

A Work Project, presented as part of the requirements for the Award of a Master's degree in
Management from the Nova School of Business and Economics.

**Venture capital funding in periods of economic
uncertainty: A multi-facet analysis of success
factors of early-stage German ventures –
Perspective on financial, structural, and
transactional factors**

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Abstract

Uncertain economic conditions increasingly pressurize venture capital performance and require a revised approach to funding decisions. This study develops a comprehensive model for investment target assessment tailored to a changed risk profile and low liquidity. Incorporating business model, company, financial, structural, and transactional factors as well as evolving industry standards, analyses based on the study's findings provide potential for successful deployment of capital despite unfavorable circumstances. By building upon qualitative insights of experienced industry professionals from a variety of German investment firms supplemented by a substantial foundation from preceding literature, this research strengthens existing research with a differentiated perspective.

Keywords

Entrepreneurship – Corporate Finance – Funding – Growth Equity – Private Equity – Start-Ups
– Venture Capital

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1 Introduction

In the aftermath of the COVID-19 pandemic and international conflicts, historically high economic growth rates and investments into novel ventures have come to a halt. Investors and entrepreneurs alike must acknowledge an ever-changing environment and adapt their strategies accordingly to ensure the continuous exploitation of financial and societal benefits from early-stage ventures.

ESVs generally fulfill an important role in a national economy primarily through diversification where they can transform innovative ideas into small, self-sustaining businesses, thereby altering the economic landscape before attaining critical mass (Ilmari 2021). Simultaneously, they promote economic resilience, growth, innovation, and job creation with high flexibility due to their smaller size and quick decision-making. Since ESVs are typically strapped for resources, they require external sources of financing to refine the sustainability of the company. Numerous studies have shown that venture capital (VC) has a substantial positive impact on the performance of these ventures by fostering innovation, growth, and international expansion (Dams, Sarria Allende, and Murcia 2021; Lerer 2009). Equity financing enables companies to grow, create jobs, and mature their operations through capital contribution, funding facilities, and regulatory governance support (Bottazzi and Da Rin 2002). Under uncertain economic conditions, these funding processes are put under significant scrutiny. The subpar outlook alters the risk appetite and success expectations of investors, complicating fundraising for ESVs. These conditions are observable again in the tense economic context emerging from wars, supply chain disruptions, inflation, and interest rate hikes. Overall, investors shifted their fund usage to support existing portfolios rather than novel investments and valuations have been normalized to account for the uncertain outlook (TrueBridge Capital Partners 2023). Subsequently, Series A and B fundraising has been prolonged considerably in fear of plummeting valuations and a minuscule pool of interested investors (Glasner 2023). Therefore,

analyzing ESV funding dynamics in this disruptive environment provides an attractive opportunity.

Research on entrepreneurial venture financing, especially under uncertain economic conditions, remains an underdeveloped discipline. Recent studies have mainly concentrated on the period after the financial crisis of 2008 and the pre-covid global economy shaped by low interest rates (Conti et al. 2019; Block and Sandner 2009; Mason 2020). Funding under these circumstances is especially important to promote ESV-driven innovation, social change, and economic contribution (Cho and Lee 2018). Therefore, an analysis of the topic becomes highly appealing. The paper's primary research objective is to portray the success factors for ESV fundraising in uncertain economic periods in the German market. The following research questions will be answered throughout the thesis.

- Which factors of assessment in business model and company have seen the most significant change under economic conditions of uncertainty?
- Which business model and company factors rule the assessment of investment opportunities by VC/GE firms under economic uncertainty?
- Which financial, structural, and transactional factors have seen the most significant change under economic conditions of uncertainty?
- Which financial, structural, and transactional factors rule the assessment of investment opportunities by VC/GE firms under economic uncertainty?
- Which general industry developments in Germany do VC/GE perceive under economic uncertainty?

Following this research objective, valuable insights for the academic landscape of entrepreneurial finance can be derived. This enables a nuanced perspective to the research landscape to contribute to the theoretical foundation of ESV funding. The regional focus on

German ventures offers a comparative perspective on a regional ecosystem with specific VC dynamics, that both enriches the global discourse and provides a foundation for similar studies in other markets. Apart from the scientific contribution, the nature of the research project provides valuable insights that could apply to the daily activities of ventures in pursuit of funding and investors alike. Through the identification of success factors in a well-rounded analysis and subsequent adoption, funding strategies and ESV operations could become more resilient against funding declines during uncertain economic conditions and a high-interest environment. The results could potentially contribute to a benchmark for all stakeholders in the VC ecosystem to evaluate their funding strategies and offer practical insights for informed decision-making. On a broader scale, understanding the success factors could contribute to accelerated economic recovery and growth by improving the sustainability and resilience of emerging businesses.

This research paper approaches the delineated topic along the following structure. The literature review provides a comprehensive overview of the current state of academic research on the topic as a basis for subsequent analysis. A foundation is created by explaining the characteristics and interactions of relevant players within the funding ecosystem, shedding light on the particularities of the German market, and defining the economic conditions of uncertainty. Additionally, an overview of relevant success factors for funding processes is derived from the literature and structurally summarized in a conceptual model. The subsequent methodology section explains the procedure of obtaining and analyzing the insights while the findings section provides a thorough explanation of the results along with our hypotheses. Finally, the discussion and conclusion sections put the results in a broader academic context and provide a perspective on the future application of the insights.

2 Literature review

2.1 Early-stage ventures

Entrepreneurship is widely acknowledged as a crucial driver for innovation, growth, and job creation (Schumpeter 1934). It also acts as a major conduit for sustainable change and many new ventures are viewed as an answer to societal issues (Bocken 2015). Those emerging businesses simultaneously act as investment opportunities for private capital and can be differentiated based on certain characteristics, challenges, stages, and options for fundraising.

In general, ESVs have exceeded the conceptual stage and operate based on a tested prototype, refined service models, as well as detailed business plans while not yet being profitable (Volta Ventures 2021). Analysis of businesses in this stage is intriguing in the realm of economic uncertainty because they have already developed relevant capabilities but cannot yet sustain themselves and require external financing. In general, ESVs can leverage funding to accelerate growth up to a more mature stage characterized by an economically sustainable business model (BM) (Engel and Keilbach 2007; Smolarski and Kut 2011; Hochberg, Ljungqvist, and Lu 2007). Companies in this stage typically face challenges with transforming their vision and entrepreneurial passion into a long-term sustainable BM (Cardon et al. 2009). Simultaneously, they need to focus on meeting the expectations of their investors while convincing new partners to provide them with additional growth capital by demonstrating credibility, viability, and long-term success (Volta Ventures 2021). In this period, strategic decision-making is tightly connected to the financing strategy where the direction is geared towards appealing to banks, equity investors, or business angels (Mason and Stark 2004). For this analysis, our view on ESVs is limited to businesses in Series A and B funding rounds to ensure a more extensive analysis of potential characteristics and therefore more thorough and focused results that improve day-to-day applicability.

Series A funding has a pivotal role in financing team expansion and building capabilities to enhance the current prototype or monetize the existing product in the growth phase (M13 2020). At this stage, ventures demonstrate promising top-line growth and transition from an idea to a business with an established track record of capital usage (Chuck Pettid 2022). Most investments are based on a thorough due diligence process, and comprehensive term sheets, and typically result in the acquisition of preferred stock holdings where between 10% to 30% of the shares are sold off at a price representing the expected earnings potential (M13 2020; Digital Ocean n.d.). During Series B funding, investors typically demand development towards continuous revenue generation and preparation for further growth through scaling up production and expanding their market reach (M13 2020; Chuck Pettid 2022). Early-stage risks have been mitigated and valuations are higher, so investors receive a smaller share of the company per dollar compared to previous rounds, seeing median capital raised at \$25 million compared to \$10 million in Series A funding rounds (Digital Ocean n.d.).

2.2 Funding ecosystem

The success of ESV endeavors is highly dependent on the local funding ecosystem, wherein the interests of limited partners (LP), VC/GE, and the government have to be aligned. Despite the government's role in setting market ground rules, a significant dependency on private capital provision and financial expertise prevails (Lee 2022). Healthy VC markets are highly dependent on the activities of public markets whereas predominantly bank-loan-based financing systems hamper industry perception of exit options (Black and Gilson 1998). Simultaneously, ESV valuations are the outcome of available capital and the external environment, underlying the vital role of funding success factors (Köhn 2018).

In the ESV funding process, LPs act as providers of capital as investors with limited involvement in day-to-day activities. Investments are based on a profit-sharing model and

liability is typically limited to the investment amount (Black and Gilson 1998; Bottazzi, Da Rin, and Hellmann 2008). LPs include a variety of institutional investors such as pension funds, family offices, insurance companies, endowments, and foundations looking for alternative investments for portfolio diversification, attractive risk-return ratios, and significant returns around 15% internal rate of return (IRR) (Dornseifer, Bunnenberg, and Kaiser 2022). LPs exert significant power over VC and GE in controlling their behavior through restrictions and covenants to protect their investment (P. Gompers and Lerner 2001). Even though LP investment activity is oftentimes cyclical, difficult financial market situations can provide an opportunity for institutional investors to enter the private equity (PE) asset class (Dornseifer, Bunnenberg, and Kaiser 2022).

The VC and GE general partners are the acting entity that identifies promising entrepreneurial companies and trades their funds' equity in return for ownership in a company compensated by success participation and portfolio management fees (Drover et al. 2017; Gupta and Sapienza 1992; Bygrave and Timmons 1992). They are typically small, geographically focused companies that can be further differentiated based on their vertical focus, strategic targets, day-to-day involvement, investment stage, or funding amounts (ibid.). Traditionally, equity investors play a vital role in providing capital to overcome growth barriers where traditional forms of financing through debt are unavailable (Böttger 2006; P. Gompers and Lerner 2001; Davila, Foster, and Gupta 2003). Simultaneously, major investors provide their portfolio companies with an increase in credibility and reduce agency costs through relationships with relevant institutions, access to networks, and governance control (R. Becker and Hellmann 2005; Block and Sandner 2009). Non-financial support has recently increased in importance to distinguish investors in their potential contribution towards a sustainable competitive advantage (Conti et al. 2019; Hellmann and Puri 2002; Davila, Foster, and Gupta 2003). VCs are credited for providing supportive and control actions increasing the firm value at the cost of

entrepreneurial utility (Hellmann and Puri 2002), where significant proportions of companies that received funding, state, they would not have been established or ceased to exist without the investment (Böttger 2006). Nevertheless, equity investments are criticized based on limited impact on profitability, questionable selection processes, and a lack of significant average returns veiled by outliers (Drover et al. 2017).

Governmental entities support the creation of investment networks and provide the ground rules for funding activities by facilitating financing and business mentoring through the optimization of regulations (Park and Luo 2001). Potential interventions include the establishment of legal and tax frameworks as boundaries for funding activities (Snieska and Venckuvienė 2011), where targeted incentives supporting the private capital market can foster ESV growth and innovation (Drover et al. 2017; Lerner 2000). Additionally, government subsidies can act as a secondary financing option through subsidies to reduce company default risk by limiting loan interest rates and financing constraints (Liu et al. 2022). Many VC firms view government-backed funds (e.g. EIF) as a good approach for policymakers to support the VC industry (Kraemer-Eis et al. 2023). Most of these players and characteristics are also prevalent in the German market but certain particularities must be understood.

2.3 Venture capital landscape Germany

Long-lasting economic success in Germany has been built predominantly on a combination of multi-national corporations and family-owned businesses where equity financing has traditionally been underutilized (Klagge and Martin 2005). More recently, there has been an increase in activity where most institutional investors in Germany intend to maintain or increase their investments in VC and corporate PE (Dornseifer, Bunnenberg, and Kaiser 2022). Germany has become an attractive destination for venture capital investments driven by its market size,

public investments in innovation and infrastructure, a resilient ecosystem, and sufficient governmental support (Metzger 2020; Nelson 2023).

Limited partners in Germany are predominantly credit institutions, insurance companies, and public state funds where venture capital investment accounts for around 30% of the total capital employed by both, private and (quasi-) public VCs (Böttger 2006; Bender 2011). German VC companies typically operate within both the early-stage market for entrepreneurs without proven economic viability as well as non-venture PE with capital requirements for growth and structural purposes, typically only assuming minority equity positions with limited influence compared to US funds (R. Becker and Hellmann 2005). VC and GE account for around 50% of the German PE market in terms of funding and investments with the growing relevance of later-stage VC while traditional buy-out accounts for the majority of other investments (see Appendix Figure 1 to 3) (Attila Dahmann 2022). Overall, a continuous trend of capital concentration into larger funds pertains as LPs strive to participate in attractive returns, forcing investors to invest in later-stage companies and pursue timely returns (TrueBridge Capital Partners 2023; P. A. Gompers et al. 1998; Drover et al. 2017; R. Becker and Hellmann 2005).

Despite the attractiveness of the economic landscape, German venture capital is still facing hurdles compared to other markets, resulting in subpar performance compared to the US or UK (Metzger 2020). Initial efforts for venture financing failed due to interests diverging from shareholder wealth maximization, namely commercialization of novel technologies, reputational risk minimization, little investor protection as well as inappropriate contracting and governance structures (R. Becker and Hellmann 2005). While no special regulatory burdens prevent successful German VC funds compared to other markets, the suboptimal taxation of management fees continues to be a significant disadvantage (Dahmann et al. 2023). Therefore, the German VC market struggles to attract sufficient investors for later stage rounds to develop ventures into unicorns, resulting in a 1.5 times higher likelihood of becoming a unicorn in the

US, thus struggling to incentivize ESVs to continue operation (Dörner et al. 2021; Schweickhardt 2020).

Start-up ecosystem clusters in Germany exist primarily in Berlin (3rd place) and Munich (5th place) among the leading start-up cities in Europe based on funding (Attila Dahmann 2022; Dealroom.co 2023). Most Seed and Series A/B deals are done in Health, Fintech, Enterprise Software, Energy, and Food. Especially Energy and Food are driven by increasing investor interest, contrary, the Fintech and Enterprise Software sector experienced a downturn in deal share (Steffen Viete and Georg Metzger 2023). In contrast to the US market, European VCs tend to be deal makers with less active monitoring and lack the resources to select and add value to their portfolio companies (Hege, Palomino, and Schwienbacher 2003) whereas US firms exhibit sharper screening and effective management of financing relationships. This outperformance is manifested in the global split of VC investments indicating a diminishing importance of European VC markets (Figure 4). The German PE and VC market continues to be highly fragmented, with more than 400 relevant active investment firms (Attila Dahmann 2022). Different sources disagree on the composition of the most important players, but a consensus has been created based on several investments and assets under management as a foundation for reaching out to potential interview partners (see Table 1).

