to require ongoing principal repayments. It would be interesting to understand the source of this difference.

Table 7 reports the results on debt syndication. We first ask the investors whether they ever syndicate a deal (extensive margin), and if so, then we ask the percentage of deals that they have syndicated (intensive margin). Roughly 44% (57%) of U.S. (European) survey respondents say that they do not syndicate deals. If they do, however, debt funds are more likely to syndicate with other debt funds than with banks; 44% (25%) of the U.S. (European) managers syndicate with other debt funds while 16% (19%) syndicate with banks. Among the funds that say they syndicate, European funds tend to have higher percentage of syndicated deals than U.S. funds in their portfolio; the mean percentage of syndicated deals are 30% and 37%, respectively for the U.S. and European funds.

The results in this section have several implications. The high prevalence of senior debt debt as well as the absence of asset-based loans indicate that private debt funds, both in the U.S. and Europe, resemble banks in their preference for priority rights over firms' cash flows. Furthermore, their preference for term loans also shows that they are willing to provide cash flow-based lending. This is interesting because it shows that smaller firms can access such

financing, not just large firms through bank-syndicated loans and publicly issued bonds (Lian and Ma, 2021). As we report further in Section 4, private debt fund's resemblance to banks also resonates in their use of covenants to monitor distress, a key function for control rights in senior debt.[17]

Yet, private debt funds' strong preference for term loans over revolving credit facilities and other asset-based lending as well as their low propensity to syndicate deals point to some key differences from finance companies and banks. Finance companies typically only provide asset-based loans (Gopal and Schnabel, 2021). Banks provide both cash flow-based and asset-based loans, but have historically managed risk by providing large-cap firms with cash-flow based loans in syndicated deals while limiting smaller, riskier firms to asset-based loans (Lian and Ma, 2021). On the other hand, consistent with Jang (2022), our survey results show that private debt funds provide cash flow-based term loans through direct lending deals to fund small firms on potentially risky buyouts and add-on acquisitions.

3.4 Private debt vs bank financing

To further understand the differences between private debt and bank financing, we explore the private debt managers' perceptions of the differences between private debt and traditional bank financing.

First, we asked the managers what percentage of their portfolio companies they believe would not have been able to get bank financing in the absence of their financing. This measures

[17] Typically, senior debt comes with the most restrictive covenant packages that give the lenders substantial amount of monitoring and control rights during distress situations to limit borrower's risk-shifting incentives. (e.g. Aghion and Bolton, 1992; Park, 2000)

the extent to which private debt funds compete with banks or provide capital to borrowers who are underserved by or cannot access banks.

While there is wide variation in the reported results, panel A of table 8 reports that private debt managers believe that roughly half of their portfolio companies would not have been able to get bank financing. Hence, managers in both the U.S. and Europe believe that their private debt funds provide capital to firms underserved by banks.

To try to disentangle the credit supply and demand side explanations for the rise of private debt, we ask two separate questions: first, why do the private debt managers think banks would not want to finance companies that are reliant on private debt; and second, why do the private debt managers think firms choose private debt over bank debt.

When asked (giving respondents multiple choice alternatives) why banks would not want to finance companies that are reliant on private debt, panel B of table 8 shows that at least 40% of both the U.S. and European respondents believe that the "firm size is too small for bank syndication," "firm has low amount of tangible assets as quality collateral," and "due diligence is messy due to less clean financials or a lack of sophisticated internal systems." All three of these reasons imply that private debt lenders believe they are better at evaluating or managing company cash flow risk than banks.

The majority of both the U.S. and European private debt investors report in panel C that they believe borrowers choose private debt over bank debt because private debt provides "higher leverage than banks are willing to support,"[18] a "more flexible covenant structure," and greater "certainty and speed of execution (versus a longer and less certain bank syndication process)."

[18] We acknowledge this explanation has a supply element as well as a demand element.

Almost 65% of U.S. respondents also felt that the expectation that a lender would hold the loan until maturity was attractive to portfolio companies.

These results suggest that private debt funds serve firms that banks avoid because of the firms' small size, lack of accounting standardization / transparency, lack of commitment and lack of tangible assets. The first three features do not fit well with the requirements for loan syndication that banks have increasingly relied on. The last feature does not fit well for asset-based lending, an alternative bank financing option to syndicated, cash flow-based lending.

It is not entirely clear why private debt funds appear to be able to relax the financing constraints of bank-shunned firms. There are several non-exclusive possibilities. It is possible that private debt lenders are better at evaluating and managing company risk. It also is possible that they benefit from not being subject to regulations that banks face. And it is possible, particularly for U.S. funds, that the involvement of PE sponsors both reduces information asymmetries and financial distress costs.

4. Post-investment

The evidence to this point reflects pre-investment decisions. In this section, we consider post-investment activities of private debt funds: ongoing monitoring of portfolio companies and the treatment of portfolio companies in distress.

4.1 Monitoring

Table 9 reports how often private debt funds interact with their portfolio companies in the first six months after investing. The private debt investors report interacting with their portfolio companies frequently. Almost all respondents in both geographies claim they interact with their

portfolio companies at least once a month in the first six months after investment. In Europe, 39%, and in the U.S., 24%, meet more frequently than once a month. While active, this is less frequent than the 80% of VCs in Gompers, Gornall et al. (2021) who report interacting more than once a month with their portfolio companies in June 2021.

Table 10 reports methods the private debt investors use for the ongoing monitoring of their portfolio companies. The primary three methods that both the U.S. and European managers use to monitor their portfolio companies are "updated financial statements," "covenant checks" and "periodic meetings with borrowers." The periodic updates on financial statements and covenant checks are like those used by banks to monitor their borrowers (Nini, Smith, and Sufi, 2012; Gustafson, Ivanov, and Meisenzahl; 2020), but the intensity of private debt monitoring appears to be higher. Gustafson et al. (2020) find that 50% of bank syndicated loan borrowers provide information to their lenders once a month or more. This is much lower than the 87% and 85% reported by the private debt investors. Also suggestive of more frequent contact by private debt investors, more than 85% of the private debt investors report that they meet periodically with their borrowers.

We also ask if private debt funds sit on the board (advisory, supervisory, executive or similar committees) of their portfolio companies. We survey the degree of their board representation ("often as an active participant," "often as a passive participant," "sometimes as an active participant," and "sometimes as a passive participant") separately for four different situations: "only if the portfolio company is sponsor-less," "regardless whether the portfolio company is PE-sponsored or sponsor-less," "only if the portfolio company is in distress," and "regardless whether the portfolio company is in distress or not."

Table 11 reports that in normal times, U.S. and European respondents tend to remain as passive participants at 41% and 22%, respectively. The situations in which they would frequently sit on the board of portfolio companies as active participants are distress situations (35% and 29% of the US and European respondents, respectively). Somewhat surprisingly, we do not find noticeable differences in the degree of private debt fund board participation for sponsored and non-sponsored deals.

That private debt funds participate more actively in their portfolio companies' boards when they run into distress appears similar to how banks have traditionally influenced their borrower's corporate governance. For example, Baird and Rasmussen (2006) and Nini et al. (2012) show that banks renegotiate loans in distress and often are associated with new CEOs who are more closely aligned with creditors' incentives. The results also are consistent with Jang (2022), who finds that private debt funds actively seek board observation rights during renegotiation after covenant violation.

4.2 Covenants and Renegotiation.

As noted in the previous section, private debt funds, banks and other lenders monitor their investments and become more active when portfolio companies become distressed. Lenders manage the loan and their activity by using covenants – both financial and negative covenants. Financial covenants monitor whether borrowers maintain a satisfactory level of operating performance. They are accounting-based and are checked every reporting period. They are also referred to as maintenance covenants. When financial covenants are breached, control rights can shift to creditors. Negative covenants place restrictions on what the borrower can do.

Unlike financial covenants, compliance with negative covenants is not checked on a regular basis. Instead, their violation is incurrence-based; that is, when a borrower takes a certain action, the borrower needs to file a notice to the lender. The lender has the right to decide whether that action violates the contractual definition of the negative covenant. In that case, the lender can block the action.

In this section, we consider the financial and negative covenants private debt funds negotiate at the time they make the loan and how the private debt funds reacted to covenant violations.

Panel 1 of Figure 10 reports the financial covenants that the private debt managers most care about. The most important financial covenants by a wide margin are the cash flow-based covenants of debt to EBITDA and coverage ratios (interest coverage / fixed charge coverage / debt service coverage). These are important for 94% and 68% of the U.S. managers and 77% and 59% of the European managers. Related to these, the contractual definition of EBITDA and Minimum EBITDA covenants also are important at 53% and 32% (44% and 20%) for U.S. (European) managers. This is different from what Brauning et al. (2022) find for syndicated leveraged loans in that those loans are covenant-lite, i.e., tend not to have financial covenants. The negative covenants in that paper, however, are cash-flow based.

European respondents care a bit more about other covenants such as liquidity covenants (45% versus 21% for US), dividend payout covenants (33% versus 18% for U.S.), capital expenditure covenants (31% versus 9% for US), and debt /assets or debt/equity covenants (30% versus 26% for US). The differences may come from European funds targeting smaller firms[19] and being more likely to invest in deals without PE sponsors.

[19] Nini, Smith, and Sufi (2009) show that, the riskier the firm is, the more likely the lender will switch away from cash flow-based covenants to those restricting liquidity and investments.

Panel 2 reports negative covenants. The two most important negative covenants for U.S. debt managers, chosen by almost 80%, are limitations on "incremental debt" and restricted "payments." This is consistent with Brauning et al. (2022) who find that restricted payments and indebtedness covenants are very common in leveraged loans.[20] These negative covenants imply that private debt lenders are concerned with risk shifting in the form of claim dilution or cash diversion.

The European debt managers also reported that they negotiate negative covenants, but they varied more the different types with roughly 60% focusing on "payments," 60% on "asset sales," only 45% on "incremental debt" and almost 50% on "prepayment transactions."

Figure 11 reports how the managers approached covenant breaches and distress resolution. For both U.S. and European managers, simple waivers and out-of-court negotiations were the most mentioned and about equally so. Perhaps not surprisingly, both sets of managers prefer to stay out of court. This is consistent with Jang (2022) who finds that during the COVID pandemic only 7% of defaulting direct lending deals resulted in court-led restructurings compared to 39% of leveraged loan defaults tracked by Moody's. It is important to note that, because direct lending deals involve fewer lenders than bank syndicated deals, holdouts are less likely (Bolton and Scharfstein, 1996), making it easier for private debt funds to avoid formal bankruptcy. Given that small firms have faced a liquidation bias in bankruptcy (Bernstein, Colonnelli, and Iverson, 2019), this may be one reason such firms find private debt more desirable than bank debt. Nevertheless, bankruptcy is not completely avoidable as 24% and 17% of the U.S. and European managers, respectively, indicated that they had to rely on bankruptcy court to resolve distress.

[20] It is difficult to infer the exact percentage of loans in their table III.

Overall, then, private debt funds primarily utilize cash flow-based covenants as they are largely cash flow-based lenders. They appear to be more cash flow-based than banks who tend to limit cash flow-based lending to larger firms. Again, this is consistent with and complementary to the results in Jang (2022). Private debt funds resemble banks in their role of monitoring borrowers' distress using covenants and trying to resolve distress through out-of-court renegotiation instead of directly resorting to a bankruptcy court.

5. Interactions with PE sponsors

Given the importance of PE sponsors, particularly in the U.S., we asked the private debt managers more detailed questions about their interactions with sponsors: the advantages and disadvantages in lending to PE sponsored deals versus non-sponsored deals; the extent to which contract rights are enforced in sponsored deals relative to non-sponsored deals; the advantages of private debt versus bank debt for the PE sponsors; and, finally, the perceived performance of PE sponsored deals performed compared to non-sponsored deals. We also consider the covenants PE sponsors negotiate for most heavily and compare them with the results on private debt covenants.

The U.S. investors are very likely to report that sponsored deals are advantageous. In table 14, "Deal quality" (signaling based on PE sponsor reputation / track record), "Deal quantity" (more opportunities in general due to the high amount of dry powder that PE firms are sitting on), and "Lending relationships" (repeated transactions with the same PE sponsor lowers information cost and provides a strong pipeline of quality deal flow) in sponsored deals are viewed as advantageous by more than 76% of the U.S. private debt investors. Almost 58% also note that they expect a stronger recovery in sponsored deals that are distressed compared to non-

sponsored deals. The European debt investors are positive, but less so with 64%, 47%, 47% and 34%, respectively, viewing those four as advantageous.

Earlier papers by Demiroglu and James (2010) and Ivashina and Kovner (2011) find that active sponsors receive advantageous interest rates and covenants from banks and syndicated loans. The fact that private debt investors view sponsored deals as advantageous as well suggests that private debt investor – sponsor relationships increase efficiency or reduce costs in some way.

The greatest concern with sponsored deals, mentioned by 50% of both U.S. and European funds, is "low bargaining power in enforcing covenant rights due to high reliance on the sponsor for deal origination." We think this is interesting because it implies a lender-borrower dynamic that we do not believe has been mentioned in previous work – deal flow reliance leads to heterogenous enforcement of contractual rights.

The second most important concern, mentioned by 32% of U.S. and 43% of European investors, is the "higher default probability due to high leverage typical of most buyouts." This is unsurprising given that distress likelihood is mechanically related to leverage.

Overall, table 14 indicates that U.S. private debt investors are appreciably more positive and slightly less negative on sponsored deals than their European counterparts.

Table 15 further investigates the relation of contract enforcement and financial sponsors. Despite concerns that they might be more lenient in sponsored deals, only 16% and 7%, respectively, of U.S. and European managers indicated that was the case. Over 60% of both groups indicated that it was not the case. Furthermore, 50% of the small percentage of investors who indicated they are more lenient felt that it was less concerning because the PE sponsors know what they are doing.

Accordingly, it does not appear that the bargaining power story is a meaningful concern.[21] Instead, it seems at least as important that the PE investors are skilled at managing and resolving distress, consistent with Jensen (1989), Bernstein et al. (2019), Hotchkiss et al. (2021), Gompers et al. (2020) and Jang (2022).

This latter interpretation also is consistent with the synergies the private debt investors indicate they have with PE investors that banks cannot provide. Table 16 shows that almost 87% of the U.S. investors are willing to lend a higher multiple of EBTIDA (i.e. higher willingness to lend against cash flow) when a sponsor is involved. The Europeans are positive, 66% agree, but less so than the U.S. investors. The private debt investors also believe that private debt deals with PE sponsors benefit from more flexible financial covenants and more tailor-made negative covenants than would be present in bank deals. Almost 68% of the U.S. and 60% of the European debt investors mention financial covenants while 54% and 63%, respectively mention the negative covenants.

