

Staff memo

Private equity in Sweden: a finan- cial stability per- spective

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February 2025

Correction pg. 29 11 December 2025. Typographical error corrected. Underlined word added to the sentence "Retail investors may not be as well equipped..."

Contents

1	Introduction	5
2	What is private equity?	6
2.1	Defining private equity	6
2.2	Structure of private equity investments	7
2.3	Private equity in Sweden and abroad	9
2.4	Research on private equity paints a mixed picture	10
3	Portfolio companies – the capital recipients	12
3.1	Swedish portfolio companies	12
3.2	Financial stability risks related to portfolio companies	13
4	Private equity firms and funds – the capital managers	18
4.1	Size and distribution of firms and funds in Sweden	18
4.2	Financial stability risks related to private equity funds	19
5	Private equity investors – the capital providers	24
5.1	Swedish private equity investors	24
5.2	Financial stability risks related to investors	26
6	Conclusions	31
	References	33

Staff memo

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Summary

Private equity has grown significantly both globally and in Sweden over recent decades. Despite its relatively small size, Sweden is home to several large, globally active private equity firms, financed by international investors through investment funds often domiciled abroad. About half of their investments are directed toward Swedish companies, while many other Swedish companies receive investments from foreign private equity firms. To fund the cost of acquiring private companies, private equity firms often combine investors' equity with substantial borrowing, placing the debt on the acquired company. This high leverage and limited transparency can pose risks to financial stability.

We find that Swedish companies acquired through leveraged buyouts (LBOs) remain significantly more leveraged than their peers for several years post-acquisition, relying on short-term loans and incurring higher interest costs. However, private equity firms seem to manage this higher leverage, and we find no evidence that private equity ownership significantly increases financial instability risks in these companies during the studied period of 1997–2022.

Still, prolonged periods of elevated interest rates could strain these companies, with defaults potentially negatively impacting the real economy. While Swedish banks may face credit losses, their role as lenders in LBOs has declined over time in favour of international private credit funds. This shift could increase loan rollover risks for companies relying on private credit if these funds suddenly and sharply reduce their lending, while also making stability authorities' risk assessments harder due to limited access to data on international non-banks.

Moreover, we find significant leverage at the fund level in some Sweden-regulated private equity funds, but the timing of this leverage suggests these are well-collateralised loans used to bridge acquisitions and call on investor capital. Finally, we assess private equity investment and liquidity-related risks as low for the Swedish insurance and pension sector, the primary Swedish investors in private equity funds.

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¹ We would like to thank Niklas Amberg, Olof Sandstedt, Johanna Stenkula von Rosen, Annika Svensson, seminar participant at the Riksbank, and our colleagues at Finansinspektionen for their valuable comments.

1 Introduction

In recent decades, private equity firms have significantly expanded their global investment activities, a large share of which remains concentrated in the United States. Despite Sweden's relatively small economy, it is home to several large, globally active private equity firms that make considerable investments in companies worldwide. These investments are financed with equity from both Swedish and foreign institutional investors – usually channelled through private equity funds often domiciled abroad – and debt sourced from banks and non-bank lenders alike.

Private equity firms provide an alternative source of funding for companies and often implement corporate governance measures that have historically supported business growth and delivered high returns to investors. However, these investments typically involve substantial borrowing to acquire large or multiple companies. The debt is often placed on the balance sheets of these acquired companies (referred to as 'portfolio companies'), increasing their financial leverage and potentially making them more vulnerable if interest rates rise above the levels expected at the time of investment. This vulnerability also creates risks for the lenders, who face credit losses if the portfolio companies are unable to service their loans.

Recently, global financial conditions – including elevated interest rates and challenges faced by private equity firms in divesting their portfolio companies – have focused renewed international attention on the risks associated with the private equity industry. This underlines the need to analyse vulnerabilities within the industry and potential spillover risks to the Swedish financial system and real economy. However, because the industry operates on a global scale, assessing its risks from a Swedish perspective is difficult. A Riksbank article initiated such an assessment, highlighting the growing role of international private credit funds as lenders to portfolio companies (Sveriges Riksbank, 2024). While this staff memo addresses these non-bank lenders, it dives deeper into the Swedish portfolio companies, private equity firms and their funds, as well as the Swedish investors, providing a more comprehensive risk assessment.

In this staff memo, we use private market data to explore where Swedish private equity firms invest and the nationalities of foreign firms investing in Swedish companies. Through econometric analysis, we study the effects of leveraged buyouts (LBOs) and private equity ownership on various financial variables of Swedish companies. At the fund level, we evaluate the use of leverage in Swedish private equity funds through regulatory data on alternative investment funds. Lastly, we conduct a look-through of Swedish investors' private equity fund investments to identify their exposure to different geographical regions and industries.

This staff memo is structured as follows: Section 2 provides an overview of the private equity investment model, the size of the industry globally and in Sweden, and insights from prior research into the effects of private equity. Section 3 studies the effects of LBOs on Swedish companies. Section 4 examines the Swedish private equity firms and funds in greater detail, and Section 5 focuses on the Swedish private equity investors. Finally, Section 6 presents the conclusions drawn from the analyses in this staff memo.

2 What is private equity?

2.1 Defining private equity

Private equity, often called 'riskkapital' in Swedish, is an umbrella term for investments in companies that are not publicly traded on a stock exchange in the medium- to long-term, or acquiring enough equity in public companies to take them private.² These investments – known in the industry as 'deals' – are typically made by private equity firms with the goal of eventually selling their stake for a profit. In many cases, this involves actively managing and transforming the companies to increase their value. Once acquired, these companies are known as 'portfolio companies', and a private equity firm may own multiple such companies.

The two primary segments of private equity are 'buyouts' and 'venture capital'.³ In buyouts, private equity firms acquire mature companies with more stable cash flows compared to younger companies. When debt is used to finance the acquisition, it is known as a 'leveraged buyout' (LBO). After acquiring a company, private equity firms typically implement strategies to improve its profitability. These companies are usually held for 7 to 10 years before being sold to larger corporations, other private equity firms, or taken public through an initial public offering (IPO).

Within the buyout segment, private equity firms employ various strategies. Some firms target companies that are already performing well but could perform even better. Others seek out companies with financial or operational issues that they believe can be resolved (a 'turnaround' strategy). While riskier, turnaround strategies often allow firms to acquire companies at lower costs. Another strategy involves purchasing multiple smaller businesses within the same industry and merging them into a single, larger company to achieve greater efficiency and scale (an 'add-on strategy'). Finally, some private equity firms generate profits by selling the portfolio company's assets piecemeal and liquidating the remainder (an 'asset stripping' strategy).

Venture capital strategies, on the other hand, differ from buyouts. In venture capital, private equity firms invest in and take minority stakes in young companies that are high-risk but have significant growth potential. These companies often require capital to achieve their ambitious growth goals. Venture capital investments typically occur across multiple funding 'rounds', meaning a single company may receive several injections of capital over time. In addition to providing capital, venture capital firms often play an active role in their portfolio companies by contributing industry expertise, operational guidance, and strategic advice.

The aim of venture capital is to grow the company rapidly, positioning it to attract a larger buyer or to go public through an IPO. Occasionally, venture capital is directed

² The Swedish term 'riskkapital' is often used quite broadly without distinguishing between different segments such as buyouts and venture capital.

³ The terms 'private capital' or 'private markets' often include real estate and infrastructure investment, and private debt. These will not be discussed in this staff memo.

toward more mature companies, in which case the funding is often referred to as 'growth capital'.

Private equity firms, whether focused on venture capital or buyouts, generally prefer to invest in industries with high growth potential and low business cyclicality. Since their investments are time-limited, these firms aim to achieve strong returns regardless of the economic conditions at the time of the portfolio company's sale.

2.2 Structure of private equity investments

The second factor that is typical of the private equity industry is the structure of its investments. Investments can be broadly divided into two categories: **direct investments** and **pooled investments**.

Of the two, **direct investments** are less commonly discussed. Here, a private equity firm uses its own capital to acquire or invest directly in a company. Firms that rely on this strategy are typically family offices, which invest on behalf of wealthy individuals or groups, as well as publicly traded investment companies. Direct investments are sometimes excluded from broader discussions of private equity because they blur the lines between private equity and other forms of investment.

The more familiar structure is the **pooled investment** model. In this model, private equity firms raise capital from institutional investors, such as pension funds or sovereign wealth funds, in a private equity fund. The private equity firm managing the fund is referred to as the 'general partner', while the institutional investors are called 'limited partners'. The firm deploys the pooled capital to acquire and invest in companies. Investors make capital commitments to the fund, which are drawn upon when the firm identifies suitable investment opportunities.

A key concept in this structure is 'dry powder', the difference between the capital committed by investors and the capital that has already been drawn. Dry powder measures the fund's capacity to make new investments or to provide additional funding to existing portfolio companies. When the private equity firm calls on these commitments, investors are generally required to deliver the funds within a short timeframe, typically 1 to 2 weeks.

Under the pooled structure, private equity firms generate returns by charging their investors fees. These fees often include an annual management fee of around 2 per cent of invested capital and a performance fee, commonly 20 per cent of the fund's profits upon its wind-up, referred to as 'carried interest'. This '2-and-20' model is also common in hedge funds. Additionally, the private equity funds' general partners usually invest in the same fund, aligning their interests with those of the limited partners and seeking out additional returns.