2.4 Economic conditions of uncertainty

Successful funding processes are highly dependent on external determinants, this study focuses on economic conditions of uncertainty characterized by factors impairing predictability and stability arising from political, financial, and societal crises (Baker, Bloom, and Davis 2016). Relevant factors encompass GDP growth, interest rates, inflation, and consumer spending. Fluctuating interest rates heavily impact borrowing costs and plannability for businesses and investors, significantly influencing overall economic activity and investment decisions

(Bernanke and Gertler 1995; Mishkin 1996). Hence, LPs are expected to shift their investment preference away from VC to bonds or alternative investments which offer better Sharpe ratios and are less sensitive to changes in interest rates (Kraemer-Eis et al. 2023; Aragon 2022). Uncertain interest rate outlooks and increasing rates can arise from global economic and political crises as well as changes in monetary policies as a reaction to emerging inflation where governments lack awareness of the wider economic impact (Forbes and Rigobon 2002; Reinhart and Rogoff 2009). Inflation generally leads to economic uncertainty since long-term financial planning becomes more difficult due to the eroding purchasing power of potential customers and potential job loss (Mishkin 2007). This can be caused by excessive money supply, governmental policy developments, and supply chain issues. Subsequently, economic uncertainty reduces the revenue potential and growth perspective of emerging businesses (Blanchard 2009). The situation of immense pressure on European markets prevalent in 2023 is comparable to previous crises like the global financial crisis in 2008 (Gourinchas 2023).

Conditions of economic uncertainty influence entrepreneurial financing across all primary stages of the lifecycle, namely fundraising, investment activities, and divestment potential. Driven by the higher risk aversion of LPs, fundraising results in lower overall amounts as well as subsequently lower company valuation and long-term financing in environments of rising interest rates (“EIF Annual Report 2022” 2023; Kraemer-Eis et al. 2023). Precedent from the 2008 financial crisis shows a >20% decrease in average funding as well as a significant reduction in the number of funding rounds (Block and Sandner 2009) and VCs perceive fundraising to be one of the three biggest challenges of 2023 (Kraemer-Eis et al. 2023). Yet, sudden liquidity supply shocks can indicate positive future market momentum with future GDP growth thus indicating attractive opportunities to raise funds and prepare exits once interest rates normalize (Conti et al. 2019; P. A. Gompers et al. 1998; Koellinger and Thurik 2012).

Despite lower capital availability, LPs expect VCs to continue the successful deployment of funds throughout the economic downturn (Rosenbloom 2022). Even though investors are observing significantly worse performance of their portfolios (Kraemer-Eis et al. 2023), they need to retain a positive perspective, adjust their screening criteria, and minimize risk by doubling down on financial resilience such as profitability and cash flow generation (“EIF Annual Report 2022” 2023). In contrast, supply and demand for VC financing will continue to diverge and the imbalance creates new market dynamics (ibid.). As a result, funds shift back to their core sectors and domestic markets to focus on proprietary experience and mitigate risk (Browne 2023; Conti et al. 2019). This expands onto a preference for refinancing of later-stage companies rather than risky investments into early-stage businesses due to increased uncertainty and higher cost of selection (Paik and Woo 2014). Simultaneously, later-stage funding endeavors are faced with a significant dilemma where businesses can typically not postpone funding and must endure a deduction in value (Block and Sandner 2009). To realize returns, funds need to liquidate their stakes in private companies through sales on the secondary market or public share issuance (P. Gompers and Lerner 2001). Under economic uncertainty, interest in IPO candidates diminishes because of lower share performance expectations and funds typically try to postpone public listings (Levingston, Hammond, and Kinder 2023). In 2023, more than 70% of VCs perceive the exit environment and exit prices to have deteriorated since the previous year, a trend continuing since 2020 (Kraemer-Eis et al. 2023). This is additionally reinforced by auditors pushing VCs to revalue their investments with comparable public companies that tanked amid rising interest rates (Temkin 2023). Simultaneous with the decrease in IPO activity, target standalone and potential synergy values are corrected, leading to decreasing exit options from strategic buyers as secondary market M&A activity diminishes (Bonaime, Gulen, and Ion 2018; Nguyen and Phan 2017). Funds therefore try to influence deal

terms to include more favorable conditions such as earnouts to reduce risk (Barbopoulos, Prencipe, and Viarengo 2023) as well as trying to find targets with ideal characteristics.

2.5 Investment target characteristics

Defining characteristics of attractive investment targets is at the core of understanding the success factors for venture funding in times of economic uncertainty. Ventures at early stages in their life cycle are faced with high risk, high cash burn rates, and information asymmetry – resulting in difficulties in realistically assessing their value (Köhn 2018; Montani, Gervasio, and Pulcini 2020). Therefore, VC must seek alternative decision-making criteria that fall within the scope of the BM concept, with vastly diverging perspectives on the most appropriate proxies depending on the personal preferences of the investor (P. A. Gompers et al. 2020). A literature-based model of investment target assessment criteria has been developed and will be further explained in the following (Figure 6).

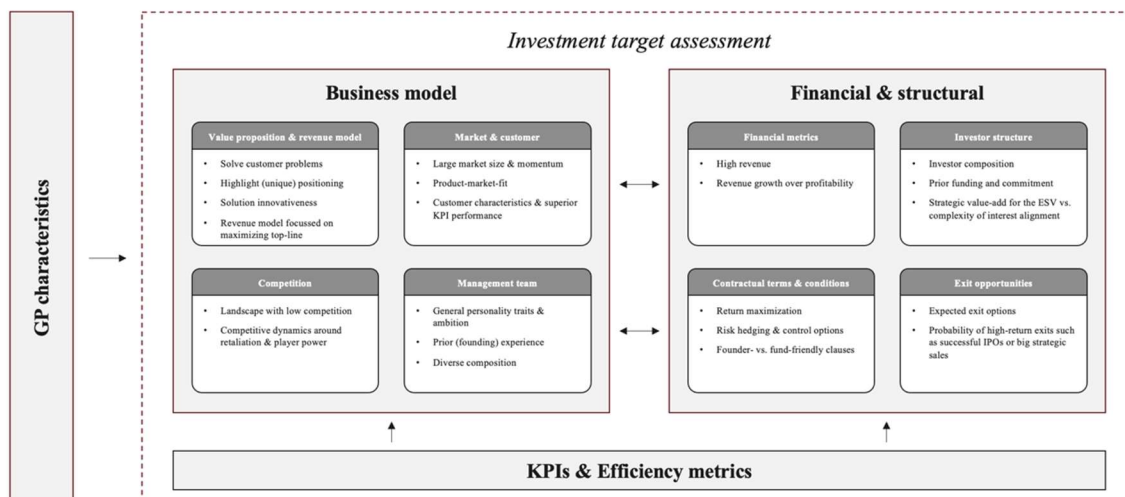


Figure 6: Literature based model of investment target assessment for Series A & B funding under regular conditions

2.5.6 Financial metrics

ESV investors primarily look for revenue growth and profitability to assess the attractiveness of a start-up from a financial perspective, the business strategy and other financial details are oftentimes subordinate to them (Mason and Stark 2004). Whereas VC funds usually emphasize revenue growth and scalability rather than profitability, GE funds start to incorporate profitability or related indicators more thoroughly (Block et al. 2019; Davila, Foster, and Gupta 2003).

Specific revenue requirements for Series A round candidates strongly vary by sector and targeted market segments, still, market consensus for Series A start-ups typically lies around \$1 million, for Series B around \$10 million, and Series C around \$25 million (Nobel 2021). Furthermore, looking at growth, benchmarks analyzed in the SaaS start-up environment showed that start-ups in the Series A phase usually have a median last twelve months revenue growth of 100% and in the Series B phase of 61%. Furthermore, SaaS start-ups have a median gross margin of 80% in the Series A phase or 76% in the Series B phase. (Townshend and Poyar 2022). This already suggests that maturing ESVs experience declining growth rates, alongside dropping gross margins because securing new customers necessitates higher customer acquisition costs (CAC) (ibid.).

2.5.7 Investor structure

Many investors perceive the current investor structure as a good indicator of the attractiveness of the ESV in terms of the credibility of the investment target. Comparably, VC funds place greater emphasis on the investor structure than GE funds (Block et al. 2019). A larger number of investors also increases the capacity to obtain complementary financing and leverage proprietary experience synergies (Nunes, Félix, and Pires 2014).

Debt financing is rarely used by high-growth startups which are often unable to cover interest payments with cash flows. Moreover, banks are often reluctant to invest in intangible assets of startups which are more difficult to liquidate for banks. Hence, banks are also not part of the pecking order (Vanacker and Manigart 2010). Usually, ESVs are equity financed by a variety of business angels and VC or GE funds. The VC firm “*OpenView*” found that SaaS ESVs typically have a median prior funding of \$15 million in Series A and \$28 million in Series B (Townshend and Poyar 2022). For VC and GE firms, an existing structure of credible investors has several advantages and severe drawbacks.

Many investors perceive the current investor structure as a good indicator of the attractiveness of the ESV in terms of credibility of the investment target. However, VC funds place greater emphasis on the investor structure than GE funds (Block et al. 2019). A larger number of investors also increases the capacity to obtain complementary financing and leverage proprietary experience synergies (Nunes, Félix, and Pires 2014).

The major drawbacks of a complex investor structure are conflicts of interest. Those are often a result of the different liquidation needs of investors triggered by their funds' maturity date (Masulis and Nahata 2011). Conflicts of interest also arise in the case of restructuring as they strive to secure their initial investment and minimize LPs' losses, while also fulfilling their responsibility to the company's stakeholders (Aggarwal 2003).

2.5.8 Contractual terms and conditions

In general, term sheets usually imply a conflict between favoring the VCs' individual return or favoring the start-up's value to benefit the returns of founders and all investors (Ewens, Gorbenko, and Korteweg 2022).

To hedge against conflicts of interest with other investors or the management team, complex contracts with elements such as covenants, which are normally used by banks, are frequently

used by later-stage venture capital investors (Bengtsson 2011). This is crucial for all new investors because with each successive funding round, the governance problems and conflicts of interest get more severe, as long as the investors have not liquidated the stakes (Pollman 2019). Investors also often use liquidation preferences, which determine the exit participation of investors, to hedge their risk and secure more economic upside (P. A. Gompers et al. 2020). Other frequently applied terms are management control rights which impose blocking periods to limit the risk of losing the founders to the competition or provide more decision power for acquisition offers from potential buyers (Cumming and Johan 2008).

However, it is important to note that many early-stage venture capital investment terms are usually not too strict for two reasons. Investors imposing incriminating terms and conditions limit the maneuverability of the start-up and the founders will normally not accept such investors, besides an urgency to raise funds (P. A. Gompers et al. 2020). Furthermore, especially early-stage investors risk that strict terms will also be demanded and stretched further by later-stage investors. Therefore, applied contractual complexity can differ between early-stage VC and later-stage VC and GE investors.

2.5.9 Exit options

The time to break even, the expected rate of return from an investment, its liquidity, and the corresponding ease of exit are considered key financial criteria for the assessment of ESVs (Nunes, Félix, and Pires 2014; Muzyka, Birley, and Leleux 1996; Kraemer-Eis et al. 2023). The limited duration of funds necessitates that fund managers liquidate their investments within the stipulated time frame. In parallel, they still have to reach the return expectations of their LPs which might be a challenging dual requirement (Khanin et al. 2008). VC or GE funds have three options to exit their investment and liquidate their stake. The first option is the secondary buyout, which means the stake is sold to another VC, GE, or PE fund. This exit path is usually

the least time-consuming because of the profound M&A and deal process experience of PE firms (Zeisberger 2015). The second option is an IPO of the start-up, concluding with the company being publicly listed on the stock market. IPOs usually play an important role in monetizing relatively illiquid stakes, especially in start-ups with nearly no tangible assets, and allow access to a wider pool of shareholder capital (Pollman 2019). Lastly, the third exit option results from selling the stake to a strategic investor, often a big corporation that identifies a high synergy potential by acquiring the start-up and is often willing to pay a larger premium than other interested buyers (Zeisberger 2015). Currently, B2B start-ups tend to provide many options for strategic sales because large corporations are looking for acquisition opportunities to strengthen their market position in current times of digitalization and efficiency improvements (Kirchleitner 2021).

3 Research design & methodology

3.1 Qualitative research design

The individualistic nature of the analyzed phenomenon endorses a qualitative research design based on semi-structured interviews. Qualitative research enables the investigation of topics within their natural surroundings as they are perceived and interpreted by affected individuals (Lincoln and Denzin 2000). With a complex set of interpretive practices, qualitative research attempts to structure and visualize underlying processes of day-to-day human interaction (ibid.), such as seen in the evaluation of investment opportunities in ESVs.

Therein, semi-structured interviews allow for the capturing, interpretation, and analysis of phenomena as they are perceived by individuals (DiCicco-Bloom and Crabtree 2006). Simultaneously, they provide flexibility to diverge from guiding questions to expand on the information provided by the interviewee to reveal insights previously not anticipated (Adhabi and Anozie 2017; Gill et al. 2008). Even though findings are dependent on the truthfulness of interviewees due to the self-reporting nature of this research approach (Appleton 2006), distortion of the results is mediated through alignment with existing theory and abstraction of subjective statements (Suddaby 2006). The guidelines followed the topics of business model, financial metrics, as well as the transaction process and have been developed following the recommendations of Qu and Dumay (2011) as well as Kallio et al. (2016) to ensure meaningful results (see *Appendix 2 – Interview guideline*).

To mitigate the non-conformity with traditional criteria for scientific rigor associated with qualitative research (due to subjectivity and absence of facts), alternative evaluation criteria have been thoroughly applied within this study. The project should fulfill the aspiration of *credibility* (through data triangulation and the truthfulness of the data), *transferability* (a certain degree of generalization and replicability), *confirmability* (results are comparable for other

researchers in another context), and *dependability* (results are identical for the same researchers in the same context) (Lincoln and Guba 1986).

3.2 Interview participants & data collection

The composition of the research participants ensures valuable insights from investors with different priorities in their strategy in terms of investment stage and sector focus. Therefore, a comprehensive review of assessment dimensions with varying emphasis per interviewee was possible. By incorporating representatives from different investors, the research avoids being absorbed by the organization and assumes its interests as its own (Macdonald and Hellgren 2004). Potential participants were contacted via a standardized mailing reach out, resulting in a total of 11 interviewees from both market-leading and niche general partners. Combined, the companies reflected in this study account for a total portfolio value of around \$ 110 billion. The goal therein was to reach a state of adequacy where the information attained appears relevant and sufficient to provide a discussion basis in an underdeveloped research field (Neergaard 2007; Hennink, Hutter, and Bailey 2020).

The success of the study relied on access to a sufficient sample of representatives with a high level of funding experience. The selection criteria across interviewees were similar, where GPs were required to have a presence in Series A and B funding rounds as well as possessing a relevant footprint in the German market. Further elimination was not undergone to minimize researcher bias. The participants were diverse in age and gender, as well as varying in terms of their experience in the industry. Primarily fund representatives on the Investment Manager and Principal level were contacted to ensure their relevance and participation in the investment strategy and decision-making (see Table 2).

To allow the highest degree of data validity in the analysis process, all interviews were recorded with the interviewees' consent. This procedure also helped to ease the lack of trust created

through the absence of a personal relationship between the participants while talking about a sensitive topic (Myers and Newman 2007). To ensure maximum efficiency of the interviews, they were conducted in the interviewee's mother tongue German.