Finally, we consider how sponsored deals have performed compared to non-sponsored deals during the COVID-19 pandemic. In the U.S., table 12 reports that private debt investors believe that PE sponsored deals have outperformed non-sponsored deals: 37% indicated that sponsored deals performed either "somewhat better" or "far better" than non-sponsored deals; 29% indicated that sponsored deals performed similarly; while only 5% thought that sponsored deals performed either "somewhat worse" or "far worse." The remaining 29% were not sure.

[21] In fact, lenders expect sponsors to step in upon distress. As reported in figure 10, panels 1A and 1B, lenders and sponsors often negotiate on the use of equity cures – rights given to sponsors to avoid covenant violation by injecting additional equity. Consistent with this, Jang (2022) finds that 70% of direct lending deals to PE-backed middle-market firms include an equity cure right and 47% of their covenant renegotiations during COVID led sponsors to inject additional equity.

Interestingly, the European funds report only modest outperformance of sponsored deals with percentages of 18%, 42%, 9% and 30%, respectively.

Table 13 considers whether sponsored deals were more likely to have restructured compared to non-sponsored deals in distress situations. 10.5% of the U.S. managers selected "yes," while 39.5% responded "no." This compares to 20.3% and 25.5% for European managers.[22] This suggests that the U.S. private debt investors renegotiate more successfully than their European counterparts.

The results on performance and restructuring are consistent with the greater preference of U.S. private debt investors relative to Europeans to invest in sponsored deals. The results for the U.S. private debt funds also are consistent with PE sponsors successfully reducing information asymmetries and financial distress costs.

6. Outlook

When we surveyed the private debt investors in August and September of 2021, we asked them about their outlook on the future of private debt as well as what they thought were the biggest challenges. These perceptions are particularly interesting in light of the subsequent economic and political volatility of 2022.

We first asked about the current environment for private debt. Table 17 shows that most European and U.S. investors were very positive about the private debt environment in the summer of 2021. More than 75% of the investors in both geographies thought the environment was good or very good.

[22] 50% and 59% of the U.S. and European respondents selected the option "I don't know," respectively.

We then asked about the near-term environment for private debt through the end of 2022. Most U.S. investors thought the environment would remain stable with roughly the same numbers expecting improvement and deterioration. At the same time, the U.S. investors expected to see an improvement in the extent of non-performing loans.

The European investors were more optimistic about the private debt environment with 17% expecting a strong improvement and 44% a slight improvement. At the same time, they expected the extent of non-performing loans to be stable.

Both U.S. and European investors were very optimistic about the continued growth of the private debt industry. On a scale of 1 to 10, they both had medians of 8 and averages above 8.24.

So, overall, both sets of investors can be characterized as having been somewhat optimistic about the near-term and the long-term for the private debt market.

To get more insight into these views as well as potential risks, we asked the private debt investors to describe the biggest challenges they faced at the time and over the next two years. Table 18 shows that U.S. funds overwhelmingly viewed competition from other funds as the biggest challenge, with all but four viewing that as an issue over the next two years. About half of these were particularly concerned with competition from PE funds entering the private debt markets. Half of the U.S. investors viewed deploying capital and 32% viewed weakening loan standards as additional challenges.

The concerns of the European debt investors were more diffuse. Again, competition from other debt funds was the largest concern, but only by 48%, much fewer than the almost 90% by U.S. investors. The European investors were more concerned with fundraising (33% versus 24%), competition from banks (28% versus 8%) than the U.S. investors. They were less concerned with weakening of loan standards (24% versus 32%) and capital deployment (21%

versus 50%) than U.S. investors. The difference in the perception of banks as competitors suggests that the U.S. and Europe remain somewhat different private debt markets.

7. Conclusion and Implications

In this paper, we report results of a survey of private debt investors in the U.S. and Europe who manage roughly 35% of aggregate private debt AuM and are primarily direct lenders to corporations. The respondents provide primarily cash flow-based loans and believe that they finance companies and leverage levels that banks would not fund. They target unlevered returns that appear high relative to their risk. They use leverage in their funds, but appreciably less than banks and CLOs. They use and negotiate for both financial and incurrence covenants to monitor their investments. They believe that the presence of PE sponsors helps them lend more and craft more effective covenants. U.S. and European funds are similar on many dimensions, but European funds rely less on PE sponsors and compete more with banks.

Overall, the private debt market is both different from, but shares characteristics with the bank loan and syndicated loan markets. Like banks, private debt funds make loans and monitor using covenants. Different from banks, they make cash flow-based loans to smaller companies, are willing to provide more leverage than banks to those companies, charge higher interest rates, use less leverage in their funds, appear to monitor more often and tend not to make asset-based loans.

Like CLOs, they make cash flow-based loans, rely on PE sponsors and use negative covenants. Different from CLOs, they lend to smaller companies, use financial covenants (and are more monitoring intensive), and use less leverage in their funds.

On several dimensions, private debt funds are closer to PE funds in that they have a similar LP base, relatively low leverage and relatively high return expectations.

As of the fall of 2021, private debt investors remained optimistic about the prospects for future growth and success in the private debt market.

It is still an open question as to why the private debt markets have grown so much in recent years, post-global financial crisis, and why private debt investors believe that growth will continue. It also is a puzzle why private debt funds have been able to operate successfully without the high leverage from short-term debt and deposits emphasized by banking theories of optimal lending and delegated monitoring (e.g. Diamond, 1984; Diamond and Rajan, 2001).

It is possible that the private debt firms innovated in a way that allows them to lend to and monitor the borrowers more effectively. The reliance of private debt funds on PE sponsors is consistent with this explanation.

Regulatory frictions also may matter. Erel and Inozemtsev (2022) conclude that regulatory changes have played an important role, disadvantaging bank lending to the types of companies funded by private debt. Interestingly, banks appear to be entering the direct lending business with JP Morgan recently announcing a new direct lending unit.[23] The regulatory explanation implies they will operate at a disadvantage to the private debt funds.

Finally, it is possible that the private debt funds do not require the equity-like return that public companies do and, so, do not take on so much leverage. This seems unlikely, however, given that targeted levered returns are equity-like.

[23] See "JPMorgan takes on direct lenders with leveraged loans unit." https://www.ft.com/content/dd51f791-2841-4ef9-9c73-0f5465926422

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Table A: Key attributes by lender type

	Private Debt Funds	Commercial Banks	CLOs	Finance Companies
Company size	Mostly middle-market	All	Mostly large-cap, some middle-market	Mostly SME
Loan characterstics				
Syndication	Sometimes, but not frequent	Frequent	Always	N/A (likely not frequent)
Loan type	Term loan / Revolver	Term loan / Revolver	Term loan	Revolver
Cash flow-based vs asset-based	Mostly cash flow-based	Cash flow- and asset-based	Mostly cash flow-based	Mostly asset-based (Gopal and Schnabl, 2022)
Covenants	Maintenance & incurrence	Maintenance & incurrence	Typically only incurrence, i.e. "Cov-lite"	N/A
Origination / liquidity	Mostly self-originated & held to maturity	Self-originated & sold off to institutional investors	Bought through primary market syndication or secondary market trades	N/A (likely mostly self-originated)
Typical use of leverage (debt to total capital	< 50%	> 90% (FSB, 2021)	> 90% (Kundu, 2022)	80-90% (FSB, 2020)
Source of financing	Most equity, some bank debt	Mostly deposits and other short-term debt	Long-term bonds, tranched by seniority	Mostly long-term debt, some commercial paper (Gopal and Schnabl, 2022)

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Table 1: Survey Respondents

Respondents	**Europe**		**USA**	
	N	%	N	%
Total number of respondents	153	100	38	100
Full responses	147	96	34	89
Total number of firms	119		38	

Table 2: Private Debt Firm Characteristics

Panel A: All

PD firm characteristics	Europe (all)						US (all)					
	N	Mean	Standard deviation	25%	50%	75%	N	Mean	Standard deviation	25%	50%	75%
AuM total (€B)	153	3.02	3.74	0.3	0.75	3	37	6.19	3.75	3	3	10
AuM in PD (€B)	153	1.68	2.79	0.3	0.3	3	37	4.94	3.62	3	3	5
Experience in financial industry	153	14.85	2.51	16	16	16	38	15.43	1.96	16	16	16
Experience in PD	153	9.90	5.21	8.5	12.5	16	38	12.75	4.73	12.5	16	16
Fund level Debt to Total Capital	136	0.11	0.22	0	0	0	36	0.40	0.27	0.25	0.25	0.55

Panel B: Europe, PE vs non-PE

PD firm characteristics	Europe (PE)						Europe (non - PE)					
	N	Mean	Standard deviation	25%	50%	75%	N	Mean	Standard deviation	25%	50%	75%
AuM total (€B)	59	3.70	4.10	0.3	3	8.75	94	2.59	3.47	0.3	0.75	3
AuM in PD (€B)	59	1.90	3.14	0.3	0.3	1.87	94	1.55	2.55	0.3	0.3	3
Experience in financial industry	59	14.78	2.70	16	16	16	94	14.89	2.39	16	16	16
Experience in PD	59	10.36	5.03	5	12.5	16	94	9.61	5.33	5	8.5	16
Fund level Debt to Total Capital	51	0.12	0.22	0	0	0.13	85	0.10	0.22	0	0	0

Panel C: US, PE vs non-PE

PD firm characteristics	US (PE)						US (non - PE)					
	N	Mean	Standard deviation	25%	50%	75%	N	Mean	Standard deviation	25%	50%	75%
AuM total (€B)	9	7.67	3.50	3	10	10	28	5.72	3.84	3	3	10
AuM in PD (€B)	9	5.18	3.57	3	7.5	7.5	28	4.86	3.70	3	3	10
Experience in financial industry	10	14.90	3.48	16	16	16	28	15.63	1.10	16	16	16
Experience in PD	10	12.40	5.33	9.5	16	16	28	12.86	4.68	12.5	16	16
Fund level Debt to Capital	10	0.35	0.19	0.25	0.25	0.55	26	0.42	0.18	0.25	0.4	0.55

Panel D: US, BDC vs non-BDC

PD firm characteristics	US (BDC)						US (non - BDC)					
	N	Mean	Standard deviation	25%	50%	75%	N	Mean	Standard deviation	25%	50%	75%
AuM total (€B)	16	7.21	4.04	3	10	10	21	5.42	3.52	3	3	10
AuM in PD (€B)	16	6.74	3.14	3	7.5	10	21	4.03	3.34	3	3	3
Experience in financial industry	17	16.00	0.00	16	16	16	21	14.98	2.61	16	16	16
Experience in PD	17	14.29	3.21	12.5	16	16	21	11.50	5.52	8.5	12.5	16
Fund level Debt to Total Capital	17	0.44	0.18	0.25	0.55	0.55	19	0.36	0.18	0.25	0.25	0.55

Note: This table describes the characteristics of our sample private debt managers. Panel A compares the results for US and European respondents. Panel B compares the results for PE and non-PE affiliated European respondents. Panel C compares the results for PE and non0PE affiliated US respondents. Panel D compares the results for US respondents that have a BDC and those that don't have a BDC. All Reported are total AuM, AuM dedicated to be used for PD investments, experience of each respondent in financial industry as a whole and in PD business. All answer choices involve a range of values, so we use their mid-points (and lowest + 1 for answer choices with right-unbounded range) when computing the relevant statistics. The full frequency plots with each answer are separately reported in Figures 1, 2, and 3. Respondents who answered "Prefer not to disclose" or "I don't know" are not counted. Assets under Management is abbreviated as AuM. Private Debt is abbreviated as PD.

Table 3: Sponsored deal

Panel A: Europe

Total invested capital made up of sponsored deals (%)	N	Mean	Standard deviation	25%	50%	75%
Europe (all)	153	41.80	36.43	5.00	36.00	75.00
Europe (PE)	59	44.02	36.96	10.00	30.00	80.00
Europe (non - PE)	94	40.40	36.21	4.25	40.00	75.00

Panel B: USA

Total invested capital made up of sponsored deals (%)	N	Mean	Standard deviation	25%	50%	75%
USA (all)	38	78.21	24.89	61.25	85.00	99.00
USA (BDC)	17	75.06	20.44	60.00	80.00	90.00
USA (non - BDC)	21	80.76	28.23	75.00	95.00	100.00
USA (PE)	10	80.20	20.16	60.00	90.00	97.25
USA (non - PE)	28	77.50	26.67	68.75	85.00	100.00

Note: This table reports the summary statistics for the percentage of total invested capital by sample private debt managers in sponsored deals. The question asked is "What percentage of your total invested capital in (senior) PD is made up of sponsored deals?". We report the results separately for the European and US respondents.

Table 4: Outsourcing Due Diligence

Outsourcing	Europe		US	
	N	%	N	%
No	54	36.2%	21	61.8%
Yes	87	58.4%	11	32.4%
To accountants	63	42.3%	10	29.4%
To consultants	66	44.3%	8	23.5%
To lawyers	71	47.7%	7	20.6%
Other/s	14	9.4%	4	11.8%
Number of respondents	149		34	

Note: This table reports whether and to whom our sample private debt managers outsource due diligence. The question asked is "Do you outsource due diligence?" We report the results separately for the European and US respondents.

Table 5: Investment type

Investment types	Europe		US	
	N	%	N	%
Only secondary investments	1	0.7%	0	0.0%
Combination of primary and secondary investments	53	34.6%	15	39.5%
Only primary investments	99	64.7%	23	60.5%
Number of respondents	153		38	

Note: This table reports the investment types that our sample private debt managers consider in their private debt investment strategy. The question asked is "What investment types do you consider in your PD investment strategy?" We report the results separately for the European and US respondents.

Table 6: Target IRR

Panel A: Europe

PD firm characteristics	N	Mean	Standard deviation	25%	50%	75%
Levered IRR	153	9.55	3.36	7.5	9.5	13
Unlevered IRR	153	8.70	3.33	5.5	7.5	13

Panel B: US

PD firm characteristics	N	Mean	Standard deviation	25%	50%	75%
Levered IRR	38	11.18	1.55	9.5	11.5	13
Unlevered IRR	38	8.16	1.65	7.5	7.5	7.5

Note: This table reports the target value of gross levered and unlevered internal rate of return (IRR) used by the sample private debt managers. The question asked is "What is your gross target (un)levered IRR in your companies' investments (%)?". We report the results separately for the European and US respondents.

