# Why digital SME loans should be part of all institutional investors' portfolios

*By Luca Frignani, CEO Exaloan AG, and Lucas Freund, formerly Capital Markets Manager creditshelf AG*

**In the current low yield environment, institutional investors are struggling to find investment opportunities with high spreads and short durations in the traditional credit market. At the same time, developments on the stock market are difficult to anticipate. As a result, investors are looking for alternative investment opportunities to achieve their investment goals. The study conducted by creditshelf AG and Exaloan AG "*Small is beautiful: How Digital SME Lending adds value to an investor's asset mix*" shows that the financing of SME loans as a new building block can be a very good addition to the portfolio.**

The rapid development of process digitization and automation is one of the main drivers for the emergence of Fintechs, which digitize lending to borrowers, such as small and medium-sized enterprises (SMEs). Lending platforms take advantage of advanced technologies to bring investors and borrowers directly together, thereby streamlining the lending process end-to-end. Digital lending to SMEs digitizes the entire value chain to process a loan to be granted to a borrower. Ultimately, all steps from application review to underwriting to final disbursement of funds can be automated and digitized.

## Digital SME Loans: A new Asset Class

From an investor's perspective, this means that the digital lending market is increasingly emerging as a new asset class showing exciting properties that make it possible to increase the return on a traditional investment portfolio while at the same time diversifying the asset mix.

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But why do we believe that digital SME loans can make such a valuable contribution?

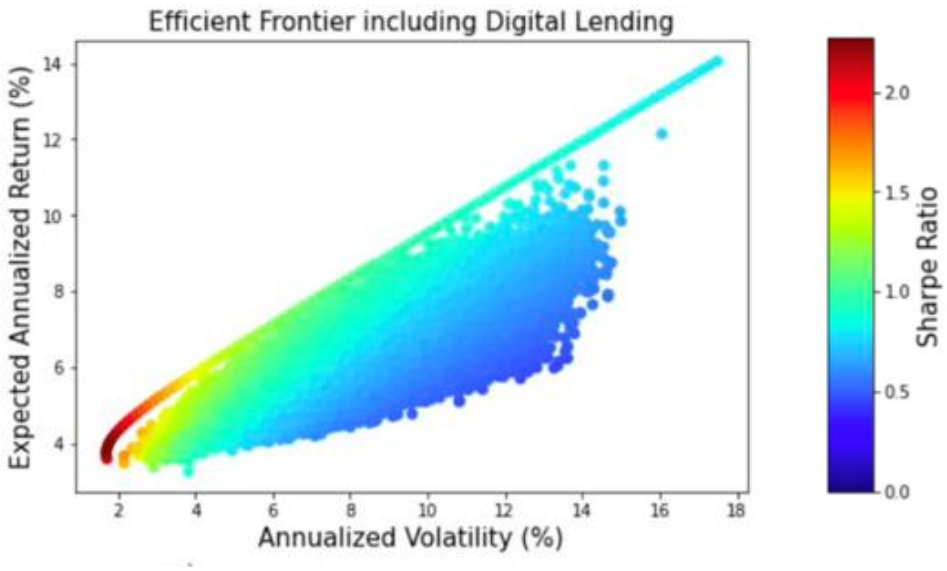
The study "*Small is beautiful: How Digital SME Lending adds value to an investor's asset mix*" conducted by creditshelf AG and Exaloan AG provides three key insights. The digital loan financing for SMEs exhibits the following characteristics:

- Investment performance with equity-like return potential;
- High value add in the asset mix due to a low correlation with other asset classes;
- Investors can tap into new risk premiums.

In the following sections you find a detailed explanation on how we derived these findings throughout the study. For this we start with a portfolio simulation. We defined an investment universe of five common asset classes (equities, real estate, corporate bonds, government bonds and private equity) and constructed over 1 million portfolios with different weightings, once with and once without digital SME loans as an additional sixth asset class. We then plotted the annualized return and risk of each portfolio on a graph, resulting in the efficiency curves for both investment universes.