3.3 Data analysis

To generate valuable results grounded in systemically generated data, our research project has been based on a grounded theory approach (Corbin and Strauss 1990). Therein, the analysis assesses the information and abstracts through a coding process following open and axial coding to gain insights into the phenomenon of interest (ibid.). Allowing for systematic analysis, the recordings of the interviews were transcribed based on a denaturalized transcription approach by omitting pauses, and accents, as well as the incorrect syntax, and *"attempts a verbatim depiction of speech"* (Oliver, Serovich, and Mason 2005, 1277). The following analysis was based on a combination of the first two stages of evolutionary coding, commonly employed as part of qualitative research methodology (Mayring 2016), and a qualitative analysis of the derived axial codes. Thereby, principles and relations within the data could emerge and theory grounded within the insights was developed.

The initial coding round of open coding entails the interpretive process of analytical decomposition of the data by assigning conceptual labels (ibid.). Through multiple peruse rounds, codes for a couple of words up to a few sentences were allocated. Applying the simultaneous coding method, multiple codes were assigned to the same sentence of passage if the content exhibited different facets that could not be sufficiently described by one code (Saldaña 2021). The stage of open coding is necessary to abstract the data and stimulate *"generative and comparative questions to guide the upon return to the field"* (Corbin and Strauss 1990, 13) in the process of theory development. Following the initial coding, open codes

were consolidated and refined to be homogenous across data sources through an iterative process. In the end, a total of 917 unique open codes were assigned to the interviews.

The second step in the coding procedure is axial coding, primarily focused on condensing the individual codes into subcategories and relating them to overarching categories (ibid.). In total, 14 categories were determined: A comprehensive, qualitative description of the categories can be found within the Appendix in *Table 3*. Categories were developed based on the generated insights while referring to prior research on the topic. The underlying paradigms of the axial coding process are “*conditions, context, strategies (action/interaction), and consequences*” (ibid., p. 13). Within this stage, the subcategories and categories are commonly revisited, and poorly developed categories are refined or discarded, to ensure conceptual density and maximize the explanatory power (ibid.). The iterative process of theory development encompassed by data triangulation ensured a solid foundation in the data while remaining seeded in the broader realm of the research.

The content analysis was rooted within the harmonized categories and the underlying themes are an outcome of qualitative critical reflection. An overview of the content analysis can be found in *Table 4*. Based on those joint statements, multiple overarching themes were exposed and woven into central propositions that yield a comprehensive resolution to the five core research questions of the study.

<i>Category Name</i>	<i>Occurrence</i>	<i>Proportion</i>
Financial projections & profitability	122	11.95%
Market environment	120	11.75%
Understanding of general partner characteristics	118	11.56%
Management team	98	9,60%

Product & technology	70	6.86%
Market & Scalability	67	6.56%
Exit possibilities	65	6.37%
Value proposition & revenue model	62	6.07%
Investor structure	61	5.97%
KPIs	57	5.58%
Contractual clauses & legal structure	51	5.00%
Customers	43	4.21%
Competition	42	4.11%
Investor environment	28	2.74%
Additional remarks	17	1.67%

Table 5: Overview of coding categories (Source: Depiction by the authors)

4 Findings

The following section presents the key findings derived from the interviews in five subsections around our research questions. It is structured along both the significant changes and core assessment criteria under conditions of economic uncertainty for both “*business model & company*” as well as “*financial, structural, and transactional factors*”. These insights substantiate a thorough understanding of investment opportunity analysis processes under conditions of economic uncertainty and combine the diverse perspectives of our interviewees into a homogenous picture. The foundation for the analysis consists of the comprehensive coding analysis presented in Table 3 - 5. Based on these results, a revised version of the model of investment target assessment criteria under economic conditions of uncertainty has been developed and will be further explained in the following (Figure 7).

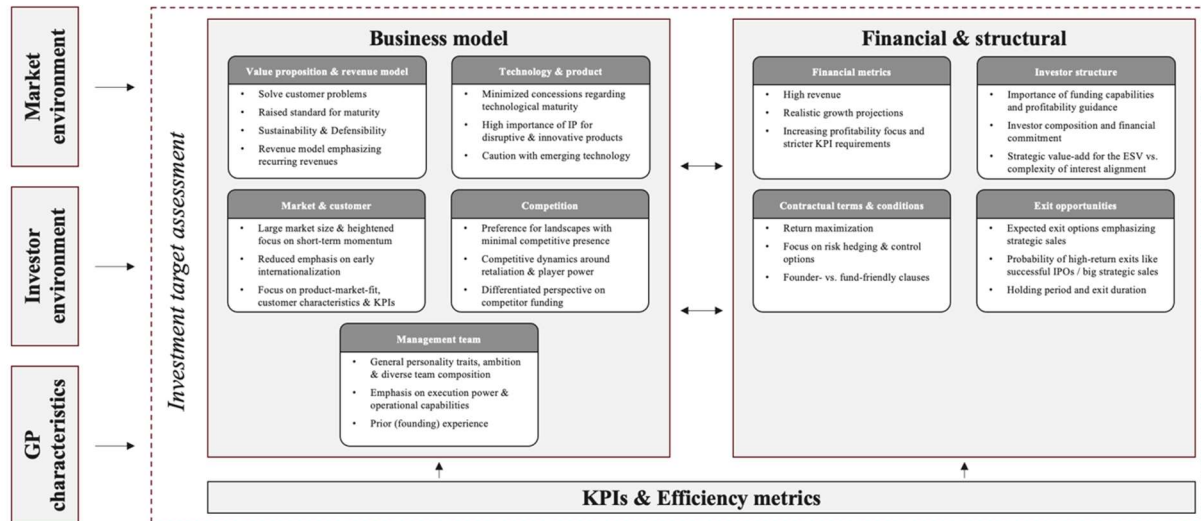


Figure 7: Revised model of investment target assessment for Series A & B funding under uncertain economic conditions

4.3 Financial, structural, and transactional factors relevant for assessments under economic uncertainty

This part of the thesis outlines the reported importance of specific financial, structural, and transactional elements impacting investment assessments in the context of economic uncertainty under comparison to previously synthesized research findings. Generally, the interviewees' responses revealed a strong overlap with the delineated literature review findings regarding the most important ESV characteristics. The following paragraph will elaborate on this consensus and highlight divergences in certain aspects.

As already pointed out in the research (Mason and Stark 2004), revenue and profitability are perceived as the leading indicators for investment target assessment and valuations. As elaborated in section 2.5.6, both VC and GE firms underlined that there are no strict boundaries for Series A or Series B fundraising in terms of revenue because those vary by industry and business model of the start-ups (J, l. 154-157). Revenue and revenue growth are still the most substantial metrics for VC firms investing in Series A because of their strong signal for the market and customer acceptance of the product or service but are also important for GE firms who often drive growth through new markets and segments (F, l. 141-145; J, l. 124-126). In line with the research findings, the stronger focus on profitability was especially highlighted by Series B-focused GE investors that concentrate on later-stage growth and the corresponding profitability development (Block et al. 2019; Gupta and Sapienza 1992). Since financial metrics at the Series A stage do not necessarily reflect the targeted values and ratios for the ongoing years, many interviewees reported a strong emphasis on detailed financial roadmaps, including growth and profitability improvement measures (K, l. 188-192).

Due to the uncertainty about a start-up's progression and difficulty of forecasting revenues and profits, early-stage venture capital firms (Seed, Series A) generally expect exceptional return

potential ($>10x$ return on money invested) for very good cases, often also expecting some multi-billion-dollar valuations in their portfolio to offset unsuccessful investments in the portfolio by its high-risk nature. Later-stage and growth investors already converge to leveraged buyout (LBO) firms with average return expectations of a 3-5x multiple of money, including some very successful outliers with up to 10x (K, l. 248-256). GE firms expect no insolvencies in their portfolio because their portfolio companies already have proven business models and can, therefore, accept notably lower multiples of money than early-stage VC firms which must deal with potential insolvencies in their portfolio (F, l. 235-238). If there is an unforeseen exit opportunity with a slightly lower return but already at a relatively early stage, GPs tend to prefer the option of an early liquidation in order to reallocate funds to their outperforming investments to optimize IRR (G, l. 264-270). However, this is a rare exception from the standard conduct of liquidating stakes closer to the fund maturity date.

In line with the research results (Block et al. 2019), the investor structure was reported to be a relevant quality indicator of investment targets because very successful start-ups tend to attract funds from the most prestigious VC investors in the industry. Such market-influential VC and PE firms, i.e., Sequoia or Y-Combinator, have a superior market standing because of their monetary value-add through the financing potential of their funds (D, l. 270-271; H, l. 295-297; J, l. 460-462). This is a key capability, especially if company valuations rise and bridge financing is more difficult to handle for smaller funds (B, l. 86-91). Alternatively, sufficient capital for the next fundraising round can be ensured by a large investor consortium, which was also reported to be a preferred investor structure (I, l. 273-283). Nonetheless, the interviewees pointed out that investors often should not solely provide financing because high funding contributions without adding other relevant value such as strategic advice or network might only lead to inflated multiples (H, l. 298-305). Generally, GPs' non-monetary value-add encompasses their network of investors and customers, their portfolio management skills, and

their strategic advice. Especially, specialized GPs can leverage their prior portfolio experience and employees' sector experience in many specific investment cases. Besides the value contribution of other investors, the relationship with co-investors is another key aspect in the investor structure to prevent potential conflicts of interest (Masulis and Nahata 2011; Aggarwal 2003). Early-stage VC firms prefer a strong relationship of trust with other investors or other strengths such as company-building expertise instead of looking for renowned funds only (G, l. 243-245). In contrast, growth equity investors, who usually take lead investor positions in a company, put less emphasis on a strong relationship with other investors within the cap table (K, l. 289-299). In general, early-stage investors value good relationships with their peers and expect a lot of trust and aligned interests. In particular, the lead investors have to convey a strong, trustful impression to convince other investors to join a fundraising round (H, l. 305-310). Hence, they often enter co-investments with GPs that share a similar investment focus, behavior, and culture. In difficult phases, GPs and the founders must accept other investors with a strongly diverging investment approach in the start-up's investor structure, solely because of a lack of capital to close the fundraising round (J, l. 496-502). For very attractive investment cases, VC firms prefer to take a more sizeable equity share in the start-up rather than share the deal with other co-investors to increase their expected return from a high future valuation. Contrary to that, in deals where the investor is not totally convinced of the investment thesis or other investors provide a specific strategic fit, they normally take smaller stakes and specifically look for deal sharing among various co-investors (G, l. 226-233).

Many venture capital firms, especially if they are normally focused on Seed and Series A rounds, show a strong preference for founder-friendly terms to increase the level of trust between the investors and the management team (D, l. 306-310; E, l. 280-281). There is a general perception that very experienced early-stage oriented VC firms apply less strict terms than inexperienced ones (B, l. 329-336). However, in general, most GPs stick to market

standard terms to not limit their chances of winning the deal, which also implies adjustments to the term application of other GPs (C, l. 239-254; F, l. 307-308). Also, if stricter terms are applied in an early fundraising round, all additional investors in later rounds will demand the same, but more likely even stricter terms (E, l. 280-289; G, l. 283-292). Therefore, strict clauses can limit the return of early investors in the end. Nevertheless, liquidation preferences are widely used to hedge against an increasing risk profile, especially for bridge financing, follow-up investments, or a riskier business case because of the macro-environment (D, l. 310-315; K, l. 303-309). Besides financially and transaction focused terms, preventing management from switching to competitors was reported as one of the control rights with high importance for the investors (I, l. 321-324). This coincides with the previously outlined research findings of Cumming and Johan (2008).

Even if vital for the return on an investment, interviewees shared diverging views about the importance of exit option evaluations as part of the due diligence. Some venture capital firms usually evaluate potential exit options as part of their due diligence to identify early how the exit process could look like and what returns might be achievable (F, l. 243-246). Other VC firms tend not to put too much focus on the exit assessment initially because they see their impact on the right timing of interested buyers as limited (C, l. 205-210; E, l. 217-225). PE funds are perceived as buyers that guarantee a very efficient and organized exit process because they bring a lot of deal experience to the table with a limited number of management hierarchies involved as in big corporations (D, l. 297-298). Moreover, PEs may also be willing to pay higher multiples if they can benefit from market consolidation and can seize attractive synergies from that (C, l. 204-205). However, there might be some cases where the market niche is too novel or specialized for LBO investments or PEs are just more focused on other areas within this sector (J, l. 272-284). IPOs are generally a very lucrative option but with a very uncertain outcome and always subject to the cyclicity of investor sentiment on the stock markets. Stock

listings are only a feasible option for very successful companies that are able to reach around €100 million in revenues within the upcoming three to five years from their Series A or B onwards (H, l. 168-171). Also, they require a lot of preparation effort in order to ensure adequate stock market reporting and investor relation management, and it takes a lot of time for venture capital firms to liquidate their stakes (D, l. 285-297). Strategic sales tend to have a much slower exit process but often allow for high multiples because of higher synergy potentials (K, l. 264-265). As already reported by Kirchleitner (2021), the likelihood of certain exit paths is determined by the focused customer group or the vertical in which the start-up is operating. ESVs in, i.e., the MedTech area are primarily sold to strategic investors whereas other start-ups might be attractive add-on acquisitions for GE or LBO funds because of their synergy creation potential through technology integration or application to other verticals (B, l. 291-296; H, l. 217-221).

4.4 Significant changes in financial, structural, and transactional assessments

In the ensuing chapter, major deviations from the assessment of ESV characteristics in a regular environment arising from the underlying uncertain and challenging market conditions will be outlined. A start-up's financial condition and metrics are naturally one of the leading factors of an investment target assessment. However, especially in the analyzed environment of economic uncertainty and high interest rates the focus on certain financial metrics but also on structural and transactional aspects has shifted notably.

In recent years, valuations in venture capital have been predominantly influenced by enormous revenue growth rates. But especially starting with Series A, much more focus is shifted to the bottom line of the start-ups. This does not mean that VCs do not expect an ambitious revenue growth story anymore. Founders should still show ambitious expansion and development plans but also present realistic scenarios in such an uncertain economic environment (A, l. 135-144).

These plans should also include a strategy for crisis management and corresponding responses to stabilize the annual recurring revenues or cut costs to ensure a certain level of near-term profitability (D, l. 200-207). Especially growth equity firms increased their portfolio management role and engagement in bottom-line improvements to the years before by thoroughly challenging former operating costs and expenses and discussing with management teams, which level of expenses and how many resources are still required in the future (K, l. 335-342). The investors mentioned a much stronger focus on capital efficiency metrics such as cash burn rate and “*Rule of 40*” since start-ups with high burn rates are more difficult to refinance in the current, capital-constrained environment and, therefore, impose more insolvency risk. Consequently, interviewees declared an industry-wide turning away from a solely revenue growth-driven investment approach to a capital-efficient growth priority (A; l. 187-190; F, l. 213-219; K, l. 174-188). Adapting to these shifting investor requirements, founders were reported to show these metrics already proactively in their pitch decks in current fundraising rounds (E, l. 187-190).