Table 7: Loan Syndication

Panel A: Do you provide syndicated loans?

Syndicated loans provided (y/n)	**Europe**		**US**	
	N	%	N	%
No	85	55.6%	15	44.1%
Yes	55	35.9%	18	52.9%
Normally with banks	29	19.0%	6	17.6%
With other debt funds	38	24.8%	15	44.1%
Other/s	13	8.5%	1	2.9%
Number of respondents	153		34	

Panel B: What percentage of your loans are syndicated?

Syndicated loans provided (%)	N	Mean	Standard deviation	25%	50%	75%
Europe	55	37.36	29.72	15	30	50
US	34	30.17	27.40	11.25	20	38.25

Note: This table reports whether our sample private debt managers provide syndicated loans (Panel A), and if so, what percentage of their loan investments are syndicated (Panel B). We report the results separately for the European and US respondents.

Table 8: Private Debt vs Bank Debt

Panel A: Fraction of portfolio companies not able to get bank financing without private debt

Percentage of portfolio companies that would be able to get bank financing	Europe		US	
	N	%	N	%
0%	10	6.5%	4	11.8%
1 - 20%	23	15.0%	7	20.6%
21 - 40%	25	16.3%	6	17.6%
41 - 60%	26	17.0%	5	14.7%
61 - 80%	26	17.0%	8	23.5%
81 - 99%	27	17.6%	7	20.6%
100%	16	10.5%	0	0.0%
Number of respondents	153		34	

Note: This panel presents the percentage of portfolio companies of our respondents that would not be able to get bank financing. Question is: "What percentage of your portfolio companies would not have been able to get bank financing in the absence of your financing?". We report the results separately for the European and US respondents.

Panel B: Why firms cannot get bank financing

Reasons for not getting a bank financing	Europe			US		
	N	% of respondents	% of responses	N	% of respondents	% of responses
Firm has low amount of tangible assets as quality collateral	79	55.2%	22.2%	16	53.3%	19.8%
Cash flow is too low or unstable	43	30.1%	12.1%	8	26.7%	9.9%
Firm size is too small for bank syndication	75	52.4%	21.1%	21	70.0%	25.9%
Due diligence is messy due to less clean financials or a lack of sophisticated internal systems	65	45.5%	18.3%	15	50.0%	18.5%
Firms operating in niche sectors	54	37.8%	15.2%	7	23.3%	8.6%
Other/s	40	28.0%	11.2%	14	46.7%	17.3%
Number of respondents	143			30		
Number of responses	356			81		

Note: This panel presents the reasons for why some firms which are reliant on private debt might not be able to secure money through a bank. The question asked is "Why do you think banks would not want to finance companies that are reliant on private debt?" We report the results separately for the European and US respondents. The respondents were allowed to make multiple choices; hence, we report the results separately as a fraction of the number of respondents and responses. The respondents that chose the answer choice "0%" in the previous question on Panel A were not asked to answer this question.

Panel C: Why firms choose private debt of bank debt

Reasons for choosing private debt over bank debt	Europe			US		
	N	% of respondents	% of responses	N	% of respondents	% of responses
Certainty and speed of execution (vs long / uncertain bank syndication process)	127	83.0%	23.8%	31	91.2%	23.1%
Stable relationship with lender's expectation to hold to maturity (vs bank originate-and-distribute model)	53	34.6%	9.9%	22	64.7%	16.4%
More flexible covenant structure	81	52.9%	15.2%	26	76.5%	19.4%
Diversification of financing sources	61	39.9%	11.4%	8	23.5%	6.0%
Longer investment horizon than banks are willing to support	60	39.2%	11.2%	9	26.5%	6.7%
Higher leverage than banks are willing to support	83	54.2%	15.5%	28	82.4%	20.9%
Did not approach banks due to fear of rejection	10	6.5%	1.9%	3	8.8%	2.2%
Bank loan application was rejected	44	28.8%	8.2%	2	5.9%	1.5%
Other/s	15	9.8%	2.8%	5	14.7%	3.7%
Number of respondents	153			34		
Number of responses	534			134		

Note: This panel presents the reasons for firms choose private debt over bank debt as reported by our respondents. Question is: "Why do you think firms choose private debt over bank debt?". We report the results separately for the European and US respondents. The respondents were allowed to make multiple choices; hence, we report the results separately as a fraction of the number of respondents and responses.

Table 9: Frequency of interaction

Frequency of interection with protfolio companies	Europe		US	
	N	%	N	%
Multiple times a week	8	5.4%	0	0.0%
Once a week	7	4.7%	2	5.9%
2-3 times a month	43	28.9%	6	17.6%
Once a month	65	43.6%	21	61.8%
Less than once a month	26	17.4%	4	11.8%
Never	0	0.0%	1	2.9%
Number of respondents	149		34	

Note: This table reports the frequency of interaction of private debt managers with their portfolio companies. The question asked is "In the first six months after making an investment, how frequently do you interact with the management of a typical company in your portfolio?" We report the results separately for the European and US respondents.

Table 10: Methods of monitoring portfolio companies

Methods of monitoring portfolio companies	Europe			US		
	N	% of respondents	% of responses	N	% of respondents	% of responses
Establish acceptable risk limits	41	27.5%	6.5%	14	41.2%	8.4%
Measure and monitor identified risks	101	67.8%	16.0%	21	61.8%	12.6%
Conduct periodic stress tests and scenario analysis	55	36.9%	8.7%	16	47.1%	9.6%
Periodic meetings with borrowers	130	87.2%	20.6%	29	85.3%	17.4%
Updated financial statements	126	84.6%	19.9%	30	88.2%	18.0%
Covenant checks	126	84.6%	19.9%	30	88.2%	18.0%
(Re)grading of risk ratings	44	29.5%	7.0%	25	73.5%	15.0%
Other/s	9	6.0%	1.4%	2	5.9%	1.2%
Number of respondents	149			34		
Number of responses	632			167		

Note: This table reports the methods used to monitor portfolio companies as reported by our respondents. The question asked is "How do you monitor portfolio companies?" We report the results separately for the European and US respondents. The respondents were allowed to make multiple choices; hence, we report the results separately as a fraction of the number of respondents and responses.

Table 11: Board representation

Panel A: Europe

Board representation	N (%)			
	Only if the portfolio company is sponsor-less	Regardless whether the portfolio company is PE-sponsored or sponsor-less	Only if the portfolio company is in distress	Regardless whether the portfolio company is in distress or not
Yes, often and we actively intervene in the day-to-day business of the company	9 (6%)	19 (12%)	45 (29%)	9 (6%)
Yes, often as a passive participant	3 (2%)	26 (17%)	20 (13%)	27 (18%)
Yes, sometimes as an active participant	9 (6%)	20 (13%)	25 (16%)	21 (14%)
Yes, sometimes as a passive participant	20 (13%)	41 (27%)	20 (13%)	33 (22%)
Number of respondents	153			

Panel B: US

Board representation	N (%)			
	Only if the portfolio company is sponsor-less	Regardless whether the portfolio company is PE-sponsored or sponsor-less	Only if the portfolio company is in distress	Regardless whether the portfolio company is in distress or not
Yes, often and we actively intervene in the day-to-day business of the company	4 (12%)	4 (12%)	12 (35%)	1 (3%)
Yes, often as a passive participant	1 (3%)	3 (9%)	6 (18%)	3 (9%)
Yes, sometimes as an active participant	3 (9%)	3 (9%)	10 (29%)	4 (12%)
Yes, sometimes as a passive participant	3 (9%)	5 (15%)	5 (15%)	14 (41%)
Number of respondents	34			

Note: This table reports in which circumstances and how often private debt managers participate in the board meeting of their portfolio companies. The question asked is "Do you sit on the board (advisory, supervisory, executive or similar committees) of your portfolio companies?". We report the results separately for the European and US respondents.

Table 12: Sponsored vs non-sponsored deal performance during COVID

Performance of sponsored deals compared to sponsor-less deals during COVID-19	Europe		US	
	N	%	N	%
Far worse	5	3.3%	0	0.0%
Far better	8	5.2%	6	15.8%
Somewhat worse	9	5.9%	2	5.3%
Somewhat better	20	13.1%	8	21.1%
I don't know	46	30.1%	11	28.9%
Similarly	65	42.5%	11	28.9%
Number of responses	153		38	

Note: This table presents the performance of sponsored deals compared to sponsor-less deals during COVID-19 as reported by our respondents. The question asked is: "How did sponsored deals perform compared to sponsor-less deals during the COVID-19 crisis?". We report the results separately for the European and US respondents.

Table 13: Sponsored vs non-sponsored restructuring during COVID

Likelihood of restructuring of sponsored deals compared to sponsor-less during COVID-19	Europe		US	
	N	%	N	%
Yes	31	20.3%	4	10.5%
No	39	25.5%	15	39.5%
I don't know	83	54.2%	19	50.0%
Number of respondents	153		38	

Note: This table presents the likelihood of restructuring of sponsored deals compared to sponsor-less during COVID-19. The question asked is: "In cases of distress/default were sponsored deals more likely to have been restructured compared to sponsor-less deals during the COVID-19 crisis?". We report the results separately for the European and US respondents.

Table 14: Advantages and concerns of sponsored deal

Panel A: Advantages of sponsored deals

Advantages of sponsored deals	**Europe**			**US**		
	N	% of respondents	% of responses	N	% of respondents	% of responses
Deal quality: Signaling based on PE sponsor reputation / track record	91	64.1%	26.1%	30	78.9%	22.6%
Deal quantity: More opportunities in general due to the high amount of dry powder that PE firms are sitting on	67	47.2%	19.2%	29	76.3%	21.8%
Lending relationship: Repeated transactions with the same PE sponsor lowers information cost and provides a stronger pipeline of quality deal flow	67	47.2%	19.2%	31	81.6%	23.3%
Lower monitoring costs: efficient division of monitoring enabled by PE sponsor's active governance role	51	35.9%	14.6%	17	44.7%	12.8%
Stronger recovery upon distress: PE sponsor's past turnaround experience / network of potential rescue lenders / dry powder liquidity	48	33.8%	13.8%	22	57.9%	16.5%
Other/s	25	17.6%	7.2%	4	10.5%	3.0%
Number of respondents	142			38		
Number of responses	349			133		

Note: This panel presents advantages for sponsored deals compared to sponsor-less deals as reported by our repondents. The question asked is "What are the main advantages of sponsored deals compared to sponsor-less deals?". We report the results separately for the European and US respondents. The respondents were allowed to make multiple choices; hence, we report the results separately as a fraction of the number of respondents and responses.

Panel B: Concerns of sponsored deals

Concerns of sponsored deals	Europe			US		
	N	% of respondents	% of responses	N	% of respondents	% of responses
Higher default probability due to high leverage typical of most buyouts	61	43.0%	27.4%	12	31.6%	24.5%
Increased cash flow volatility from overinvestment	25	17.6%	11.2%	3	7.9%	6.1%
Claim dilution from debt issuance / use of liens (due to the sponsor exerting debt contractual expertise)	38	26.8%	17.0%	4	10.5%	8.2%
Low bargaining power in enforcing covenant rights (due to high reliance on the sponsor for deal origination)	71	50.0%	31.8%	19	50.0%	38.8%
Other/s	28	19.7%	12.6%	11	28.9%	22.4%
Number of respondents	142			38		
Number of responses	349			49		

Note: This panel presents concerns for sponsored deals compared to sponsor-less deals as reported by our repondents. The question asked is "What are the main concerns for sponsored deals compared to sponsor-less deals?". We report the results separately for the European and US respondents. The respondents were allowed to make multiple choices; hence, we report the results separately as a fraction of the number of respondents and responses.

Table 15: Leniency in enforcing contractual rights

Panel A: Leniency in enforcing contractual rights

Leniency in enforcing contractual rights	**Europe**		**US**	
	N	%	N	%
Yes	10	6.5%	6	15.8%
No	99	64.7%	23	60.5%
I don't know	44	28.8%	9	23.7%
Number of respondents	153		38	

Note: This panel presents whether the enforcement of contractual rights related to covenant violation differs on sponsored deals compared to sponsor-less deals. The question asked is "Are you more lenient in enforcing contractual rights related to covenant violation on sponsored deals than on sponsor-less deals?". We report the results separately for the European and US respondents.

Panel B: Reasons for leniency in enforcing contractual rights

Reasons for leniency in enforcing contractual rights	**Europe**		**US**	
	N	%	N	%
Covenant violations by sponsored firms are less concerning as PE sponsors typically have more experience with conceptualizing and executing workouts => better to waive and earn workout fees	5	50.0%	3	50.0%
Long-term relationship with PE sponsor for deals makes it difficult to be stringent on them	4	40.0%	2	33.3%
Other/s	1	10.0%	1	16.7%
Number of responses	10		6	

Note: This panel presents the reasons for difference in the enforcement of contractual rights related to covenant violation on sponsored deals compared to sponsor-less deals. We report the results separately for the European and US respondents.

Table 16: Synergies between Private Debt and Private Equity

Synergies between Private Debt and Private Equity	Europe			US		
	N	% of respondents	% of responses	N	% of respondents	% of responses
Higher Debt/EBITDA leverage (i.e. higher willingness to lend against cash flow)	101	66.01%	31.2%	32	86.5%	38.6%
Higher Debt/Assets or Debt/Tangible Assets (i.e. more efficient collateral use)	35	22.88%	10.8%	6	16.2%	7.2%
More flexible financial covenants	91	59.48%	28.1%	25	67.6%	30.1%
More tailor-made negative covenants for operational flexibility	97	63.40%	29.9%	20	54.1%	24.1%
Number of respondents	153			37		
Number of responses	324			83		

Note: This table displays what the respondents view as the greatest synergies between private debt and private equity. The question asked is "In your view, what is the greatest synergy that private debt provides to private equity (that banks cannot / can no longer provide)?". We report the results separately for the European and US respondents. The respondents were allowed to make multiple choices; hence, we report the results separately as a fraction of the number of respondents and responses.