In some cases, private equity firms face difficulties divesting portfolio companies at desired valuations, particularly in challenging economic and financial conditions. When this happens, they may establish a 'continuation fund' to retain the investment

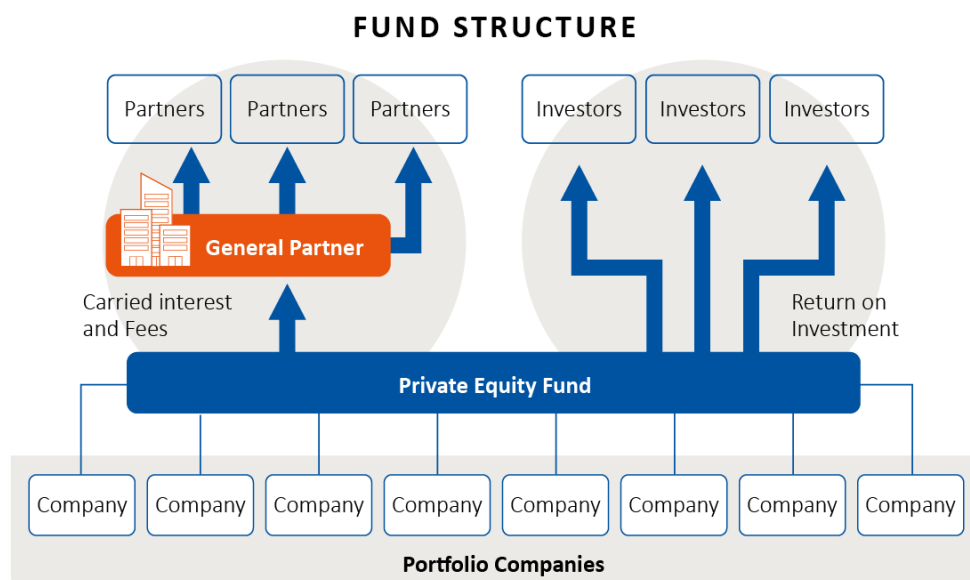
longer. This involves raising additional capital through a new fund to purchase the company from the original fund.

The financing mix of equity and debt in private equity depends on the segment. Venture capital investments are often too risky for conventional lenders due to the high failure rate of many, if not most, venture capital projects. As a result, these types of investments are predominantly funded through equity. In contrast, buyouts often involve a combination of fund capital and loans from creditors, resulting in LBOs.

In an LBO, the loan is not taken out by the fund itself but is placed on the balance sheet of the acquired portfolio company. A benefit of this structure is that lenders, such as banks, have direct claims on the portfolio company's assets in the event of a default. If the loan were taken out by the private equity fund instead, lenders would hold claims on the fund's equity and, indirectly, the equity of the portfolio company, which would require them in effect to take a subordinated position.

Figure 1 illustrates a simplified representation of the relationship between investors, private equity firms, and portfolio companies in a pooled structure. In reality, these structures are often much more complex, involving multiple interconnected funds. For instance, the general partners' investments may be channelled through co-investment funds, while other structures may be designed to optimise tax arrangements or establish seniority among investors in case of bankruptcy.

Figure 1. A stylised example of pooled private equity investments



Note. Investors, or 'limited partners', invest together with the private equity firm, the 'general partner', in a fund. The fund, in turn, acquires a number of portfolio companies, which are managed by the private equity firm. These portfolio companies receive additional investments to improve productivity and pay regular fees to the fund. After a set period, the portfolio companies are sold, the fund is wound up, and the proceeds are distributed to the investors.

Source: Sveriges Riksbank.

2.3 Private equity in Sweden and abroad

Accurately estimating the size of the private equity industry, whether in Sweden or globally, is challenging. Reporting requirements for private equity activity vary by jurisdiction, but are generally low.⁴ Furthermore, because private equity firms invest in private companies, the reporting obligations for these companies are less stringent compared to those for publicly traded companies.

According to private market data, in 2023, there were over 8,000 funds globally invested in private equity, managing assets totalling more than USD 7.4 trillion.⁵ Since 2009, the number of funds has nearly doubled, while total assets under management have more than tripled.

Sweden represents a small share of this figure: less than 2.5 per cent of the total assets under management in 2023 were held in funds located in Sweden.⁶ Nonetheless, several Swedish private equity firms are major international players in terms of both how they are financed and the portfolio companies they invest in. For example, the Swedish private equity firm EQT is the world's third largest in terms of total assets under management, approximately EUR 269 billion.⁷ Other large Swedish private equity firms include Nordic Capital, Altor, Summa Equity and Adelis.

A private equity firm based in Sweden typically has its investment and advisory activities here. However, their private equity funds themselves are often domiciled in countries such as Malta, Ireland and Luxembourg, the UK (including Channel Islands) and the US. Likewise, institutional investors in private equity funds are often drawn from a global market. For example, pension funds and sovereign wealth funds in other countries are common investors in the private equity funds managed by Swedish private equity firms.

The portfolio companies that Swedish private equity firms invest in are spread across multiple regions. However, Swedish private equity firms invest in Nordic companies disproportionately compared with the region's economic size. Approximately half of the acquisitions made by Swedish private equity firms are within Sweden (see Chart 1, left). Additionally, many other Swedish companies receive investments from foreign private equity firms (see Chart 1, right).

⁴ Size estimates are therefore vulnerable to both accidental exclusion (where a fund or private equity firm is excluded on account of it being unknown) and inclusion (where a fund is included even though it has been liquidated, or is included twice under different names).

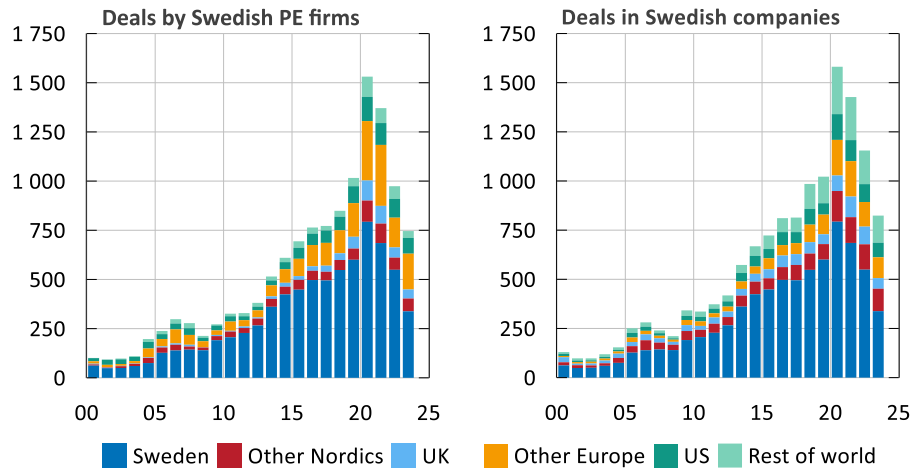
⁵ According to PitchBook, which is a database that provides global private market data.

⁶ Swedish location of the funds is not necessarily the same as legal domicile.

⁷ Or EUR 136 billion in fee-generating assets. See [EQT AB \(publ\) Year-end Report 2024 - EQT](#).

Chart 1. Deals by Swedish private equity firms and deals in Swedish portfolio companies by private equity firms, by geographical area

Number of deals



Note. Deals include those within both the buyout and venture capital segments. The data was extracted on 2024-11-27, and the 2024 observation is therefore preliminary.

Source: PitchBook Data, Inc.

2.4 Research on private equity paints a mixed picture

Private equity has been the subject of extensive research and debate over the last 30 years. The discussion began with a theoretical argument by Jensen (1989), who argued that the private equity business model was superior to that of the typical publicly traded firm. Public firms suffer from a principal-agent problem due to the separation of management and ownership. This can lead to suboptimal decisions from the owners' perspective, as managers might prioritise actions that benefit themselves over maximising shareholder profit. In contrast, private equity firms, which have full control over their portfolio companies, align management and ownership incentives, focusing both on maximising the company's value. This alignment theoretically enables private equity firms to improve the performance of their portfolio companies and generate profits for their investors. The lacklustre growth in firm productivity over the past decade suggests potential welfare gains from changes in firm governance that boost economic growth (Bloom et al., 2020).

The private equity business model typically involves more direct governance of portfolio companies compared to listed companies owned by large institutional investors, such as mutual funds. Institutional investors rarely have the resources to fully familiarise themselves with the operations of the companies they own, leading to less effective corporate governance (Erixon & Weigel, 2016). Moreover, these investors often hold small ownership stakes, making it difficult to influence company decisions. The presence of many diverse owners can also create a 'common-pool' problem, which can result in free riding behaviour. In contrast, private equity firms maintain a smaller portfolio of companies that they control – often exclusively or with very few

partners – enabling them to, for instance, decide on corporate strategy or replace underperforming management teams.

However, the empirical evidence on private equity's impact is mixed and constrained by limited data. By definition, private equity portfolio companies are private rather than public, reducing the data available for researchers. While information on private firms is accessible in some countries, such as Sweden, it is often harder to obtain in others. Additionally, the selective nature of private equity investments complicates establishing causality regarding the effects of buyouts.

Some studies report clear positive effects on portfolio companies following private equity takeovers, such as increased productivity and profitability (Bloom, Sadun & Van Reenen, 2015). When private equity firms acquire companies, there is often a reduction in low-skilled jobs at unproductive firms, suggesting improved efficiency (Olsson & Tåg, 2017). However, this drive for increased efficiency can have broader labour market consequences.

