



Global reach Local knowledge Lucerne University of Applied Sciences and Arts

HOCHSCHULE LUZERN

Business Institute of Financial Services Zug



Simon Amrein - Lecturer, Co-Head of Programme MSc Banking and Finance Andreas Dietrich - Professor in Banking and Finance, Institute of Financial Services Zug IFZ





PREFACE

A growing number of private individuals, companies, public corporations, cantons, cities and municipalities are financing themselves via online platforms. These platforms bring lenders and borrowers together, eliminating the conventional financial intermediation provided by banks.

Strong growth of such forms of financing has already become apparent in recent years. The Institute of Financial Services Zug IFZ has been analysing one segment of the online debt capital market since 2012. In this so-called crowdlending market, private individuals or professional investors finance other private individuals or companies. A central feature of this form of financing is that the corresponding loans are published on platforms for private and professional investors.

Since 2018, there has also been strong growth in platforms granting access exclusively to professional and institutional investors. In this publication, we aim to extend the scope of our previous research by including this relevant part of the online debt capital market. The new terminology used for the report – marketplace lending – reflects this broader research scope, covering all types of debt financing, including mortgages, via online platforms.

We would like to thank the marketplace lending platforms for the open discussions and the data provided. We are also grateful to TMF Group for supporting this study. Lastly, we would like to thank our colleagues Anja Leutenegger and Marc Leuenberger, who contributed to the success of this study.

The authors

Simon Amrein

Lecturer, Co-Head of Programme MSc Banking and Finance **Andreas Dietrich**

Professor in Banking and Finance, Institute of Financial Services Zug IFZ

CONTENTS

TABLE OF CONTENTS

1	Objective and structure of the report	1			
2	An introduction to marketplace lending	2			
	2.1 Financial intermediation through marketplace lending	2			
	2.2 A conceptual view on business models	6			
3	Marketplace lending in Switzerland	7			
	3.1 Crowdlending deep dive: consumer loans, business loans to SME and real estate loans	8			
	3.2 Mortgage loans on brokerage platforms	22			
	3.3 Loans and bonds for public entities and mid-sized and large corporations	24			
	3.4 Money market transactions	26			
	3.5 Market volumes – an overview	27			
4	Marketplace lending – an international perspective	29			
	4.1 Consumer, business, and real estate lending	29			
	4.2 Swiss market volumes in an international context	30			
5	Outlook	31			
Α	uthors	33			
Lı	cerne School of Business, Institute of Financial Services Zug IFZ	34			
TMF Group					
Swiss Marketplace Lending Association SMLA					

LIST OF FIGURES

LIST OF FIGURES

Figure 1:	Capital Flows and Services of a Marketplace Lending Platform (illustrative)	3
Figure 2:	Conceptual Framework for Business Models in Marketplace Lending (size of bubbles do not indicate market volumes)	6
Figure 3:	Crowdlending Volumes and Number of Loans in Switzerland 2012-2020	10
Figure 4:	Monthly Volume (New Loans) by Segments of SMLA Member Platforms from 2018-2020	11
Figure 5:	Number of New Loans (Quarterly) by Segments of SMLA Member Platforms From 2018 – 2020	11
Figure 6:	Returns of Crowdlending Loans (SME and Consumer) by Loan Vintage, 2018-2020	13
Figure 7:	Degree of Challange of Certain Areas for Swiss Crowdlending Platforms (n=10; 1 = not pressing, 10 = extremely pressing)	16
Figure 8:	Degree of Challange of Competition (n=10)	17
Figure 9:	Degree of Challenge of Customer Acquisition (n=10)	17
Figure 10:	Share of Institutional Investors Funding Volume by Institutional Investors in % of Total Funding; (n=10)	17

Figure 11:	Degree of Challange of Platform Growth (n=10)	18
Figure 12:	Degree of Challange of Cost and Availability of Skilled Staff (n=10)	18
Figure 13:	Degree of Challange of IT Costs and Automation (n=10)	18
Figure 14:	Degree of Challenge of Regulation (n=10)	19
Figure 15:	Degree of Challenge of Various Risks (n=10)	20
Figure 16:	Intentions of Crowdlending Platforms for Strategic Partnerships (n=10)	20
Figure 17:	Volume of Mortgage Brokers in Switzerland, 2017-2020	23
Figure 18:	Loan and Bond Market Volumes to Mid-Sized and Large Corporations and Public Entities, 2019-2020	25
Figure 19:	Market Growth vs Relevance (Indicative, Estimated Values) in Different Market Segments	28
Figure 20:	Volumes of Marketplace Lending Segments in the United States, UK, Europe (excl. UK) and Switzerland	29
Figure 21:	Crowdlending (only Consumer Loans, SME Loans, Real Estate Loans) Volume Per Capita in CHF	30

LIST OF TABLES

Table I:	Swiss Crowdlending Platforms	9
Table 2:	Risk/Return Metrics for SME and Consumer	
	Loans (Combined) in Switzerland as of	
	31st December 2020	13
Table 3:	Risk/Return Metrics for SME and Consumer	
	Loans in Switzerland as of 31st December 2018,	
	2019 and 2020	14
Table 4:	Total Volume Swiss Marketplace Lending,	
	2017-2020 (in CHF million; * = estimate)	27



OBJECTIVE AND STRUCTURE OF THE REPORT

The goal of this study is to illustrate and discuss the current status and trends of the Swiss marketplace lending market, focusing on platforms with offices in Switzerland. By publishing the market figures, we aim to improve the transparency of the Swiss market and provide an overview of key trends. The target readership of this study is not only professionals but also the general public. Furthermore, the study aims to provide an overview of each funding option and market participant.

To achieve this, the Institute of Financial Services Zug IFZ, part of the Lucerne School of Business, gathered data from most of the marketplace lending platforms active in Switzerland in 2020. The published figures are based on surveys completed by various platforms of different subsegments within the marketplace lending market. The most comprehensive data set can be provided for the Swiss crowdlending sector: Firstly, the data availability is high due to the annually published Crowdfunding Monitor (Dietrich & Amrein). 1 Secondly, the Swiss Marketplace Lending Association (SMLA) provided additional data on crowdlending platforms (risk & return figures). Thirdly, ten out of 15 crowdlending platforms submitted further information in form of a questionnaire on current and future challenges for Swiss crowdlending platforms.

Furthermore, the study also presents data from all Swiss mortgage loans brokerage firms and from platforms providing online loans and bonds for mid-sized corporations, large corporations, and public entities.

This report is structured as follows:

Following an introduction to the subject Section 2, Section 3 traces the development of the Swiss marketplace lending market. Different segments of the market are shown and discussed. It also provides a deep dive into the crowdlending segment. Section 4 presents an analysis of the marketplace lending market in an international context. The last section of the report provides an outlook for the Swiss marketplace lending market.



2. AN INTRODUCTION TO MARKETPLACE LENDING

The following section provides an introduction to marketplace lending. Moreover, the chapter offers a conceptual overview of business models in marketplace lending, which will be used as a framework for the analysis in Section 3.

2.1 Financial intermediation through marketplace lending

Marketplace lending describes the process of arranging debt capital between lenders and borrowers via the Internet. The intermediation takes place via credit marketplaces, which are referred to as platforms in the following. Borrowers can be private individuals, companies or public corporations. Lenders can be private individuals or professional and institutional investors such as insurances, funds, pension funds, banks, family offices, foundations, companies or other legal entities. The borrowed capital can be granted by one or several entities. In order to meet the criteria of a marketplace for this study, a platform must be open to more than one lender. Online platforms run by individual banks to distribute loans, for example, are excluded and out of scope of this study.



Financial intermediation through marketplace lending - continued

Figure 1 visualises a simplified process of a loan transaction on a marketplace lending platform. Potential borrowers submit a loan application to a platform and must disclose various data. Investors can select and invest in loans on the platform. Once one or several investors have been found to finance the loan, a loan agreement is often concluded between the lender(s) and the borrower. It should be noted that other business models also exist, where loan agreements are made through the platform (with the platform as the legal counterparty). The investors transfer the loan amount to the borrower. Subsequently, the borrower typically has to repay the loan amount and interest to the lenders over a predetermined period. The interest payment usually depends (among other factors) on the terms of the loan, the general interest rate level and the borrower's risk of default. The platform receives fees from borrowers and/or lenders for its brokerage services. The fees depend on the business model and the extent of the services provided to lenders and borrowers.

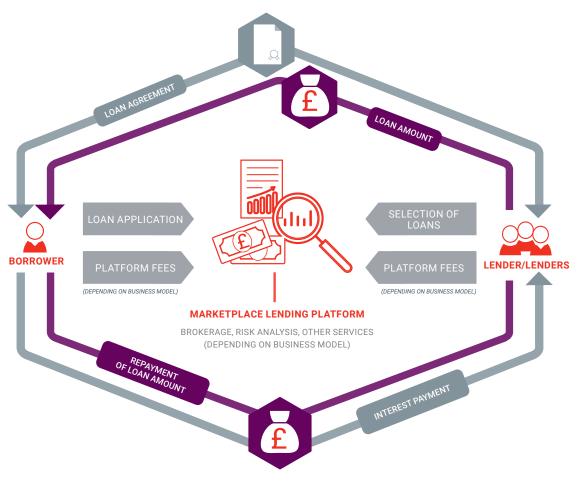


Figure 1: Capital Flows and Services of a Marketplace Lending Platform (illustrative)

2.1.1

Terminologies: P2P lending, crowdlending, marketplace lending, online alternative finance

Various terminologies are used in the context of platforms enabling the online financing of loans for consumers, small and medium enterprises (SMEs) and other entities. "Peer-to-Peer (P2P) lending" emerged as the first term to describe the online intermediation of loans. With the growing popularity of crowdfunding, however, the term crowdlending also became increasingly common. Crowdfunding was derived from a concept described as "crowdsourcing" by journalist Jeff Howe in Wired magazine in 2006.² Both P2P lending and crowdlending were often perceived as enabling the financing of a loan by one or more private individuals ("peers"). However, as lenders became more diverse and institutional investors gradually started to engage in online loan platforms, the basic concept of loan financing from peers was increasingly diluted.