Table 17: Current and Future Outlook for Private Debt Industry

Panel A: Europe

	Number of responces	Very bad		Bad		Average		Good		Very good	
		N	%	N	%	N	%	N	%	N	%
Assessment of the current environment for private debt	153	1	0.7	5	3.3	16	10.5	85	55.6	46	30.1

	Number of responces	Strongly deteriorate		Slightly deteriorate		Stay the same		Slightly improve		Strongly improve	
		N	%	N	%	N	%	N	%	N	%
Development of the environment for private debt over the next 12 months	153	0	0	15	9.8	44	28.8	68	44.4	26	17.0
Development of non-performing loans and provisions until the end of 2022	153	4	2.6	41	26.8	53	34.6	41	26.8	14	9.2

	Number of responces	Mean	Standard deviation	25%	50%	75%	min	max
Confidence in the long-term growth prospects of the private debt industry (Scale 1 - 10)	153	8.3	1.3	8	8	10	5	10

Panel B: USA

	Number of responces	Very bad		Bad		Average		Good		Very good	
		N	%	N	%	N	%	N	%	N	%
Assessment of the current environment for private debt	38	1	2.63	2	5.26	6	15.79	17	44.74	12	31.58

	Number of responces	Strongly deteriorate		Slightly deteriorate		Stay the same		Slightly improve		Strongly improve	
		N	%	N	%	N	%	N	%	N	%
Development of the environment for private debt over the next 12 months	38	0	0	6	15.79	27	71.05	4	10.53	1	2.63
Development of non-performing loans and provisions until the end of 2022		0	0	1	2.63	17	44.74	17	44.74	3	7.89

	Number of responces	Mean	Standard deviation	25%	50%	75%	min	max
Confidence in the long-term growth prospects of the private debt industry (Scale 1 - 10)	38	8.24	1.3	7	8	9	5	10

Note: This table describes the current and future outlook for the private debt industry as percieved by our respondents. Reported are the current environment, the perceived development of the environment for the industry, the development of non-performing loans and the confidence in the long-term growth of the private debt industry. Panel A and Panel B focus, respectively, on the fund managers surveyed in Europe and in the USA.

Table 18: Biggest challenges

Panel A: Europe

Challenges	Current		Over the next 2 years	
	N	%	N	%
Competition from private debt funds	91	59.5%	73	47.7%
Fundraising	70	45.8%	51	33.3%
Competition from banks supported by public guarantee schemes	62	40.5%	-	-
Competition from banks	49	32.0%	42	27.5%
COVID-19 crisis	41	26.8%	17	11.1%
Deterioration in credit quality due to weakening of loan standards	39	25.5%	37	24.2%
Capital deployment (identifying a sufficient number of appropriate investment targets)	36	23.5%	32	20.9%
High investee valuations	34	22.2%	33	21.6%
ESG-related challenges	33	21.6%	33	21.6%
Competition from private equity funds entering PD market	30	19.6%	19	12.4%
Competition from public markets due to central bank interventions	28	18.3%	21	13.7%
Regulatory changes	27	17.6%	22	14.4%
Political uncertainty	19	12.4%	15	9.8%
Operational challenges	10	6.5%	3	2.0%
Servicing existing portfolio	6	3.9%	2	1.3%
Number of respondents	153	100	153	100

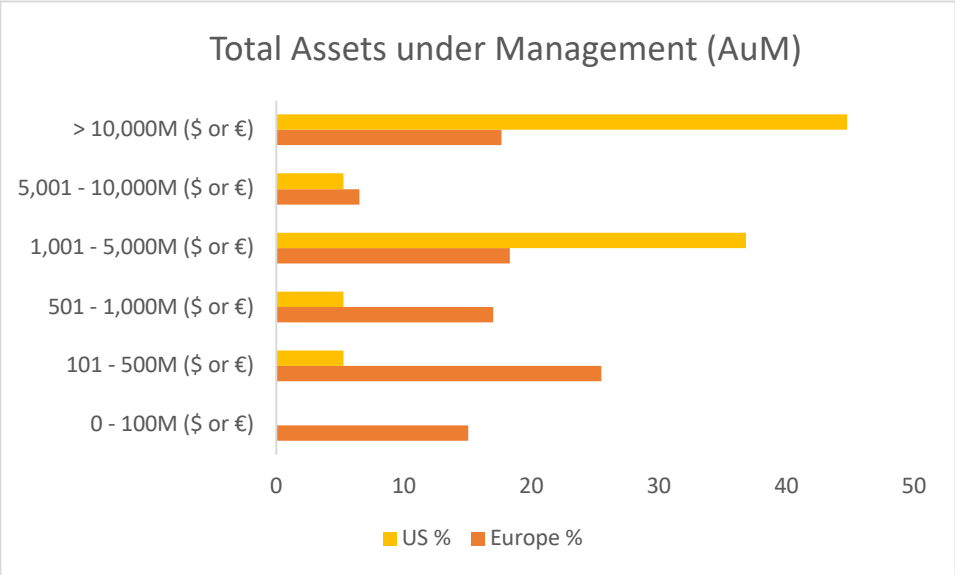
Panel B: USA

Challenges	Current		Over the next 2 years	
	N	%	N	%
Competition from private debt funds	32	84.2%	34	89.5%
Fundraising	8	21.1%	9	23.7%
Competition from banks supported by public guarantee schemes	0	0.0%	0	0.0%
Competition from banks	5	13.2%	3	7.9%
COVID-19 crisis	7	18.4%	2	5.3%
Deterioration in credit quality due to weakening of loan standards	16	42.1%	12	31.6%
Capital deployment (identifying a sufficient number of appropriate investment targets)	15	39.5%	19	50.0%
High investee valuations	8	21.1%	7	18.4%
ESG-related challenges	1	2.6%	1	2.6%
Competition from private equity funds entering PD market	17	44.7%	12	31.6%
Competition from public markets due to central bank interventions	1	2.6%	0	0.0%
Regulatory changes	3	7.9%	0	0.0%
Political uncertainty	3	7.9%	2	5.3%
Operational challenges	1	2.6%	2	5.3%
Servicing existing portfolio	0	0.0%	2	5.3%
Other/s	0	0.0%	6	15.8%
Number of respondents	38		38	
Number of responces	117		111	

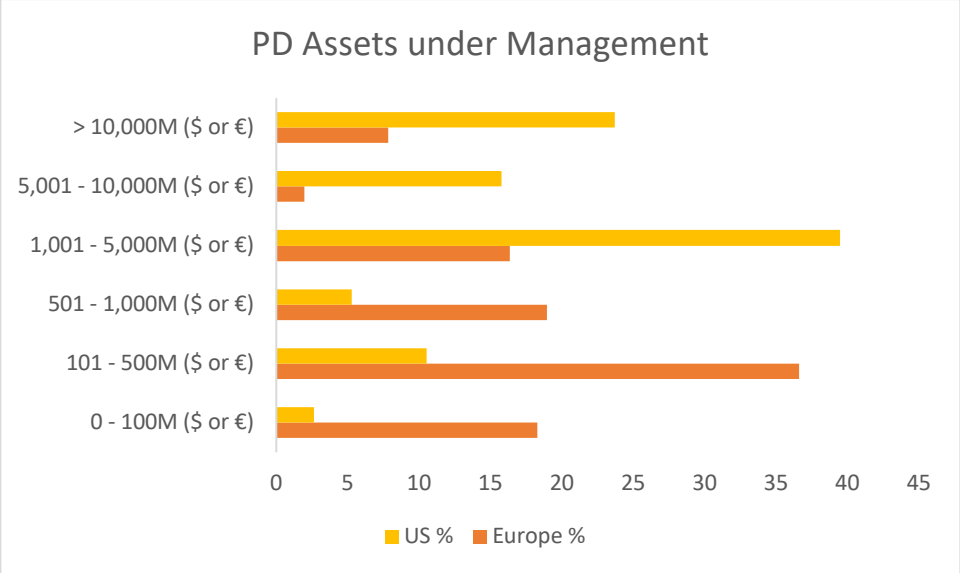
Note: This table presents the biggest challenges in the privage debt business as perceived by our respondents. Reported are current challenges and predictions over the next two years. Questions are: "Over the next two years, which will be the three greatest challenges in PD business?" and "Please select the biggest challenges you currently see in PD business". Panel A and Panel B focus, respectively, on the fund managers surveyed in Europe and in the USA.

Figure 1: Assets under Management (AuM)

Panel A: Total AuM



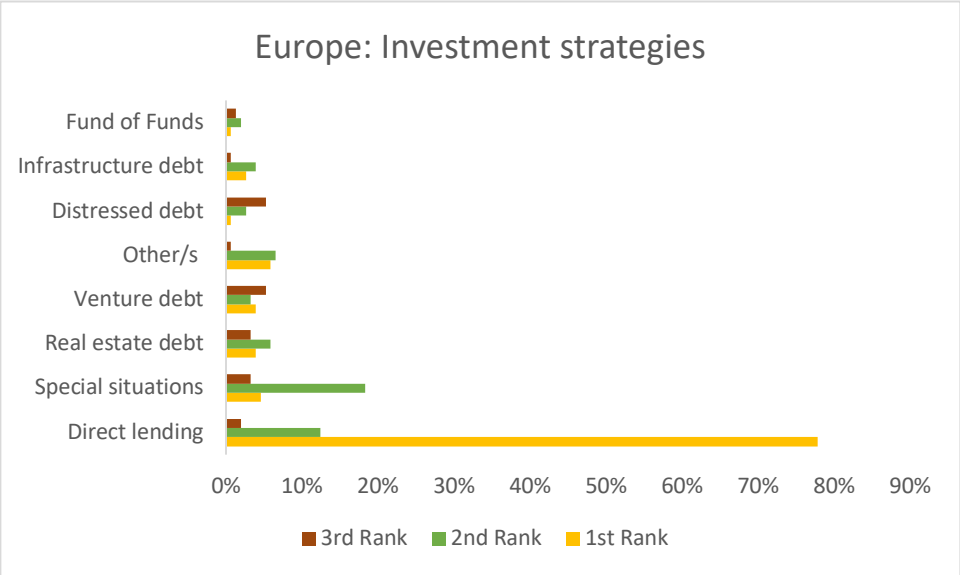
Panel B: PD AuM



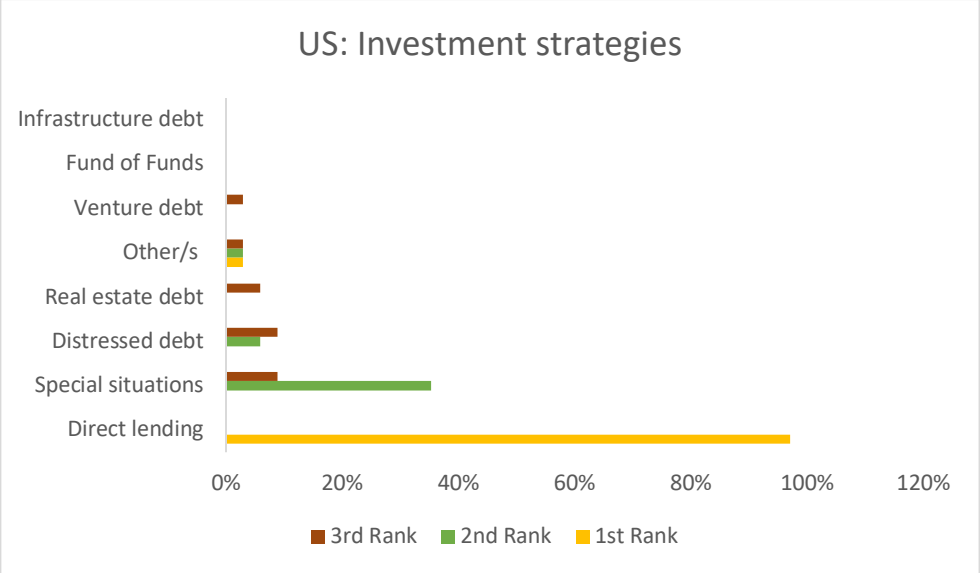
Note: Panel A shows total assets under management and Panel B shows private debt (PD) assets under management. Number of European responses: 153; number of US responses: 38.

Figure 2: Investment strategies

Panel A: Europe



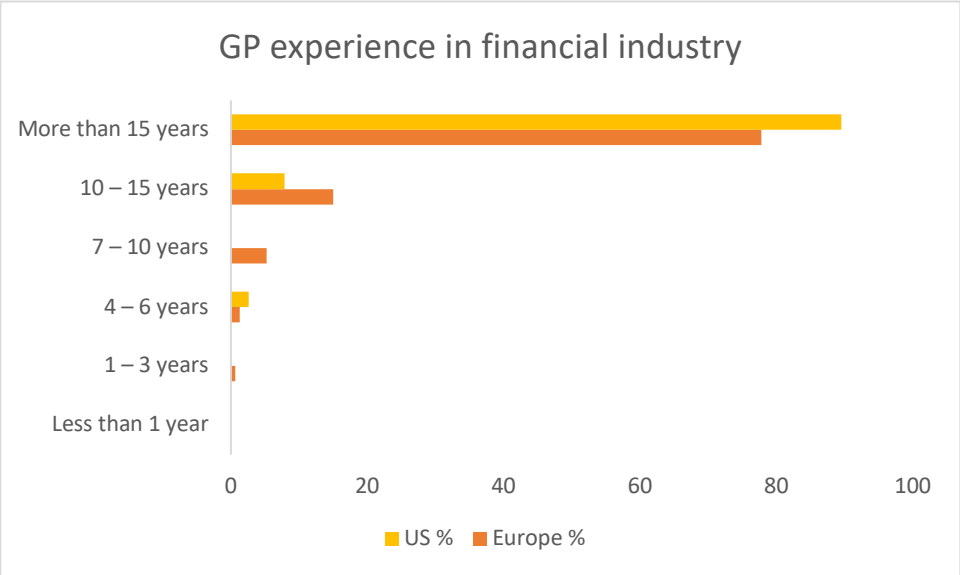
Panel B: US



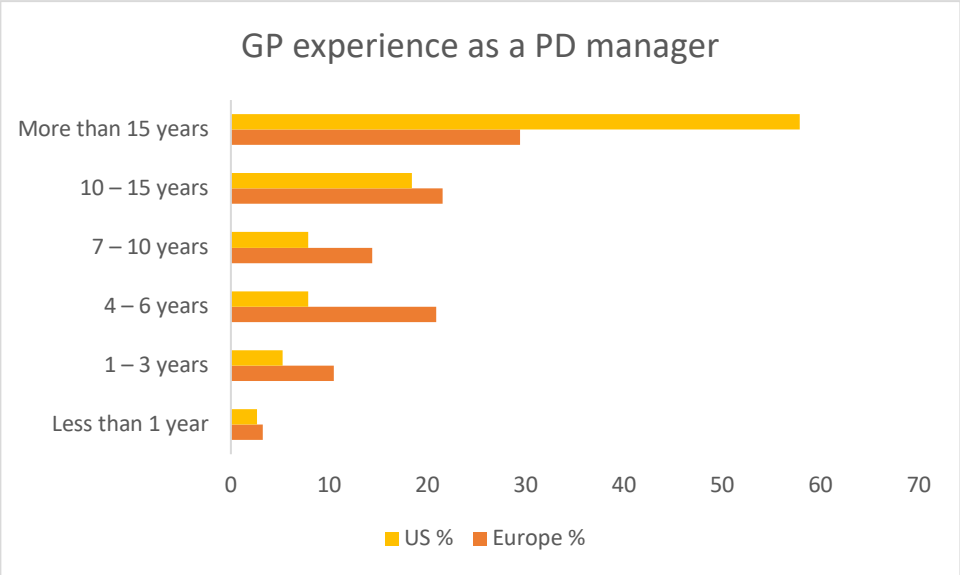
Note: This figure shows investment strategies that our respondents consider. We report the results separately for the European and US respondents. Number of European responses: 153; number of US responses: 38.