Investors still expect the same returns that they promised to their LPs during fundraising but are increasingly looking for investments with less return volatility which could consequently generate slightly lower, but more probable returns (K, l. 242-250). Under the expectation of lower exit multiples at the current point in time, many VC firms plan to expand their holding periods and wait for a recovery of valuations and better timing for higher exit multiples (C, l. 191-193)

Most notably, a stronger emphasis on the investor structure was deduced from the interviews and was even mentioned to be the only significant change from one early-stage investor (J, l. 236-237). As previously mentioned, investors normally differentiate themselves through the strategic value that they can provide. Under economic uncertainty, it was reported that investors shifted their assessment of co-investors to their financial capability to finance further

fundraising rounds (B, l. 84-90). Moreover, investors often cannot choose or advise the founders which additional investors they prefer because the pool of interested investors is smaller and all parties try to raise the necessary funds (J, l. 236-241). However, some interviewees underlined that renowned funds have also driven up valuations in the market without providing the same level of commitment and non-monetary value-add as other funds (H, l. 298-305). In the current environment, funds' vintages, referring to the fundraising period or year, play a major role in evaluating the corresponding implications of fund maturity in an ongoing environment of lower valuations and limited buyer interest (E, l. 239-245). Funds that only recently raised funds are more likely to have high liquidity and less pressure to generate distributed to paid-in capital within the next two years compared to GPs who raised their funds more than seven or eight years ago and will approach the fund closing date soon.

Many venture capital firms reported no change in their applied terms and conditions (A, l. 275-278; C, l. 239-241; H, l. 315-317). Instead of changing the terms, the funds negotiate lower entry multiples to account for the risk profile of the company and to prevent surpassing 20% of dilution per round which would not be accepted by the founders (A, l. 310-313). However, the current market environment with less time pressure to apply for deals allows VC firms to investigate terms more closely. Also, even if investors still stick to market standard clauses, they highlighted that market standards are also changing and therefore can get stricter overall in times of a difficult market environment (F, l. 304-308). As one of the most used exit-focused terms, many VC firms but especially growth equity firms reported wider application of stricter liquidations preferences (B, l. 325-328; K, l. 308-311). This can be explained by higher investment stakes at this stage, which increases the necessity for these firms to hedge their positions and secure a larger equity priority at exit. Agreed liquidation preferences have risen to levels of 1.5-2x and an 8% preferred interest was reported as the currently demanded value in most cases (I, l. 314-316). As an alternative risk hedging method, milestone-driven terms and

conditions, normally applied in Healthcare, MedTech, and Biotech venture capital where those are connected to new research results, are now also applied more frequently in other sectors to guarantee that no further investment if certain milestones are not met (J, l. 358-360). However, contrary to the rising application of financially focused terms, it was pointed out that start-ups have in general become more professional and, therefore, governance requirement terms have become less strict or are not even required anymore (B, l. 331-340).

The return and corresponding multiple expectations are closely related to the foreseen exit options and underlying multiples under each option. Unlike the 2021 market environment when start-ups attracted numerous interested buyers regardless of their enterprise value, the size of ESVs currently has a notable influence on the number of interested parties and corresponding exit options. Compared to start-ups with an enterprise value between €100 and 200 million which are still capable of attracting numerous interested buyers, GPs struggle to close deals for their smaller portfolio companies (K, l. 268-274). In terms of exit paths, the biggest decline in deals can be observed in the public equity market. IPOs led to numerous unicorn valuations in the past and allowed VC and GE funds to maximize their returns and offset average or low-performing portfolio companies. However, all interviewees agreed that IPOs are temporarily not available as an exit option in the current economic environment due to recently unsuccessful IPOs of, i.e., Birkenstock and Instacart, and the lack of liquidity in the public market (A, l. 263-265; H, l. 236-241). Still, also first recovery indications of the IPO market were reported by a later-stage investor (F, l. 238-244). As an alternative, sales to strategic buyers are currently the most dominant exit form in the temporarily capital-constrained market (B, l. 294-296; I, l. 256-264; K, l. 261-263). This can be explained by the high liquidity reserves of corporates and the decreased, more attractive valuations (C, l. 189-191; K, l. 263-265). Secondary sales to traditional LBO firms also seize very promising opportunities because of their high capital funds resulting from major fundraising rounds in 2021. Nonetheless, the returns of typical LBO

cases are constrained by higher leverage costs compared to the last low-interest decade (A, l. 265-267; K, l. 265-268). Therefore, are notable downturn in PE interest compared to former years can be observed and LBO firms might only agree to a purchase for lower multiples (B, l. 312-314). Nonetheless, PE firms currently have an advantage over VC firms because of their buy-and-build, restructuring, and company portfolio management expertise, i.e., by replacing certain founders with more crisis-experienced managers to successfully steer the start-ups through the economic downturn (H, l. 217-231).

4.5 General industry developments under economic uncertainty

In addition to the previously discussed factors, the limited partners' sentiment, the general VC and GE market environment, and the general partners' characteristics were identified as additional relevant drivers for assessing investment opportunities in the context of an uncertain economic environment and high interest rates.

The perspective of LPs on venture capital investment has not particularly changed because downturn periods are naturally accepted by investors for a high-risk, high-return asset class. Moreover, because of the long-term capital commitment of LPs to the funds, their underlying focus is long-term investment return, in most cases after 10-12 years (A, l. 297-298). Hence, especially very experienced LPs reacted less concerned to the venture capital downturn compared to relatively VC-inexperienced LPs (B, l. 77-86). However, the surging interest rates have led to an extensive re-valuation of assets because of the more attractive yields of government and corporate bonds. This increased the bonds' attractiveness as alternative asset classes to stocks, private equity, and real estate, which in many cases devalued the real estate portfolio of the LPs, leading to an overallocation of their invested capital to venture capital because the portfolio company values in the funds are not re-assessed in between (E, l. 265-272). Moreover, as some funds only created a high total value to paid-in capital but not a

tangible distributed return to paid-in capital or did not deliver sufficient returns at all, further funds cannot be deployed (H, l. 282-285). Consequently, current VC and GE fundraising processes are prolonged and underline the slightly reduced appetite for further venture capital financing by LPs in the current uncertain environment with high interest rates. Only experienced GPs have notable advantages over very new GPs in terms of fundraising because they provide the LPs with the demanded track record over a long time (D, l. 242-249; J, l. 514-517). LPs also concentrate their investment more on common business models and larger sectors because the appetite for specialized niche opportunities decreased due to a perception of limited buyer interest in case of an exit. However, this trend might be reversed in the future when competition between GPs increases again and LPs look for more focused funds that have the advantage of setting themselves apart with their knowledge, investment strategy, and niche-specific performance (C, l. 226-230; J, l. 301-309). Nonetheless, the general tendency of difficult or halted fundraising in the VC industry limits the available funding for ESVs and, therefore, underscores the importance of alternative capital sources, such as government grants, crowdfunding, or strategic partnerships (B, l. 56-63). Investors reverence ESVs that successfully raise alternative funds because they underline their effort and persistence to look for additional liquidity and alliances (B, l. 63-67).

Analyzing the influence of the market environment, research found that economic policy uncertainty primarily steers the actions of mature firms whereas start-ups are constantly fighting for their survival in their early stage and are more reliant on funding and the underlying venture capital investor sentiment (Hoang, Nguyen, and Nguyen 2023). Contrary to that, the analysis of the interviews indicated strong evidence that the current macro-environment and, most importantly, the high interest rates had a substantial influence on the venture capital market landscape. The interviewees positively and negatively reflected on the past and current market environment and shared their outlook expectations. Commenting on the past environment of

high liquidity and low interest rates, the majority of investors raised criticism about this phase, mainly in terms of unsustainably high valuations and extreme time pressure for due diligence processes in order to participate in deals and not miss out on successful start-ups (A, l. 101-107). More available funding for growth and scale-up, and attractive exit opportunities, especially from IPOs, were considered the only positive aspects of this phase. The research highlighted that, in the current environment, VCs struggle to deploy their funds because the necessary upscaling of start-ups is more difficult, and appropriate acquisition multiples are difficult to determine (Nelson 2023). Still, the responses about the current low liquidity and high interest rates environment entailed negative as well as also some positive views. Many investors perceive the current market correction just as a normalization of excessive valuations in the past. The current situation provides more time for detailed assessments in the due diligence phase and less competitive deal closings, resulting in more sustainable multiples and a power shift from founders to investors (C, l. 262-264). Furthermore, additional inorganic growth opportunities from M&A exist for growth equity funds because of low acquisition multiples and liquidity constraints of many ESVs (K, l. 159-169). On the contrary, GPs face the same issues as founders since the LPs are hesitant to grant financing for new funds (J, l. 407-415). Funds that acquired stakes at high multiples in the past are now facing substantial issues in liquidating their stakes for multiples which still guarantee the promised returns to LPs (I, l. 249-251).

Looking ahead, the majority of responses point towards a continuation of the current difficult funding and fundraising environment. Interviewees underlined that the market will most likely stay at the level of deals and valuations of the times before 2021, which will have several implications for the market participants (I, l. 333-347). Start-ups will face down-rounds and further dilution of their shares whereas general partners will face ongoing fundraising difficulties and invest more time in the management of their portfolio to ensure ongoing funding

in subsequent rounds and prevent insolvencies (A, l. 248-251). Only a few interviewees shared optimistic expectations about the upcoming period. They mainly highlighted that good start-ups will always provide attractive investment returns and recent major declines were limited to specific verticals such as E-Commerce or Property-Tech rather than horizontal enabler technologies, i.e., AI tools (I, l. 290-296; K, l. 129-133). Also, start-ups in the HR-Tech sector experience challenging times because potential customers are less keen to invest in, i.e., Recruiting or Learning & Development software applications or the workforce in general (C, l. 271-272; K, l. 127-128). Hence, current trends can have a strong influence on the short-term investment thesis and the corresponding valuations, even if they are promising long-term topics (K, l. 121-127). Another optimistic view was reported on the re-opening of the IPO window which could allow for more profitable exit opportunities in 2024 (F, l. 238-244; I, l. 340-347), whereas other investors were more conservative and do not expect major advances before 2026 (H, l. 235-242).

Furthermore, the funds' assessment of the current market environment is influenced by their firm's characteristics, especially the geographic focus, the sector focus, and the track record. Many investors underlined that they have already been more conservative than some of their peers in the last years which was noted as a typical characteristic of European GPs compared to their American counterparts (D, l. 191-194; K, l. 181). It was also mentioned that specialized VCs often have an advantage in the assessment of investment targets and in building trust with founders early on, which allows them to acquire stakes for more reasonable multiples or refrain from deals during high valuation periods than unspecialized firms (J, l. 297-300).

Besides their general characteristics, the venture capital and growth equity GPs have changed their behavior in terms of opportunity assessment and portfolio management under the current environment. First, GPs can invest more time in due diligence and investigate opportunities and risks in more detail because of the deal flow slowdown (A, l. 70-76; E, l. 316-320). Second,

GPs spend much more time talking with their peers to identify early if founders tell diverging pitch stories adjusted to the corresponding preferences of each fund (A, l. 344-353). Third, they are also forced to invest more time in the management of their portfolio to ensure their companies' survival through management or employee restructurings, and cost cutting. Through additional cash injections in bridge financing rounds, GPs try to extend their portfolio companies' runway, make them more attractive acquisition targets, and consequently increase their valuation (C, l. 189-193; E, l. 295-303).

5 Discussion

5.1 Scientific contribution

This paper aims to contribute to the research landscape by investigating the particularities of ESV funding under conditions of economic uncertainty. The study substantiates our theory on assessment criteria in entrepreneurial funding processes by incorporating the impact of unfavorable macroeconomic conditions. This provides further depth to existing research undertaken after the 2008 financial crisis and helps to redefine existing models of investment decision-making.

On a more general level, the study enhances our understanding of entrepreneurship under economic uncertainty. Through an analysis of changes in the assessment criteria from a business model, structural, and financial perspective, the research contributes to a broader understanding of the impacts of macroeconomic conditions on venture financing. By limiting the scope to the German market, the study possesses a unique regional perspective that can serve as a benchmark for comparative studies in other relevant VC markets.

5.2 Practical contribution

Focusing on insights derived from interviews with major German investors, this study attempts to bridge the gap between day-to-day business activities and academic research. Therein, it provides practical contributions that could nurture successful investment endeavors.

First and foremost, the model and portrayal create guidance in times of economic uncertainty for ventures and investors alike. The identified assessment criteria for funding processes for ESVs under uncertain economic conditions can be used as actionable guidelines to formulate more resilient funding strategies. Founders can revise their strategy and business model to make sure it fulfills heightened expectations for capital efficiency and sustainability of investors. Simultaneously, the GPs could use the insights to benchmark their funding strategies and refine

them to maximize returns. The study thereby contributes to aligning expectations between stakeholders and improving the competitiveness of the German VC and GE industry.

Secondly, the study informs policymakers about the dynamics of venture financing under economic conditions of uncertainty. Thereby, the study supports an organic economic recovery by improving the resilience of emerging businesses and assisting in the efficient usage of capital.

5.3 Limitations

Despite adhering to the highest scientific standards throughout the research process, like any qualitative research study, the procedure possesses certain limitations that require attention to put the results into perspective.

Predominantly, the research is limited by the small sample size of interviews compared to the width of the industry landscape. Even though numerous potential interview candidates were contacted, tight schedules oftentimes did not allow for an interview. While the final participants still represented a meaningful proportion of the German venture capital market, the results should nevertheless not be perceived as fully representative. The focus on Germany may also constrain international transferability. In general, the decision criteria presented within this paper were derived and assessed based on the individual opinions of the participants, meaning that despite conducting continuous cross-checks with existing academic research, they continue to provide a skewed, partially subjective picture.

While academic rigor has been applied during all phases of the project, a certain interpretative nature still prevails in the data analysis. Even though we undertook extensive validation through the interconnection of insights with existing literature to minimize the impact of personal perspectives and improve the study's credibility, the influence of prior knowledge and potential personal biases cannot be fully precluded (Lincoln and Guba 1986). Nevertheless, the processes

yielded valuable insights and fulfilled the aspiration towards transferability to the biggest extent.

5.4 Future research

Within the overall context of the research landscape, the project provides a plethora of opportunities for fruitful future research. Firstly, comparable analyses in other markets could deepen the understanding of regional differences as well as an overarching theme applicable everywhere. Simultaneously, future interviews could be conducted with a broader variety of actors in the ecosystem to include the perspective of founders, policymakers, and LPs alike. These interviews could focus on the perception of additional issues with funding under uncertain economic conditions such as response behavior, term sheet attractiveness, or impact on daily business. Thereby a more differentiated perspective on requirements as well as interests could be derived. Furthermore, increasing the sample size of participants would strengthen the applicability and external validity of the results.

To build a stronger foundation for the topic of interest, additional studies with different perspectives and methodologies could be deployed. A longitudinal study on the performance of funded ventures in combination with the derived characteristics could highlight success and resilience within the ecosystem. Thereby, the application of the concept in the assessment of potential ventures could refine the day-to-day applicability as well as provide a bridge between science and business.

Alongside those additional qualitative studies, quantitative analyses could yield additional insights that complement the derived theory and underline the importance of those factors. These could be based on standardized questionnaires to include a broader range of potential participants as well as conducting regression analyses on the success and failure rates of ESVs

with VC funding. All in all, the topic continues to provide several interesting opportunities for research that bridge gaps between the academic and the business community.

6 Conclusion

This research project examines a contemporary approach to fund deployment by German VC and GE companies in ESVs. The underlying proposition was that investment target assessment criteria in Series A & B funding processes vary based on underlying economic conditions due to the available capital and economic outlook. Combining business model, company, financial, contractual, and external factors, this study strives to develop a comprehensive model future for application based on qualitative perspectives provided by representatives of significantly sized funds.