**Addition of SME loans significantly improves portfolio efficiency**

These are the results:

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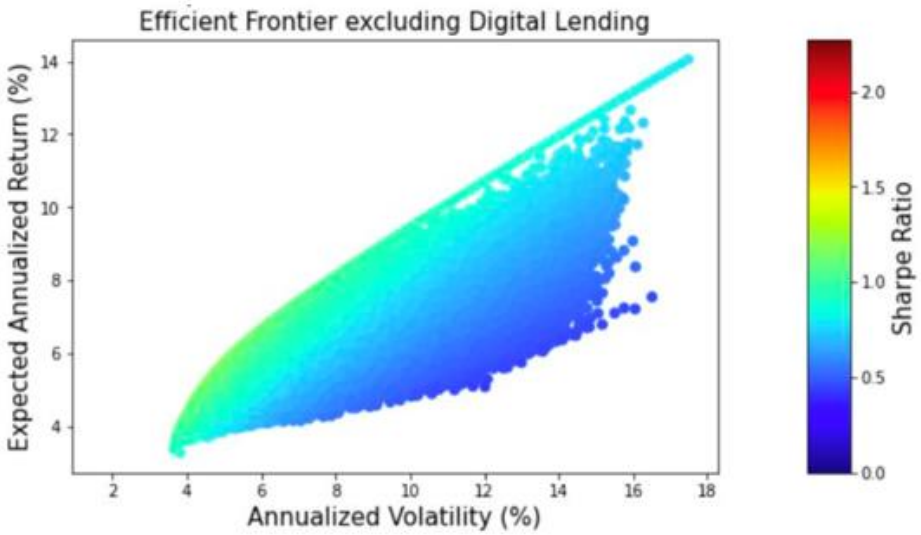


The underlying time series are based on monthly returns of representative indices and bank lending data from the ECB for the period 2011-2021. By coloring the Sharpe ratios of the portfolios, we can see that the efficiency curve improves significantly with the addition of SME loans to the portfolio. These results are further supported by our return analysis of the monthly time series (2011-2021):

| | *Ann. Return (in %)* | *Ann. Volatility (in %)* | *VaR95 (in %)* | *CVaR95 (in %)* | *Sharpe Ratio* | *Max Draw-down (in %)* |
|---|---|---|---|---|---|---|
| *Equity* | 5.14 | 13.41 | -5.68 | -8.77 | 0.38 | -23.08 |
| *Real Estate* | 7.45 | 17.29 | -6.71 | -10.32 | 0.43 | -29.51 |
| *Corporate Bonds* | 3.28 | 3.81 | -1.02 | -2.29 | 0.86 | -7.36 |
| *Sovereign Debt* | 3.54 | 4.28 | -1.87 | -2.33 | 0.83 | -5.41 |
| *Private Equity* | 14.05 | 17.48 | -6.95 | -11.83 | 0.80 | -32.08 |
| *SME Lending* | 3.66 | 1.69 | -0.42 | -0.68 | 2.16 | -0.85 |

Our research shows that the yield on SME loans is significantly higher compared to corporate bonds (3.66 vs. 3.28 for the last 10 years according to ECB data), while volatility is lower (1.69 vs. 3.81). This results in an attractive risk-return ratio (Sharpe ratio of 2.16 versus 0.86).

For a direct comparison of the efficiency curves refer to the following figure:

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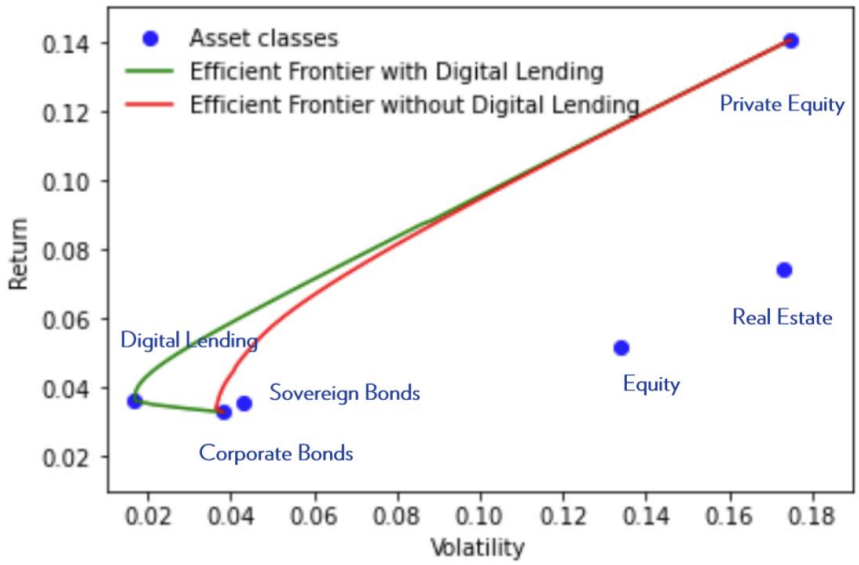