"Marketplace lending" allows a broader scope in defining the financing of loans through online platforms. Bearing in mind the involvement of a variety of investors, the idea of marketplace lending as a marketplace for credit is more accurate in describing the business model of the respective platforms.

"Online Alternative Finance" is another term used often to describe business models relating to online capital raising activities. Similarly to crowdfunding, Online Alternative Finance has a broader scope, including debt-based, equity-based as well as non-investment-based financing activities (reward-based and donation-based crowdfunding). The idea of "alternative" signals that business models in this area typically operate outside the existing traditional banking and capital markets.

This study uses marketplace lending as a term. It is broad enough to cover a variety of platforms with various borrowers and lenders while at the same time focusing solely on debt capital intermediation through online platforms.

The first marketplace lending (at the time P2P) platform was Zopa, launched in the United Kingdom in 2005. The platform focused on servicing private individuals with consumer/personal loans. In 2006, the first platform in the United States, Prosper, was established. As Zopa, Prosper started with offering personal loans. The first Chinese marketplace lending platform, Paipaidai – also focusing on consumer finance – was established in 2007. In Switzerland, the first lending platform, Cashare, was launched in 2008. Since then, there has been a rapid increase in the number of platforms globally and in Switzerland. By the end of 2020, there were 24 marketplace lending platforms in Switzerland.

³ For a more detailed discussion of the term, see: Cambridge Centre for Alternative Finance (2020) The Global Alternative Finance Benchmarking Report, p. 30.



2.1.2 Banking vs marketplace lending

Financial intermediation through marketplace lending platforms is fundamentally different from that of banks. While banks lend via their balance sheet, the platforms usually act as intermediaries without using their balance sheet. In financial intermediation, banks traditionally provide lot size, maturity and risk transformation functions. For example, banks convert savings from several lenders into one large loan, spread over a large number of loans, or use short-term funds for long-term loans. Marketplace lending removes these roles of banks. Thus, lenders themselves bear the risk of credit default and must be concerned about portfolio diversification. In return, lenders receive direct access to an asset class. Moreover, the income of marketplace lending platforms is not based on interest income – as is the case for banks – but on fees and commissions. Therefore, this report explicitly excludes loans with a balance sheet entry by the intermediary from the definition of marketplace lending. Banks offering loans online through their website or online banking are excluded from our analyses. Also excluded from the study are private debt investments without the involvement of online platforms.4

"Lenders themselves bear the risk of credit default and must be concerned about portfolio diversification. In return, lenders receive direct access to an asset class"

⁴ For an in-depth analysis of the Swiss Private Debt Market, see: Birrer, T., Bauer, M. & Amrein, S. (2019). Unternehmensfinanzierung mit Private Debt in der Schweiz. Rotkreuz: Verlag IFZ.

2.2 A conceptual view on business models

Business models of platforms in the marketplace lending market are very heterogeneous and can therefore be categorised according to several characteristics. Figure 2 shows two relevant dimensions (borrower and lender type) and divides them into three sub-categories. Lenders can be i) private individuals, ii) professional or institutional investors (e.g. family offices, funds), iii) or banks. Borrowers may be i) private individuals, ii) SMEs, large corporates, public corporations or entities (e.g. municipalities, cities, cantons, hospitals), iii) or banks. A clear distinction of business models along the nine segments is not possible. The investor base of platforms, for example, is often diverse and consists of both institutional and private lenders. The same applies to the borrower side, where a platform might facilitate loans to various entities.

Nevertheless, the nine segments shown in Figure 2 serve as a conceptual guide to characterise business models often to be found among marketplace lenders in Switzerland. Apart from the lender and borrower dimension, various other characteristics could be taken into account as well. These are, for example, the facilitated loan types (duration, secured vs unsecured) or the degree of services offered by platforms (e.g. the parts of the credit and investment processes a platforms covers). In Switzerland, we currently identify six different loan types brokered on platforms. Often, platforms offer two or more loan products.



Figure 2: Conceptual Framework for Business Models in Marketplace Lending (size of bubbles do not indicate market volumes)

3. MARKETPLACE LENDING IN SWITZERLAND

Private individuals, SMEs, public corporations and public entities can access debt capital from different sources. One of these sources are marketplace lending platforms. Before exploring the market participants, business models and market volumes in Swiss marketplace lending, we briefly discuss Switzerland's most relevant players in the conventional financing market, the banks.

In 2020, the total outstanding loan volume by Swiss banks was CHF 1,260.4bn. A large proportion of these loans – totalling CHF 1,071.6bn – were secured by mortgages. The borrowers are private individuals, companies and the public sector. Private individuals accounted for CHF 833.3bn at the end of 2020. Companies were totalling CHF 400.4bn of the loans in banks' balance sheets. 87.1% of these loans were for SMEs with less than 250 employees. CHF 20.7bn were loans to the public sector and CHF 6.0bn to other entities.

The figures above refer to outstanding loan volumes. The annual volume of new loans facilitated by Swiss banks is not public. For the Swiss mortgage market, we estimate that about CHF 150-180bn of loans to private individuals are extended or newly concluded each year. The distinction between new loans and credit extensions is important, as the statistics in the following sections will refer primarily to new loans (flow vs stock figures).



3.1

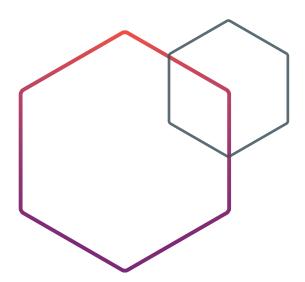
Crowdlending deep dive: consumer loans, business loans to SMFs and real estate loans

The crowdlending segment is the "oldest" online financing market in Switzerland. The first platform, at the time, providing loans to consumers only, entered the market in 2008. Currently, we identify three different loan types offered by Swiss crowdlending platforms:

- Consumer loans are loans granted to private individuals to finance consumer spending. Examples of consumer loans are car loans, credit card loans or student loans. In Switzerland, the Federal Consumer Credit Act regulates consumer loans. Among other rules, the law sets maximum interest rates that can be charged. Currently, rates above the maximum interest rate of 10% per year for cash loans and 12% for card loans are not allowed. Average loan volumes for consumer loans are in the range of CHF 30,000, similar to consumer loans provided by consumer loan banks in Switzerland. Durations often range between two and four years.
- Business loans are offered primarily to SMEs. These loans are usually not secured by collateral. Average volumes of business loans brokered by crowdlending platforms are about CHF 350,000. Durations for SME loans are usually between one and four years. Business loans are typically debt capital. However, one platform also offers mezzanine loans, where the interest rate has two components: a base rate and an additional rate, dependent on predefined profit figures of the SME.6

A third loan segment is real estate crowdlending, which provides mortgage-backed loans to individuals and SMEs. The average loan amount in the real estate crowdlending subsegment is about CHF 1m. Many of these loans are used to finance residential property, short-term and later redeemed by banks.

Loans in the crowdlending segment are usually financed by a mix of private and institutional investors, which contrasts with loans discussed below in Sections 3.2 and 3.3.



3.1.1

Market participants

At the end of 2020, 15 platforms in Switzerland were active in the crowdlending segment. The last market entry was Neocredit in 2019. Various banks and insurance companies are involved in crowdlending platforms.

- Funders, which also have a presence in the reward-based crowdfunding segment, are operated by the Luzerner Kantonalbank and licensed to other cantonal banks.
- The Lendico platform was acquired from PostFinance by Lend (Switzerlend AG) in 2019. In a reciprocal move, PostFinance has acquired a stake of Lend and entered into a cooperation agreement.⁷
- Neocredit, founded in 2019, is backed by the French platform credit.fr and the insurance company Vaudoise. Vaudoise holds 50% of the platform.⁸

For an overview of the Swiss crowdlending platforms and the respective loan segments, see Table 1.

Not included in the list of Crowdlending platforms is Systemcredit. The Systemcredit marketplace went online in 2018 and provides SMEs with several credit offers by banks, institutional investors and crowdlenders. Their business model is, to some extent, comparable to that of brokers in the mortgage market (see Section 3.2).

Currently, various platforms and vehicles allow investors to invest indirectly in the Swiss crowdlending loan segment.

 Lendity was founded in 2017 and issued the first bond in cooperation with Julius Baer in 2018. Lendity provides institutional-grade investment, infrastructure, and technology solutions for the digital lending industry.

Loan segment	Platform
All loan segments	Cashare, CreditGate24
Business and consumer loans	3Circlefunding, Crowd4Cash, Lend, Lendora
Business loans only	Acredius, Creditworld, Funders, Neocredit, swisspeers
Consumer loans only	Creditfolio, Splendit
Real estate only	Raizers, Swisslending

Table 1: Swiss Crowdlending Platforms

- 1741 Group currently offers two funds. The "1741
 Diversified Lending Fund" invests in consumer and
 business loans from the platforms CreditGate24, lend.ch,
 and Swisspeers. The fund has an asset value of about CHF
 12m. Additionally, 1741 offers a fund focusing exclusively
 on loans from the platform lend.ch.
- The Liechtenstein-based asset manager NSF Wealth
 Management, in cooperation with the startup i2 invest,
 launched the alternative investment fund (AIF) SME
 Lending Fund Switzerland SICAV in April 2021. In the
 beginning, the fund will invest directly in SME loans via the
 platforms Cashare, lend.ch and Crowd4Cash. NSF plans to
 cooperate with more platforms going forward.



⁷ PostFinance (2019). Press release: LEND acquires Lendico and enters into cooperation with PostFinance (translation).

Online (01.04.2020): https://www.postfinance.ch/de/ueber-uns/medien/newsroom/medienmitteilungen/lend-uebernimmt-lendico-kooperation-mit-postfinance.html
8 Groupe Vaudoise Assurances (2020). Annual Report 2019, p. 36.