Across dimensions, assessment processes and decision making are becoming more thorough and careful under precarious economic conditions. Investors are generally aware of the impact the medium- to long-term economic outlook will have on their return expectations and adapt their criteria accordingly. By prioritizing economic sustainability, and profitability over growth, internationalization, and speed, a significant shift in the perception of attractive investment opportunities can be observed. Simultaneously, by emphasizing the importance of KPIs and dedicating increased efforts to due diligence processes, investors capitalize on the power shift towards the financiers compared to periods of high liquidity. Management teams need to be aware of those changes and adapt their organizational design, behavior, and expectations to continue their contribution to economic and societal prosperity.

By developing a comprehensive model combining proven scientific knowledge with contemporary insights from active investors, this study provides relevant adaptations to established industry conduct in the specific context of uncertain economic conditions.

Bibliography

- Adhabi, Essa, and Christina Blash Anozie. 2017. "Literature Review for the Type of Interview in Qualitative Research." *International Journal of Education* 9 (3): 86–97.
- Aggarwal, Shalini. 2003. "Private Company Restructuring: Conflicts of Interest Between Various Stakeholders." *The Journal of Private Equity* 6 (2): 51–60.
- Appleton, Jane V. 2006. "Analysing Qualitative Interview Data: Addressing Issues of Validity And reliability." *Journal of Advanced Nursing* 22 (5): 993–97.
<https://doi.org/10.1111/j.1365-2648.1995.tb02653.x>.
- Aragon, Lawrence. 2022. "Friday Letter: How Rising Interest Rates Will Hurt VC Funding." December 16, 2022. <https://www.venturecapitaljournal.com/friday-letter-how-rising-interest-rates-will-hurt-vc-fundraising/>.
- Attila Dahmann. 2022. "Der Deutsche Beteiligungskapitalmarkt Im Ersten Halbjahr 2022." Bundesverband Beteiligungskapital – German Private Equity and Venture Capital Association e.V. https://www.bvkap.de/files/content/statistik-deutschland/pdfs/2022_h1_22_bvk-statistik_charts.pdf.
- Baden-Fuller, Charles, and Vincent Mangematin. 2013. "Business Models: A Challenging Agenda." *Strategic Organization* 11 (4): 418–27.
<https://doi.org/10.1177/1476127013510112>.
- Baker, Scott R., Nicholas Bloom, and Steven J. Davis. 2016. "Measuring Economic Policy Uncertainty." *The Quarterly Journal of Economics* 131 (4): 1593–1636.
- Barbopoulos, Leonidas G., Annalisa Prencipe, and Luca Viarengo. 2023. "Earnout Agreements in M&A: A Method to Control Economic Uncertainty." Available at SSRN 4532508.
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4532508.

Becker, Jörg, Patrick Delfmann, Alexander Dreiling, Ralf Knackstedt, and Dominik Kuropka.

2004. “Configurative Process Modeling–Outlining an Approach to Increased Business Process Model Usability.” In Proceedings of the 15th IRMA International Conference, 1–12.
https://www.researchgate.net/profile/Dominik-Kuropka-2/publication/245767093_Configurative_Process_Modeling-Outlining_an_Approach_to_increased_Business_Process_Model_Usability/links/00b7d53ca263d7e2d1000000/Configurative-Process-Modeling-Outlining-an-Approach-to-increased-Business-Process-Model-Usability.pdf.

Becker, Ralf, and Thomas Hellmann. 2005. “The Genesis of Venture Capital: Lessons from the German Experience.” *Venture Capital, Entrepreneurship, and Public Policy*, 33–67.

Bender, Marko. 2011. *Spatial Proximity in Venture Capital Financing: A Theoretical and Empirical Analysis of Germany*. Springer Science & Business Media.
<https://books.google.com/books?hl=de&lr=&id=Hfku8cvI4BoC&oi=fnd&pg=PR7&dq=Spatial+proximity+in+venture+capital+financing:+A+theoretical+and+empirical+analysis+of+Germany&ots=LLYj5mmozM&sig=Xlr1aAgTPCsfrp0GpIRTJAqfWs>.

Bengtsson, Ola. 2011. “Covenants in Venture Capital Contracts.” *Management Science* 57 (11): 1926–43.

Bernanke, Ben S., and Mark Gertler. 1995. “Inside the Black Box: The Credit Channel of Monetary Policy Transmission.” *Journal of Economic Perspectives* 9 (4): 27–48.

Bernstein, Shai, Arthur Korteweg, and Kevin Laws. 2017. “Attracting Early-Stage Investors: Evidence from a Randomized Field Experiment.” *The Journal of Finance* 72 (2): 509–38.

Black, Bernard S., and Ronald J. Gilson. 1998. “Venture Capital and the Structure of Capital Markets: Banks versus Stock Markets.” *Journal of Financial Economics* 47 (3): 243–77.

Blanchard, Olivier. 2009. “The State of Macro.” *Annual Review of Economics* 1 (1): 209–28.

<https://doi.org/10.1146/annurev.economics.050708.142952>.

- Block, Joern, Christian Fisch, Silvio Vismara, and René Andres. 2019. “Private Equity Investment Criteria: An Experimental Conjoint Analysis of Venture Capital, Business Angels, and Family Offices.” *Journal of Corporate Finance* 58 (October): 329–52.
- Block, Joern, and Philipp Sandner. 2009. “What Is the Effect of the Financial Crisis on Venture Capital Financing? Empirical Evidence from US Internet Start-Ups.” *Venture Capital* 11 (4): 295–309. <https://doi.org/10.1080/13691060903184803>.
- Bocken, Nancy MP. 2015. “Sustainable Venture Capital–Catalyst for Sustainable Start-up Success?” *Journal of Cleaner Production* 108: 647–58.
- Bonaime, Alice, Huseyin Gulen, and Mihai Ion. 2018. “Does Policy Uncertainty Affect Mergers and Acquisitions?” *Journal of Financial Economics* 129 (3): 531–58.
- Bottazzi, Laura, and Marco Da Rin. 2002. “Venture Capital in Europe and the Financing of Innovative Companies.” *Economic Policy* 17 (34): 229–70.
- Bottazzi, Laura, Marco Da Rin, and Thomas Hellmann. 2008. “Who Are the Active Investors?: Evidence from Venture Capital.” *Journal of Financial Economics* 89 (3): 488–512.
- Böttger, Christian. 2006. “Strukturen Und Strategien von Finanzinvestoren.” *Arbeitspapier*. <https://www.econstor.eu/handle/10419/116584>.
- Browne, Orla. 2023. “Where Are VCs Investing?” October 5, 2023. <https://dealroom.co/blog/where-are-vcs-investing>.
- Burkhart, Thomas, Julian Krumeich, Dirk Werth, and Peter Loos. 2011. “Analyzing the Business Model Concept—a Comprehensive Classification of Literature.” <https://aisel.aisnet.org/icis2011/proceedings/generaltopics/12/>.
- Bygrave, William D., and Jeffry Timmons. 1992. “Venture Capital at the Crossroads.”

University of Illinois at Urbana-Champaign's Academy for Entrepreneurial Leadership
Historical Research Reference in Entrepreneurship.

https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1496172.

Cardon, Melissa S., Joakim Wincent, Jagdip Singh, and Mateja Drnovsek. 2009. "THE NATURE AND EXPERIENCE OF ENTREPRENEURIAL PASSION." *Academy of Management Review* 34 (3): 511–32. <https://doi.org/10.5465/amr.2009.40633190>.

Casadesus, Ramon, and Joan E. Ricart. 2011. "How to Design a Winning Business Model." *Harvard Business Review* 89 (1/2): 100–107.

CFO Hub. 2021. "General Venture Capital Investment Criteria. Does My Business Fit the Bill?" CFO Hub. July 16, 2021. <https://cfohub.com/venture-capital-investment-criteria/>.

Cho, Yun Hee, and Joo-Heon Lee. 2018. "Entrepreneurial Orientation, Entrepreneurial Education and Performance." *Asia Pacific Journal of Innovation and Entrepreneurship* 12 (2): 124–34.

Chuck Pettid. 2022. "Pre-Seed, Seed, Series A, B, C: How Startup Fundraising Works." December 30, 2022. <https://republic.com/blog/investor-education/series-a-b-c-how-startup-fundraising-works>.

Conti, Annamaria, Nishant Dass, Francesco Di Lorenzo, and Stuart JH Graham. 2019. "Venture Capital Investment Strategies under Financing Constraints: Evidence from the 2008 Financial Crisis." *Research Policy* 48 (3): 799–812.

Corbin, Juliet M., and Anselm Strauss. 1990. "Grounded Theory Research: Procedures, Canons, and Evaluative Criteria." *Qualitative Sociology* 13 (1): 3–21.

Cote, Catherine. 2020. "How to Create an Effective Value Proposition | HBS Online." *Business Insights Blog*. July 28, 2020. <https://online.hbs.edu/blog/post/creating-a-value->

proposition.

Cumming, Douglas, and Sofia Atiqah Binti Johan. 2008. "Preplanned Exit Strategies in Venture Capital." *European Economic Review* 52 (7): 1209–41.
<https://doi.org/10.1016/j.euroecorev.2008.01.001>.

Dahmann, Attila, Amid Jabbour, Clark Parsons, Roxaneh Tehran, Marc-Andre Rousseau, Matthias Geurts, Christian Krys, Christian Gschwendtner, and Steffen Geering. 2023. "A New VC Agenda for Germany and Europe," May. https://www.ie.foundation/content/4-publications/22_2146_cop_ief_bvk_2023_en_07_online_es.pdf.

Dams, Carolina, Virginia Sarria Allende, and María José Murcia. 2021. "Multilateral Development Banks: Understanding Their Impact on Start-up Development in Latin America." *European Business Review* 33 (6): 942–56.

DaSilva, Carlos M., and Peter Trkman. 2014. "Business Model: What It Is and What It Is Not." *Long Range Planning* 47 (6): 379–89.

Davila, Antonio, George Foster, and Mahendra Gupta. 2003. "Venture Capital Financing and the Growth of Startup Firms." *Journal of Business Venturing* 18 (6): 689–708.

Dealroom.co. 2023. "Ecosystem Metrics."
https://app.dealroom.co/metrics/ecosystem/f/rows/anyof_~startups_count~_~unicorns_count~_~future_unicorns_count~_~years_funding_number~_~years_funding_amount~_~years_exits_amount~_~employees_number~_~current_year_ecosystem_value~_~years_new_funds~/year_min/anyof_2015/location/anyof_~london_9~_~berlin_2~_paris_stockholm_~basel_2~_zurich_madrid_~hamburg_8~_~copenhagen_3~_bristol_~t_bingen~_moscow_milan_lausanne_oslo_espoo_edinburgh_~malm_~_south_lyon~_~dublin_9~_munich_amsterdam_barcelona_~helsinki_4~_rotterdam_cologne_vienna_tallinn_~utrecht_9~_ghent_~cambridge_1~?sort=-years_funding_amount&id=40601.

- DiCicco-Bloom, Barbara, and Benjamin F Crabtree. 2006. “The Qualitative Research Interview.” *Medical Education* 40 (4): 314–21.
- Digital Ocean. n.d. “Startup Funding Explained: Series A, Series B, Series C.” Accessed October 8, 2023. <https://www.digitalocean.com/resources/article/startup-funding-series-a-b-c>.
- Dörner, Karel, Max Flötotto, Markus Berger-de León, and Tobias Henz. 2021. “Entrepreneurship Zeitgeist 2030.” *McKinsey.Com*. October 26, 2021. <https://www.mckinsey.com/industries/technology-media-and-telecommunications/our-insights/entrepreneurship-zeitgeist-2030>.
- Dornseifer, Frank, Philipp Bunnenberg, and Luis Kaiser. 2022. “BAI Investor Survey 2022 - Global Report.”
- Drover, Will, Lowell Busenitz, Sharon Matusik, David Townsend, Aaron Anglin, and Gary Dushnitsky. 2017. “A Review and Road Map of Entrepreneurial Equity Financing Research: Venture Capital, Corporate Venture Capital, Angel Investment, Crowdfunding, and Accelerators.” *Journal of Management* 43 (6): 1820–53. <https://doi.org/10.1177/0149206317690584>.
- “EIF Annual Report 2022.” 2023. European Investment Fund. https://www.eif.org/news_centre/publications/eif-annual-report-2022.htm.
- Engel, Dirk, and Max Keilbach. 2007. “Firm-Level Implications of Early Stage Venture Capital Investment—An Empirical Investigation.” *Journal of Empirical Finance* 14 (2): 150–67.
- Ensley, Michael D., and Keith M. Hmieleski. 2005. “A Comparative Study of New Venture Top Management Team Composition, Dynamics and Performance between University-Based and Independent Start-Ups.” *Research Policy, The Creation of Spin-off Firms at Public Research Institutions: Managerial and Policy Implications*, 34 (7): 1091–1105.

<https://doi.org/10.1016/j.respol.2005.05.008>.

Ewens, Michael, Alexander Gorbenko, and Arthur Korteweg. 2022. “Venture Capital Contracts.” *Journal of Financial Economics* 143 (1): 131–58.

<https://doi.org/10.1016/j.jfineco.2021.06.042>.

Forbes, Kristin J., and Roberto Rigobon. 2002. “No Contagion, Only Interdependence: Measuring Stock Market Comovements.” *The Journal of Finance* 57 (5): 2223–61.

<https://doi.org/10.1111/0022-1082.00494>.

Franke, Nikolaus, Marc Gruber, Dietmar Harhoff, and Joachim Henkel. 2008. “Venture Capitalists’ Evaluations of Start-Up Teams: Trade-Offs, Knock-Out Criteria, and the Impact of VC Experience.” *Entrepreneurship Theory and Practice* 32 (3): 459–83.

<https://doi.org/10.1111/j.1540-6520.2008.00236.x>.

Gassmann, Oliver, Karolin Frankenberger, and Michaela Csik. 2017. “Geschäftsmodelle Entwickeln: 55 Innovative Konzepte Mit Dem St. Galler Business Model Navigator.”

<https://www.alexandria.unisg.ch/handle/20.500.14171/103039>.

George, Gerard, and Adam J. Bock. 2011. “The Business Model in Practice and Its Implications for Entrepreneurship Research.” *Entrepreneurship Theory and Practice* 35 (1): 83–111.

<https://doi.org/10.1111/j.1540-6520.2010.00424.x>.

Gill, Paul, Kate Stewart, Elizabeth Treasure, and Barbara Chadwick. 2008. “Methods of Data Collection in Qualitative Research: Interviews and Focus Groups.” *British Dental Journal* 204 (6): 291–95.

Glasner, Joanna. 2023. “It’s Taking Longer For Startups To Raise From Series A To Series B.” *Crunchbase News*. June 7, 2023. <https://news.crunchbase.com/venture/startups-raise-series-a-series-b/>.