Other studies find little evidence of positive outcomes after private equity takeovers. A review by Morris & Phalippou (2020) highlights mixed evidence in previous studies that are partly due to small sample sizes and limited data availability. Additionally, some evidence suggests that increased profitability in private equity-owned firms may come at the expense of other stakeholders. For instance, nursing homes owned by private equity firms reportedly have higher mortality rates than comparable facilities, indicating potential declines in quality to boost profits (Gupta et al., 2024).

Overall, private equity firms have delivered profits to their investors, but the associated risk levels remain difficult to measure. This makes comparing private equity investments to alternatives, such as leveraged stock market portfolios, challenging. Some studies report consistently higher returns for private equity investments even after accounting for leverage (Kaplan & Sensoy, 2015), while others do not (Phalippou, 2009). Furthermore, private equity firms have occasionally used reporting standards that obscure critical information, complicating investor understanding of their investments (Brown, Gredil & Kaplan, 2019). This lack of transparency has also hindered external evaluations of private equity fund profitability.

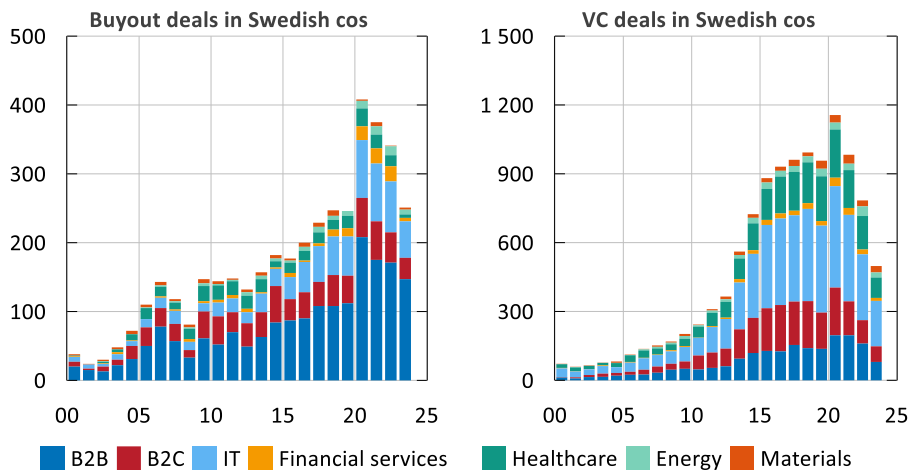
In public discourse, private equity is sometimes viewed as more controversial than other investment strategies. Takeovers by private equity firms have occasionally led to higher prices and lower quality of goods and services (Asil et al., 2024). Increased debt levels have, in some cases, driven previously profitable firms into bankruptcy, prompting accusations of corporate plundering (Ballou, 2023). Lastly, there has been significant public debate over how profits from private equity investments, particularly carried interest, should be taxed.

3 Portfolio companies – the capital recipients

3.1 Swedish portfolio companies

Since 2010, private equity firms have acquired approximately 3,400 Swedish companies through buyouts (see Chart 2, left). Additionally, they have invested venture or growth capital into almost 10,600 Swedish companies (see Chart 2, right). These companies operate across a wide range of industries, most notably business-to-business (B2B) and business-to-consumer (B2C) products and services, information technology (IT), and healthcare. Together, they employ a large number of people. Companies that have been subject to a buyout within the past seven years are estimated to employ nearly 364,000 people, while those that received venture or growth capital during the same period employ over 222,000 people.⁸

Chart 2. Private equity buyout and venture capital (VC) deals in Swedish companies
Number of deals



Note. Venture capital includes growth capital. 'B2B' denotes business-to-business and 'B2C' business-to-consumer products and services, and 'Materials' includes resources. Data was extracted on 28 November 2024, and the 2024 observation is therefore preliminary.

Source: PitchBook Data, Inc.

As shown in Chart 2 above, the largest number of new private equity investments in Swedish companies occurred in 2021. Since then there has been a noticeable slow-down, coinciding with rising interest rates and financing costs in 2022. The number of buyout deals has returned to pre-pandemic levels, but the number of venture capital

⁸ According to industry data from Swedish Private Equity & Venture Capital Association (SVCA), between 2007 and 2023, private equity firms invested a total of SEK 1,165 billion in 4,000 Swedish companies, with SEK 561 billion in equity and the remainder in debt financing and co-investments. These firms own approximately 1,200 companies in Sweden, employing around 260,000 people.

deals has fallen to roughly half of what it was during the pre-pandemic period of low interest rates – a peak reached after a decade of exponential growth.

3.2 Financial stability risks related to portfolio companies

The decisions that private equity firms take around their portfolio companies have the potential to create financial stability risks. These risks relate to three areas: leverage, liquidity and solvency.

While the risk to the financial system from the failure of individual portfolio companies tends to be relatively limited – with the median company subject to a buyout in Sweden having assets of SEK 280 million in 2022 – the potential for systemic impacts grows as the share of these companies increases. Private equity firms typically do not finance acquisitions entirely with their own equity or that of their funds. Instead, a significant portion of the acquisition is funded through debt. Industry data indicates that the average debt ratio for buyout investments in 2023 was 52 per cent.⁹ This debt is not usually borne by the private equity firm but by the portfolio company itself. As a result, companies owned by private equity firms are generally more leveraged than their non-private equity financed counterparts, increasing the risk of bankruptcy and associated credit losses.

Private equity firms have historically borrowed primarily from banks to finance their portfolio companies. However, in recent years, they have also increasingly borrowed from other financial institutions, so-called non-bank lenders, such as private credit funds.¹⁰ These private credit funds can either lend directly to private companies or purchase loans that banks have securitised. It is also common for portfolio companies to issue bonds, enabling them to raise funds from bond market investors.

There are several reasons why private equity firms have increasingly borrowed from non-bank lenders or via the high-yield bond market in recent years, even though this is often more expensive than borrowing from banks. Non-bank lenders can often offer larger loans than an individual bank can, and for the private equity firm, it is usually desirable to have a larger credit from one lender rather than several smaller ones that need to be negotiated with different banks.¹¹ It also seems that non-bank lenders are often more willing to relax loan conditions linked to the performance of the portfolio company (known as ‘covenants’) in return for being able to charge more for the loans. At the same time, banks have become somewhat less willing to provide loans to support leveraged buyouts, as banks have been required to have higher capital when they make riskier loans. Non-bank lenders have not been subject to such strict requirements.

The growing role of non-banks as lenders to private equity firms, coupled with the declining role of banks, makes assessing credit risks more challenging from a financial

⁹ Debt includes external leverage and co-investments, see [2022 Swedish Private Equity Activity](#).

¹⁰ See Sveriges Riksbank (2024) for a more in depth discussion on the growing role of private credit funds.

¹¹ Bank loans for large buyout transactions are typically syndicated, meaning that multiple banks jointly provide the funding and share the associated risks and returns.

stability authority perspective. Private credit funds are less transparent and subject to less stringent supervision compared to banks. However, one potential advantage of the increased involvement of these funds is that credit risks become less concentrated than if banks were solely responsible for all lending. In the event of widespread bankruptcies – among both private equity-owned and other companies – loan losses are distributed across a broader range of actors, which can benefit financial stability. This assumes that the private credit funds are not themselves funded by banks.

On the other hand, portfolio companies may face higher rollover risks when relying on financing from non-bank lenders or the market, compared to banks. Like private equity funds, private credit funds are closed-ended with finite lifespans and are constrained by the availability of dry powder. While these lifespans are relatively long, the funds eventually dissolve, requiring new funds to assume the lending. Over the long term, the availability of dry powder is influenced by the yield of previously provided loans and the willingness of institutional investors to continue supplying capital to these funds.¹² Given the nature of relatively low collateralisable assets, softer covenants and higher leverage of private credit financing, some companies may struggle to secure adequate financing in its absence. Recent studies from the US have shown evidence supporting this view (Cai & Sharjil, 2024).

Under extreme conditions – such as a financial crisis – private credit funds may also encounter more difficulties than banks, as solvent but illiquid banks will typically have access to central bank liquidity support, while private credit funds will not. This in turn may affect their relative ability to roll over their loan portfolios.

Similar to public companies issuing shares, private equity firms can shield their portfolio companies from bankruptcy by providing additional equity injections. However, this ability depends on the dry powder available within the fund. Such support is more feasible during the earlier stages of the fund's lifecycle. In contrast, during later stages – especially if the fund must hold onto a portfolio company longer than anticipated due to challenging economic or financial conditions – dry powder may become scarce, reducing the firm's capacity to intervene.

Overall, research based on US data has shown that private equity-owned companies are effective at managing their high levels of debt and, as a result, are less likely to face liquidation compared to other highly indebted companies (Hotchkiss, Smith & Strömberg, 2021). However, this research was conducted during a period of low interest rates and favourable access to capital. The elevated interest rates in recent years may have made it more challenging for highly indebted portfolio companies to service their debt, potentially leading to an increase in bankruptcies. In the worst-case scenario, significant credit losses could weaken a bank's balance sheet to the point of triggering a bank run (Amador & Bianchi, 2024).