3.1.2 Market volumes, risk, and return

The crowdlending segment reached a new record high volume of CHF 448.0m new loans in 2020 (2019: CHF 418.4m) with a growth rate of moderate 7.1% from 2019 to 2020. As shown in Figure 3, the number of brokered loans fell from 2,781 to 2,323.9

Of the CHF 448.0m raised, CHF 95.9m accounted for business crowdlending (loans for SMEs). The volume in this segment had been growing steadily in previous years but showed a substantial decline by CHF 63.8m in 2020 (-40.0%). The volume of consumer crowdlending in 2020 (loans for private individuals) fell by 18.2%. Real estate crowdlending grew by 55.4% in 2020 and reached a volume of CHF 296.7m. On average, an investor contributed CHF 14,000 to an SME loan in 2020. The equivalent figure for consumer loans is CHF 6,000. These average figures may vary a lot, and it is most likely dependent on the mix of investors of each platform.

There are significant differences in the purposes of the loans: the focus in business crowdlending is often on project funding, debt rescheduling or short-term loans for liquidity management. In the consumer crowdlending subsegment, loans are often used for debt rescheduling, education/training, cars, travel or weddings. However, detailed and reliable data on an aggregated level for Switzerland is not available. Finally, the real estate crowdlending subsegment typically involves mortgages for private individuals and interim financing for property developers, as well as mortgage-backed SME loans.

The decline in the SME segment of 40% compared to 2019 is as a result of the COVID-19 crisis. We assume that the associated government loan programme was an important reason for this drop in SME crowdlending volume. Between 26th March 2020 and 31st July 2020, companies could submit simplified loan applications to banks to bridge COVID-19-related liquidity shortages. Three types of credit were available to the companies. Loans of up to CHF 500,000 were paid out immediately by banks and are 100% guaranteed by the Swiss Confederation.

The interest rate is 0.0%. The "COVID-19 Credit Plus Programme" covered loans from CHF 500,000 to CHF 20m. For amounts above this limit, the Swiss government guaranteed 85%. The interest rate for the guaranteed amount (85%) is 0.5%. Banks bear the credit risk for the remaining 15% of the loan. There was also a corresponding offer for startups. In total, banks granted 137,762 loans amounting to CHF 16.9bn through the government programme. The average loan size was about CHF 124,000 – a market segment typically serviced by crowdlending platforms.



⁹ The significant decline of 458 in the number of loans can be attributed primarily to one platform, which recorded 533 fewer loans compared to the previous year.

The other platforms remained relatively stable. In addition, three new platforms were able to enter the crowdlending market or were able to broker their first loans this year.

10 Schweizerische Eidgenossenschaft (2021). COVID-19-Überbrückungskredite. Online (26.03.2021): https://covid19.easygov.swiss/

Market volumes, risk, and return - continued

COVID-19 Impact: number and volumes of new loans

The Swiss Marketplace Lending Association (SMLA) collects data on monthly volumes from its member platforms. The statistics cover a substantial market share, allowing insights into the volume and number of loans during the COVID-19 loan origination period. Figure 4 shows the development of monthly volumes from 2018 to 2020 of all crowdlending segments (SMLA members only). The red frame represents the period in which companies could apply for loans through the COVID-19 loan programme at banks. As can be seen, platforms brokered hardly any SME loans on crowdlending platforms in May 2020.

Figure 5 shows the number of new loans by the crowdlending segment. Both the number of new SME - and consumer loans fell in the first two quarters of 2020.



Figure 4: Monthly Volume (New Loans) by Segments of SMLA Member Platforms from 2018-2020



Figure 5: Number of New Loans (Quarterly) by Segments of SMLA Member Platforms from 2018-2020



Market volumes, risk, and return continued

Risk and return in the crowdlending segment

The following paragraphs discuss various key figures on risk and return and the impact of the COVID-19 crisis on the asset class. Various approaches can be used to calculate risk and return figures. The SMLA has developed a standardised method to measure risk and return, which all its members use.

All SMLA members have to report data on risk and return, as the SMLA aims to increase the transparency of the market and the asset class. The detailed reporting on the level of individual loan vintages goes beyond what other financial service providers usually publish.

The risk is measured by the default rate. A loan is in default if the interest payment and/or the repayment of the principal amount is overdue for more than 120 days. The internal rate of return (IRR) is used to calculate the return metric.11 Based on the IRR methodology, the return for every individual loan is calculated after fees and then weighted according to the loan volume. If the cash flows (interest rate and repayment) of a loan are overdue for more than 120 days or the platform assumes that there will be no futures payments within the next 120 days, all expected future cash flows are erased from the IRR calculation. Thus, the SMLA follows a conservative approach to calculating return figures, disregarding any forms of potential loan recoveries (even for loans with collateral) as long as recoveries do not actually materialise. Moreover, the calculations leave room for careful risk policies of individual platforms, as they can also declare a loan to be in default before the 120-day limit. The SMLA approach allows for returns to increase again in the future if recoveries are materialising or borrowers resume payments again.

Internal Rate of Return (IRR): Methodology

The IRR is used as a metric to estimate the profitability of an investment in crowdlending loans. The IRR constitutes the discount rate at which the net present value (NPV) of all cash flows equals zero. Using the IRR as a return metric comes with two significant disadvantages:

Firstly, the IRR considers the time value of money and compound interest but neglects the actual timing of the cash flows (i.e. it treats the time between the payments exactly as a monthly period). The only input factors for calculating an IRR are the cash flows.

Secondly, early repayments or defaults lead to extreme (very high or very low) return values. The reason for this is the assumption that cash flows are reinvested at the return of the IRR itself. This issue is usually solved using the so-called modified IRR (MIRR), where the reinvestment return can be set independently. We use the interest rate of the corresponding loan contract as a reinvestment rate. However, the MIRR does not adjust for irregular payment dates of the cashflows. Therefore, we have developed a methodology addressing both issues, the reinvestment rate and the exact timing of the returns (XMIRR methodology).

¹¹ The exact dates of cashflows are adjusted when calculating the IRR, as the dates of the payments vary quite often in the crowdlending segment. As a reinvestment rate, we use the interest rate of the corresponding loan contract.



Market volumes, risk, and return - continued

Figure 6 shows the returns of five different loan vintages (loans issued in the years 2016 to 2020). The x-axis shows the date of the return calculation. Naturally, the returns are high at the beginning (representing an expected return at the beginning) and decrease over time, leading to the actual return once all the loans of the respective vintages are paid back (after defaults and recoveries).

The loan vintage 2017, for example, offers a return of 3.4% as of 31st December 2020 (taking into account a default rate of 1.7%). Table 2 shows that the total volume of loans issued in 2017 by SMLA members was CHF 74.2m. Of this amount, 88.3% was already paid back by the end of 2020. Thus, the IRR might still change until the outstanding 11.7% of the loan vintage 2017 are repaid. Therefore, the return estimate is high at the beginning and is getting closer to the actual return with a decreasing outstanding loan volume.

Compared to the vintage 2017, the loan vintages of 2018 and 2019 were more affected by defaults. The higher default rates were triggered mainly by the COVID-19 crisis, as comparatively larger volumes of these vintages were still outstanding by the end of 2020. We expect these returns to increase again once borrowers resume payments or recoveries can be realised.



Figure 6: Returns of Crowdlending Loans (SME and Consumer) by Loan Vintage, 2018-2020

SME - and Consumer Loans	2020	2019	2018	2017	2016
Default rate as a percentage of loans issued in the respective year of origination (%)	0.2%	2.8%	2.5%	1.7%	2.6%
Return (XIRR) per year of origination (%)	4.7%	1.4%	2.7%	3.4%	2.3%
Loan amount outstanding (in CHF)	65,445,622	61,982,431	24,688,657	8,700,435	2,303,142
Volume in respective year (in CHF)	92,504,500	152,134,745	109,131,920	74,185,000	23,185,300
Share of loans still outstanding	71%	41%	23%	12%	10%

Table 2: Risk/Return Metrics for SME and Consumer Loans (Combined) in Switzerland as of 31st December 2020



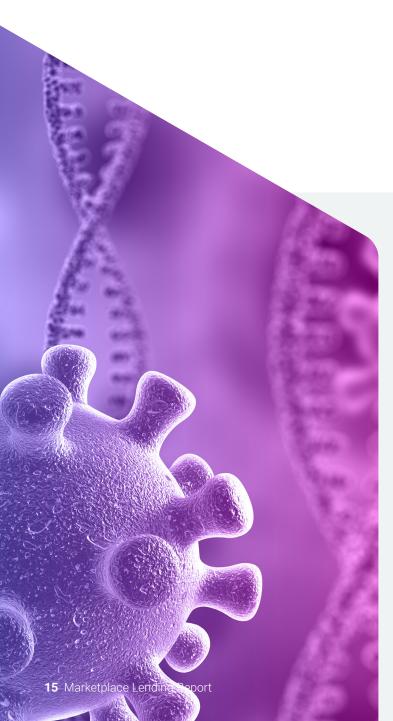
Market volumes, risk, and return - continued

Table 3 shows all risk/return metrics for SME and consumer loans as of 31st December 2018, 2019 and 2020. Both SME and consumer loans showed increasing default rates in 2020. Average returns for the SME segment by the end of 2019 ranged between 2.0% and 5.2% (depending on the vintage). By the end of 2020, the returns for SME ranged between 0.4% and 4.6%.

Similarly, the returns of consumer loans have been decreasing over time. For example, as of 31st December 2019, the returns of the loan vintages were between 3.4% and 5.0%. One year later, the figures range between 0.4% and 4.8%.

