



# **AltFi Data Lending Returns Index**

## ***Methodology***

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## Introduction

The AltFi Data Lending Returns Index UK captures the investment return available from a representative sample of technology enabled lenders.

The Index measures what an equal time-weighted exposure to every eligible loan would have returned over the preceding 12-month period.

Platforms are eligible for inclusion if they satisfy specific eligibility criteria. Currently the Index calculations are based on aggregated data from the 4 largest UK platforms:

- Zopa
- Funding Circle
- RateSetter
- Market Invoice

At the time of writing these platforms represent over 75% market share of the UK marketplace lending sector as measured by their 3 month market share of the AltFi Data volume indices.

To ensure accuracy and completeness the Index is constructed using the individual cash flows from every loan made by the eligible platforms.

The AltFi Data Lending Returns Index UK is maintained by AltFi Data and is rules based with Index Committee oversight.

## Index Overview

### Summary

The Index represents the historic cash on cash return achieved by investing in an equal time-weighted exposure to every loan originated by the participating platforms. To capture this track record in its entirety, whilst avoiding distortions from loan seasoning and variable origination growth rates, the index measures the return of an *equal time weighted constant portfolio*. This means that the index represents what an equal vintage weighted exposure to every loan originated would have returned over the preceding 12-month period. Imagine that an investor made an equally sized investment into each monthly cohort of origination, and that this investment was perfectly diversified across all loans originated in that period - this is the portfolio that our methodology represents. Returns are expressed net of all fees, are adjusted both for losses and recoveries, and are reported as an annualised rate. As such the methodology captures the entire track record of the participating originators, whilst avoiding any distortions due to seasoning and variable origination growth rates, and is representative of the historic return achieved by the sector.

### Detail

#### Portfolio Construction

The AltFi Data Lending Returns Index UK measures the net return of an *equal time weighted constant portfolio*. This ensures that the index reflects a portfolio that is:

- Perfectly diversified across all loans
- Equally representative of cohorts of all ages

The return profile of any population of loans is not uniform during its lifespan with defaults tending to be concentrated at certain points during the lifecycle of the population of loans. (Figure 1). In a population of debt instruments that is experiencing either rapid growth, or a slowdown in volumes, returns will become skewed. (Figure 2 and figure 3).