- Gompers, Paul A., Will Gornall, Steven N. Kaplan, and Ilya A. Strebulaev. 2020. “How Do Venture Capitalists Make Decisions?” *Journal of Financial Economics* 135 (1): 169–90.
- Gompers, Paul A., Josh Lerner, Margaret M. Blair, and Thomas Hellmann. 1998. “What Drives Venture Capital Fundraising?” *Brookings Papers on Economic Activity. Microeconomics* 1998: 149–204. <https://doi.org/10.2307/2534802>.
- Gompers, Paul, and Josh Lerner. 2001. “The Venture Capital Revolution.” *Journal of Economic Perspectives* 15 (2): 145–68.
- Gourinchas, Pierre-Olivier. 2023. “Global Economy on Track but Not Yet Out of the Woods.” IMF. July 25, 2023. <https://www.imf.org/en/Blogs/Articles/2023/07/25/global-economy-on-track-but-not-yet-out-of-the-woods>.
- Gupta, Anil K., and Harry J. Sapienza. 1992. “Determinants of Venture Capital Firms’ Preferences Regarding the Industry Diversity and Geographic Scope of Their Investments.” *Journal of Business Venturing* 7 (5): 347–62.
- Hege, Ulrich, Frédéric Palomino, and Armin Schwienbacher. 2003. “Determinants of Venture Capital Performance: Europe and the United States.” working paper, HEC School of Management. https://blocnotesdeleco.banque-france.fr/sites/default/files/media/2017/06/21/determinants_of_venture_c_0.pdf.
- Hellmann, Thomas, and Manju Puri. 2002. “Venture Capital and the Professionalization of Start-Up Firms: Empirical Evidence.” *The Journal of Finance* 57 (1): 169–97. <https://doi.org/10.1111/1540-6261.00419>.
- Hennink, Monique, Inge Hutter, and Ajay Bailey. 2020. *Qualitative Research Methods*. Sage.
- Hoang, Khanh, Quang Thi Thieu Nguyen, and Cuong Nguyen. 2023. “Start-up Firms’ Investments: When Economic Policy Uncertainty Matters?” *Management Decision* 61 (5):

1065–89.

Hochberg, Yael V., Alexander Ljungqvist, and Yang Lu. 2007. “Whom You Know Matters: Venture Capital Networks and Investment Performance.” *The Journal of Finance* 62 (1): 251–301. <https://doi.org/10.1111/j.1540-6261.2007.01207.x>.

Ilmari, Marjo. 2021. “Why Scale-Ups Matter – and How Enabling Them Can Boost the Economic Rebound from the Pandemic.” *The World Financial Review* (blog). May 3, 2021. <https://worldfinancialreview.com/why-scale-ups-matter-and-how-enabling-them-can-boost-the-economic-rebound-from-the-pandemic/>.

Kallio, Hanna, Anna-Maija Pietilä, Martin Johnson, and Mari Kangasniemi. 2016. “Systematic Methodological Review: Developing a Framework for a Qualitative Semi-Structured Interview Guide.” *Journal of Advanced Nursing* 72 (12): 2954–65.

Kaplan, Steven N., Berk A. Sensoy, and Per Strömberg. 2009. “Should Investors Bet on the Jockey or the Horse? Evidence from the Evolution of Firms from Early Business Plans to Public Companies.” *The Journal of Finance* 64 (1): 75–115.

Khanin, Dmitry, J. Robert Baum, Raj V. Mahto, and C. Heller. 2008. “Venture Capitalists’ Investment Criteria: 40 Years of Research.” Small Business Institute.

Kirchleitner, Daniel. 2021. “Why B2B Startups Will Be the Dominant Startup Species in Europe.” *Eu Startup News Overview*. June 11, 2021. <https://www.eu-startups.com/2021/06/why-b2b-startups-will-be-the-dominant-startup-species-in-europe/>.

Klagge, Britta, and Ron Martin. 2005. “Decentralized versus Centralized Financial Systems: Is There a Case for Local Capital Markets?” *Journal of Economic Geography* 5 (4): 387–421.

Koellinger, Philipp D., and A. Roy Thurik. 2012. “Entrepreneurship and the Business Cycle.” *The Review of Economics and Statistics* 94 (4): 1143–56.

- Köhn, Andreas. 2018. “The Determinants of Startup Valuation in the Venture Capital Context: A Systematic Review and Avenues for Future Research.” *Management Review Quarterly* 68 (1): 3–36. <https://doi.org/10.1007/s11301-017-0131-5>.
- Kollmann, Tobias, and Andreas Kuckertz. 2010. “Evaluation Uncertainty of Venture Capitalists’ Investment Criteria.” *Journal of Business Research* 63 (7): 741–47.
- Kraemer-Eis, Helmut, Annalisa Croce, Frank Lang, Antonia Botsari, Clarissa Hahn, Massimiliano Guerini, Andrea Odille Bosio, et al. 2023. “EIF VC Survey 2023: Market Sentiment, Scale-up Financing and Human Capital.” EIF VC Survey. European Investment Fund.
- Lee, Hye-Kyung. 2022. “Supporting the Cultural Industries Using Venture Capital: A Policy Experiment from South Korea.” *Cultural Trends* 31 (1): 47–67. <https://doi.org/10.1080/09548963.2021.1926931>.
- Lerer, Leonard. 2009. “Venture Capital and the European Biotechnology Industry.” *Journal of Commercial Biotechnology* 15 (3): 283–84. <https://doi.org/10.1057/jcb.2009.9>.
- Lerner, Josh. 2000. “Assessing the Contribution of Venture Capital.” *The RAND Journal of Economics* 31 (4): 674–92.
- Levingston, Ivan, George Hammond, and Tabby Kinder. 2023. “VCs Tell Start-Ups to Delay IPO Plans after Arm and Instacart Underwhelm.” *Financial Times*, October 1, 2023, sec. IPOs. <https://www.ft.com/content/2b8f723d-52b0-4ea5-9703-7c65e3c6bd35>.
- Lincoln, Yvonna S., and Norman K. Denzin. 2000. *The Handbook of Qualitative Research*. Sage.
- Lincoln, Yvonna S., and Egon G. Guba. 1986. “But Is It Rigorous? Trustworthiness and Authenticity in Naturalistic Evaluation.” *New Directions for Program Evaluation* 1986

(30): 73–84.

Liu, Manzhi, Jixin Wen, Yingjie Liu, Xueqing Lv, Qiyao Liu, Jia Lu, Ying Qin, and Linlin Zhang. 2022. “An Inverted U-Shaped Relationship? The Impact of Government Subsidies on the R&D Investment of New Energy Companies: Economic Policy Uncertainty and Enterprise Heterogeneity Perspectives.” *Frontiers in Energy Research* 10: 887108.

M13. 2020. “Series A vs. Series B Funding: What’s the Difference? | M13.” November 9, 2020. <https://m13.co/article/series-a-vs-series-b-funding-whats-the-difference>.

Macdonald, Stuart, and Bo Hellgren. 2004. “The Interview in International Business Research: Problems We Would Rather Not Talk About.” *Handbook of Qualitative Research Methods for International Business*, 264–81.

Macmillan, Ian C., Robin Siegel, and P.N.Subba Narasimha. 1985. “Criteria Used by Venture Capitalists to Evaluate New Venture Proposals.” *Journal of Business Venturing* 1 (1): 119–28. [https://doi.org/10.1016/0883-9026\(85\)90011-4](https://doi.org/10.1016/0883-9026(85)90011-4).

Magretta, Joan. 2002. “Why Business Models Matter.” Harvard Business School Boston, MA, USA.
http://designblog.uniandes.edu.co/blogs/dise2102pc/files/2013/08/Why_Business_Models_Matter2.pdf.

Mason, Colin. 2020. *The Coronavirus Economic Crisis: Its Impact on Venture Capital and High Growth Enterprises*. Publications Office of the European Union.
<https://eprints.gla.ac.uk/215154/>.

Mason, Colin, and Matthew Stark. 2004. “What Do Investors Look for in a Business Plan?: A Comparison of the Investment Criteria of Bankers, Venture Capitalists and Business Angels.” *International Small Business Journal: Researching Entrepreneurship* 22 (3): 227–48.

- Masulis, Ronald W., and Rajarishi Nahata. 2011. "Venture Capital Conflicts of Interest: Evidence from Acquisitions of Venture-Backed Firms." *The Journal of Financial and Quantitative Analysis* 46 (2): 395–430.
- Mayring, Philipp. 2016. *Einführung in Die Qualitative Sozialforschung*. Beltz.
- Metzger, Georg. 2020. "KfW Venture Capital Study 2020: VC Market Germany: Ready for the next Development Stage," September.
- Mishkin, Frederic S. 1996. "The Channels of Monetary Transmission: Lessons for Monetary Policy." National Bureau of Economic Research Cambridge, Mass., USA. https://www.nber.org/system/files/working_papers/w5464/w5464.pdf.
- . 2007. *The Economics of Money, Banking, and Financial Markets*. Pearson education.
- Montani, Damiano, Daniele Gervasio, and Andrea Pulcini. 2020. "Startup Company Valuation: The State of Art and Future Trends." *International Business Research* 13 (9): 31–45.
- Muzyka, Dan, Sue Birley, and Benoit Leleux. 1996. "Trade-Offs in the Investment Decisions of European Venture Capitalists." *Journal of Business Venturing* 11 (4): 273–87.
- Myers, Michael D., and Michael Newman. 2007. "The Qualitative Interview in IS Research: Examining the Craft." *Information and Organization* 17 (1): 2–26.
- Needle, Flori. 2021. "What Is a Revenue Model?" June 10, 2021. <https://blog.hubspot.com/marketing/revenue-model>.
- Neergaard, Helle. 2007. "10 Sampling in Entrepreneurial Settings." *Handbook of Qualitative Research Methods in Entrepreneurship* 253.
- Nelson, Adam. 2023. "Navigating The Contradictions: The 2023 Venture Capital Landscape." Medium (blog). October 20, 2023. <https://firstmark.medium.com/navigating-the-contradictions-the-2023-venture-capital-landscape-4d26e7a2becc>.

- Nguyen, Nam H., and Hieu V. Phan. 2017. "Policy Uncertainty and Mergers and Acquisitions." *Journal of Financial and Quantitative Analysis* 52 (2): 613–44.
- Nobel, Arthur. 2021. "Scaling across Series A to C." TechCrunch (blog). September 30, 2021. <https://techcrunch.com/2021/09/30/scaling-across-series-a-to-c/>.
- Nunes, José Carlos, Elisabete Gomes Santana Félix, and Cesaltina Pacheco Pires. 2014. "Which Criteria Matter Most in the Evaluation of Venture Capital Investments?" *Journal of Small Business and Enterprise Development* 21 (3): 505–27.
- Oliver, Daniel G., Julianne M. Serovich, and Tina L. Mason. 2005. "Constraints and Opportunities with Interview Transcription: Towards Reflection in Qualitative Research." *Social Forces* 84 (2): 1273–89.
- Osterwalder, Alexander, Yves Pigneur, and Christopher L. Tucci. 2005. "Clarifying Business Models: Origins, Present, and Future of the Concept." *Communications of the Association for Information Systems* 16 (1): 1.
- Paik, Yongwook, and Heejin Woo. 2014. "Economic Downturn and Financing Innovative Startup Companies." *Managerial and Decision Economics* 35 (2): 114–28.
- Park, Seung Ho, and Yadong Luo. 2001. "Guanxi and Organizational Dynamics: Organizational Networking in Chinese Firms." *Strategic Management Journal* 22 (5): 455–77. <https://doi.org/10.1002/smj.167>.
- Pollman, Elizabeth. 2019. "Startup Governance." *University of Pennsylvania Law Review* 168 (1): 155–221.
- Porter, Michael E., and Michael; ilustraciones Gibbs. 2001. "Strategy and the Internet." https://www.academia.edu/download/30781774/strategy_and_the_internet.pdf.
- Qu, Sandy Q., and John Dumay. 2011. "The Qualitative Research Interview." *Qualitative*

Research in Accounting & Management 8 (3): 238–64.

Reinhart, Carmen M., and Kenneth S. Rogoff. 2009. *This Time Is Different: Eight Centuries of Financial Folly*. Princeton University Press. <https://doi.org/10.1515/9781400831722>.

Rosenbloom, Micah. 2022. “Startups, Don’t Pin Your Hopes on VC Dry Powder.” *Harvard Business Review*. October 18, 2022. <https://hbr.org/2022/10/startups-dont-pin-your-hopes-on-vc-dry-powder>.

Saldaña, Johnny. 2021. *The Coding Manual for Qualitative Researchers*. sage.

Schumpeter, Joseph A. 1934. *The Theory of Economic Development: An Inquiry into Profits, Capital, Credit, Interest, and the Business Cycle*. Harvard Economic Studies. Cambridge, MA: Harvard University Press.

Schweickhardt, Wolfram. 2020. “Despite Progress Made, German Venture Capital Market Lags behind Internationally | KfW.” September 30, 2020. https://www.kfw.de/About-KfW/Newsroom/Latest-News/Pressemitteilungen-Details_608832.html.

Shafer, Scott M., H. Jeff Smith, and Jane C. Linder. 2005. “The Power of Business Models.” *Business Horizons* 48 (3): 199–207.

Smolarski, Jan, and Can Kut. 2011. “The Impact of Venture Capital Financing Method on SME Performance and Internationalization.” *International Entrepreneurship and Management Journal* 7 (1): 39–55. <https://doi.org/10.1007/s11365-009-0128-1>.

Snieska, Vytautas, and Vitalija Venckuvienė. 2011. “Hybrid Venture Capital Funds in Lithuania: Motives, Factors and Present State of Development.” *Inžinerinė Ekonomika*, 157–64.

Steffen Viete and Georg Metzger. 2023. “KfW Venture Capital- Dashboard Q2 2023.” KfW. <https://www.kfw.de/PDF/Download-Center/Konzernthemen/Research/PDF-Dokumente->

Dashboard/Dashboard-VC-Markt-Q2-2023.pdf.

Suddaby, Roy. 2006. "From the Editors: What Grounded Theory Is Not." *Academy of Management Journal* 49 (4): 633–42.

Teece, David J. 2010. "Business Models, Business Strategy and Innovation." *Long Range Planning* 43 (2–3): 172–94.

Temkin, Marina. 2023. "Exclusive: Sequoia Marks up Funds, Defying VC Rout | PitchBook." October 23, 2023. <https://pitchbook.com/news/articles/sequoia-funds-markups-UC-VC>.

Townshend, Curt, and Kyle Poyar. 2022. "OpenView 2022 SaaS Benchmarks Report." OpenView Advisors. <https://openviewpartners.com/2022-saas-benchmarks-report/>.

TrueBridge Capital Partners. 2023. "State Of VC In 2023: The Resilience Of Venture Capital." March 30, 2023. <https://www.forbes.com/sites/truebridge/2023/03/30/state-of-vc-in-2023-the-resilience-of-venture-capital/?sh=4912330868b7>.

Vanacker, Tom R., and Sophie Manigart. 2010. "Pecking Order and Debt Capacity Considerations for High-Growth Companies Seeking Financing." *Small Business Economics* 35 (1): 53–69.

Volta Ventures. 2021. "Early Stage Venture Capital: Everything You Should Know About." Volta Ventures (blog). October 29, 2021. <https://www.volta.ventures/early-stage-venture-capital-everything-you-should-know-about/>.

Zeisberger, Claudia. 2015. "Private Equity vs. The Strategic Acquirer." INSEAD Knowledge. April 16, 2015. <https://knowledge.insead.edu/strategy/private-equity-vs-strategic-acquirer>.