SME loans, as of 31.12.2020	2020	2019	2018	2017	2016
Default rate as a percentage of loans issued in the respective year of origination (%)	0.0%	2.6%	1.0%	2.3%	4.9%
Return (XIRR) per year of origination (%)	4.6%	0.8%	4.1%	3.2%	0.4%
Loan amount outstanding (in CHF)	31,762,382	24,607,294	7,287,353	3,324,128	1,731,804
Volume in respective year (in CHF)	54,276,600	91,495,200	66,387,000	35,580,000	11,020,000
Share of loans still outstanding	59%	27%	11%	9%	16%
Consumer loans, as of 31.12.2020	2020	2019	2018	2017	2016
Default rate as a percentage of loans issued in the respective year of origination (%)	0.3%	3.2%	4.7%	1.0%	0.5%
Return (XIRR) per year of origination (%)	4.8%	2.3%	0.4%	3.5%	4.1%
Loan amount outstanding (in CHF)	33,683,241	37,375,137	17,401,304	5,376,307	571,338
Volume in respective year (in CHF)	38,227,900	60,639,545	42,744,920	38,605,000	12,165,300
Share of loans still outstanding	88%	62%	41%	14%	5%
SME loans, as of 31.12.2019	2020	2019	2018	2017	2016
Default rate as a percentage of loans issued in the respective year of origination (%)		0.3%	0.4%	0.9%	0.3%
Return (XIRR) per year of origination (%)		5.1%	5.2%	4.0%	2.0%
Loan amount outstanding (in CHF)		88,389,094	27,055,506	55,858,171	9,727,603
Volume in respective year (in CHF)		111,370,975	92,999,200	86,541,000	18,984,000
Share of loans still outstanding		79%	29%	65%	51%
Consumer loans, as of 31.12.2019	2020	2019	2018	2017	2016
Consumer loans, as of 31.12.2019 Default rate as a percentage of loans issued in the respective year of origination (%)	2020	2019	2018 5.1%	2017	2016 0.5%
	2020				
Default rate as a percentage of loans issued in the respective year of origination (%)	2020	0.8%	5.1%	0.8%	0.5%
Default rate as a percentage of loans issued in the respective year of origination (%) Return (XIRR) per year of origination (%)	2020	0.8% 5.0%	5.1% 3.4%	0.8% 4.0%	0.5% 3.8%
Default rate as a percentage of loans issued in the respective year of origination (%) Return (XIRR) per year of origination (%) Loan amount outstanding (in CHF)	2020	0.8% 5.0% 45,392,395	5.1% 3.4% 31,794,514	0.8% 4.0% 19,834,599	0.5% 3.8% 4,224,993
Default rate as a percentage of loans issued in the respective year of origination (%) Return (XIRR) per year of origination (%) Loan amount outstanding (in CHF) Volume in respective year (in CHF)	2020	0.8% 5.0% 45,392,395 48,481,235	5.1% 3.4% 31,794,514 37,626,000	0.8% 4.0% 19,834,599 29,462,000	0.5% 3.8% 4,224,993 9,650,000
Default rate as a percentage of loans issued in the respective year of origination (%) Return (XIRR) per year of origination (%) Loan amount outstanding (in CHF) Volume in respective year (in CHF) Share of loans still outstanding		0.8% 5.0% 45,392,395 48,481,235 94%	5.1% 3.4% 31,794,514 37,626,000 85%	0.8% 4.0% 19,834,599 29,462,000 67%	0.5% 3.8% 4,224,993 9,650,000 44%
Default rate as a percentage of loans issued in the respective year of origination (%) Return (XIRR) per year of origination (%) Loan amount outstanding (in CHF) Volume in respective year (in CHF) Share of loans still outstanding SME loans, as of 31.12.2018		0.8% 5.0% 45,392,395 48,481,235 94%	5.1% 3.4% 31,794,514 37,626,000 85% 2018	0.8% 4.0% 19,834,599 29,462,000 67%	0.5% 3.8% 4,224,993 9,650,000 44%
Default rate as a percentage of loans issued in the respective year of origination (%) Return (XIRR) per year of origination (%) Loan amount outstanding (in CHF) Volume in respective year (in CHF) Share of loans still outstanding SME loans, as of 31.12.2018 Default rate as a percentage of loans issued in the respective year of origination (%)		0.8% 5.0% 45,392,395 48,481,235 94%	5.1% 3.4% 31,794,514 37,626,000 85% 2018 0.0%	0.8% 4.0% 19,834,599 29,462,000 67% 2017 0.6%	0.5% 3.8% 4,224,993 9,650,000 44% 2016 0.6%
Default rate as a percentage of loans issued in the respective year of origination (%) Return (XIRR) per year of origination (%) Loan amount outstanding (in CHF) Volume in respective year (in CHF) Share of loans still outstanding SME loans, as of 31.12.2018 Default rate as a percentage of loans issued in the respective year of origination (%) Return (XIRR) per year of origination (%)		0.8% 5.0% 45,392,395 48,481,235 94%	5.1% 3.4% 31,794,514 37,626,000 85% 2018 0.0% 5.6%	0.8% 4.0% 19,834,599 29,462,000 67% 2017 0.6% 4.5%	0.5% 3.8% 4,224,993 9,650,000 44% 2016 0.6% 4.8%
Default rate as a percentage of loans issued in the respective year of origination (%) Return (XIRR) per year of origination (%) Loan amount outstanding (in CHF) Volume in respective year (in CHF) Share of loans still outstanding SME loans, as of 31.12.2018 Default rate as a percentage of loans issued in the respective year of origination (%) Return (XIRR) per year of origination (%) Loan amount outstanding (in CHF)		0.8% 5.0% 45,392,395 48,481,235 94%	5.1% 3.4% 31,794,514 37,626,000 85% 2018 0.0% 5.6% 49,762,865	0.8% 4.0% 19,834,599 29,462,000 67% 2017 0.6% 4.5% 60,591,250	0.5% 3.8% 4,224,993 9,650,000 44% 2016 0.6% 4.8% 11,334,572
Default rate as a percentage of loans issued in the respective year of origination (%) Return (XIRR) per year of origination (%) Loan amount outstanding (in CHF) Volume in respective year (in CHF) Share of loans still outstanding SME loans, as of 31.12.2018 Default rate as a percentage of loans issued in the respective year of origination (%) Return (XIRR) per year of origination (%) Loan amount outstanding (in CHF) Volume in respective year (in CHF)		0.8% 5.0% 45,392,395 48,481,235 94%	5.1% 3.4% 31,794,514 37,626,000 85% 2018 0.0% 5.6% 49,762,865 93,115,975	0.8% 4.0% 19,834,599 29,462,000 67% 2017 0.6% 4.5% 60,591,250 86,541,000	0.5% 3.8% 4,224,993 9,650,000 44% 2016 0.6% 4.8% 11,334,572 18,984,000
Default rate as a percentage of loans issued in the respective year of origination (%) Return (XIRR) per year of origination (%) Loan amount outstanding (in CHF) Volume in respective year (in CHF) Share of loans still outstanding SME loans, as of 31.12.2018 Default rate as a percentage of loans issued in the respective year of origination (%) Return (XIRR) per year of origination (%) Loan amount outstanding (in CHF) Volume in respective year (in CHF) Share of loans still outstanding	2020	0.8% 5.0% 45,392,395 48,481,235 94% 2019	5.1% 3.4% 31,794,514 37,626,000 85% 2018 0.0% 5.6% 49,762,865 93,115,975 53%	0.8% 4.0% 19,834,599 29,462,000 67% 2017 0.6% 4.5% 60,591,250 86,541,000 70%	0.5% 3.8% 4,224,993 9,650,000 44% 2016 0.6% 4.8% 11,334,572 18,984,000 60%
Default rate as a percentage of loans issued in the respective year of origination (%) Return (XIRR) per year of origination (%) Loan amount outstanding (in CHF) Volume in respective year (in CHF) Share of loans still outstanding SME loans, as of 31.12.2018 Default rate as a percentage of loans issued in the respective year of origination (%) Return (XIRR) per year of origination (%) Loan amount outstanding (in CHF) Volume in respective year (in CHF) Share of loans still outstanding Consumer loans, as of 31.12.2018	2020	0.8% 5.0% 45,392,395 48,481,235 94% 2019	5.1% 3.4% 31,794,514 37,626,000 85% 2018 0.0% 5.6% 49,762,865 93,115,975 53%	0.8% 4.0% 19,834,599 29,462,000 67% 2017 0.6% 4.5% 60,591,250 86,541,000 70%	0.5% 3.8% 4,224,993 9,650,000 44% 2016 0.6% 4.8% 11,334,572 18,984,000 60% 2016
Default rate as a percentage of loans issued in the respective year of origination (%) Return (XIRR) per year of origination (%) Loan amount outstanding (in CHF) Volume in respective year (in CHF) Share of loans still outstanding SME loans, as of 31.12.2018 Default rate as a percentage of loans issued in the respective year of origination (%) Return (XIRR) per year of origination (%) Loan amount outstanding (in CHF) Volume in respective year (in CHF) Share of loans still outstanding Consumer loans, as of 31.12.2018 Default rate as a percentage of loans issued in the respective year of origination (%)	2020	0.8% 5.0% 45,392,395 48,481,235 94% 2019	5.1% 3.4% 31,794,514 37,626,000 85% 2018 0.0% 5.6% 49,762,865 93,115,975 53% 2018 1.0%	0.8% 4.0% 19,834,599 29,462,000 67% 2017 0.6% 4.5% 60,591,250 86,541,000 70% 2017 0.5%	0.5% 3.8% 4,224,993 9,650,000 44% 2016 0.6% 4.8% 11,334,572 18,984,000 60% 2016 0.8%
Default rate as a percentage of loans issued in the respective year of origination (%) Return (XIRR) per year of origination (%) Loan amount outstanding (in CHF) Volume in respective year (in CHF) Share of loans still outstanding SME loans, as of 31.12.2018 Default rate as a percentage of loans issued in the respective year of origination (%) Return (XIRR) per year of origination (%) Loan amount outstanding (in CHF) Volume in respective year (in CHF) Share of loans still outstanding Consumer loans, as of 31.12.2018 Default rate as a percentage of loans issued in the respective year of origination (%) Return (XIRR) per year of origination (%)	2020	0.8% 5.0% 45,392,395 48,481,235 94% 2019	5.1% 3.4% 31,794,514 37,626,000 85% 2018 0.0% 5.6% 49,762,865 93,115,975 53% 2018 1.0% 5.1%	0.8% 4.0% 19,834,599 29,462,000 67% 2017 0.6% 4.5% 60,591,250 86,541,000 70% 2017 0.5% 5.2%	0.5% 3.8% 4,224,993 9,650,000 44% 2016 0.6% 4.8% 11,334,572 18,984,000 60% 2016 0.8% 4.6%

Table 3: Risk/Return Metrics for SME and Consumer Loans in Switzerland as of 31st December 2018, 2019, and 2020



Market volumes, risk, and return - continued

The COVID-19 crisis has been one of the biggest crisis in Switzerland during the last decade. Despite increased default rates, the returns both in the consumer and the SME segment remained positive. The crisis is not yet over, and it is currently difficult to assess whether further defaults will occur, which would deteriorate returns. If the economy recovers, we expect that default rates and returns will improve again. In the long run, we assume that returns of the Swiss crowdlending segment will range between 2% and 4% (after fees and defaults). Given the current market environment, such returns are positive in the fixed-income market.