For the three major Swedish banks (Handelsbanken, SEB and Swedbank), we assess that credit losses from lending to portfolio companies alone are unlikely to have destabilising effects. Although these loans generally come with higher expected credit

¹² Similarly, bonds mature and must be refinanced, meaning new bonds need to be issued under market conditions influenced by prevailing investor sentiment.

losses, the banks' exposure to such companies remains relatively small, comprising a smaller percentage of their total corporate lending. In addition, regular lending to portfolio companies often includes a range of general and financial covenants and is ultimately secured by the assets of the portfolio companies.¹³ Discussions with some Nordic banks suggest they diligently monitor their leveraged loan portfolios and enforce specific limits on financing for LBOs. Even though leveraged loans do not typically receive specific regulatory treatment, banks are subject to prudential capital requirements and evaluate these loans within their existing credit risk management frameworks.

Econometric analysis of the effects of LBOs in Swedish companies

Kärna and Myers (2025) study the effects of leveraged buyouts (LBOs) on various financial variables of Swedish companies, including short-term and long-term debt levels, leverage (debt-to-equity), interest costs, and net profits. This is done through an econometric analysis of roughly 4,000 Swedish companies acquired through LBOs between 1990 and 2022. Here, we provide an expanded commentary on some of these results, together with some additional findings from the same analysis.

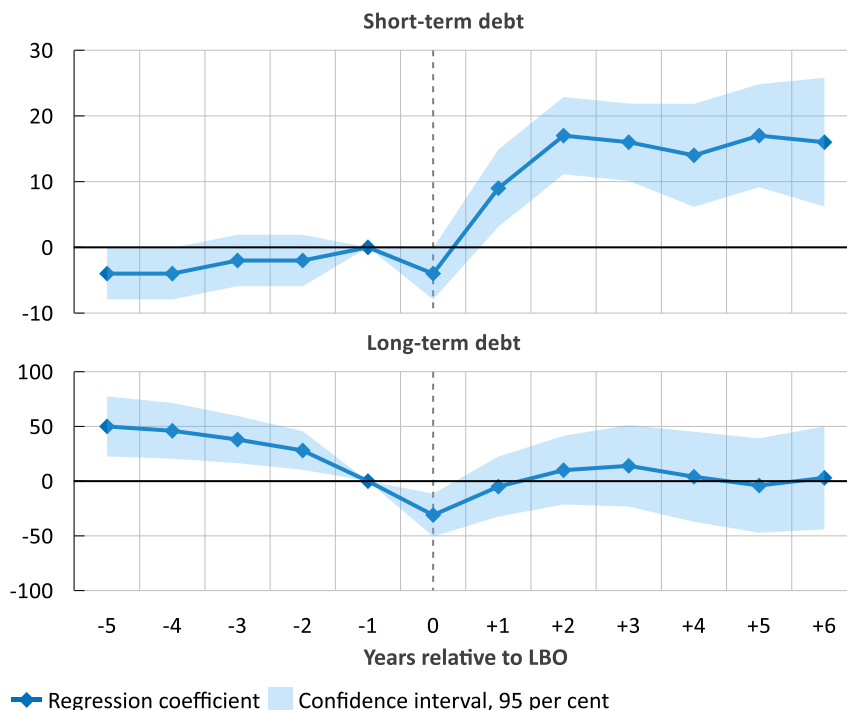
The charts below present a subset of regression coefficients from a difference-in-difference analysis using a matched control group of similar non-private equity-financed companies, with the year prior to the LBO serving as the baseline.

Following an LBO, short-term debt levels in Swedish companies rise significantly – by almost 20 per cent compared to the control group (see Chart 3, upper panel). This rise in debt aligns with our expectations, as buyouts are typically partly financed with debt placed on the balance sheet of the portfolio company. However, not all of the increase in short-term debt appears directly tied to the acquisition itself. Sales and total assets of these companies grow for several years post-acquisition, suggesting that some of the debt is allocated to expanding the underlying business. Total equity increases immediately after the LBO but subsequently declines, resulting in higher leverage. The fact that long-term debt does not increase indicates that, on average, the debt must typically be rolled over within a 12-month period (see Chart 3, lower panel).

¹³ Some Nordic banks also provide unsecured mezzanine loans, which are subordinated regular bank loans and often used as a complementary financing option.

Chart 3. Debt levels of Swedish portfolio companies compared to similar non-private equity-owned companies, before and after an LBO

Per cent



Note. If the confidence interval overlap the zero number line, the coefficient is not statistically significant at the 5 per cent level.

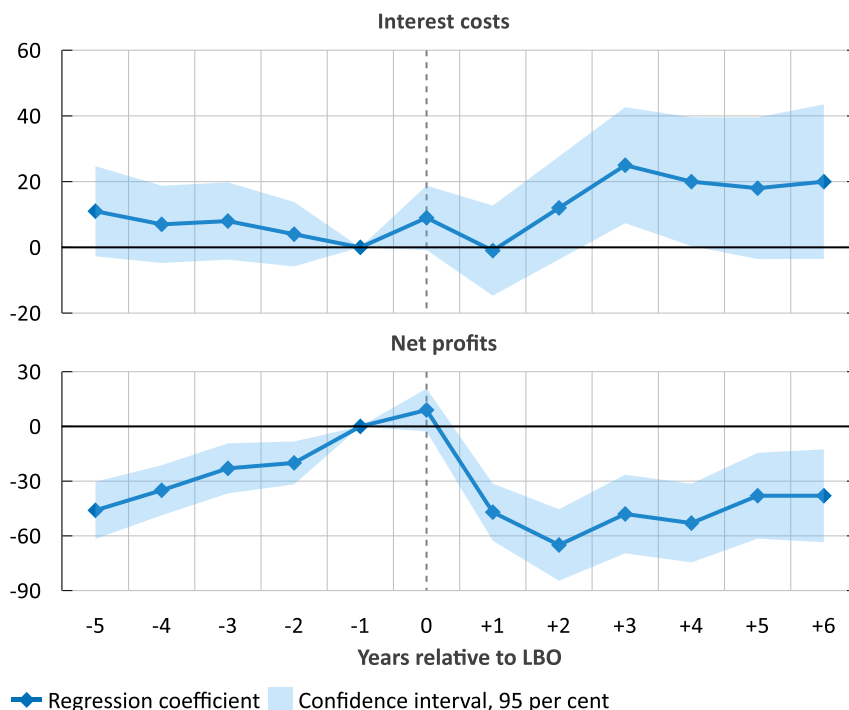
Sources: Serrano and PitchBook Data, Inc.

Prior to the LBO, these companies had interest costs comparable to their non-private equity-financed counterparts. However, post-LBO, their costs increase by about 20 per cent compared to those of their peers (see Chart 4, upper panel). The rise in interest costs increases both liquidity and solvency risks, as companies may face insolvency if they fail to meet their enlarged debt obligations. A larger debt burden also raises rollover risks, as the debt must be continuously refinanced to avoid insolvency. The ability to refinance depends on factors such as the source of the debt, the company's profitability, and the private equity firm's relationship with lenders.

Our analysis also shows that portfolio companies experience positive net profit growth before the LBO (see Chart 4, lower panel), but after the LBO, net profits begin to decline. This decline can be attributed to several factors. Higher debt levels increase interest costs, which, although tax-deductible, reduce net profits. This trend aligns with expansionary measures aimed at growing the company's market share or entering new segments and markets. Moreover, private equity firms often use financial engineering to minimise taxable profits and may charge management fees to portfolio companies, further reducing net profits (Phalippou et al, 2018).

Chart 4. Interest costs and net profits of Swedish portfolio companies compared to similar non-private equity-owned companies, before and after an LBO

Per cent



Note. If the confidence interval overlap the zero number line, the coefficient is not statistically significant at the 5 per cent level.

Sources: Serrano and PitchBook Data, Inc.

From a real economic perspective, the findings in Kärnä & Myers (2025) do not provide conclusive evidence of increased labour productivity following an LBO, despite the fact that private equity strategies aim to improve the productivity and profitability of their portfolio companies.

In summary, the larger debt burden in Swedish portfolio companies post-LBO, combined with higher leverage, could increase their vulnerability to higher than expected interest rates. However, growth in sales and total assets may strengthen their resilience, especially if the private equity owners effectively manage the debt. Also, since private equity firms repeatedly negotiate with lenders on behalf of many different companies, they have strong incentives to maintain good relationships in order to obtain debt financing for future investments.¹⁴ This could reduce the risks associated with high leverage further, as private equity firms are incentivised to manage it effectively.

¹⁴ For an overview of the theory behind cooperation in repeated games, see for example Dal & Fréchette (2018).

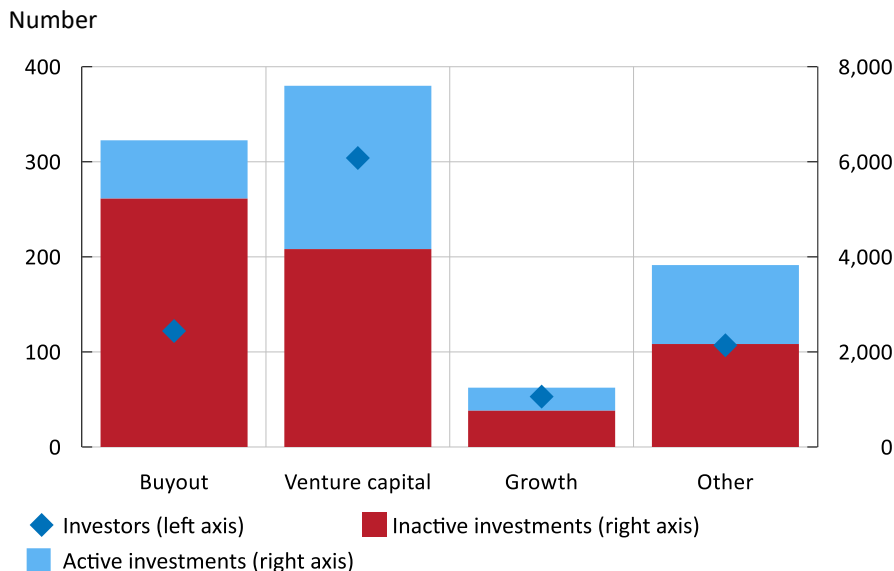
4 Private equity firms and funds – the capital managers

4.1 Size and distribution of firms and funds in Sweden

Private equity firms are firms whose business is to select, invest in, and manage private equity investments. We include in this group not only stand-alone firms that act as general partners in private equity deals, but also firms that make private equity investments directly, and firms who have a single business line devoted to managing private equity investments. We do, however, exclude those who invest in private equity on a more passive basis – these investors, or ‘limited partners’, are discussed in the section ‘Private equity investors – the capital providers’.