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Figure 7: Revised model of investment target assessment for Series A & B funding under uncertain economic conditions

Table 1: Overview of relevant VCs and GEs

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Table 4: Overview of sub-codes

Table 5: Overview of coding categories

List of abbreviations

BM	Business model
ESV	Early-stage venture
GE	Growth equity
IPO	Initial public offering
IRR	Internal rate of return
LBO	Leveraged buyout
LP	Limited partner
M&A	Mergers & Acquisitions
PE	Private equity
VC	Venture capital

1 – Tables & Figures

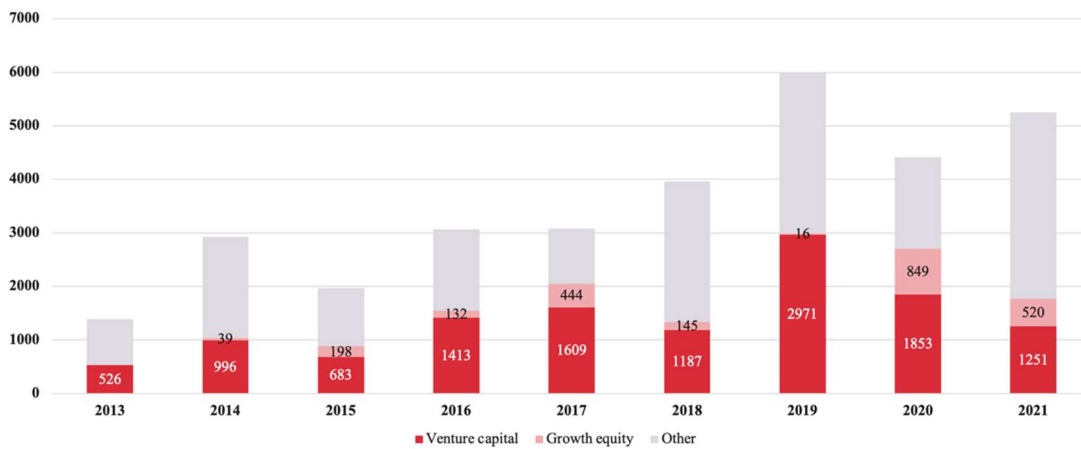


Figure 1: Fundraising of German private equity companies by investment focus, in EURm (Source: BVK Halbjahresbericht 2022)

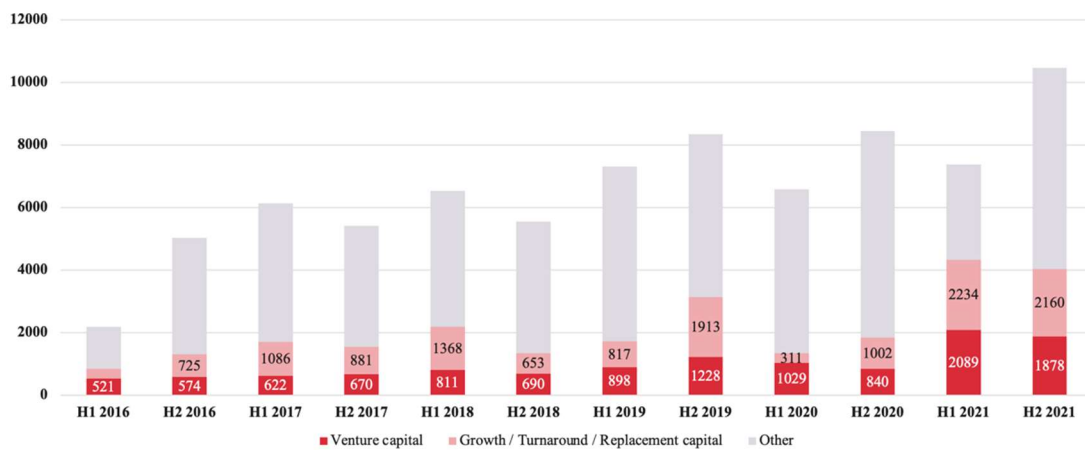


Figure 2: Investments of German private equity companies by investment focus, in EURm (Source: BVK Halbjahresbericht 2022)

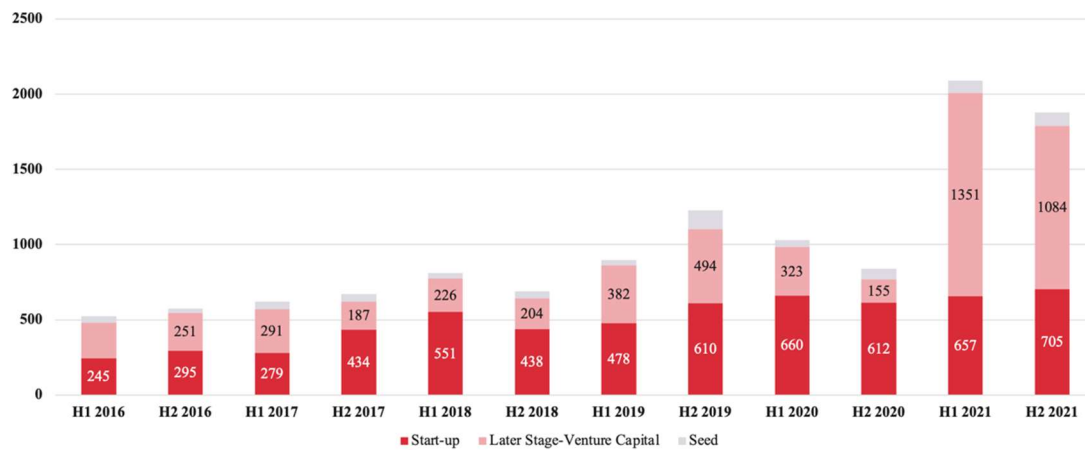


Figure 3: Investments of German private equity companies by company stage, in EURm (Source: BVK Halbjahresbericht 2022)

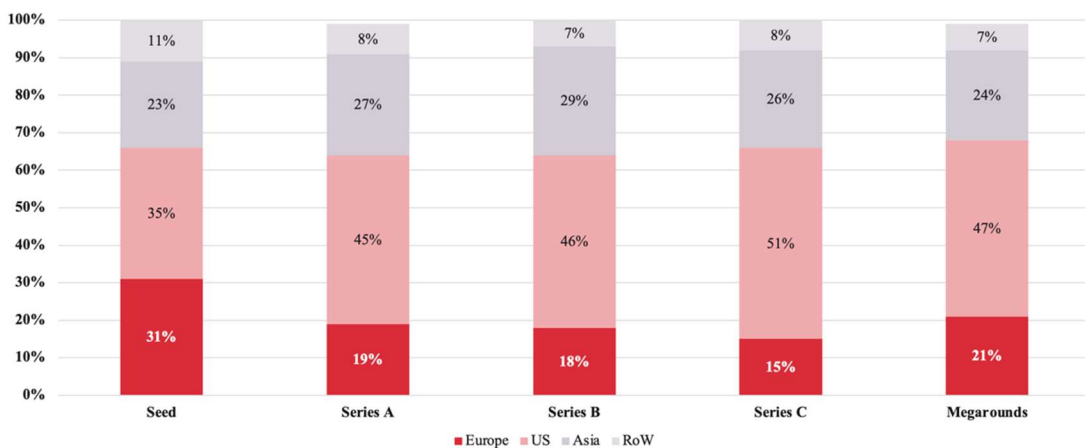


Figure 4: Venture capital by destination and stage, in USDb (2020 - Q3'2023; Source: Dealroom)

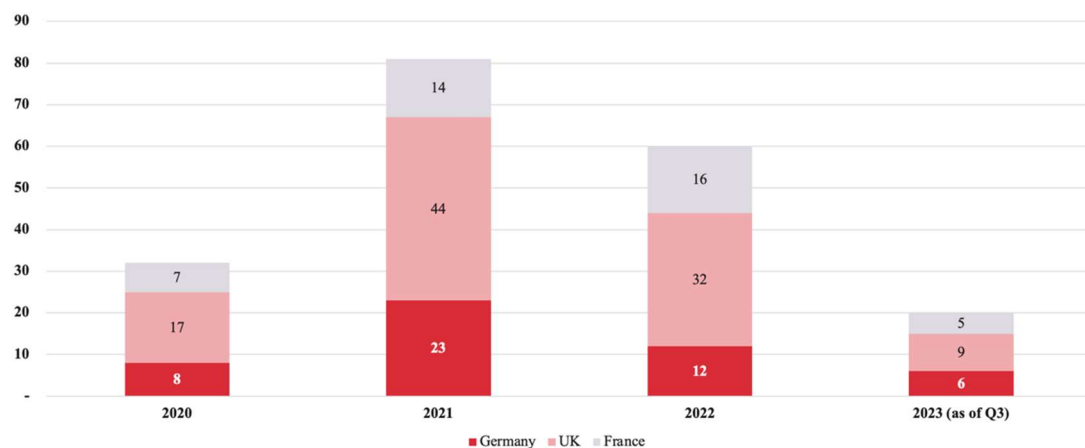


Figure 5: Venture capital investments in Europe's top 3 countries (2020 - Q3 2023; Source: Dealroom)

#	Company name	#	Company name
01	10x Group	15	Join Capital
02	Acton Capital	16	MIG Capital
03	Armira Growth	17	Peak Capital
04	b2venture	18	Picus Capital
05	Capnamic Ventures	19	Point Nine
06	Cherry Ventures	20	Project A Ventures
07	Creandum	21	Revent Ventures
08	CommerzVentures	22	Signals VC
09	Earlybird Ventures	23	Speedinvest
10	Foundamental	24	Target Global
11	Global Founders Capital	25	UVC Partners
12	GR Capital	26	Vsquared Ventures
13	High Tech Gründerfonds	27	Wellington Partners
14	HV Capital	28	Yttrium

Table 1: Overview of relevant VCs and GEs (Source: Depiction by the authors)

<i>Interviewee</i>	<i>Position</i>	<i>Investment focus</i>
A	Principle	Seed & Series A
B	Principle	Seed & Series A
C	Associate	Seed & Series A
D	Principle	(Pre-) Seed
E	Investment manager	(Pre-)Seed & Series A
F	Investment manager	Series B & Series C
G	Investment manager	(Pre-) Seed
H	Investment manager	All
I	Investment manager	Seed & Series A
J	Principle	Seed & Series A
K	Associate	Series B & Series C

Table 2: Anonymized overview of interview partners (Source: Depiction by the authors)

(Sub-) Code Name	Description
Financial projections & profitability	Perspectives on the financial side of venture assessments based on a differentiation between the importance of key financial KPIs.
<i>Perception of the importance of revenue</i>	<i>Opinions on the sustained importance of revenue incl. certain thresholds for growth & new investment rounds.</i>
<i>Perception of the importance of profitability</i>	<i>Discussion of increased importance of profitability compared to growth under uncertain economic conditions.</i>
<i>Changes in Multiples & Valuations</i>	<i>Named changes in multiples & valuations incl. the connected impact on the venture capital business model.</i>
<i>Perception of the importance of capital efficiency</i>	<i>Mentioned aspects around capital efficiency as an increasingly important assessment dimension under conditions of economic uncertainty.</i>
<i>Venture capital return expectations</i>	<i>Insights into limited impact of changing economic conditions on the return expectations in a low liquidity environment as well as investor approach to fulfill these targets.</i>
<i>Requirement of a plan how to achieve profitability</i>	<i>Stated novel prerequisite for ventures to present a clear roadmap to achieve profitability if market conditions change.</i>
<i>Issues with revenue targets & perceptions</i>	<i>Critical statements around the purpose & value of revenue targets under uncertainty economic conditions.</i>
Market environment	Diverging perspectives on the current & upcoming market environment to provide context to other categories.
<i>Negative market perspective & outlook</i>	<i>Negative opinions around the current market situation & the outlook with emphasis on fund deployment issues, limited fundraising & decreasing valuations.</i>
<i>Opportunities of low liquidity environments</i>	<i>Mentioned opportunities of strategic add-on acquisitions, regained investor control & increased time for due diligence arising from low liquidity.</i>
<i>Negative commentary on high-liquidity times</i>	<i>Raised aspects around issues of high-liquidity due to the significant competition, hype investments & overheated valuations.</i>
<i>Positive market perspective & outlook</i>	<i>Positive opinions around the current market situation & the outlook with emphasis on certain industries as well as recovery expectations.</i>
<i>Downsides of low liquidity environments</i>	<i>Critical perspective on low liquidity focused primarily on fund availability & increased uncertainty.</i>
<i>Difficult position & changes of market actors</i>	<i>Comments around the issues of German GPs in the current market environment.</i>
<i>Positive commentary on high-liquidity times</i>	<i>Raised points around positive aspects of high liquidity like increased growth & capital availability</i>

Understanding of general partner characteristics

Approach to deal success evaluation

General partner perspective on investments

Changes of general partner behavior

General partner characteristics

Tasks of the general partner

Perspectives on opinion, nature & tasks of the general partner to establish a foundation for understanding the assessment criteria.

Various underlying guidelines for general partner assessment to provide understanding around the decision-making process.

Insights into interviewee perspective on investment characteristics & behavior to better understand decision making.

Various underlying changes in general partner behavior under economic uncertainty apart from the overarching categories.

Mentions of general partner characteristics that might influence decision making & guide relationships between actors.

Description of the tasks of general partners in the investment process & active investor relationship.

Management team

Characteristics of the management team

No change in importance of the management team

Composition of the management team

Previous experience of the management team

Scope of the assessment beyond management team

Assessment of soft factors

Assessment purely focused on founders

Increased importance of the management team

Perspectives on the importance & analysis dimensions of the management team as a core factor for venture assessment.

Mentioned aspects to consider when analyzing characteristics & skill sets of the management team to assess their capabilities under economic conditions of uncertainty

Broad agreement of a sustained importance of the management team as a key indicator of ESV potential due to the key role of the founders in success.

Mentioned management team composition diversity prerequisites & associated benefits as a key indicator for attractive investment propositions.

Specific focus laid upon the previous experience in terms of employment & founding history as a quality indicator of management teams.

Underlined personnel assessed beyond C-level management to cover important functions within the company required for the business case.

Opinions on inclusion of interpersonal & cultural soft factors into the management team assessment process.

Certain mentions of management team analysis being solely focused on the top-level managers & founders.

Limited mentions of increasing importance of management team assessments under uncertain economic conditions.

Product & Technology

Aspects of product assessment

Perspectives on the value of technology leadership as a competitive advantage under uncertain economic conditions.

Mentioned aspects for successful product assessment to guarantee valuable exploitation of technology as well as product-market-fit.

Importance of technology leadership

Underlined importance of technology leadership as a factor for differentiation while providing a competitive advantage.

Critical assessment of product & technology

Critical perspectives on the value of technology as a valuable stand-alone factor of analysis.

Market & Scalability

Perspectives on changes of market assessments under economic uncertainty as well as connected challenges & the ideal approach.

Approach to market assessments

Description of potential approaches to market size & trend assessments through internal & external capacities.

Aspects of market assessments

Aspects to include in a market assessment to create a viable foundation including size, trends & risks to provide a differentiation future perspective.

Perspective on importance of market size

Prioritizing market size as it provides the foundation for growth and returns as well as acting as a sign for demand.