A comparison of the figures above with SME and consumer loans from banks is difficult. SME loans through banks are usually secured. Also, banks usually have more flexibility to renegotiate loan terms. However, crowdlending loans quickly fall into the default category, as a renegotiation of loan terms would often require several investors' involvement and agreement. Moreover, the measurement approach both for SME and consumer loans is different to that of banks.



3.1.3 Survey: challenges and opportunities for Swiss crowdlending platforms

We surveyed executives to investigate the most critical challenges for crowdlending platforms. The survey contains various questions on the following (potential) challenges: competition, customer growth, platform growth, staff availability and staff costs, IT costs, the processing time of loan applications, regulation, and various risks. Moreover, this year's survey provides additional insights into the effects of COVID-19 on platforms' business.12

The majority of the Swiss crowdlending platforms (10 out of 15 platforms) took part in this year's survey, conducted in November 2020.13 The platforms indicated how pressing a specific topic was on a scale from 1 to 10 (1 = not pressing; 10 = extremely pressing). Figure 7 displays the aggregated findings of the eight topics of this year and the previous year (median values).

Overall, the regulation and the time from credit application to pay-out of the loan to borrowers are the biggest challenges for the platforms. Customer growth poses another relevant challenge for the surveyed platforms. The challenge of managing the (high) costs and the availability of skilled staff as well as competition and IT costs declined significantly compared to the previous year.

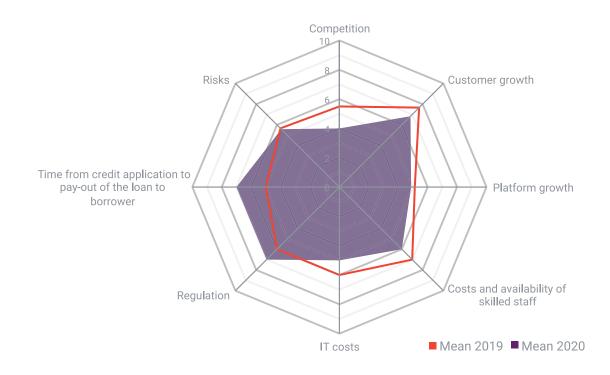


Figure 7: Degree of Challange of Certain Areas for Swiss Crowdlending Platforms (n=10; 1 = not pressing, 10 = extremely pressing)

¹² For last year's publication, see: Dietrich, A., Amrein, S., von der Heyde, F., Heuermann, A. & Rüdisühli, M., & Müller, G. (2019). Crowdlending Survey 2019.

¹³ We would like to thank 3 Circle Funding, Acredius, CreditGate24, creditworld, Crowd4Cash, Funders, Lend, Lendora, Splendit, Swisslending and Swisspeers for taking part in the survey. Lend and Splendit submitted a joint response due to their shared parent company, Switzerlend AG.

Survey: challenges and opportunities for Swiss crowdlending platforms - continued

The following paragraphs briefly discuss these results and shed light on sub-topics within the eight main subject areas.

1. Competition

As in 2019, the Swiss crowdlending platforms do not perceive the competition from other platforms and banks as a pressing concern (see Figure 8). Compared to the findings of 2019, the platforms are even less concerned about competitors. Competition from banks seems to be perceived as a more pressing concern than competition from other platforms.

2. Customer growth

Crowdlending platforms operate in a two-sided market. Market growth requires both borrowers and lenders. Customer acquisition continues to be a significant challenge for platforms in Switzerland (median value of 7 out of 10, see Figure 9). Within the category "customer acquisition", the platforms find it most challenging to acquire institutional lenders. Platforms value this concern with 8. The two other segments, the acquisition of borrowers and the acquisition of private lenders, were both rated with a value of 6.5.

We also asked Crowdlending platforms about the relevance of institutional investors (measured with the share of loans granted by these investors in relation to the total volume;



Figure 9: Degree of Challenge of Customer Acquisition (n=10)

see Figure 10). Half of the companies surveyed indicated that institutional investors have less than a 20% stake of the total volume. One platform states that institutional investors financed between 20-40%, while another platform has a share of 40-60%. At two platforms, institutional investors are funding 60-80% of the total funding volume. One platform has a funding share from institutional investors above 80%. There have been no substantial changes in the relative relevance of institutional investors as compared to previous years. Given the high number of platforms with only a low involvement of institutional investors, it is not surprising that the acquisition of institutional investors remains a pressing issue.

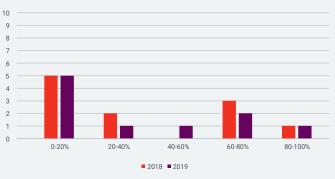


Figure 10: Share of Institutional Investors (Funding Volume by Institutional Investors in % of Total Funding (n=10)

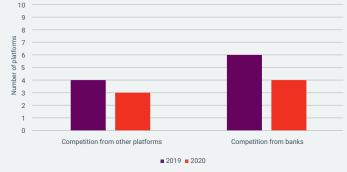
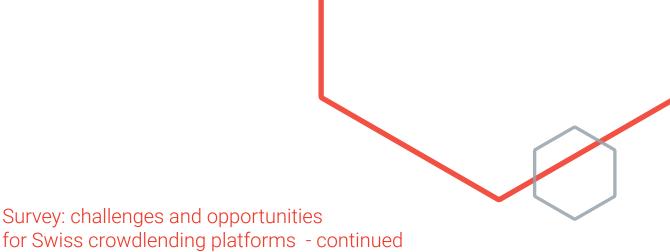


Figure 8: Degree of Challange of Competition (n=10)



for Swiss crowdlending platforms - continued

3. Platform growth

Increasing brand awareness is the most relevant topic for platform growth (see Figure 11). International expansion of the platform business is relatively unimportant. Platforms assign the topic of financing access for the development and growth of their business a medium rating.

4. Cost and availability of skilled staff

In 2019, the recruitment of qualified employees was still one of the biggest challenges for the platforms. In 2020, however, this issue was perceived as less of a challenge (see Figure 12).

5. IT costs and automation

IT costs were perceived as a less pressing challenge in this year's study. The participants rated the challenge of automation of their platform with seven out of ten possible points (see Figure 13).

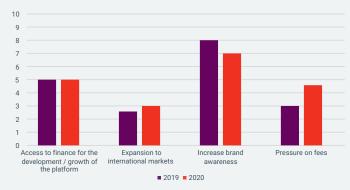


Figure 11: Degree of Challenge of Platform Growth (n=10)

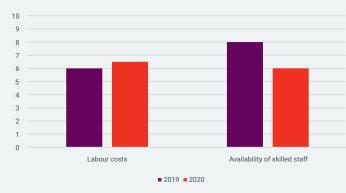


Figure 12: Degree of Challenge of Cost and Availability of Skilled Staff (n=10)

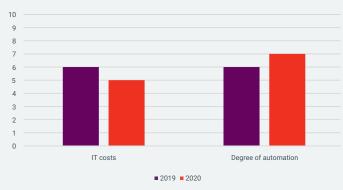


Figure 13: Degree of Challange of IT Costs and Automation (n=10)



Survey: challenges and opportunities for Swiss crowdlending platforms - continued

6. Regulation

In general, crowdlending is not subject to any specific regulatory framework under Swiss law regulating crowdlending only. 14 Instead, the general framework regulating the financial market applies. Nevertheless, crowdlending platforms were affected by several regulatory changes during the last four years. Some of these changes were also specifically targeted at the business model of online financing platforms. In August 2017, the Swiss Federal Council created a so-called sandbox (an authorisation-free innovation space) by amending or adding further paragraphs to the Swiss Banking Ordinance. Below a threshold of CHF 1m, more than 20 public deposits could now be accepted to finance SME loans, and the deposit accepting company was allowed to recommend itself for accepting deposits publicly. However, the financing of private individuals (consumer loans) by more than 20 deposits was excluded. In 2019, the prohibition on granting loans financed by more than 20 persons to private individuals was also removed from the Banking Ordinance. The Swiss crowdlending platforms welcomed this step.

A further innovation-promoting measure implemented by the Federal Council in 2017 was the extension of the time limit on settlement accounts to 60 days. Before this change,

FINMA only allowed a period of seven days for funds to be held in settlement accounts.

Apart from these measures in the Banking Ordinance, the Federal Council introduced the so-called "FinTech license" (Banking Act, Art. 1b). The new license allows companies to accept public deposits of up to CHF 100m on a commercial basis and publicly recommend themselves for this purpose (whereby a FinTech license holder is not allowed to invest in public deposits or pay interest on public deposits).

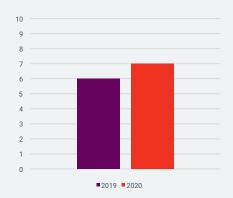
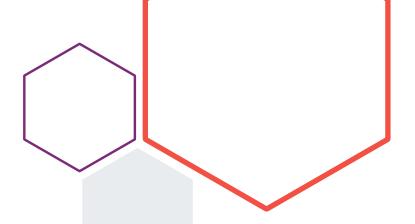


Figure 14: Degree of Challenge of Regulation (n=10)

Relating to the innovation-promoting provisions in the Banking Act and Banking Ordinance, the Swiss government also amended the Federal Consumer Credit Act (KKG). Thus, not only any natural or legal person who is granting consumer loans on a commercial basis (as was previously the case) is considered a lender, but also a lender who is offering consumer credit on a non-commercial basis with the assistance of a crowdfunding intermediary. Due to this amendment, the operators of a crowdlending platform brokering loans between private individuals must now comply with the requirements of the KKG.