As of October 2024, there are estimated to be over 580 private equity firms active in Sweden.¹⁵ Some of these firms make direct investments through using funds on their own account. Occasionally, these investments may also be channelled through funds, even if there are no external investors. It is therefore quite difficult in some cases to distinguish between the two business models. Further, the total includes not only private equity firms, but also investors that are not focused on private equity as their primary investment, but have occasionally made private equity investments (see ‘Other’ in Chart 5). Together these firms have made over 19,000 investments, of which nearly 7,000 remain active.

Chart 5. Private equity firms active in Sweden, by type of strategy



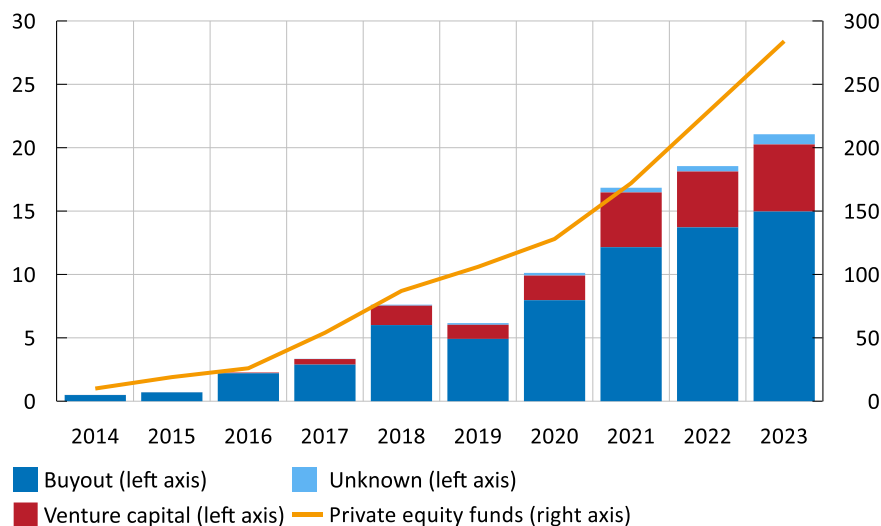
Source: PitchBook Data, Inc.

¹⁵ The source is PitchBook data. This includes all firms whose status is described as acquired/merged (operating subsidiary), making new investments, not making new investments, or reducing investments.

Under European legislation, private equity funds are regulated based on the domicile of their manager. Consequently, it is not necessarily the case that all funds located in Sweden are also regulated in Sweden. Alternatively, some funds located abroad may be regulated in Sweden.

We identify that, at the end of 2023, there were 132 buyout funds and an equal number, 132, of venture capital and growth funds regulated in Sweden.¹⁶ For the rest of this section, we will include growth capital funds under the category of venture capital funds. The assets under management in these private equity funds total over EUR 20 billion, or SEK 230 billion (see Chart 6), which can be compared to just over 3 per cent of the total assets in Swedish investment funds supervised by the Swedish FSA, Finansinspektionen.¹⁷

Chart 6. Assets under management for private equity funds regulated in Sweden
EUR billion (left axis), number (right axis)



Note. 'Venture capital' includes growth capital funds.

Sources: PitchBook Data, Inc. and Sveriges Riksbank (AIFMD).

4.2 Financial stability risks related to private equity funds

Liquidity risk in private equity funds is transferred to the investors

Liquidity risk in funds refers to the risk that a fund's liquid assets and inflows may not be sufficient to meet its outflows. The primary method for assessing liquidity risk is to evaluate the quantity of liquid assets in relation to the fund's expected inflows and outflows. Unlike open-ended funds, where investors can redeem their shares at any time, creating a highly liquid liability side, private equity funds are typically closed-

¹⁶ This is based on data from the Alternative Investment Fund Managers Directive (AIFMD). We have categorised the funds based on a combination of their stated fund type, primary strategy, and PitchBook data.

¹⁷ See Statistics Sweden's investment fund statistics.

ended. In these funds, investors commit capital – creating dry powder – for several years.

In private equity funds, outflows occur when capital is deployed to invest in portfolio companies, provide additional capital injections to support these companies, or distribute dividends to investors. Unlike open-ended funds, liquidity risk in private equity funds arises when the equity financing in the fund is insufficient to cover capital injections needed by portfolio companies under liquidity pressure or when the fund cannot divest these companies to fund the return of capital to its own investors. Generally, outflows are concentrated earlier in the fund's lifecycle during the investment phase, while inflows primarily occur later, as investments are exited (and before the capital is returned to the underlying investors).

Most assessments argue that private equity funds hold very large quantities of dry powder. However, the amount of dry powder is largest in the early stages of the fund, before all the investments are made. As investments are identified, the committed capital is invested, so dry powder declines. It is common practice to ensure that committed capital exceeds investment during the life of the fund, which creates a buffer.

It is important to note that dry powder is not the same as cash. While it is considered a liquid asset because the fund can call on it at short notice from its investors, this notice period is quite short, typically around two weeks, and investors may or may not receive advanced warning. The investors themselves must then deliver the cash to the fund. To bridge this two-week gap or to delay calls for capital, private equity firms also typically have revolving credit facilities (RCFs) for their funds with banks. We discuss RCFs in greater detail below.

The liquidity risk is therefore effectively passed from the fund to the underlying investors. There are strong contractual safeguards in place to ensure this transfer. Investors who do not meet their liquidity calls typically forfeit their entire stake in the fund, including all previously invested capital, and are therefore strongly incentivised to meet their liquidity calls if they can. Therefore, from a systemic standpoint, liquidity risk for funds though the majority of their lifecycle appears low (assuming typical contractual arrangements are in place), and the liquidity of the investors is perhaps more important to assess (see the section 'Private equity investors – the capital providers').

Any remaining risk is likely to arise only when the committed capital in the fund is exhausted. This may happen because of unforeseen expenses or, in the more likely case, if the fund has difficulty selling its portfolio companies and needs to extend its life. This concern has been more pressing recently, due to difficulties in exit markets. In that case, the fund can create a continuation fund to take on the asset (assuming new capital can be attracted to create the fund), borrow cash (a so-called net asset value loan, see the next section for details), or accept a loss on the sale of the asset.

There are generally two types of leverage at the fund level

In pooled fund structures, private equity firms typically use two kinds of leverage within their funds. The most frequently used is a **revolving credit facility (RCF)**, which

enables the fund to quickly borrow money from a bank. These loans are typically secured against the investors' committed capital, effectively converting dry powder into cash. The loan can be repaid when the funds are collected – sometimes directly by the bank – from the underlying investors. RCFs thus provide the fund with rapid access to liquidity. When secured against investor commitments, these loans generally carry low credit risk, as fund investors are usually institutional entities with a high likelihood of fulfilling their capital commitments.

The time allowed before the fund must repay these loans has increased over time. It is now common for RCFs to have durations of up to 12 months, enabling funds to operate with greater flexibility in making investments or meeting working capital needs. The use of RCFs can serve as a strategy to enhance the fund's internal rate of return, thereby increasing the firms' appeal when raising subsequent funds.

Recently, a second form of leverage has become increasingly common, often referred to as a **net asset value (NAV)** loan. Unlike loans secured by investor commitments, NAV loans are secured against the equity held within the fund. These loans are often considered riskier, as the fund's equity typically consists of stakes in portfolio companies that may already carry substantial leverage. As the debt in an LBO is placed on the balance sheet of the portfolio company, the equity in that company becomes an asset of the private equity fund.

In some cases, NAV loans are used to extend the life of a fund when market conditions at the end of the fund's lifecycle make it difficult to divest portfolio companies. In that case, the money can be used for, among other things, the payment of the private equity firm's fees. In that case, the loan can be considered more riskier, as the ability to repay depends on the ability to realise the expected gains from the sale of the portfolio companies. However, due to the relatively high profitability of private equity funds to date, the biggest likelihood is rather that the underlying investors will make a loss on their equity investment, rather than there being significant credit losses to the banks or private credit funds making the loan.