Figure 3: GP Experience

Panel A: GP experience in financial industry



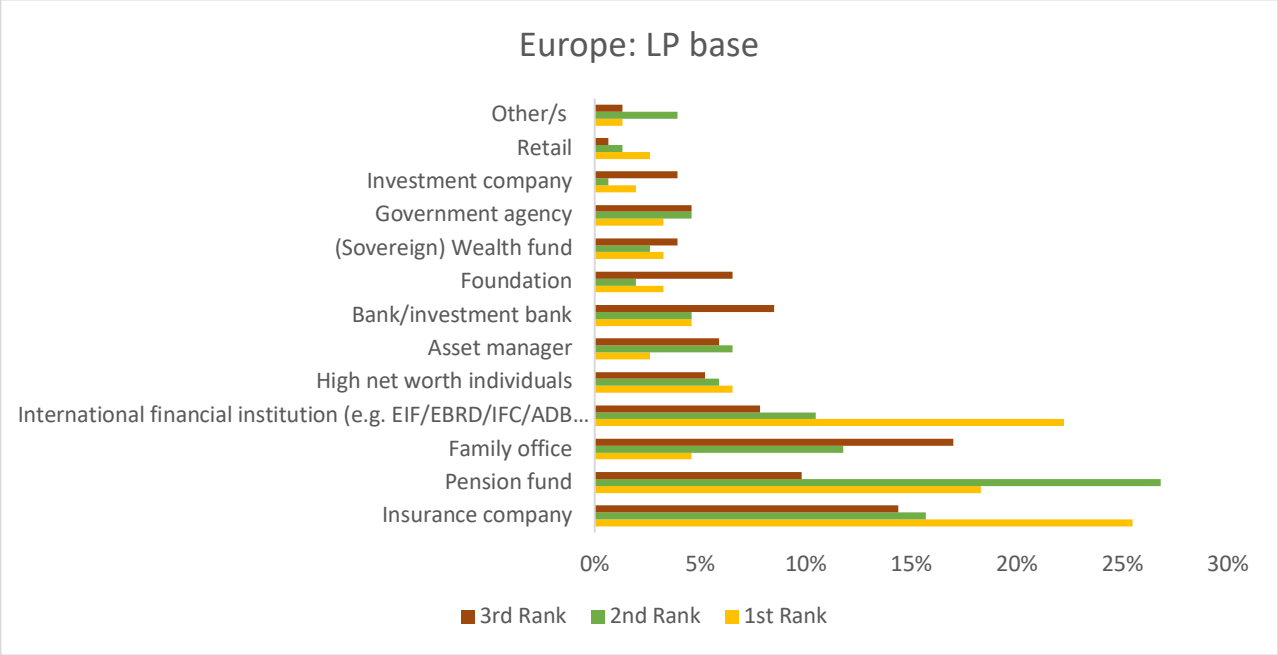
Panel B: GP experience as a PD manager



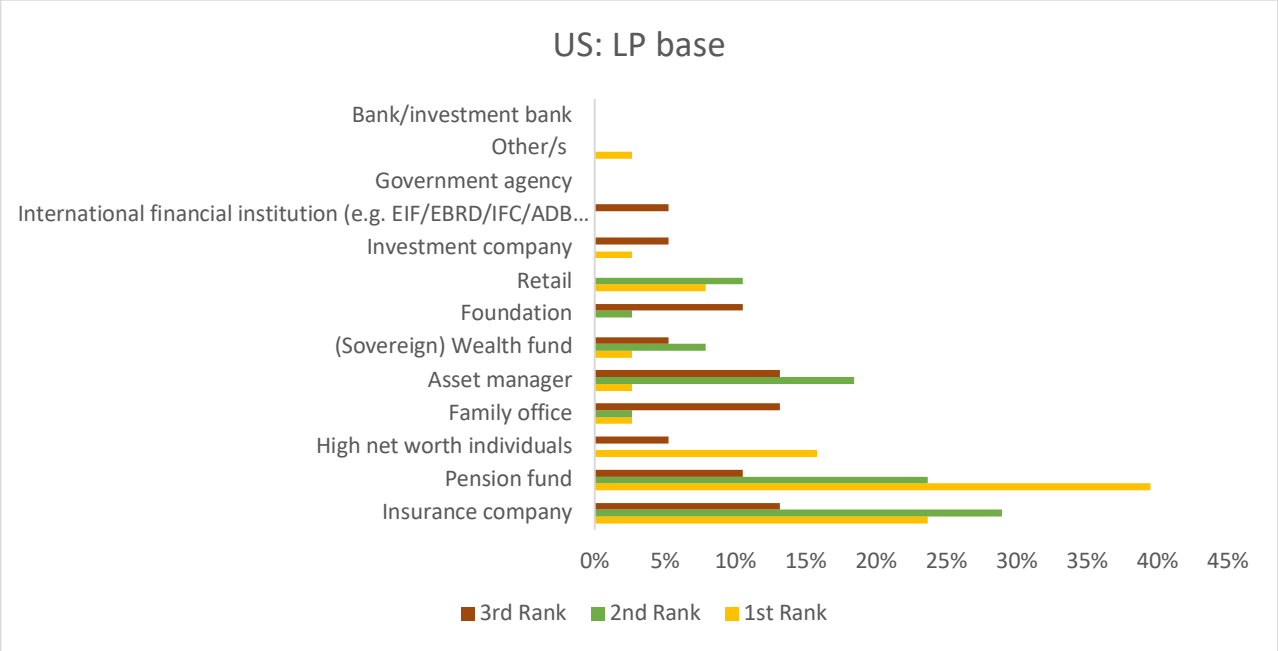
Note: Panel A shows GP experience in financial industry and Panel B shows GP experience as a PD manager. Number of European responses: 153; number of US responses: 38.

Figure 4: LP base

Panel A: Europe



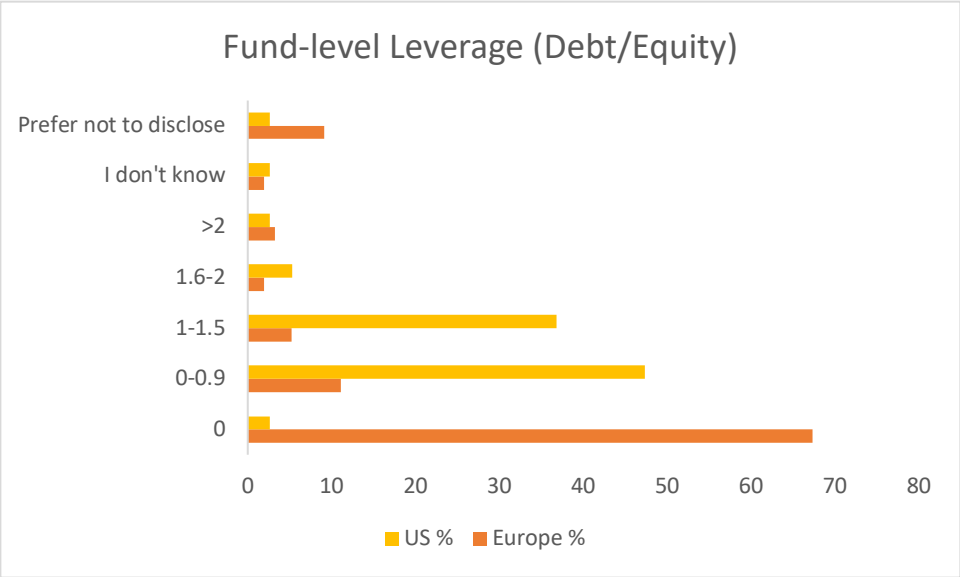
Panel B: US



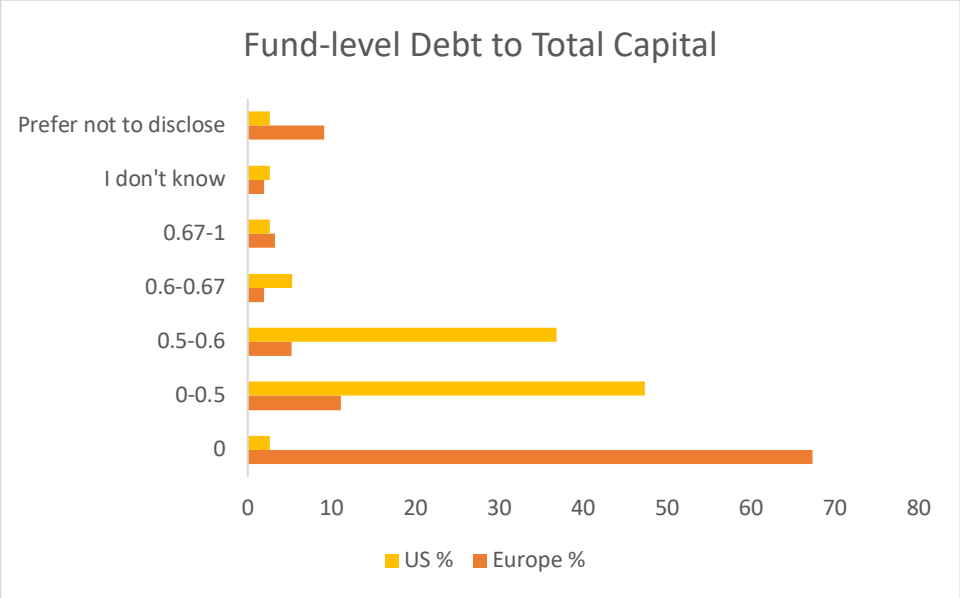
Note: This figure shows the main types of investors of our respondents. We report the results separately for the European and US respondents. Number of European responses: 704; number of US responses: 168.

Figure 5: GPs' use of debt

Panel A: Fund-level Debt to Equity



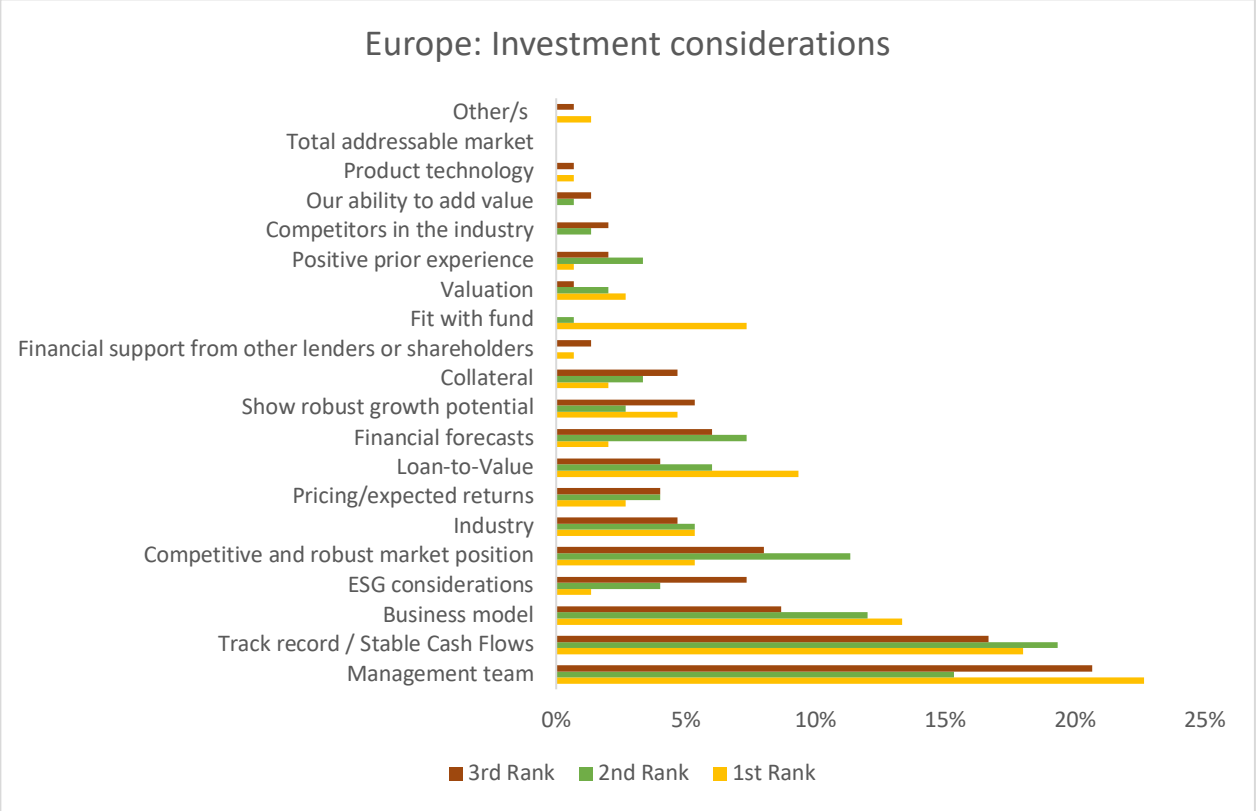
Panel B: Fund-level Debt to Total Capital