Here, it becomes evidently clear that the inclusion of digital SME loans significantly upgrades the efficiency curve of a portfolio in terms of volatility and return. To explain this effect, it is helpful to shed light on a particular phenomenon that we call the "complexity premium" for digital SME loans.

**Digital SME loans: difficult to access for investors?**

To explain the complexity premium of digital SME loans in more detail, let us first introduce some terms.

The loan spread is the result of the pricing process on the capital market and reflects market participants' assessment of a borrower's default risk. It is therefore a risk premium that must be paid for loans according to their probability of default. When pricing the loan, this is added on top to the reference interest rate. To illustrate this, we have used the following figure to compare monthly interest rates for SME loans with the 3-year interest rate swap rate. A "swap rate" describes the fixed interest rate paid over a term in exchange for a floating LIBOR rate and serves as a common reference for a "risk-free" interest rate.

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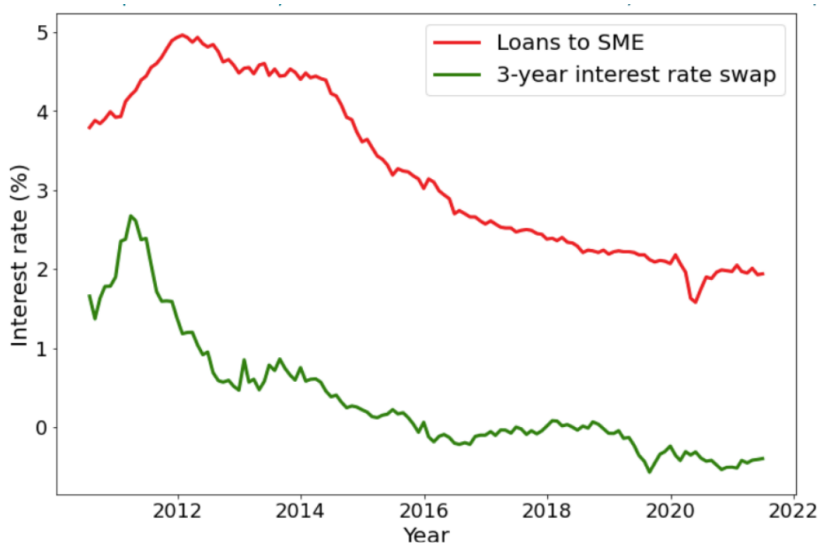
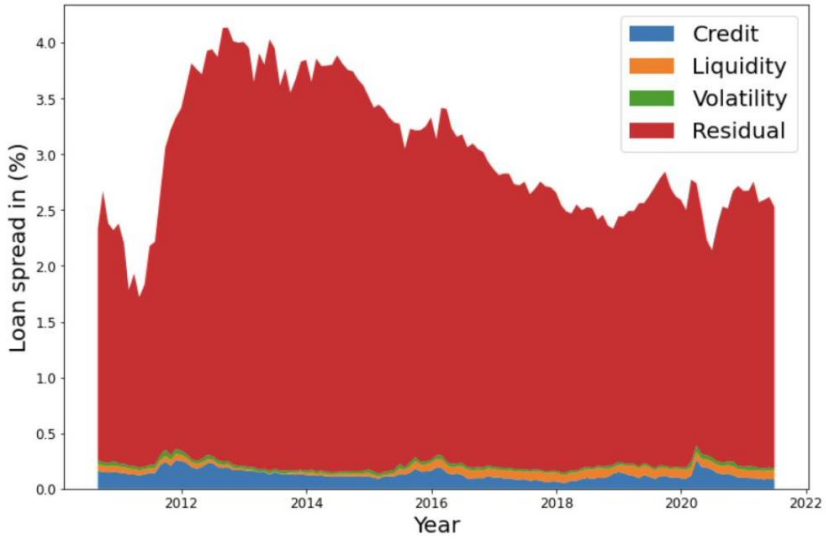



Source: ECB, Bloomberg. Data from January 2011 to June 2021.