Some Sweden-regulated private equity funds have significant leverage

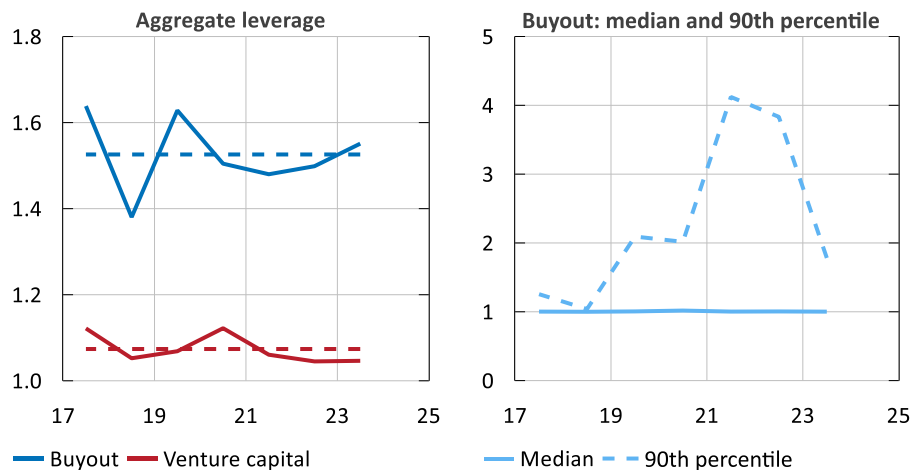
Chart 7 illustrates the gross leverage of private equity funds regulated in Sweden over time, separated into buyout and venture capital funds. Gross leverage is calculated as the ratio of the fund's assets under management (AUM) to NAV.¹⁸ In the left panel, gross leverage is derived by dividing the total AUM by the total NAV, showcasing the overall leverage across the entire cohort of funds. The gross leverage of venture capital funds is under 1.1x, while buyout funds exhibit higher leverage, almost 1.5x. This indicates that, across the full set of buyout funds, total assets are nearly 1.5 times their NAV. While 1.5x leverage is not considered significant use of leverage by investment fund standards, it is important to note that this is an additional layer on top of

¹⁸ The downside of calculating gross leverage this way is that it does not isolate financial borrowing. Instead, it includes all exposures, such as those from derivatives, and does not account for hedges or offsetting positions.

the debt added to the balance sheets of portfolio companies when financing acquisitions.

Chart 7. Gross leverage of private equity funds regulated in Sweden

Gross leverage



Note. 'Venture capital' includes growth capital funds. The dashed lines are the mean values for each segment over the period. We exclude the first year-end report for each fund due to issues with data quality.

Sources: PitchBook Data, Inc. and Sveriges Riksbank (AIFMD).

However, as shown by the 90th percentile dashed line in the right panel, this higher leverage is driven by a small number of funds with exceptionally high leverage levels. The median gross leverage for both categories of funds is closer to 1x, highlighting that most funds, while technically leveraged, maintain relatively low levels of debt in relation to their equity. The leverage in these highly leveraged funds peaked in 2021 and 2022, when the number of new private equity deals was at an all-time high, before rising interest rates became cumbersome and the exit market took a downturn. This suggests that leverage was used more for investments during a period of growth, rather than to repay investors with borrowed money in challenging times.

From the perspective of Swedish banks, which are often lenders to these funds, the timing of these loans suggests they primarily serve as bridge financing – often through RCFs – to cover the gap between calling on investor commitments and making investments, as well as to address other working capital needs within the funds. Since RCFs (unlike the loans to support the leveraged buyouts) are collateralised by the commitments from institutional investors, they are considered low risk.

Opacity amplifies risks in private equity

Financial stability risks can be exacerbated by a lack of information, as this may result in choices that market participants wish to change once all the available information becomes known in the future.

In that sense, one of the key issues affecting the private equity industry is its opacity. There is little public information on who is investing in which companies, and in what amounts. This lack of information could contribute to market uncertainty around ultimate exposures, particularly during periods of stress. There is also no regulatory data collection on the holdings of private equity firms, so industry concentration and total amounts of leverage are difficult to uncover.

Opacity also affects the balance sheets of the private equity funds and firms themselves. Because the markets are private and relatively illiquid, the holdings of private equity funds are not constantly marked-to-market, which distinguishes them from listed securities. Their book value is therefore relatively stable and has been one reason why institutional investors, such as pension funds, have favoured investing in private equity funds. This also means that an investor's shares in a private equity fund are valued less frequently than shares in mutual funds, for example.

Ultimately, this opacity makes it harder for investors to gauge the true market value of their assets. Valuation updates tend to be slow, which can influence investors' decisions and actions. For instance, opacity can make it difficult to establish continuation funds, as investors expect their investments to be sold to the continuation fund at book value, while investors in the continuation fund are more likely to expect to 'purchase' the underlying portfolio companies at a discount. In some cases, opacity may allow losses to accumulate unnoticed, prompting large groups of investors to act hastily in similar ways. Such behaviour could have destabilising effects on the system as a whole.

5 Private equity investors – the capital providers

5.1 Swedish private equity investors

This chapter focuses on the Swedish private equity investors who participate as limited partners in private equity funds. This is in contrast to the private equity firms discussed in the chapter ‘Private equity firms and funds – the capital managers’, which act as general partners, actively managing these funds and overseeing the portfolio companies in which they invest. Limited partners have their liabilities confined to the amount they have invested in the fund and are not responsible for repaying any debts incurred by the general partners, whether in the portfolio companies or the funds themselves.¹⁹

Fund investments typically involve committing capital, which the general partners draw upon when investment opportunities arise. The ability to make substantial capital commitments, pool risks, access liquidity and maintain long investment horizons is generally a prerequisite for investing in private equity funds. This aligns with the financial capacity and long-term liabilities of institutions such as insurance corporations, pension funds, and sovereign wealth funds. As a result, institutional investors dominate private equity fund participation.

As of 2024, there are an estimated 140 Swedish investors (limited partners) with close to 1,000 active commitments to private equity funds.²⁰ Nearly two-thirds of these commitments are held by Swedish insurance corporations and pension funds (ICPFs) and state-owned AP funds (see Chart 8). Following this, fund-of-funds, such as Coeli and NAXS, have emerged as large investors. Fund-of-funds diversify investments across multiple private equity funds and provide smaller investors with access to the private equity market. In recent years, this segment – along with retail investor participation in private equity more broadly – has grown. For example, Swedish security-trading banks such as Avanza and Nordnet have started offering private market funds to their retail customers.²¹ Such offerings are separate from the ability of retail and other investors to gain exposure to private equity investments indirectly, via investment in the shares of publically listed private equity firms.

Other private equity fund participants include high-net-worth individuals, government entities (such as Swedish regions and state-owned investment funds), investment companies, and family offices. Swedish banks play a smaller role, although some of their fund management companies fall under “Other” in Chart 8.

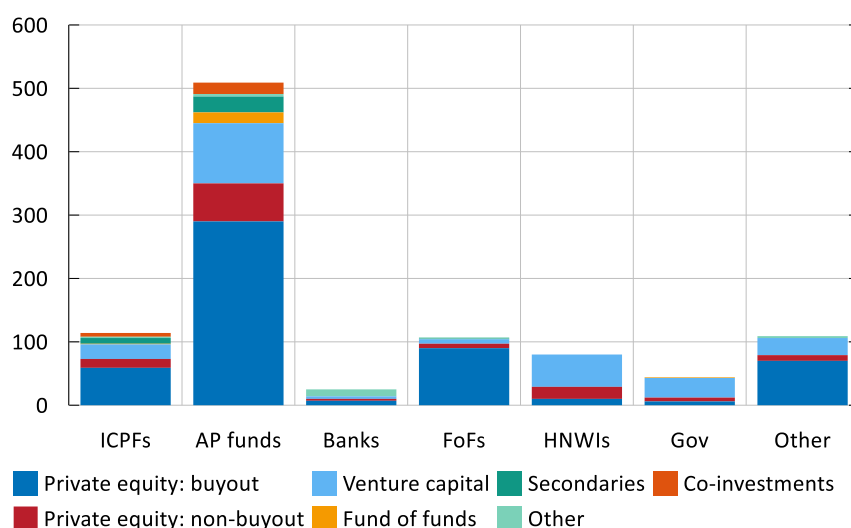
¹⁹ This chapter also includes the co-investments of Swedish limited partners, where they invest directly in portfolio companies alongside the fund. Co-investments represent a smaller portion of their overall investment.

²⁰ Source: PitchBook Data, Inc.

²¹ See [Onoterade tillgångar](#) and [EQT Nexus - EQT private equity-fonder i en enda investering | Nordnet](#), respectively.

Chart 8. Swedish investors' private equity fund commitments by fund category

Number of commitments



Note. "ICPFs" denotes insurance corporations and pension funds, "FoFs" fund-of-funds, "HNWIs" high-net-worth-individuals, "Gov" government entities. The banks' fund management companies are sorted under "Other".

Source: PitchBook Data, Inc.

Commitments from ICPFs and AP funds are nearly evenly divided between buyout-focused private equity funds – which typically use leverage to acquire companies – and a mix of non-buyout private equity, venture capital co-investments, and secondaries. Secondaries refer to funds that purchase stakes in existing private equity funds on the secondary market, generally from an existing investor who wishes to exit early. Notably, fund-of-funds diversify investments primarily within buyouts, while high-net-worth individuals and government entities focus more on venture capital investments.