Figure 1 – Generic cumulative net loss curve

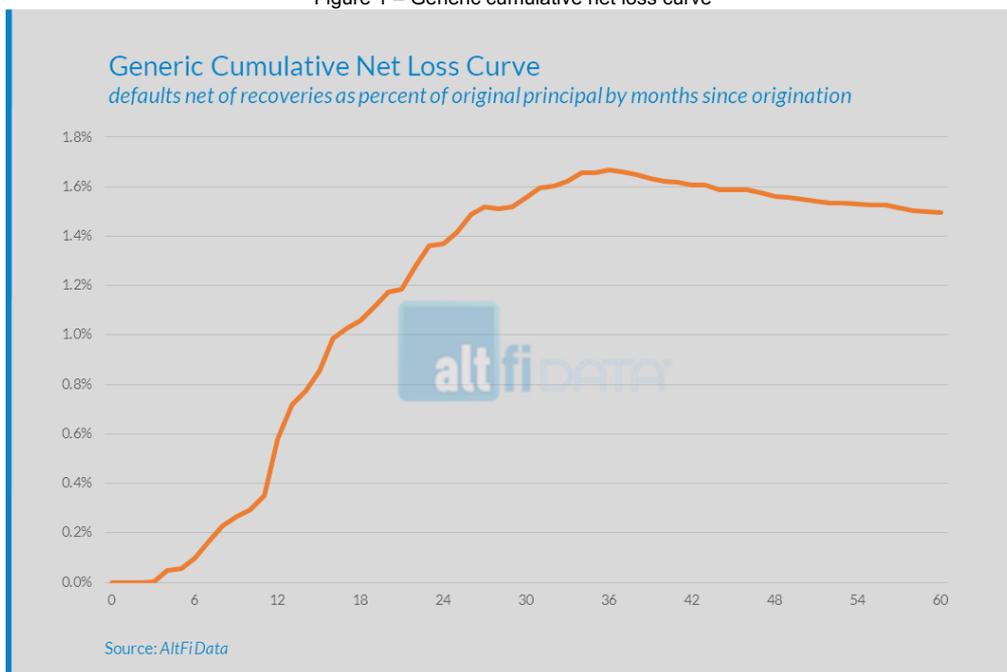


Figure 2 – Seasoning distribution of fast growing portfolio



Figure 3 – Seasoning distribution of slowing growth portfolio



In order to remove any bias caused by large variations in new loan volume, the AltFi Data Lending Returns Index UK is equally time-weighted. The Index therefore reflects the experience of an investor allocating an equal amount of capital into each monthly cohort that is perfectly diversified across all loans. The ‘weighting’ of each monthly cohort diminishes over time, in line with the amortisation of the outstanding principal amounts, but the exposure to each cohort is equal at the time of origination. The portfolio is ‘constantly’ evolving as new loans are added, and amortised cohorts fall out of the series.

Figure 4 – Seasoning distribution of equal time weighted portfolio



The perfect diversification across each equal time weighted monthly cohort means that the index is also market share weighted. i.e. as the even capital amount is distributed across all loans originated in the period it will reflect an exposure to the underlying platforms in proportion to their share of that cohort.

### Measurement of Return

- All performing loans are valued at par. If there is a scenario whereby certain categories of loans are trading at a materially different price to par the Index Committee reserves the right to reflect that change
- Impaired loans are written down to the actual historic average level of recovery by originator platform
- Actual recovered amounts are reflected at the end of the recovery process
- The Index assumes that all income is re-invested immediately and that all capital is deployed
- The Index is updated at the end of each month to reflect daily changes in loan cash flows
- Net return is expressed as an annualised rate in effect representing the return achieved by the portfolio over the preceding 12-month period

## Eligibility Criteria and Index Construction

The following section describes the eligibility criteria and Index construction methodology of the AltFi Data Lending Returns Index UK.

### Universe

The universe is comprised of all loans that are originated and funded by non-bank lending platforms in the UK. AltFi Data Lending Returns Index UK aims to capture the historical investment return of this sector. For loans to be included in the Index, the originating platform must fulfil certain eligibility criteria, listed below.

### Eligibility Factors

Cumulative Origination	>5% 3 month market share – as measured by the Liberum AltFi Volume Index
Age of platform	The platform needs to have been in existence for >150% of its average loan life
Transparency	The platform must publish a loan by loan breakdown of activity since inception
Information provision	Provide AltFi Data with information required for Index construction in correct format on a daily basis

### Constituent Weightings

Because each monthly cohort represents a perfectly diversified exposure to all of the loans originated in that period the index is naturally volume-weighted. i.e. in each monthly cohort the proportionate exposure to each originator will reflect the share of originated principal that month.

## Return Calculation

The daily return is calculated as follows:

$$R_t = \frac{\sum (I_{i,t} + S_{i,t} - L_{i,t} - F_{i,t}) v_i}{\sum P_{i,t} v_i}$$

Where:

$R$  = daily return on day  $t$

$I_i$  = interest cash flow for loan  $i$

$S_i$  = surplus recovery cash flow for loan  $i$

$L_i$  = loss impairment for loan  $i$

$F_i$  = platform fees for loan  $i$

$P_i$  = outstanding principal of loan  $i$  at the beginning of the day

$v_i$  = vintage factor for loan  $i$

The vintage factor is the factor that renders the size of all monthly cohorts equal. This is simply the inverse of the total principal originated in a given cohort.