Despite these regulatory changes, regulation is still perceived as a relevant topic (7 out of possible 10 points).



Survey: challenges and opportunities for Swiss crowdlending platforms - continued

7. Risks

Compared to 2019, there were only minor shifts in the platforms' view of their risks (see Figure 15). The platforms rate the reputational risks from misconduct by other platforms and the macroeconomic risks as comparatively high (7.5). Risk perceptions increased for both risk types compared to the previous year. The significant increase in risks originating from macroeconomic developments is not surprising given the COVID-19 crisis. Platforms rate the risk of credit default and operational risks with medium importance. The platforms assess the interest rate risk as significantly lower as compared to 2019.

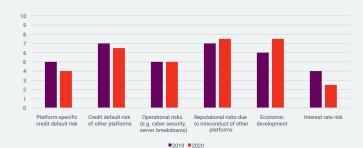


Figure 15: Degree of Challenge of Various Risks (n=10)

8. Time from credit application to pay-out of the loan to the borrower

Crowdlending platforms often use the argument of providing a fast and straightforward loan process to borrowers. Consequently, it is not surprising that platforms see the time from the loan application to the actual pay-out of the loan as a crucial factor. With a value of 7, respondents view this challenge as more pressing than in the previous year (median 5).

Strategic partnerships

The interest in crowdlending platforms to enter strategic partnerships is high (see Figure 16). A remarkable 70% of all respondents plan to work closely with banks and startups in the future. In addition, 20% of the participants are interested in a partnership with other crowdlending platforms.

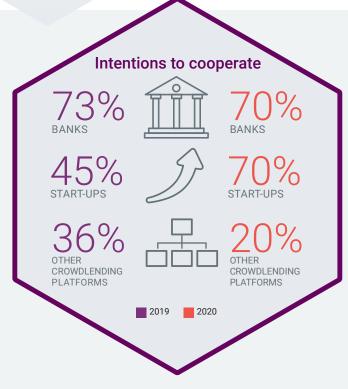


Figure 16: Intentions of Crowdlending Platforms for Strategic Partnerships (n=10)



Survey: challenges and opportunities for Swiss crowdlending platforms - continued

Impact of COVID-19

Swiss FinTech companies were not allowed to take part in the COVID-19 government loan programme. As discussed in Section 3.1.2, the loan programme led to a substantial decline in the number of new loans brokered on crowdlending platforms, above all in the SME segment. Thus, the survey asked Swiss crowdlending platforms about the impact of the COVID-19 loan programme on their business. Most respondents reported a very strong negative impact on SME loan applications and the brokered loan volume in 2020 in general. Moreover, the platforms were also challenged by supporting existing borrowers active in sectors heavily affected by the COVID-19 crisis. Finally, the investor side seemed to be more reluctant to invest at the beginning of the crisis, too.

However, the crisis is also viewed as an opportunity by many crowdlending platforms. The most significant change during the crisis was the acceleration of digitalisation since many SMEs had to digitise processes. Moreover, many platforms refer to the fact that the government-backed loans will have to be refinanced at some point.



3.2 Mortgage loans on brokerage platforms

The mortgage market is the most relevant market for debt financing in Switzerland in terms of volume. In 2020, the total outstanding domestic mortgage volume reached an estimated CHF 1,130bn. Close to 95% of this volume is held by banks (CHF 1,072bn), the rest by pension funds and insurance companies. 15 Three-quarters of the mortgage volume is borrowed by private individuals, while companies and other entities borrow the other quarter.

In recent years, traditional banks and new market participants have increasingly invested in mortgage services on online platforms for private borrowers. The business models of platforms in the mortgage sector, however, differ considerably. 16 Two forms of online mortgages have to be distinguished when analysing the market. Online mortgages, in the narrow sense of the term, are processed entirely digitally. In a broader sense, online mortgages refer to mortgages for which application processes are partially or entirely online. The signing, however, is not digital. This study considers both types of mortgages.

With regards to the structure of the lenders, there are platforms with one or multiple lenders. The former are usually platforms run by banks or platforms that cooperate with one bank. The study excludes such platforms. However, platforms with multiple lenders constitute a marketplace and are thus in the scope of this study.

¹⁵ Sources: SNB (2020). Datenportal SNB. Online (03.08.2020): https://data.snb.ch/de/topics/banken#!/cube/bakredsekbm. Eidgenössische Finanzmarktaufsicht FINMA (2020). Bericht über den Versicherungsmarkt 2019. Bundesamt für Statistik BFS (2020). Pensionskassenstatistik. Online (24.10.2020): https://www.bfs.admin.ch/bfs/de/home/statistiken/soziale-sicherheit/erhebungen/pks.html. For an in-depth discussion of the Swiss mortgage market, see: Lengwiler, C. & Amrein, S. (2020). Markt für Immobilienfinanzierungen in der Schweiz. In: IFZ Retail Banking Studie 2020.

¹⁶ The estimates of the market volumes of online mortgages were first published in: Dietrich, A. & Bayley, S. (2020). Das Wachstum im Online-Hypothekarmarkt Schweiz 2019 hat sich beschleunigt. Online (30.09.2020): https://blog.hslu.ch/retailbanking/2020/05/25/das-wachstum-im-online-hypothekarmarkt-schweiz-2019-hat-sich-beschleunigt/



3.2.1 Market participants

The study considers six different platforms as marketplace lending platforms for mortgages. In contrast to crowdlending platforms offering mortgages, these platforms have an exclusively professional investor base.

Two platforms – UBS Atrium and key4 by UBS – are owned by UBS. UBS Atrium was launched in 2017 and focuses exclusively on investment properties. Key4 by UBS finances owner-occupied properties. The platform is active since 2020. On both platforms, third-party providers and UBS offer mortgages. Another platform run by a bank is Valuu, launched by PostFinance in 2019.

The platforms HypoPlus, Hypotheke and MoneyPark are independent of banks. MoneyPark, launched in 2012, is currently the most established mortgage brokerage firm in Switzerland. They offer both online mortgages and face-to-face advice in their branches. All intermediary platforms have banks, insurance companies and pension funds as lenders.

3.2.2 Market volumes

The volume of mortgages brokered reached approximately CHF 4.2bn in 2019 and CHF 5.5bn in 2020. Despite the substantial amounts, the market for mortgages issued through platforms is still a niche market. We estimate that about CHF 150-180bn of new or extended mortgage loans were concluded in Switzerland in 2020. The platforms thus have a market share between 3% and 3.5%.

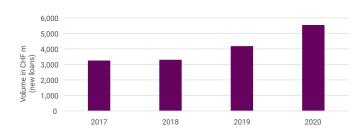


Figure 17: Volume of Mortgage Brokers in Switzerland, 2017-2020

3.3 Loans and bonds for public entities and mid-sized and large corporations

This section includes two types of debt instruments. Firstly, there is an online market for loans to public entities as well as loans for mid-sized and large corporations. Loans to public entities usually consist of uncollateralised loans to municipalities, cities, cantons or corporations under public law. In German, this segment is referred to as OERK loans (OERK: öffentlich-rechtliche Körperschaften).

Another segment also offered by marketplace lending platforms since 2020 are listed and non-listed bonds. In comparison to loans, bonds can be traded on a secondary market if listed. Such bonds were so far issued for corporates. Investors in both segments are banks, institutional and professional investors (asset managers, family offices and pension funds). One of the key features of the digital bond issue is the fully online and transparent book building process.

Finally, some of the platforms in this segment are also doing short term transactions that would fall into the money market segment, which will be discussed in Section 3.4. However, since the money market segment does not constitute their primary area of business and a clear distinction cannot be made based on the data provided, the platforms are discussed in the following paragraphs.



Three market participants are currently active in the segment of loans and bonds for public entities and mid-sized and large corporations in Switzerland. Loanboox has been operational since 2016 and grew rapidly in the loan market for public entities. Since then, the company has extended its product offering, including loans to corporates and listed bonds. A single counterparty provides most loans. The platform charges a fee amounting to one to two basis points per year, depending on country and segment. The company is active in Switzerland, Germany, Austria, France, and the Netherlands. Among others, the shareholders of Loanboox include the Deutsche Kreditbank AG and LGT Group.

Cosmofunding is a platform owned by Bank Vontobel, which launched the platform in 2018. The company's offering focuses on public and corporate borrowers. In addition, the platform collaborates with the Swiss rating agency Fedafin for borrower ratings.

The third player in the market is Valyo, a platform owned by Raiffeisen Schweiz. Valyo entered the market towards the end of 2019. Valyo focuses solely on the digital issuance of bonds. As with the other two platforms, the bond pricing is based on a live book building process.

3.3.2 Market volumes

In 2020, a total volume of CHF 7.1bn was closed through Loanboox. The volume includes loans and bonds in all five countries where Loanboox is currently active. The volume brokered in Switzerland reached CHF 4.7bn in 2020. A substantial amount was also transacted in Germany (CHF 2.2bn). Loans financed through Loanboox were between CHF 500,000 and CHF 500m. Loanboox made 388 transactions in 2020. The average loan size was CHF 12m.

The market volumes of Cosmofunding reached about CHF 4.3bn in 2020. 18 In 2019, the average funding volume was CHF 32.8m (ranging from CHF 700,000 to CHF 100m), and the average term was 4.4 years. 19

Both Loanboox and Cosmofunding also issued publicly listed bonds in 2020. Loanboox transacted a Green Bond for Axpo Holding in July 2020 (CHF 133m, 7-year term, 1.002% coupon). Andermatt Swiss Alps issued a CHF 60m bond through Cosmofunding (4.375% coupon, 5-year term) in December 2020.

The first digital bond issue in Swizterland was done by the platform Valyo in July 2020. Valyo issued a 2-year 0% coupon bond for Raiffeisen Schweiz with a volume of CHF 112m. A second digital bond was issued for Swisscom (CHF 100m, 0.13% coupon, 11-year term).