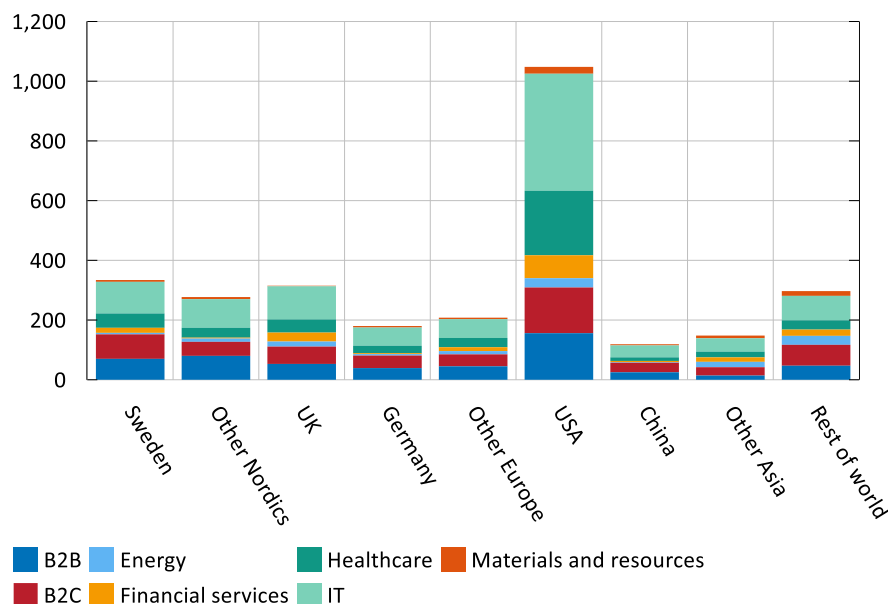
The nearly 1,000 commitments span just over 650 different private equity funds. More than half of the commitments are to funds domiciled in tax-friendly jurisdictions, including Bermuda, the Cayman Islands, the UK Channel Islands (Guernsey and Jersey), Delaware in the US, and Luxembourg. By contrast, only 17 per cent of commitments are to funds domiciled in Sweden. Approximately 290 private equity firms manage these funds, with the majority of commitments allocated to Swedish firms, such as EQT, Nordic Capital, Propel Capital, Valedo Partners, and Priveq Investment.

In turn, the 650 private equity funds actively invest in nearly 3,000 portfolio companies worldwide, covering a broad range of industries. Ultimately, the returns of Swedish investors depend on the performance of these portfolio companies. As shown in Chart 9, only a small portion of Swedish investors' capital is directed toward Swedish or even Nordic companies. The majority of the portfolio companies owned by the funds they invest in are based in the United States. Approximately one-third of the portfolio companies operate within the information technology (IT) industry, another third within business-to-business (B2B) and business-to-consumer (B2C) products and

services, while the remainder span healthcare, financial services, energy, and materials and resources industries.

Chart 9. A private equity fund look-through of Swedish investors' commitments, by geographical origin and industries

Number of portfolio companies



Note. 'B2B' denotes business to business products and services and 'B2C' business to consumer products and services.

Source: PitchBook Data, Inc.

5.2 Financial stability risks related to investors

For investors in the form of limited partners, risks associated with private equity investments can be broadly categorised into **investment risk** and **liquidity risk**.

Investment risk refers to the possibility of receiving lower-than-expected returns or losing the capital invested in private equity funds. This risk arises if private equity firms cannot exit their investments at the anticipated valuations or if portfolio companies face bankruptcy.

Liquidity risk relates to the inability to meet capital calls from private equity firms, which investors are contractually obligated to fulfil as per their commitments to the funds. Private equity firms typically issue capital calls when they identify new investment opportunities. However, unexpected calls may also arise to support existing investments experiencing financial distress or operational challenges. Liquidity pressures can further arise when private equity funds fail to divest as expected, delaying the distribution of anticipated cash flows to investors who depend on them to meet their liabilities. This issue has been noted in the United States, particularly among large pension funds that allocate a significant portion of their portfolios to private equity.

With nearly two-thirds of fund commitments held by ICPFs and state-owned AP funds, the materialisation of these risks would primarily impact the insurance and pension sectors. This could reduce their ability to fulfil insurance claims, make payouts under occupational pension schemes, or, in the case of AP funds, diminish their capacity to offset deficits in the income-based pension system. Additionally, it might prompt these large institutions to reallocate their assets, potentially affecting the pricing in funding markets relied upon by other participants for borrowing.

Given their relative size, in this section, we focus primarily on these risks as they pertain to the Swedish insurance and pension sector.

Low allocations limit investment risks

To assess investment risks, we combine regulatory securities holdings data with private market data to estimate the proportion of individual ICPFs' commitments to private equity funds relative to their listed securities holdings.²² Unfortunately, two-thirds of these commitments lack reported monetary values; for these cases, we impute the average commitment size.

We identify 19 Swedish ICPFs with active commitments, along with all five AP buffer funds within the Swedish income-based pension system. The combined reported and estimated commitment sizes total approximately SEK 120 billion for the ICPFs and SEK 310 billion for the AP funds. By comparison, the ICPFs' holdings of listed securities amount to about SEK 4,320 billion, and the AP funds to SEK 1,770 billion.²³ This means that private equity fund commitments constitute around 3 per cent of the total portfolio of listed securities and commitments for ICPFs, and 18 per cent for the AP funds, including the Sixth AP fund, which specialises in private equity investments.

For the ICPFs, this proportion is slightly lower than what is captured in aggregate data, while for the AP funds, it is higher.²⁴ This likely reflects better reporting or data sourcing for the state-owned AP funds, leading to more comprehensive coverage. Additionally, it may indicate that the average commitment size is smaller for the AP funds, causing average-based imputations to inflate their actual commitments.

Chart 10 provides an overview of private equity fund commitments as a proportion of total portfolios. The left panel shows the aggregate holdings of the ICPF sector and AP funds, while the right panel details the allocation for each individual ICPF or AP fund (excluding the Sixth AP fund). In the granular view (right panel), each vertical bar represents an ICPF or an AP fund, with portfolio composition expressed as a fraction of its total portfolio. Only 4 out of 23 ICPFs or AP funds are estimated to allocate more than 10 per cent of their total portfolio to private equity.

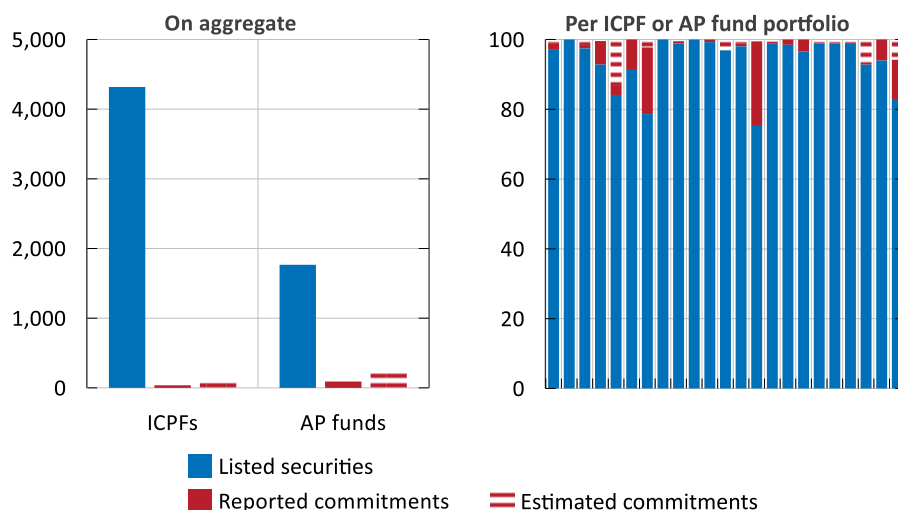
²² The database on securities holdings (VINN) and PitchBook, respectively.

²³ In comparison, the total financial assets of the entire Swedish ICPF sector amount to nearly SEK 10,000 billion (see Statistics Sweden's Financial accounts).

²⁴ According to data from the European Insurance and Occupational Pensions Authority (EIOPA), the equivalent aggregate figure is 4 per cent, based on combined asset exposure statistics for insurance corporations and occupational pension funds. For the AP funds, private equity investments account for just over 10 per cent of their total fund capital (SKR 2023/24:130).

Chart 10. Private equity fund commitments and listed securities of Swedish ICPFs and AP funds

SEK billion, per cent



Note. In the panel to the right, each vertical bar represents an ICPF or an AP fund, excluding the Sixth AP fund.

Sources: PitchBook Data, Inc. and Sveriges Riksbank (VINN).

On an aggregate level, the Swedish ICPF sector exhibits a relatively low allocation to private equity, particularly compared to countries like the US. As a result, the risks of not being able to fulfil obligations to policyholders due to private equity losses are considered lower, especially since Swedish ICPFs are generally well-capitalised. Even on an individual level, there is no evidence of any large ICPF holding a substantial allocation to private equity.