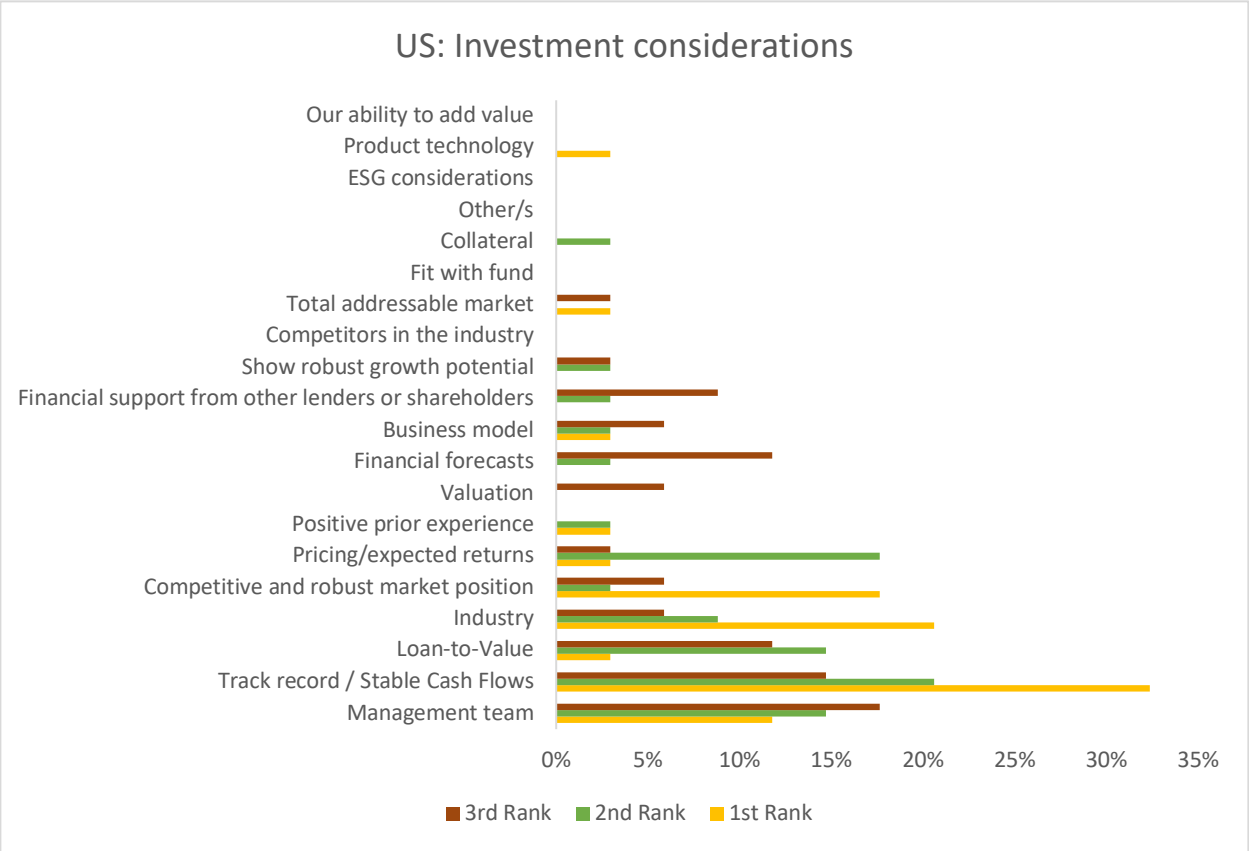
Note: This figure displays the amount of debt employed at the fund level by our respondents. Panel A reports the debt to equity ratio (i.e. leverage), and Panel B reports the debt to total capital ratio. (Number of European responses: 153; number of US responses: 38)

Figure 6: Investment considerations

Panel A: Europe



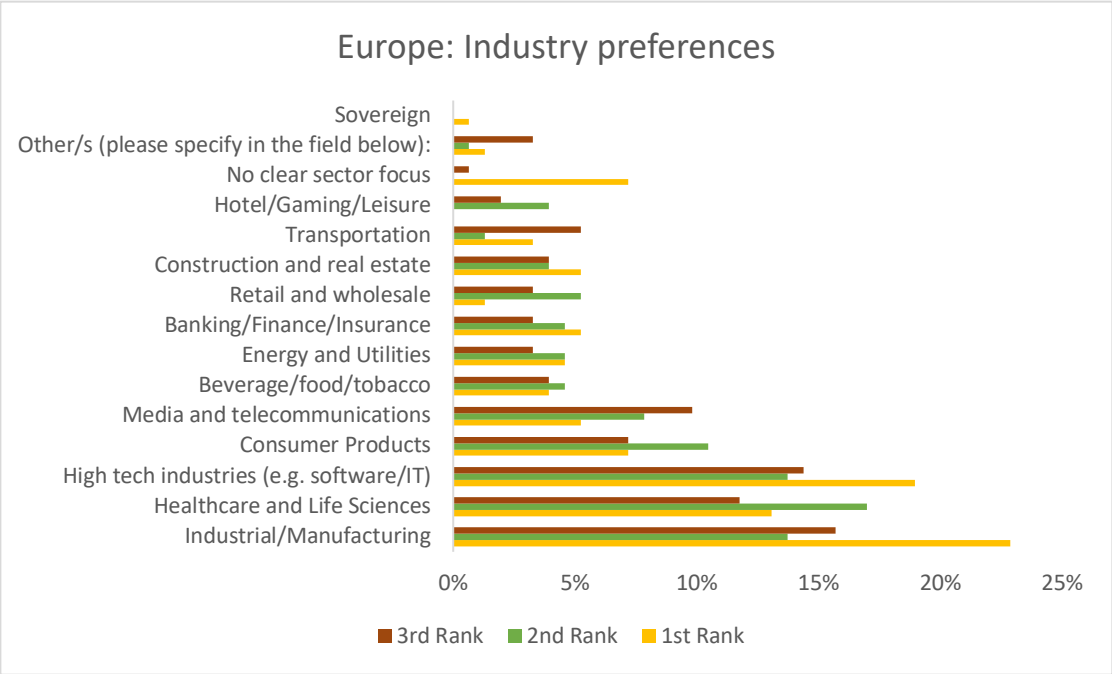
Panel B: US



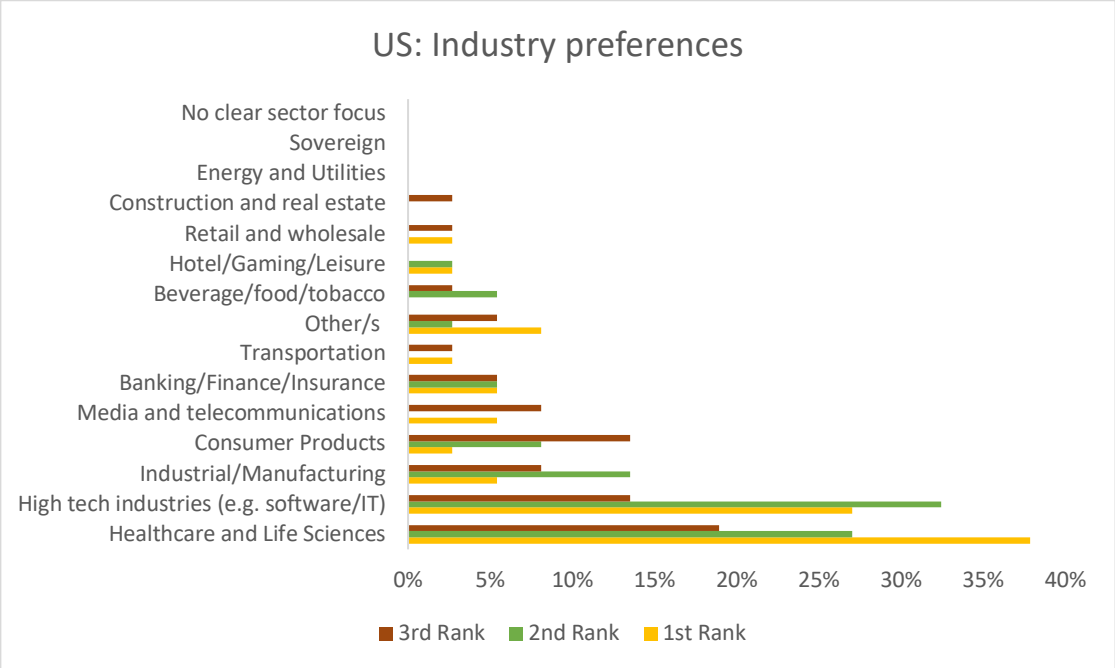
Note: This figure shows the most important factors our respondents consider when deciding whether to lend. We report the results separately for the European and US respondents. Number of European responses: 731; number of US responses: 157.

Figure 7: Industry preferences

Panel A: Europe



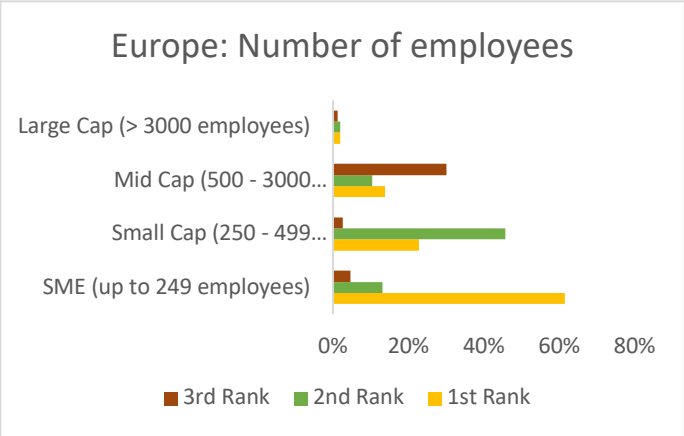
Panel B: US



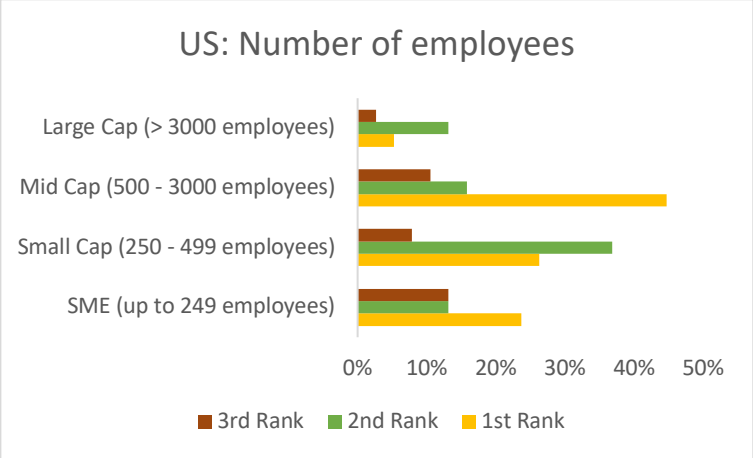
Note: This figure shows industry preferences of our respondents. We report the results separately for the European and US respondents. Number of European responses: 649; number of US responses: 159.

Figure 8: Portfolio company characteristics

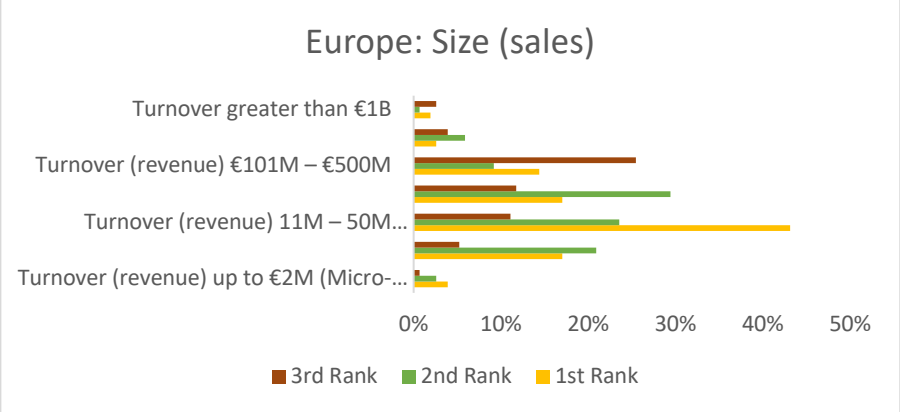
Panels 1A: Size (number of employees) (Europe)



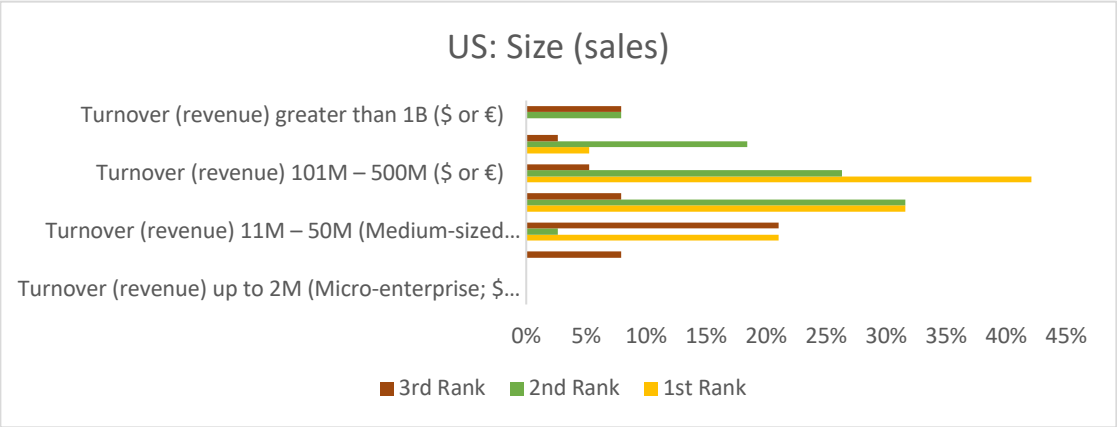
Panel 1B: Size (number of employees) (US)



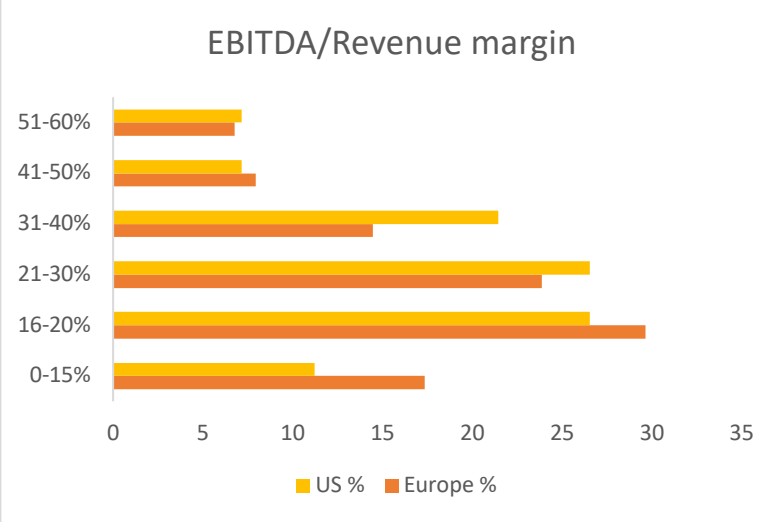
Panel 2A: Size (sales) (Europe)