Figure 18 shows the market volumes from 2017 to 2020. The volumes grew from CHF 2.0bn in 2017 to 9.4bn in 2020.

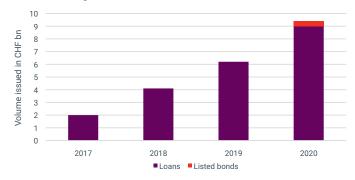


Figure 18: Loan and Bond Market Volumes to Mid-Sized and Large Corporations and Public Entities, 2019-2020



¹⁷ Loanboox (2021). Successful year for Loanboox despite Covid-19. Press release. Online (29.01.2020): https://loanboox.com/ch/en/blog/successful-2020-for-loanboox-despite-covid-19/18 Bank Vontobel (2021). Geschäftsbericht 2020, p. 8.

¹⁹ Dietrich, A. & Amrein, S. (2020). Crowdfunding Monitor Switzerland 2019. Rotkreuz: Verlag IFZ.



3.4 Money market transactions

The traditional classification of money market instruments is their maturity of less than one year. Within this duration, there are many subsegments and submarkets. Furthermore, money market transactions are unsecured and typically institutional size trades that allow banks, corporates and other institutional counterparties, including public authorities, to manage their liquidity.

Compared to traditional money market trading, which is often done via phone or established financial information systems, money market platforms have several advantages. Price discovery and trading can be made more efficiently through platforms, serving the needs of "best execution". Furthermore, such marketplaces offer a higher number of potential counterparties, which allows for increased price transparency and better diversification of counterparty risk.

On the Swiss market, there is one money market platform operating. Instimatch Global is a Zug-based FinTech founded in 2017. It currently offers a platform for money market transactions across Switzerland, Europe, UK and the GCC countries. The company aims to expand its business to Asia and Australia in 2021. Typical borrowers and lenders on Instimatch's platform are banks, mid-sized and large multinational corporates, as well as public entities. Currently, Instimatch does not communicate any data on the volumes of their transactions.



3.5 Market volumes – an overview

The sections above have explored various segments in Switzerland's online debt capital market. Table 4 shows the volumes of the different segments from 2017 to 2020 (annual volumes of new loans). Unfortunately, due to a lack of data, money market transactions are not shown in this table.

The total volume of new debt capital brokered through online platforms in 2020 reached approximately CHF 15.4bn. Since 2017, the volumes of marketplace lending transactions in Switzerland almost tripled. From 2019 to 2020, the overall market volumes (new loans/bonds) grew by 42.5%. However, the volumes and growth rates of the segments are very different.

In total, the crowdlending segment has reached a volume of CHF 448.0m new loans in 2020 (2019: CHF 418.4m). The market grew only moderately by 7.1% as compared to 2019. Among the different crowdlending subsegments, the volume and number of transactions of SME loans were strongly affected by the COVID-19 crisis and declined by 40% compared to 2019.

The market segment of mortgage loans brokered on platforms and financed by institutional and professional investors (see Section 3.2) has continued to grow strongly. For 2020, we estimate a new loan volume of CHF 5.5bn, representing a growth rate of about 33% compared to 2019.

The segment of loans and bonds for mid-sized and large corporations as well as public entities (see Section 3.3) reached a volume of CHF 9.4bn in 2020. The growth rate of this segment was 51% compared to 2019.

When looking at the market figures of the different marketplace lending segments, one must remember that the average duration of debt instruments within these segments varies. For example, many consumer and SME loans in the crowdlending segment have a duration between two to four years. The average duration of a mortgage loan in Switzerland is about four to five years. In contrast to these segments, the segment of online loans and bonds for mid-sized corporations, large corporations and public entities have maturities ranging anywhere between one month and ten years. Especially debt instruments with short maturities are often renewed, leading to higher turnovers and driving the annual volume of new transactions.

In CHF million	2017	2018	2019	2020
Crowdlending Loans	186.7	261.9	418.4	448.0
Consumer Loans	52.0	57.0	67.7	55.4
SME Loans	111.6	134.4	159.7	95.9
Real Estate Loans	23.1	70.5	191.0	296.7
Mortgage Loans (Online Brokerage)	3,250.0	3,300.0	4,179.0	5,541.0
Online Loans and Bonds for Mid-Sized Corporations, Large Corporations, and Public Entities	*2,000.0	*4,100.0	6,200.0	9,400.0
Loans	*2,000.0	*4,100.0	6,200.0	9,000.0
Listed Bonds	0.0	0.0	0.0	400.0
Total Volume Swiss Marketplace Lending	5,436.7	7,661.9	10,797.4	15,389.0

Table 4: Total Volume Swiss Marketplace Lending, 2017-2020 (in CHF million; * = estimate)

Market volumes - an overview - continued

Figure 19 illustrates the importance of these new online forms of financing. The y-axis shows the average growth in volume over the past three years, providing insights into the growth dynamics of the subsegments. The x-axis indicates the estimated market share of the different subsegments within the respective markets. We estimate that online loans for public entities and mid-sized and large corporations so far has reached the highest relevance in terms of market share. The evolution is driven by the financing of public entities (municipalities, cities, cantons). A study by Lengwiler and Frey (2020) focusing on municipalities has shown that about 15% of the surveyed municipalities have used platforms for financing purposes in 2019.20 The subsegment of public entities has so far the highest growth rates and highest relevance as measured by the market share. However, it needs to be mentioned that the data availability does not allow a further breakdown of the volumes. Moreover, there is no reliable data available with regards to the actual market share. Therefore, the market shares below are based on estimates and discussions with market participants.

In comparison, the subsegment of listed bonds issued through platforms is so far still irrelevant. 2020 was the first year for digital bond issuances through platforms in Switzerland (thus, the annualised growth rate for 2017-2020 was set to zero in the graph).

Mortgage loans from brokers have yearly growth rates of about 20% (2017-2020). The market share has reached already around 3%. The crowdlending market has shown impressive growth rates but has a lower significance compared to the total market.

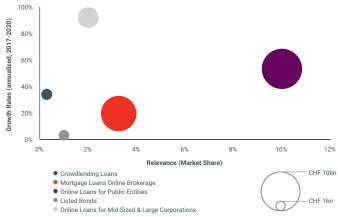


Figure 19: Market Growth vs Relevance (Indicative, Estimated Values) in Different Market Segments

²⁰ Lengwiler, C. & Frey, P. (2020). Finanzierung von mittelgrossen Gemeinden 2019. Erhebung bei 238 Gemeinden mit 4'000 bis 30'000 Einwohnern in der Deutsch- und Westschweiz per 31.12.2019. Rotkreuz: Institut für Finanzdienstleistungen Zug IFZ.

4. MARKETPLACE LENDING - AN INTERNATIONAL PERSPECTIVE

Given the variety of definitions for marketplace or online lending, it is challenging to provide reliable data for international comparison. The following chapter compares Swiss volumes of marketplace lending platforms with three geographic regions: the United States, the United Kingdom and the European Union (excl. the UK). In order to ensure comparability across time and regions, this chapter uses data from the Cambridge Centre for Alternative Finance at the University of Cambridge. So far, only data for 2018 is publicly available.²¹

4.1 Consumer, business, and real estate lending

Lending to businesses and consumers, as well as for property as collateral, accounts for 49% of the market share of online alternative finance worldwide (excl. China). In order to compare the Swiss market (and our definition framework) with the dataset provided by the Cambridge

Centre for Alternative Finance, the following paragraphs show data for only three segments: i) consumer loans (crowdlending), ii) SME loans (crowdlending), iii) real estate loans (crowdlending). Online loans and bonds for mid-sized corporations, large corporations, and public entities, as well as the mortgage brokerage market (both discussed for Switzerland in previous sections), were excluded due to a lack of data on the international level.

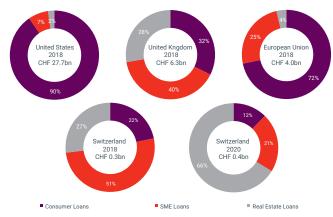


Figure 20: Volumes of Marketplace Lending Segments in the United States, UK, Europe (excl. UK) and Switzerland

Figure 20 shows the total volume of the three categories within the marketplace lending segment in the United States, the United Kingdom, Europe (excl. UK) and Switzerland (2018 and 2020) and the shares of these segments within marketplace lending. In 2018, the United States market reached CHF 27.7bn (transaction volume in the respective year). The market in the United Kingdom was CHF 6.3bn, and the European Union CHF 4.0bn. All markets have shown considerable growth rates in recent years, between 10% and 80%.

90% of the market volume in the United States comes from consumer loans, whereas business lending reflects only 7% of the market volume. The market structure in the United Kingdom is much more balanced. About 40% of the market volume in 2018 was taken up by the business lending segment, about a third by consumer lending.

Within the European countries, a substantial part of the volume is generated in Germany and France. In consumer lending, for example, the countries contributed about one third to the European volume in 2018. Together with The Netherlands, these two large countries constitute the main markets in business lending.

4.2 Swiss market volumes in an international context

In order to provide an understanding of the relevance of Switzerland's marketplace lending market on an international level, Figure 21 illustrates the Swiss crowdlending (excluding mortgage brokerage and online loans and bonds for public entities and mid-sized and large corporations) relative to the number of inhabitants. Moreover, we compare these numbers to the United Kingdom, the United States, and the European Union per capita.

Compared to the number of inhabitants, the United Kingdom has the highest crowdlending volume (in 2018) with CHF 94 per capita, followed by the United States with CHF 85 (also 2018). Switzerland is clearly behind the other two regions with CHF 31 but has made a significant development since 2018. Switzerland's 2020 per capita volume is CHF 52. The volume per capita in the European Union in 2018 is CHF 9 and thus significantly lower than in other regions.