Perspectives on internationalization outlook

Decreased importance of internationalization & refocus on exploiting home markets under economic conditions of uncertainty.

Perspective on importance of scalability potential

Prioritizing scalability potential as an important characteristic to differentiated investment opportunities as a venture capital case.

Perspective on growth importance has changed

Understanding of decreased significance of growth prospects as a factor for analysis during economic uncertainty favoring different aspects.

Perspective on growth importance has not changed

Opinion of retained importance of growth potential as a foundation for the general venture capital business case.

Challenges of internationalization

Reported challenges & issues with internationalization focused on delusion of priorities.

Importance of market assessments

Underlined relevance of a comprehensive analysis of the market environment for potential investments under uncertain economic conditions.

Exit possibilities

Perspectives on the exit landscape & the role of different exit paths under uncertain economic conditions.

Changes in exit options under economic uncertainty

Explained deal flow cooldown with high multiples exit multiples, high acquisition multiples in the past, and pessimistic investor expectations for 2023/2024.

Challenges with exits under economic uncertainty

Raised concerns around high exit expectations because of limited impact of early investors and required buyer-match timing.

Perspective on exits via private equity under uncertainty

Underlined attractiveness as secondary exits to PEs because of efficient transaction processes and technology interest. Raised concerns about the LBO business model in a high-risk environment with a stagnation outlook.

Perspective on exits via IPO under uncertainty

Low perceived attractiveness of IPOs due to high preparation effort and missing investors interest of newly issued company shares.

Perspective on exits via strategic investors under uncertainty

Mentioned rising interest of strategic investors to buy portfolio companies because of lower exit multiples and remaining cash reserves.

Importance of pre-deal exit options assessment

Brought up necessity to assess exit options early on without giving it too much weight in the due diligence.

Value proposition & revenue model

Perspectives on the role of value proposition & revenue model in the perception of the business model as well as underlying trends in preferences.

Understanding of value proposition

Detailed definition & delineation of the value proposition for a common understanding of the term during subsequent analyses.

Aspects of value proposition assessment

Named aspects to include in a thorough assessment of the value proposition to ensure a valuable investment during uncertain economic conditions.

Importance of value proposition & revenue model

Stated importance of the value proposition & revenue model as fundamental building blocks of the business model thus being central to assessment processes.

Perspectives on recurring revenue models

Opinions on the attractiveness of recurring revenue models as a foundation for plannability & a solid revenue base.

Perspective on value-proposition & revenue model has changed

Raised perspectives on changes in the perception of certain value propositions & revenue models as well as the general importance.

Understanding of revenue model

Detailed definition & delineation of the revenue model for a common understanding of the term during subsequent analyses.

Perspective on value-proposition & revenue model hasn't changed

Critical assessment on a sustained opinion on value-proposition & revenue model in their importance for the due diligence process.

Perspectives on one-off revenue models

Comments on venture capital perception of one-off revenue models as generally subpar, especially during times of low liquidity.

Investor structure

Perspectives on handling co-investors & existing investor structures to successfully close a funding round.

Critical assessment of investors

Highlighted concerns about preferring big investors only because track record and capital. Underlined advantages of case- and round-specific investor fits.

Previous investors as a quality indicator

Mentioned importance of a proven investors as a quality indicator in terms of investment capital, resources, and network.

Non-monetary value-add of co-investors

Mentioned benefits of other investors in the company around network, industry and sector experience, strategic guidance, and governance.

Monetary value-add of co-investors

Raised importance of financial resources of other funds in order to finance follow-up rounds.

Investor relationship

Comments around trust and aligned interests for every single investment case.

KPIs

Perspectives on the usage of KPIs for later-stage investment decisions focused on the importance for sound analysis while including critical perspectives.

Importance of KPIs in assessment

Stated importance of the inclusion of KPIs in the assessment process for thorough due diligence processes.

Change in importance of KPIs in assessment

Description of increasing importance of KPIs for assessments under economic uncertainty to increase trust in the investment decision

Important revenue & profitability KPIs

Mentions of revenue & profitability KPIs (e.g. net dollar retention, burn multiples) to be covered in a thorough due diligence in later-stage funding rounds.

Important customer KPIs

Mentions of customer KPIs (e.g. customer retention, churn rates) to be covered in a thorough due diligence in later-stage funding rounds.

Critical assessment of KPIs

Critical perspectives on the value of KPIs as well as the approach of funds to analyze KPIs in funding assessments.

Industry benchmarks for KPIs

Agreement on the value of applying industry benchmarks for KPIs rather than developing fund specific thresholds.

Contractual clauses & legal structure

Perspectives on the usage of contractual clauses & terms to mitigate a changing economic landscape.

Importance & role of liquidation preferences

Stated liquidation preferences as the most common element in the term sheet and underlined the increased usage within a struggling venture capital market.

Contractual clauses have changed

Named emergence of stricter contractual clauses and terms.

Importance of contractual clauses & legal structure

Underlined adverse effects of strict term sheets on trust and term negotiations in following rounds.

Contractual clauses have not changed

Mentioned not changing contract clauses and elements in an environment of economic uncertainty and high interest rates.

Market standard contractual clauses

Referred to market standard clauses and terms when being asked about applied terms and conditions for new investment rounds.

Customers

Perspectives on the scope & approach to capture customer opinions in the assessment process under uncertain economic conditions.

<i>Important aspects of customer assessment</i>	<i>Aspects to include in a customer assessment to validate market & business model assumptions as well as ensuring sustained demand.</i>
<i>Approach to customer assessment</i>	<i>Description of viable approaches to conduct customer assessments primarily through active conversation during due diligence.</i>
<i>No-change in importance of customer perspective</i>	<i>Opinions on a sustained importance of the customer perspective independent from external environments due to its fundamentality to the assessment process.</i>
<i>Change in importance of customer perspective</i>	<i>Limited perception of increased importance of customer opinions under changed liquidity & economic outlooks.</i>
Competition	Perspectives on the importance, scope, content & approach to competitive assessments in analyzing potential investment opportunities.
<i>Aspects of competitive assessment</i>	<i>Aspects to include in a competitive assessment to rate whether or not an investment opportunity is attractive both focused on competitor characteristics & landscape trends.</i>
<i>Importance of competitive assessments</i>	<i>Underlined relevance of a positive competitive assessment on the attractiveness of an investment target.</i>
<i>Types of competitive threats</i>	<i>Comprehensive perspective on which actors & types of companies constitute a potential competitor to an investment proposition.</i>
<i>Guidelines for competitive assessments</i>	<i>Mentioned quality checkmarks & guidelines to successfully conduct competitive assessments resulting in valuable insights.</i>
<i>Approach to competitive assessments</i>	<i>Description of potential approaches to conduct competitive assessments in unknown markets under uncertain economic conditions.</i>
Investor environment	Perspectives on LP perception of venture capital as an investment option under economic uncertainty.
<i>Unchanged investor expectations under uncertain conditions</i>	<i>The investor's high risk/high return investment thesis is unchanged and sets high pressure on general partners to deliver returns as promised during fundraising.</i>
<i>Decreasing attractiveness of venture capital as an asset class</i>	<i>Named concerns about the attractiveness of venture capital compared to other asset classes which offer better Sharpe ratios at the moment.</i>
<i>Changed investor expectations under uncertain conditions</i>	<i>Reported doubts of limited partners around the viability of investments in certain industries or of the venture capital business model in general.</i>
<i>High attractiveness of venture capital as an asset class</i>	<i>Raised points around the ongoing attractiveness of venture capital for limited partners due to a long-term focus and high return expectations.</i>

Table 3: Description of sub-codes (Source: Depiction by the authors)

<i>Category Name</i>	<i>Occurrence</i>	<i>Proportion</i>
Financial projections & profitability	122	11.95%
<i>Perception of the importance of revenue</i>	27	22.13%
<i>Perception of the importance of profitability</i>	25	20.49%
<i>Changes in Multiples & Valuations</i>	19	15.57%
<i>Perception of the importance of capital efficiency</i>	18	14.75%
<i>Venture capital return expectations</i>	13	10.66%
<i>Requirement of a plan how to achieve profitability</i>	12	9.84%
<i>Issues with revenue targets & perceptions</i>	8	6.56%
Market environment	120	11.75%
<i>Negative market perspective & outlook</i>	31	25.83%
<i>Opportunities of low liquidity environments</i>	24	20.00%
<i>Negative commentary on high-liquidity times</i>	20	16.67%
<i>Positive market perspective & outlook</i>	18	15.00%
<i>Downsides of low liquidity environments</i>	15	12.50%
<i>Difficult position & changes of market actors</i>	7	5.83%
<i>Positive commentary on high-liquidity times</i>	5	4.17%
Understanding of general partner characteristics	118	11.56%
<i>Approach to deal success evaluation</i>	31	26.27%
<i>General partner perspective on investments</i>	29	24.58%
<i>Changes of general partner behavior</i>	26	22.03%
<i>General partner characteristics</i>	17	14.41%
<i>Tasks of the general partner</i>	15	12.71%
Management team	98	9.60%
<i>Characteristics of the management team</i>	41	41.84%
<i>No change in importance of the management team</i>	14	14.29%
<i>Composition of the management team</i>	13	13.27%
<i>Previous experience of the management team</i>	12	12.24%
<i>Scope of the assessment beyond management team</i>	8	8.16%
<i>Assessment of soft factors</i>	5	5.10%
<i>Assessment purely focused on founders</i>	3	3.06%
<i>Increased importance of the management team</i>	2	2.04%
Product & technology	70	6.86%
<i>Aspects of product assessment</i>	25	35.71%
<i>Importance of technology leadership</i>	25	35.71%

<i>Critical assessment of product & technology</i>	20	28.57%
Market & Scalability	67	6.56%
<i>Approach to market assessments</i>	13	19.40%
<i>Aspects of market assessments</i>	10	14.93%
<i>Perspective on importance of market size</i>	9	13.43%
<i>Perspectives on internationalization outlook</i>	8	11.94%
<i>Perspective on importance of scalability potential</i>	8	11.94%
<i>Perspective on growth importance has changed</i>	7	10.45%
<i>Perspective on growth importance has not changed</i>	5	7.46%
<i>Challenges of internationalization</i>	4	5.97%
<i>Importance of market assessments</i>	3	4.48%
Exit possibilities	65	6.37%
<i>Changes in exit options under economic uncertainty</i>	20	30.77%
<i>Challenges with exits under economic uncertainty</i>	12	18.46%
<i>Perspective on exits via private equity under uncertainty</i>	11	16.92%
<i>Perspective on exits via IPO under uncertainty</i>	10	15.38%
<i>Perspective on exits via strategic investors under uncertainty</i>	8	12.31%
<i>Importance of pre-deal exit options assessment</i>	4	6.15%
Value proposition & revenue model	62	6.07%
<i>Understanding of value proposition</i>	14	22.58%
<i>Aspects of value proposition assessment</i>	13	20.97%
<i>Importance of value proposition & revenue model</i>	9	14.52%
<i>Perspectives on recurring revenue models</i>	7	11.29%
<i>Perspective on value-proposition & revenue model has changed</i>	6	9.68%
<i>Understanding of revenue model</i>	6	9.68%
<i>Perspective on value-proposition & revenue model hasn't changed</i>	5	8.06%
<i>Perspectives on one-off revenue models</i>	2	3.23%
Investor structure	61	5.97%
<i>Critical assessment of investors</i>	20	32.97%
<i>Previous investors as a quality indicator</i>	15	24.59%
<i>Non-monetary value-add of co-investors</i>	12	19.67%
<i>Monetary value-add of co-investors</i>	8	13.11%
<i>Investor relationship</i>	6	9.84%
KPIs	57	5.58%
<i>Importance of KPIs in assessment</i>	14	24.56%

<i>Change in importance of KPIs in assessment</i>	12	21.05%
<i>Important revenue & profitability KPIs</i>	11	19.30%
<i>Important customer KPIs</i>	8	14.04%
<i>Critical assessment of KPIs</i>	7	12.28%
<i>Industry benchmarks for KPIs</i>	5	8.77%
Contractual clauses & legal structure	51	5.00%
<i>Importance & role of liquidation preferences</i>	14	27.45%
<i>Contractual clauses have changed</i>	12	23.53%
<i>Importance of contractual clauses & legal structure</i>	10	19.61%
<i>Contractual clauses have not changed</i>	9	17.65%
<i>Market standard contractual clauses</i>	6	11.76%
Customers	43	4.21%
<i>Important aspects of customer assessment</i>	19	44.19%
<i>Approach to customer assessment</i>	11	25.58%
<i>No-change in importance of customer perspective</i>	9	20.93%
<i>Change in importance of customer perspective</i>	4	9.30%
Competition	42	4.11%
<i>Aspects of competitive assessment</i>	12	28.57%
<i>Importance of competitive assessments</i>	11	26.19%
<i>Types of competitive threats</i>	9	21.43%
<i>Guidelines for competitive assessments</i>	6	14.29%
<i>Approach to competitive assessments</i>	4	9.52%
Investor environment	28	2.74%
<i>Unchanged investor expectations under uncertain conditions</i>	9	32.14%
<i>Decreasing attractiveness of venture capital as an asset class</i>	7	25.00%
<i>Changed investor expectations under uncertain conditions</i>	6	21.43%
<i>High attractiveness of venture capital as an asset class</i>	6	21.43%
Additional remarks	17	1.67%

Table 4: Overview of sub-codes (Source: Depiction by the authors)

2 – Interview guideline

– General –

01. Please tell me a little bit about your **company and your position**, what is it that you do?

– Business model & company–

02. In times of economic uncertainty, what are you looking for in terms of **value proposition and revenue model** when evaluating a potential investment target (e.g., are you shifting into different verticals)? How does it differ from more favorable economic conditions?

03. What are you looking for in terms of **technology leadership and product** when evaluating potential investment targets? Does your assessment change under conditions of economic uncertainty?

04. How do you evaluate the **market and scalability** potential of an investment target? Does the focus change in times of economic uncertainty, especially with regards to the short and medium perspective?

05. What are you looking for in terms of **competition** when evaluating potential investment targets? How is the analysis affected by general economic uncertainty?

06. How do you assess **customers** and corresponding KPIs such as customer acquisition costs or churn in times of economic uncertainty?

07. What are you looking for in the **management team and the experience of employees** in the assessment of an investment target? Would you rate the importance differently in times of economic uncertainty?

– Financials –

08. Do you have any specific targets to be reached in terms of **top-line growth and profitability** when evaluating potential investment targets? Do they change in uncertain times?

09. How did your expectations for the **multiple of money** change under the current investment environment? Do you change your timing when exiting?

– Transaction process & terms –

10. Do **prior funding and the current investor structure** affect your decision making when evaluating potential investment targets? Does the assessment change under conditions of economic uncertainty? Do VC/GE partnerships become more important?

11. In general, are you more **risk averse** in an environment of economic uncertainty? What are the reasons (e.g., pressure from LPs)? If yes, are you looking for more government support for the investment or the target?

12. How do you evaluate **exit options** in the assessment of an investment target? Would you rate the importance differently in times of economic uncertainty?

13. Are you introducing more **complex contractual structures** to hedge your investment than before? If yes, which contractual elements are used more often, or which terms get stricter?

14. Are there **any other factors** of particular importance under uncertain economic conditions we are yet to talk about?