However, it should be noted that ICPFs also invest in other illiquid assets, such as infrastructure, real estate (either directly or through funds), and private credit funds. Notably, if an ICPF invests in a private credit fund that has lent money to a portfolio company of a private equity fund in which the ICPF is also an investor, the ICPF faces double exposure to the portfolio company. This overlap is becoming increasingly relevant as private credit funds play a growing role in providing financing for leveraged buyouts.²⁵

Low allocations also limit liquidity risks and mature funds mitigate further

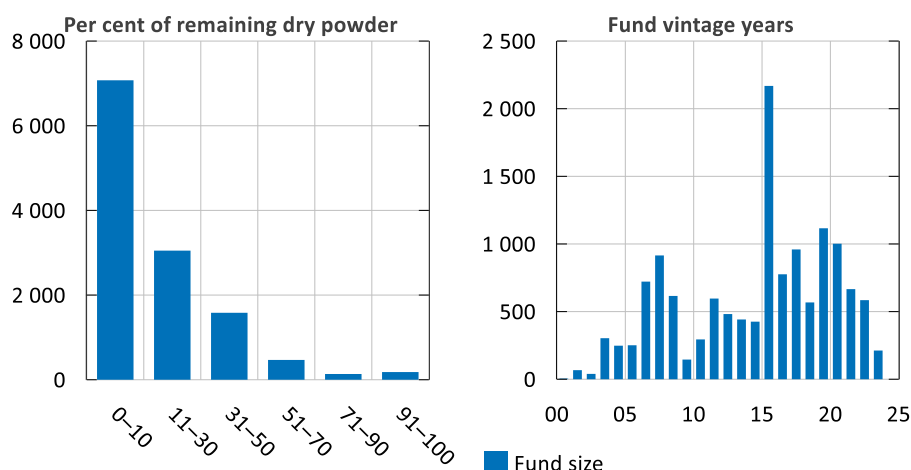
The relatively small share of the ICPFs' portfolios allocated to private equity fund commitments, which may generate capital calls, also limit liquidity risks. To complement this assessment, we analyse the remaining dry powder in the private equity funds to which these investors have committed capital. Lower levels of remaining dry powder signal reduced liquidity risk for investors, as it indicates they have fulfilled a larger portion of their commitments.

²⁵ These private market investments fall outside the scope of this staff memo and require further research, relying on other data sources.

The left panel of Chart 11 shows that more than half of these funds (by fund size) have only 0 to 10 per cent of their original dry powder remaining, suggesting they are nearly fully invested. The right panel of Chart 11 categorises fund sizes by their vintage year – the year they began receiving capital. A significant share of these funds are 7 to 10 years old, aligning with the observation that many are fully invested or in the process of divesting. This trend reduces the likelihood of additional capital calls for Swedish investors, further mitigating liquidity risks. The relatively modest private equity allocations observed within the Swedish ICPF sector suggest that ICPFs can likely meet even large and unexpected capital calls by selling relatively liquid assets, such as government or covered bonds, without disrupting the functioning of these funding markets.

Chart 11. Remaining dry powder and fund vintage years for private equity funds to which Swedish LPs have committed capital

SEK million



Note. In the left panel, the size of each fund is grouped into buckets based on the percentage of dry powder remaining from its original amount. In the right panel, the funds are organised by vintage year, with their sizes summarised accordingly.

Source: PitchBook Data, Inc.

The growing role of retail investors may create additional future risks

While the majority of investors are institutional, the recent growth in funds-of-funds – and expansion to retail investors – means that liquidity and investment risks linked to private equity increasingly apply to non-traditional investors. In some cases, these investors may be less well-equipped to manage those risks.

In some cases, funds-of-funds are closed-ended vehicles that simply act as an additional layer between institutional investors and private equity firms. These increase the opacity of the financing arrangements, but ultimately cater to the same types of investors discussed in this section.

On the other hand, retail investment via funds-of-funds should be considered separately. Retail investors may not be as well equipped to understand or manage either

liquidity or investment risk arising from unlisted private equity investments. Further, given that valuations of private equity assets are often opaque (see the section ‘Financial stability risks related to private equity funds’), retail investors in particular may not recognise potential losses until quite late. If the funds through which they invest are open-ended, this can create withdrawal pressure and lead to runs. If the fund through which they are investing does not have sufficient liquidity to draw on, runs could in turn increase liquidity risk. In addition to the financial stability perspective highlighted here, the issues relating to retail investment may also be relevant from a consumer protection perspective.

Data to assess the level of these risks is not currently available. However, given that retail investors share in private equity is small, the risks do not currently appear to be large from a systemic perspective. This may change if the sector exhibits rapid growth in the future.

6 Conclusions

In this staff memo we have assessed potential financial stability risks from the private equity industry through several channels: the role of Swedish private equity-owned companies within the real economy, potential losses incurred by creditors lending to these companies, and the investment and liquidity risks borne by the Swedish private equity fund investors, mainly the insurance and pension sector.

While we find no evidence that private equity ownership significantly increases financial instability risks in Swedish companies during the studied period, the heavy reliance on financial leverage and the resulting rise in interest costs could pose challenges for these companies during a prolonged period of elevated interest rates. Leverage levels that were sustainable during the prior low-interest-rate environment became increasingly precarious under the higher rates of 2023. If private equity firms' business models fail to adapt to such conditions, it could create a 'cliff effect', where a critical number of portfolio companies face bankruptcy, adversely affecting the Swedish real economy. This risk may be compounded if portfolio companies remain highly leveraged after being sold by their private equity owners, with new owners potentially less equipped to manage the financial strain.²⁶

Bankruptcies among portfolio companies would also lead to credit losses for the lenders. Although the role of Swedish banks as lenders in buyout ventures has declined in favour of private credit funds – which disperses credit risk within the financial system – this shift could increase loan rollover risks for portfolio companies relying on private credit if these funds suddenly and sharply reduce their lending. While the direct impact of potential credit losses faced by these funds on the Swedish financial system may be limited, the indirect effects are harder to assess due to the lack of data on international non-bank lenders.

For Swedish insurance corporations and pension funds investing in private equity funds, small allocations supported by strong capitalisation in the sector limit investment risks. Still, the large concentration of ultimate investments in US-based companies, particularly in the IT industry, raises some points about diversification. This concentration mirrors similar trends at the index level in public equity markets. Without the use of look-through analyses in private equity funds to assess investment risk in portfolios, these investments could therefore obscure risks associated with insufficient diversification.

Meanwhile, the growing prominence of fund-of-funds structures is enabling non-institutional participants, such as retail investors, to access private equity markets. As retail participation continues to expand, it will become increasingly important for these investors to fully understand the associated risks, and for funds-of-funds to appropriately manage their liquidity on both the asset and liability side. Unlike public market investments, private equity investments lack frequent and transparent reporting

²⁶ While the long-term effects on these companies post-exit fall beyond the scope of this staff memo, this remains an area worthy of further research. Empirically analysing this is particularly challenging, as many portfolio companies are acquired by other companies, which subsequently absorb their debt and assets.

standards, and the underlying assets are neither marked-to-market nor as liquid as other investment options.

In conclusion, the direct risks posed by the private equity industry to Swedish financial stability are likely limited. However, the inherent lack of transparency and potential vulnerabilities within the industry, underline the need for improved data access and information sharing across countries and sectors. This would support a more effective monitoring of direct risks, as well as indirect risks and spillover effects to the real economy and financial system.

References

- Amador, M., & Bianchi, J. (2024). Bank runs, fragility, and credit easing. *American Economic Review*, 114(7), 2073-2110.
- Asil, A., Ramos, P., Starc, A., & Wollmann, T. G. (2024). Painful Bargaining: Evidence from Anesthesia Rollups (No. 33217). National Bureau of Economic Research.
- Ballou, B. (2023). *Plunder: Private Equity's Plan to Pillage America*. Hachette UK.
- Bloom, N., Sadun, R., & Van Reenen, J. (2015). Do private equity owned firms have better management practices? *American Economic Review*, 105(5), 442-446.
- Bloom, N., Jones, C. I., Van Reenen, J., & Webb, M. (2020). Are ideas getting harder to find? *American Economic Review*, 110(4), 1104-1144.
- Brown, G. W., Gredil, O. R., & Kaplan, S. N. (2019). Do private equity funds manipulate reported returns? *Journal of Financial Economics*, 132(2), 267-297.
- Dal Bó, P., & Fréchette, G. R. (2018). On the determinants of cooperation in infinitely repeated games: A survey. *Journal of Economic Literature*, 56(1), 60-114.
- Erixon, F., & Weigel, B. (2016). *The innovation illusion: How so little is created by so many working so hard*. Yale University Press.
- Cai, F, & Sharjil H (2024). "Private Credit: Characteristics and Risks," FEDS Notes. Washington: Board of Governors of the Federal Reserve System.
- Jensen, M. 1989. 'Eclipse of the Public Corporation.' *Harvard Business Review*, 67(5): 61-74.
- Gupta, A., Howell, S. T., Yannelis, C., & Gupta, A. (2024). Owner incentives and performance in healthcare: Private equity investment in nursing homes. *The Review of Financial Studies*, 37(4), 1029-1077.
- Hotchkiss, E. S., Smith, D. C., & Strömberg, P. (2021). Private equity and the resolution of financial dis-tress. *The Review of Corporate Finance Studies*, 10(4), 694-747.
- Kaplan, S. N., & Sensoy, B. A. (2015). Private equity performance: A survey. *Annual Review of Financial Economics*, 7(1), 597-614.
- Kärnä, A., & Myers, S. (2025). Plundered or profitably pumped-up? The effects of private equity takeover. *Economics Letters*, 112054.
- Morris, P., & Phalippou, L. (2020). Thirty years after Jensen's prediction: Is private equity a superior form of ownership? *Oxford Review of Economic Policy*, 36(2), 291-313.
- Olsson, M., & Tåg, J. (2017). Private equity, layoffs, and job polarization. *Journal of Labor Economics*, 35(3), 697-754.
- Regeringens skrivelse 2023/24:130. Regeringskansliet: Finansdepartementet.

Phalippou, L. (2009). Beware of venturing into private equity. *Journal of Economic Perspectives*, 23(1), 147-1

Phalippou, L., Rauch, C., & Ueber, M. (2018). Private equity portfolio company fees. *Journal of Financial Economics*, 129(3), 559-585.

Private equity a growing market in transition. Sveriges Riksbank, Financial Stability Report 2024:1.



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