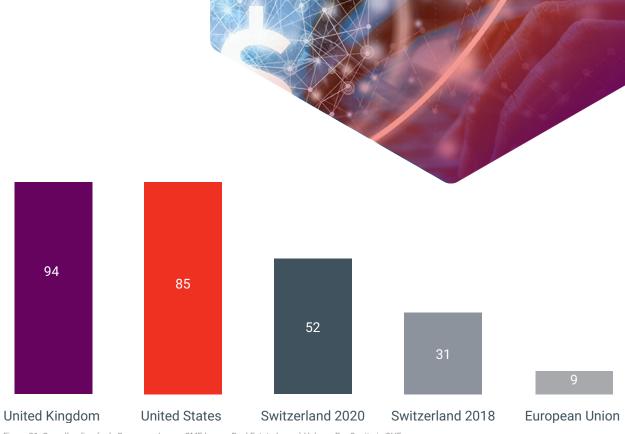


Figure 21: Crowdlending (only Consumer Loans, SME Loans, Real Estate Loans) Volume Per Capita in CHF

Section 2.1.1 has outlined many terminologies and definitions used to finance different entities using the internet. For the first time for Switzerland, this report has included not only consumer, business, and real estate loans financed on crowdlending platforms but also the mortgage brokerage business, as well as online loans and bonds for public entities and mid-sized and large corporations. As presented in Section 3.5, the Swiss marketplace lending market as a whole has shown high growth rates.

If online loans and bonds for public entities and mid-sized and large corporations and mortgage brokerage loans were included, the Swiss per capita volumes would increase to CHF 512 in 2018 and CHF 1,138 per capita in 2020. These numbers, however, cannot be compared to other countries due to the data availability.

²² Population Data: The World Bank (2021). Data Bank World Development Indicators. Online (21.04.2021).

https://databank.worldbank.org/reports.aspx?source=2&series=SP.POP.TOTL&country=

OUTLOOK

In light of the above results, the following Section discusses hypothesis for the development of marketplace lending in Switzerland going forward.

Expected rebound on SME lending market

The COVID-19 crisis and the Swiss government's loan programme brought the market growth in the SME loan segment in 2020 to a halt. However, we expect growth rates to accelerate again in 2021 and going forward. Moreover, there might be positive long-run effects of the COVID-19 crisis for marketplace lenders, too. Many Swiss SMEs have had to adopt new digital tools and reevaluate their business models, which might lead to more openness for digital lending solutions. Furthermore, government-backed loans will have to be refinanced at some point. The refinancing of these loans might be an opportunity for further growth of marketplace lending.

The crowd becomes less important in the crowdlending market

The original idea of crowdlending was to finance a loan by mobilising a large number of people. However, professional investors are increasingly financing loans directly. They are looking for attractive opportunities in the fixed income market, given the negative interest rate environment. Moreover, investment vehicles (funds) will gain importance on the investors' side. Private individuals will thus lose importance in relative terms. Overall, and despite further impressive growth rates, we expect crowdlending to remain a niche in the next five years.

Risk-adjusted Returns in crowdlending will increase in the future after a low in 2020

The risk/return situation in the crowdlending market deteriorated significantly in 2020 but is still positive overall. While the risk-adjusted returns were excellent until 2019, the year marked by COVID-19 has noticeably reduced the returns. However, we expect yields to rise again in the future and assume that certain non-performing loans will also recover once the economic situation improves.

Platforms will become more relevant in the Swiss mortgage market

Mortgage brokers are becoming increasingly important in Switzerland. Intermediaries have been able to increase their volume in recent years substantially. However, the volume concluded per year is still in the single-digit billion range, leading to an estimated market share of about 3%. In Germany, 40% of mortgages are already concluded or extended via platforms. In The Netherlands and the United Kingdom, the figures are as high as 65 and 70%. We expect the Swiss mortgage brokerage market to grow further and to become more important. Growth rates will range around 30% per year during the next two to three years.

OUTLOOK

Online platforms are innovation drivers in Switzerland's lending market

The online debt financing market in Switzerland is very heterogeneous. Thus, comparisons of these markets are difficult: average volumes and maturities of loans to public entities, for example, are hardly comparable to a consumer loan for a private person. Nevertheless, the platforms analysed in this study are all driving innovations within their segments:

- Crowdlending platforms were among the first to provide mainly digital lending processes for SME and consumers in Switzerland. This segment has grown substantially since the first platform entered the market in 2008.
- The online brokers in the mortgage market are a relevant force, further digitising Switzerland's largest market for debt capital since 2012.
- Platforms for lending to public entities (municipalities, cities, cantons) capture a substantial part of this market segment and broker a high number of these loans at lower costs (since 2016).
- Finally, 2020 has seen the first digital bond issuances on Swiss platforms, establishing a new segment online and increasing book building transparency of such transactions.

Lending platforms mean better market access for investors

Digitisation and the evolution of lending platforms have removed "investment barriers" for investors. Many segments of marketplace lending until recently have not been directly investable for institutional and private investors. Further market growth and a longer track record of the asset classes within marketplace lending will increase the attractiveness of investing through platforms.

Transparency will be crucial for the sustainable growth of the market

Lending through platforms contributes to financial disintermediation. So far, the volumes of marketplace lending are still small compared to the total loan volumes of traditional market participants in the respective segments. However, if growth rates of marketplace lending continue to be high, the market share of platforms will reach a substantial level in the coming years. Increased relevance will require more transparency in the market regarding market participants and their business models, volumes, risk and return data, and the risks involved in such transactions for institutional and private investors.

AUTHORS



Dr Simon Amrein Lecturer, Co-Head of Programme MSc Banking and Finance

Institute of Financial Services Zug IFZ, Lucerne University of Applied Sciences and Arts

Dr Simon Amrein (1985) is a lecturer and Co-Head of Programme of the MSc in Banking and Finance at the Lucerne School of Business. He has been working at the Institute of Financial Services Zug IFZ since 2009 and is managing director of the Swiss Marketplace Lending Association. He studied Banking and Finance at the Lucerne School of Business, Economic History at the London School of Economics and Political Science and received his doctorate from the European University Institute in Florence.

Prof Dr Andreas Dietrich Professor in Banking and Finance, Head of the Institute of Financial Services Zug IFZ

Institute of Financial Services Zug IFZ, Lucerne University of Applied Sciences and Arts

Prof Dr Andreas Dietrich (1976) heads the Institute of Financial Services Zug IFZ and is Co-Head of Programme of the MSc in Banking and Finance and the CAS Digital Banking at the Lucerne School of Business. He studied at the University of St. Gallen (HSG), where he also obtained his doctorate. He worked as a research associate at HSG and completed a research year at DePaul University in Chicago. He has been at the IFZ since 2008. Andreas Dietrich is a member of the board of directors of the Lucerne Cantonal Bank.



Lucerne School of Business, Institute of Financial Services Zug IFZ

Lucerne University of Applied Sciences and Arts

HOCHSCHULE **LUZERN**

Institute of Financial Services Zug

The Institute of Financial Services Zug IFZ of the Lucerne School of Business is the leading competence centre for banking and finance among the universities of applied sciences and arts in Switzerland. The IFZ offers research and consulting services and boasts a comprehensive continuing education offering for specialists and managers from the financial sector. Its degree courses include a Bachelor of Science and a Master of Science in Banking & Finance, and it offers continuing education courses leading to the following degrees:

Master of Advanced Studies MAS

- · MAS Bank Management
- MAS Controlling
- MAS Corporate Finance
- MAS Economic Crime Investigation
- MAS Immobilienmanagement
- MAS Pensionskassen Management
- · MAS Private Banking & Wealth Management

Diploma of Advanced Studies DAS

- DAS Accounting
- DAS Bank Management
- · DAS Compliance Management
- DAS Controlling
- DAS Corporate Finance
- · DAS Economic Crime Investigation
- DAS Pensionskassen Management
- · DAS Private Banking & Wealth Management

Certificate of Advanced Studies CAS

- CAS Anlageberatung
- · CAS Asset Management
- · CAS Commodity Professional
- CAS Controlling
- · CAS Corporate Finance
- CAS Crypto Finance & Cryptocurrencies
- CAS Digital Banking
- · CAS Digital Controlling
- · CAS Economic Crime Investigation
- · CAS Financial Investigation
- · CAS Financial Management
- · CAS Finanz- und Rechnungswesen für Juristen
- · CAS Finanzmanagement für Nicht-Finanzfachleute
- · CAS Funding & Treasury
- · CAS Future of Insurance
- · CAS Gesamtbanksteuerung
- CAS Governance, Risk and Compliance

- CAS Group Reporting and Analysis
- · CAS Real Estate Asset Management
- · CAS Real Estate Development
- · CAS Real Estate Investment Management
- · CAS Sales und Marketing im Banking
- CAS Swiss Certified Treasurer (SCT®)
- CAS Turnaround Management
- · CAS Verwaltungsrat



TMF Group is a leading provider of critical administrative services, helping clients invest and operate safely around the world.



Our 9,100 experts and 120 offices in 85 jurisdictions worldwide serve corporates, financial institutions, asset managers, private clients and family offices, providing the combination of accounting, tax, payroll, fund administration, compliance and entity management services essential to global business success.

We know how to unlock access to the world's most attractive markets - no matter how complex - swiftly, safely and efficiently. That is why more than 60% of the Fortune Global 500 and FTSE 100, and almost half the top 300 private equity firms, work with us.

Our unique global delivery model, underpinned by our innovative digital platforms, means we can cover sectors as diverse as capital markets, private equity, real estate, pharmaceuticals, energy and technology, with experts on the ground providing local support.

With year-on-year growth averaging 8% since 2013, TMF Group is a trusted and reliable partner. Whether operating across one border or many, with a handful of staff or several thousand, we have the business-critical support you need to expand, operate and grow while remaining compliant everywhere.



Swiss Marketplace Lending Association (SMLA)



The Swiss Marketplace Lending Association brings together all stakeholders of marketplace lending in Switzerland. The SMLA's goals are to increase the transparency of the asset class for professional and private investors, raise awareness for marketplace lending, and foster cooperation within the sector. For further information, please visit: www.lendingassociation.ch

The following platforms, investors and institutions are members of the SMLA:















HOCHSCHULE **LUZERN**

Key4 by UBS supports the SMLA as a strategic partner:







Global reach Local knowledge

Lucerne University of Applied Sciences and Arts

HOCHSCHULE LUZERN

Business Institute of Financial Services Zug IFZ