An index value,  $I$ , is then calculated using the portfolio return:

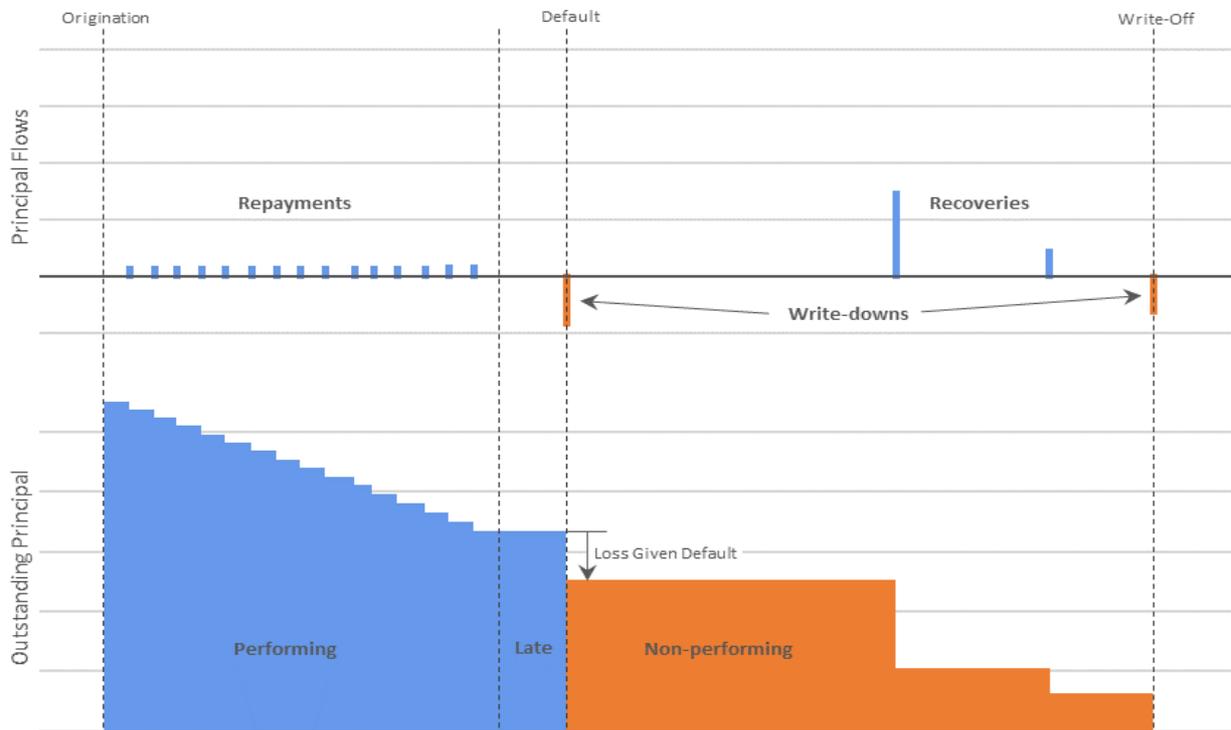
$$I_t = I_{t-1} \times (1 + R_t)$$

This Index value is used to calculate the trailing 12-month return,  $R_T$ :

$$R_T = \frac{I_t - I_{t-365}}{I_{t-365}}$$

## Credit Events

The treatment of credit events, and the related cashflows, are explained below and are also depicted in the following graphic.



### Default

Loans are deemed to be in default at the earlier of:

- 90 days in arrears (i.e. after a missed scheduled repayment)
- An originator marks a loan as being in default

AltFi Data observe daily loan cash flows to determine if a loan needs to be marked as defaulted. At the point of default remaining outstanding principal is 'impaired' and written down to the value of the expected recovery amount based on historic recovery rates - see explanation of loss given default (LGD) below.

### Treatment of Impaired loans

When a default occurs, the loan is impaired to the appropriate LGD statistic for the given platform. This means that the impaired portion is written off and counted as a loss, while the remainder is marked as 'non-performing' and applied to the non-performing ledger (NP ledger).

### Treatment of Recoveries

Recovery cash flows reduce the non-performing balance outstanding of individual impaired loans. As such, they reduce the amount of any final write off at the end of the write off horizon.

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So long as there is an outstanding amount on the NP ledger any recoveries are offset by amounts on the NP Ledger and have no immediate impact on net return. i.e. they do not have an immediate positive impact on daily return but instead reduce the size of any eventual write-off. However, If the NP Ledger is reduced to 0, any subsequent recoveries are counted as surplus recoveries and are immediately reflected as positive cash flows and applied to net returns.