Panel 2B: Size (sales) (US)



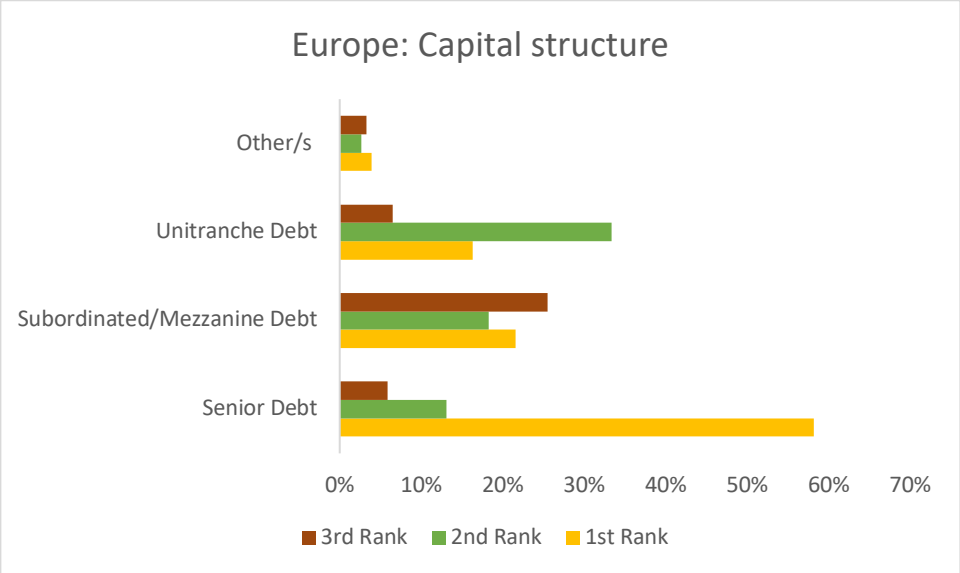
Panel 3: EBITDA/Revenue margin



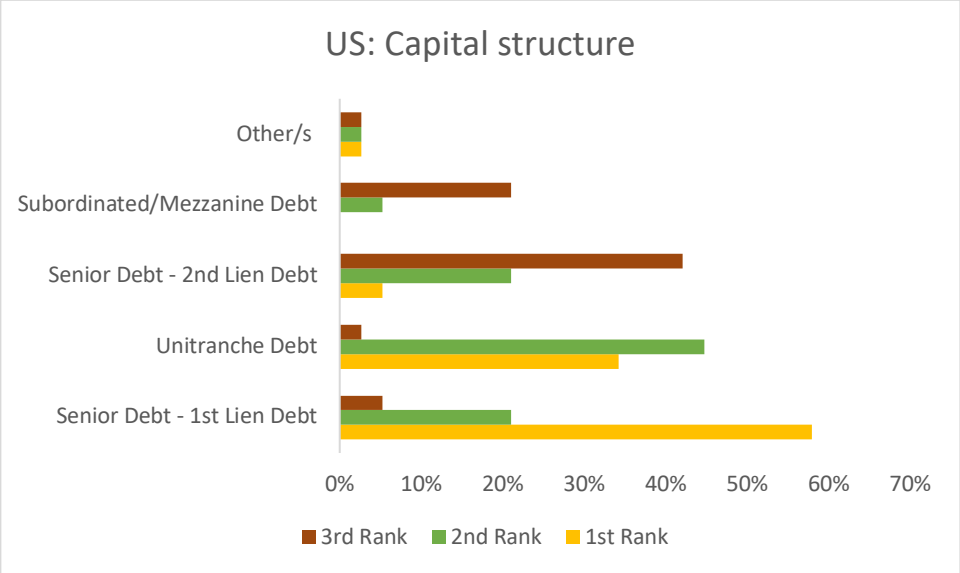
Note: This figure shows portfolio companies characteristics. Panel 1A and 1B display the size of portfolio companies by number of employees (335 European responses and 82 US responses); Panel 2A and 2B display the size of portfolio companies by turnover (424 European responses and 98 US responses); Panel 3 shows EBITDA/Revenue margin (415 European responses and 98 US responses).

Figure 9: Debt characteristics

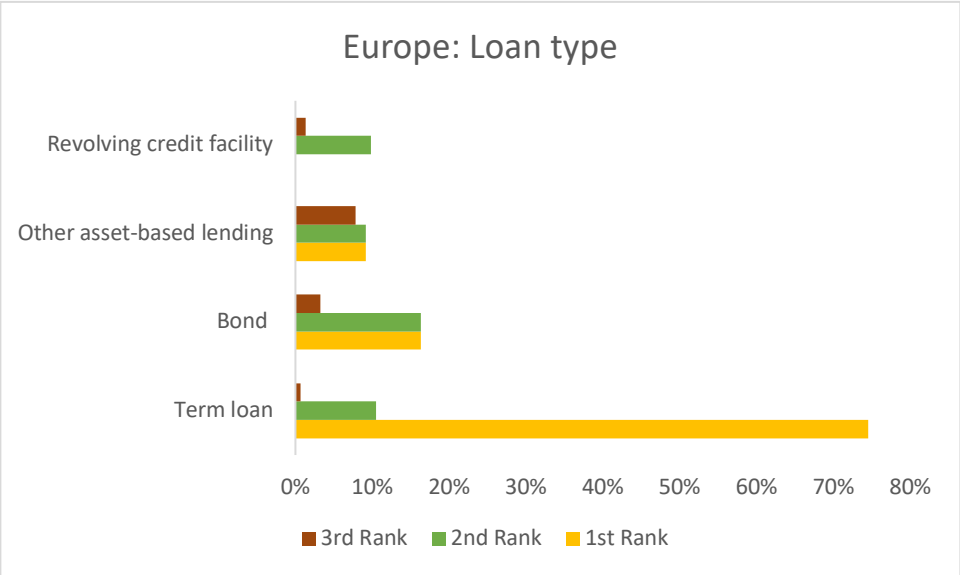
Panels 1A: Capital structure (Europe)



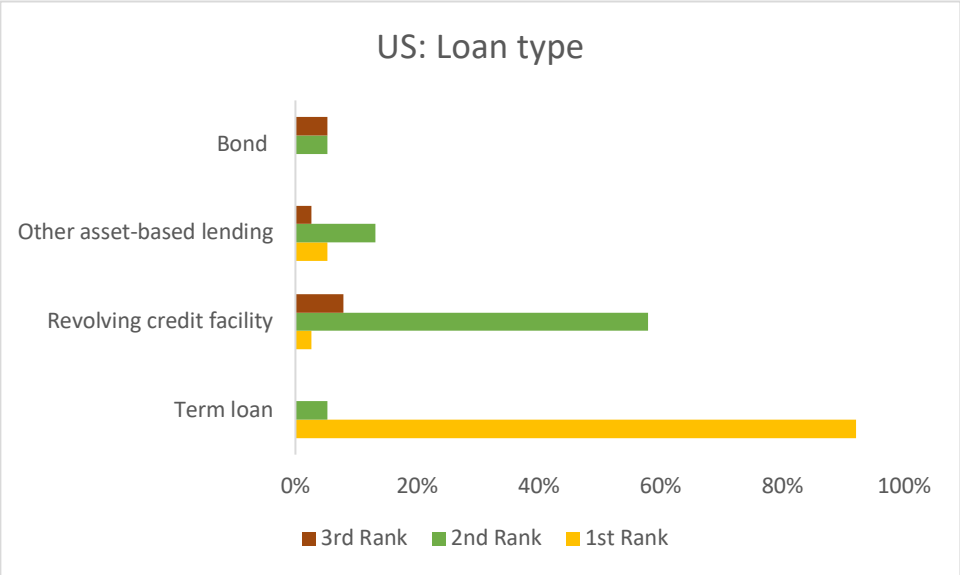
Panels 1B: Capital structure (US)



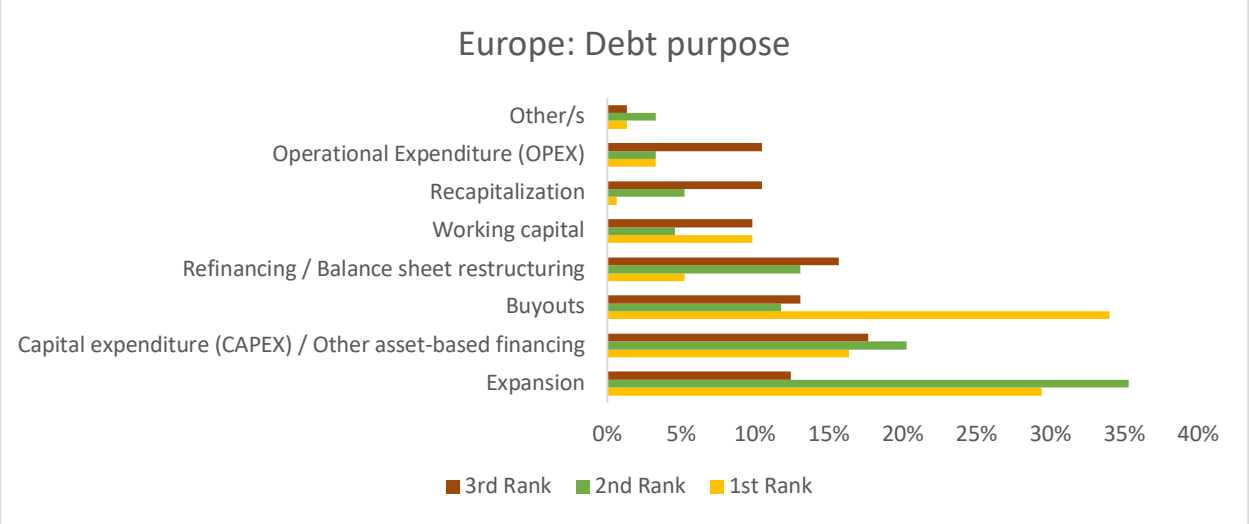
Panels 2A: Loan type (Europe)



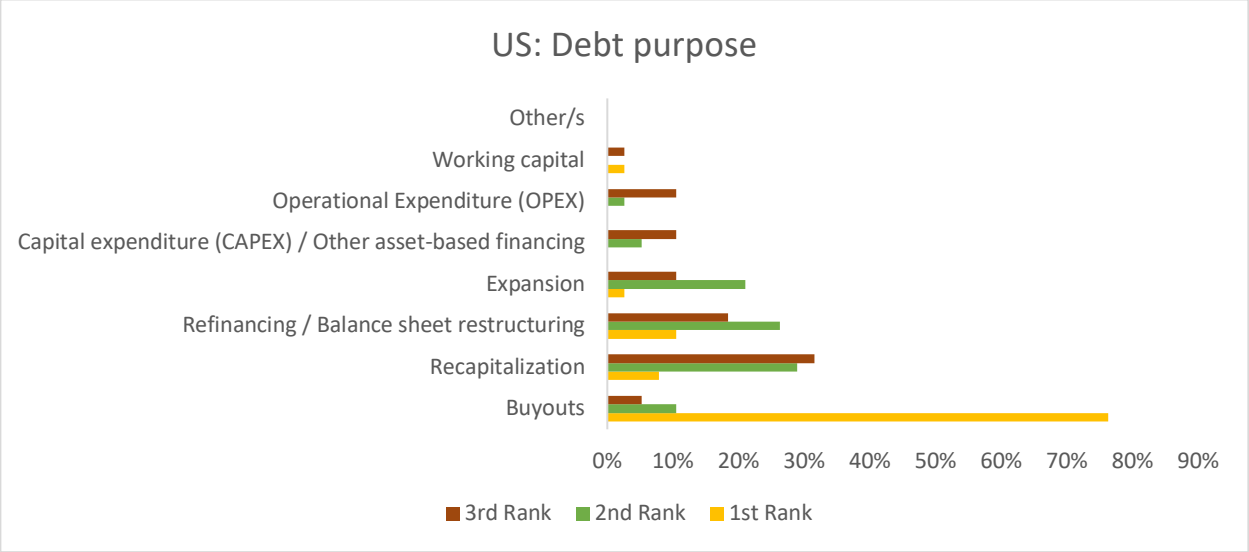
Panel 2B: Loan type (US)



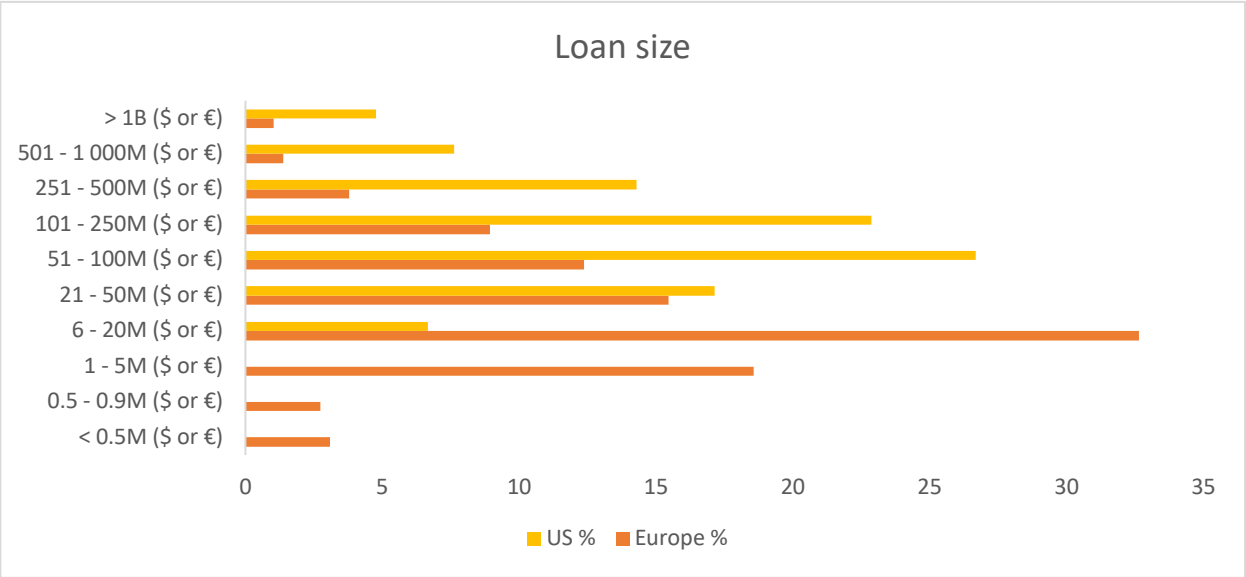
Panels 3A: Debt Purpose (Europe)