Based on this figure, it is clear that the loan spread of SME loans is the difference between the red curve (interest rate of SME loans) and the green curve (3-year interest rate swap).

In the following figure, we take a closer look at the loan spread for digital SME loans.:

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Typically, the composition of this loan spread can be broken down into three main factors:

- Credit Risk (blue);
- Volatility Risk (green);
- Liquidity Risk (orange).

In an efficient market, the risk premium of a loan should be almost entirely explained by risk, volatility and liquidity factors. However, we see that these three components explain only a fraction of the loan spread we have identified for digital SME loans. It is thus clear that risk premiums in this segment are determined by additional components, which we refer to as the "complexity premium" (red).

But what does this premium mean and why is its occurrence not surprising?

**Lending platforms and industry standards are crucial for a good market access**

The highly fragmented nature of the market for digital SME loans and the small-scale nature of the loans that can be financed constitute a major hurdle that makes access to this asset class difficult for many institutional investors. Against this backdrop, the current lack of comprehensive and effective industry standards is also particularly noteworthy as a hurdle. This is particularly true with regard to the different loan valuation approaches of the respective lending platforms, the disclosure requirements to investors and the provision of a transparent and efficient market with a trustworthy return to risk ratio. Establishing such industry standards, like those already being pursued with great success by the Association of German Lending Platforms (Verband deutscher Kreditplattformen, VdK), is thus the central regulatory building block for a transparent, attractive and growth-capable market environment for digital SME loans, in addition to the technological factor. On top to the aforementioned regulatory building block, the implementation of scalable investment processes naturally also requires innovative technology. These two aspects therefore explain our interpretation of the complexity premium in loan spreads.

Through platforms that provide the necessary technological infrastructure to appropriately assess the risks of digital SME loans and make financing accessible, investors can tap into the complexity premium without having to develop the technology themselves. To validate our SME loan return analysis, we drew on data from the creditshelf loan fund SICAV-RAIF. At the same time, we subjected the loan portfolio to a sensitivity analysis in order to examine

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changes in the default rate (columns) and recovery rate (rows) on the achievable return for investors.

| Summary Statistics | Loan Fund |
|---|---|
| Total Invested Amount | 70,120,000 € |
| Number of Loans | 86 |
| HHI Concentration | 8.47% |
| Average Ticket Size | 815,349 € |
| Average Loan Term | 2.90 years |
| Average Interest Rate | 8.62% |
| Default Rate | 0.28% |
| Portfolio Net Return (12 months) | 6.06% |

| Recovery rate | Default rate 0.00% | 0.50% | 1.00% | 1.50% | 2.00% | 2.50% |
|---|---|---|---|---|---|---|
| 20% | 7.37% | 6.86% | 6.36% | 5.85% | 5.34% | 4.82% |
| 30% | 7.37% | 6.93% | 6.48% | 6.04% | 5.59% | 5.14% |
| 40% | 7.37% | 6.99% | 6.61% | 6.23% | 5.85% | 5.46% |
| 50% | 7.37% | 7.05% | 6.74% | 6.42% | 6.11% | 5.79% |
| 60% | 7.37% | 7.12% | 6.87% | 6.62% | 6.36% | 6.11% |

The analysis shows that in the worst case of our analysis (2.5% default rate and only 20% recovery of defaults), the fund can still generate a net return of about 4.8%.

## Outlook

In total, the following picture emerges:

- It turns out that the asset class "digital SME loans" can significantly upgrade the efficiency curve of a portfolio in terms of volatility and return.
- Traditional factors such as liquidity, volatility and credit risk explain only a fraction of the risk premium for SME loans, the rest can be interpreted as a "complexity premium".
- The complexity premium of digital SME lending can be tapped by investors without having to develop the technology themselves by partnering with lending platforms and service providers.
- Achieving market standards can be seen as a key building block for a growable market for digital SME loans.

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Our study therefore suggests that financing digital SME loans is an excellent way for institutional investors to diversify their investment portfolio more broadly, capture new risk premiums, and thus simultaneously tap alternative sources of return to achieve their investment objectives.

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