### Write Off

A write-off of outstanding 'non-performing' balance is applied at 2 years. This means that, on a loan-by-loan basis, any outstanding non-performing principal, which has not been recovered, is written off on the second anniversary of default.

Any recovery cash flows that occur beyond the write off horizon will still be captured. If there is a positive balance on the NP Ledger they will reduce this balance, and if the NP ledger is at zero they will immediately positively impact the daily return.

### Loss Given Default

This impairment methodology incorporates an appropriate estimate for loss given default (LGD). This estimate consists of two components: the 'industry baseline LGD' and the platform historic LGD.

Early in a platform's life there is insufficient data to establish an LGD statistic. Thus, the 'industry baseline LGD' provides a proxy LGD until the platform LGD is established, typically 3 years after launch. This 'industry baseline LGD' is stratified by asset class across 6 categories:

- business unsecured
- business secured
- business property secured
- consumer unsecured
- consumer secured
- consumer property secured

This industry baseline LGD is established using publicly available statistics. The primary source of these statistics is bank Pillar 3 disclosures as well as rating agency reports and central bank statistics. The industry baseline LGD is a backward looking annual time series.

The platform historic LGD is based on actual recovery data extracted from AltFi Data's historic cash flow information. It is calculated using the aggregate average rate of losses net of recoveries weighted by defaulted principal. Defaulted loans are only included in the aggregate average once they have reached their write-off horizon in order to allow recoveries to accumulate.

The platform historic LGD metric is updated quarterly and the industry baseline LGD is updated annually. The LGD is only allowed to move in 5% increments, to ensure that excessive volatility is avoided.

### Contingency Funds and Platform Incentives

**Contingency funds** - Where loans are covered by a 'contingency fund', that will be reflected. Any loss on default will be marked as zero. However, if the contingency fund fails to provide adequate cover, the default will be fully reflected. Any cost of the contingency fund to the lender is factored into the net yield.

**Platform incentives** – The calculation does not reflect any incentive fees and schemes that platforms offer investors from time to time.

## Index Governance and Dissemination

### Index Committee

AltFi Data Lending Returns Index UK is governed by the AltFi Data Lending Returns Index UK Index Committee. The Index Committee meets at least annually. At each meeting, the Index Committee reviews the Index constituents, index methodology, and any significant market developments. The Index Committee may revise index policy covering rules for constituent eligibility, calculation methodology etc.

### Index Data

Data for the Index levels and returns is available on the AltFi Data website at [www.altfidata.com](http://www.altfidata.com). The Index level is calculated on a daily basis and published monthly.

## Index Policy

### Announcements

Index announcements will be made on the AltFi Data website [www.altfidata.com](http://www.altfidata.com).

### Holiday Schedule

AltFi Data Lending Returns Index UK is calculated updated monthly, throughout the calendar year, on or around, the second week of the month.

### Unscheduled Interruptions

In circumstances where information for an Index constituent is not provided by the relevant platform, the Index Committee reserves the right to either remove that constituent from the Index or to use last data point of that constituent.

### Recalculation Policy

AltFi Data reserves the right to recalculate the Index under certain limited circumstances. AltFi Data may choose to recalculate and republish the Index if it is found to be incorrect or inconsistent for one of the following reasons:

1. Incorrect or revised source data
2. Missed corporate event
3. Incorrect application of corporate action or Index methodology

Any other restatement or recalculation of the Index is only done under extraordinary circumstances to reduce or avoid possible market impact or disruption as solely determined by the Index Committee.

## AltFi Data Contact Information

### Index Management

Aloysius Fekete – Chairman of the Index Committee

Email: [aloysius@altfidata.com](mailto:aloysius@altfidata.com)

Telephone: +44 (0)7962 512 869

### Media Relations

Rupert Taylor – Index Spokesperson

Email: [rupert@altfidata.com](mailto:rupert@altfidata.com)

Telephone: +44 (0)7720 440 329

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