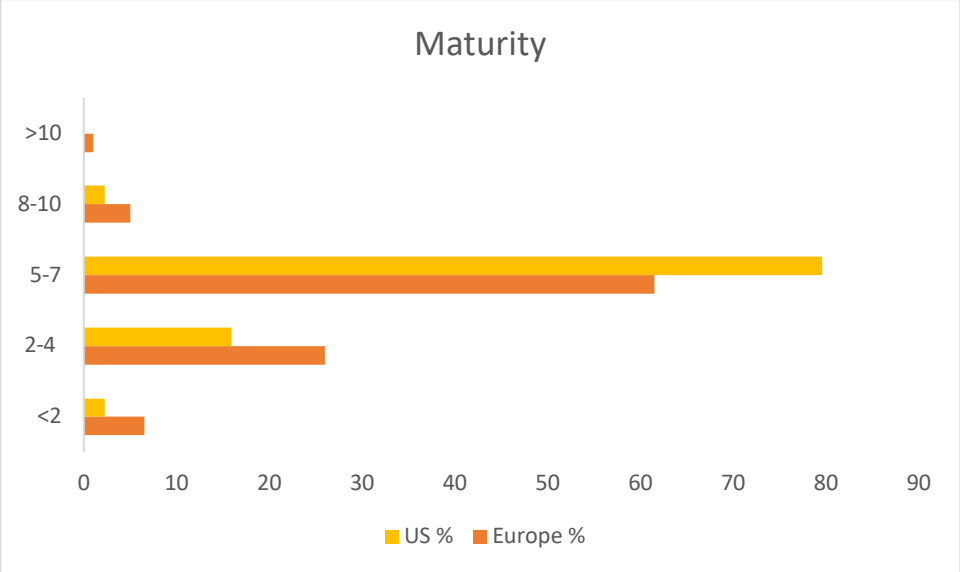
Panel 3B: Debt Purpose (US)



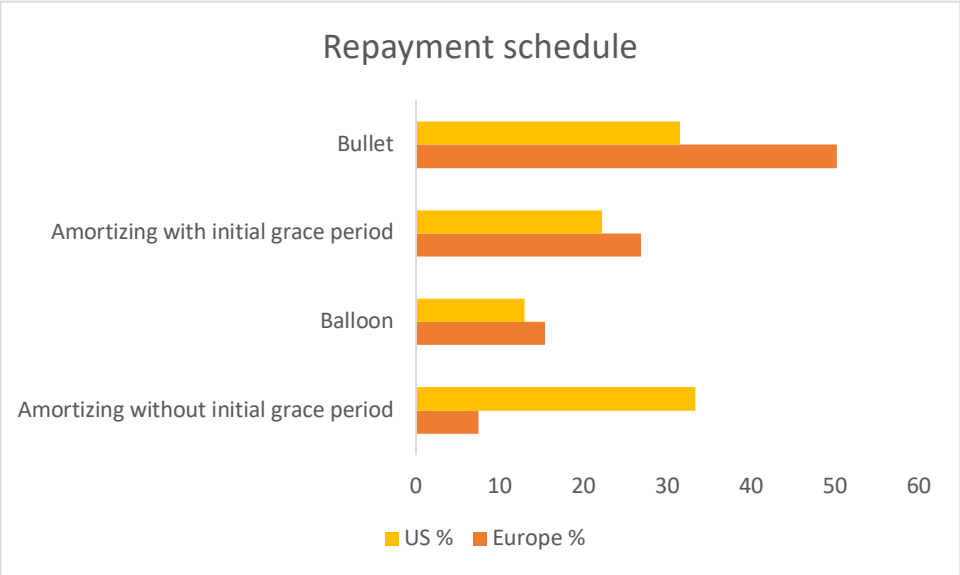
Panel 4: Loan size



Panel 5: Maturity



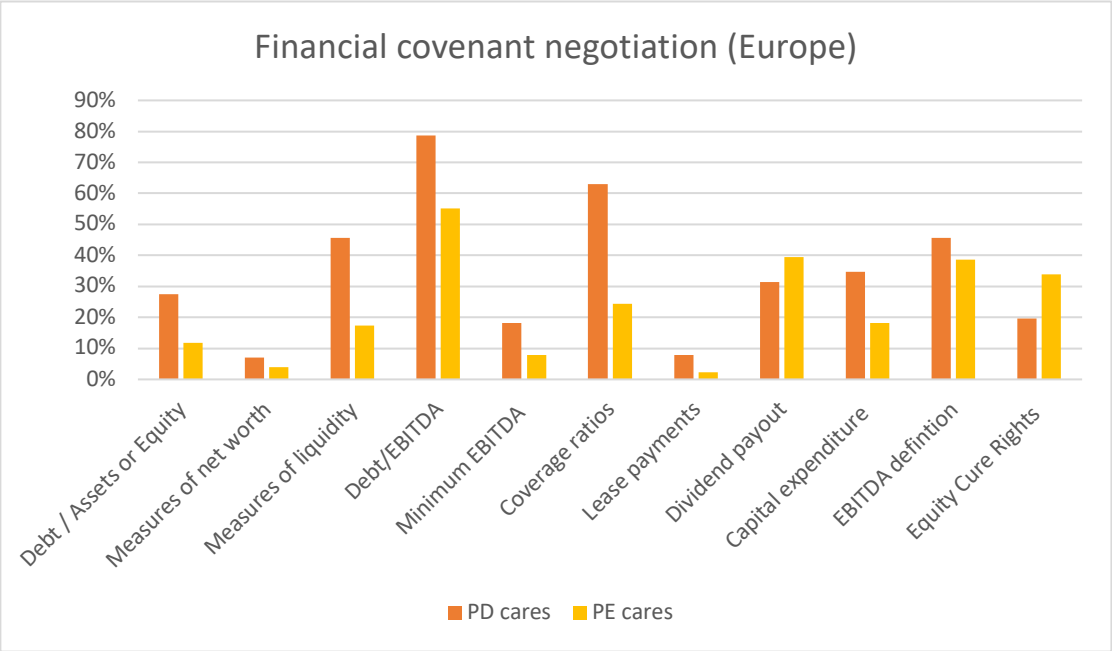
Panel 6: Repayment schedule



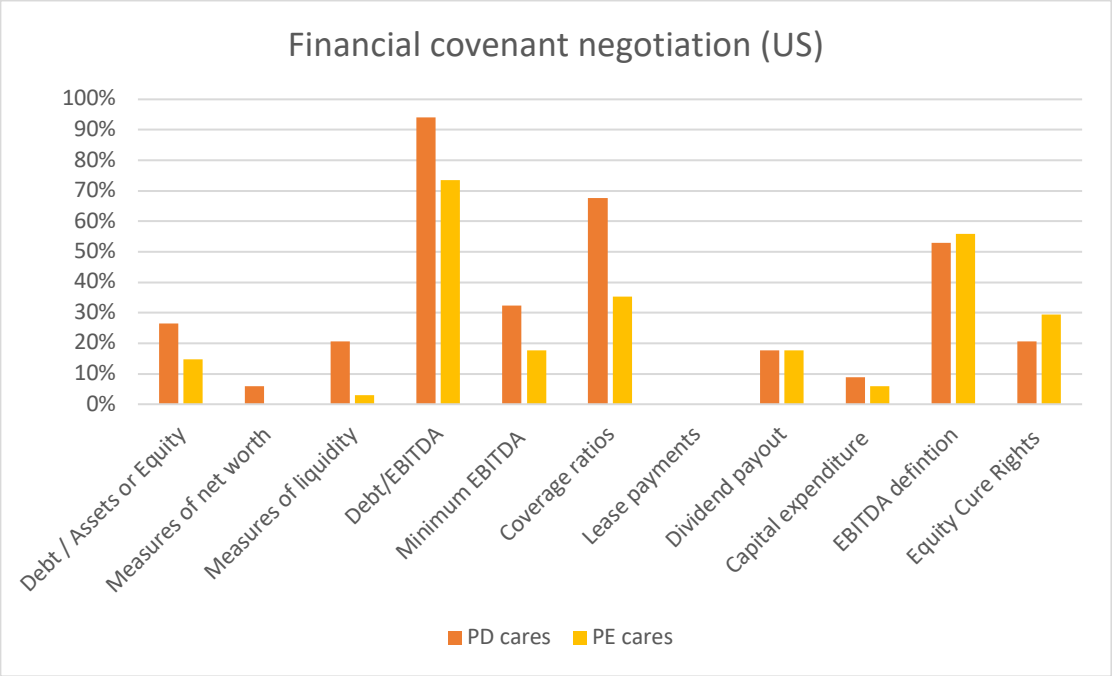
Note: This figure shows debt characteristics. Panel 1A and 1B show capital structure of private debt funds (327 European responses and 114 US responses); Panel 2A and 2B show loan type (246 European responses and 75 US responses); Panel 3A and 3B show debt purpose (609 European responses and 138 US responses); Panel 4 shows loan size (291 European responses and 105 US responses); Panel 5 shows loan maturity (200 European responses and 44 US responses); Panel 6 shows typical repayment schedule (227 European responses and 54 US responses). Second-lien debt response option was excluded for the European survey as it seems not to play such an important role in Europe compared to the US.

Figure 10: Covenants

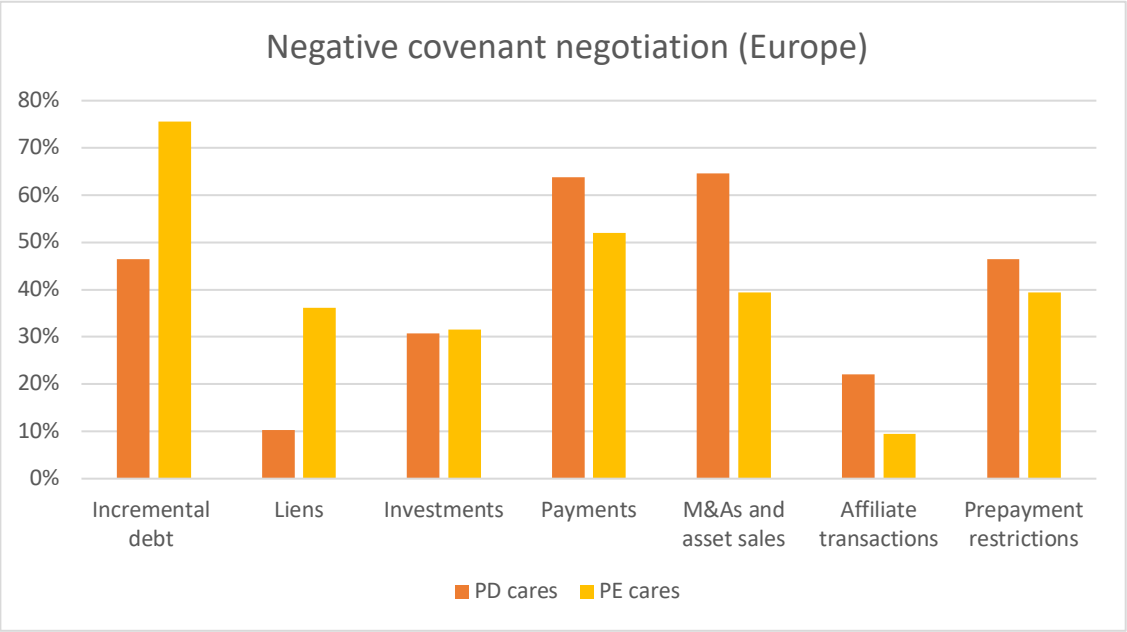
Panel 1A: Financial covenants (Europe)



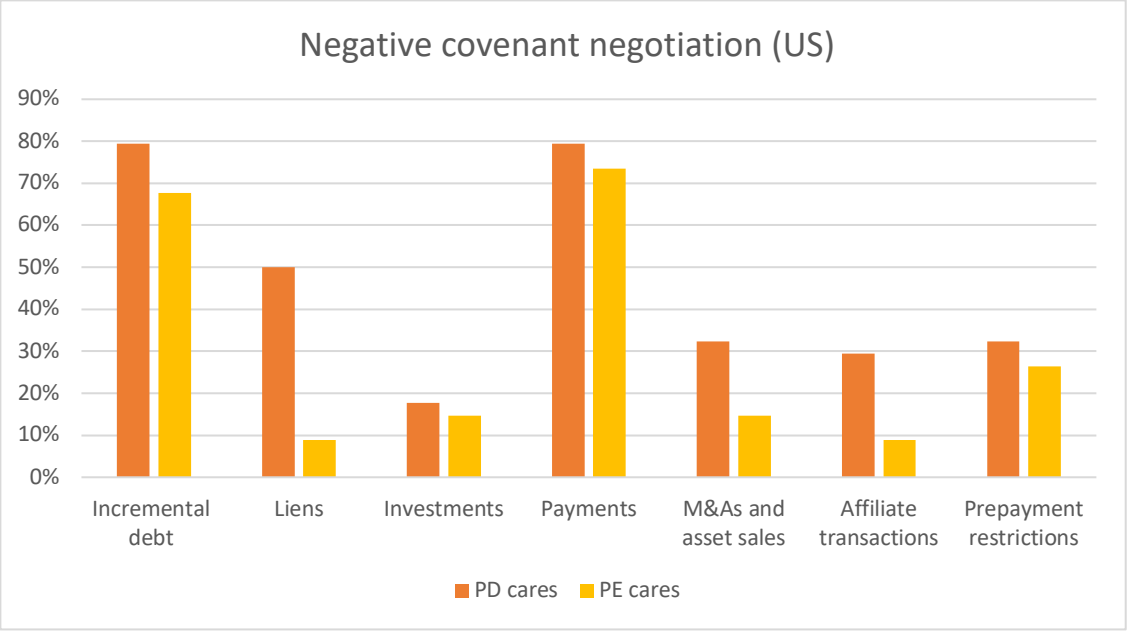
Panel 1B: Financial covenants (US)



Panel 2A: Negative covenants (Europe)



Panel 2B: Negative covenants (US)



Note: This figure shows financial covenants (Panel 1A and 1B) and negative covenants (Panel 2A and 2B) that are most important for a PD sponsor and that PE sponsors tend to negotiate on most aggressively. We report the results separately for the European and US respondents.