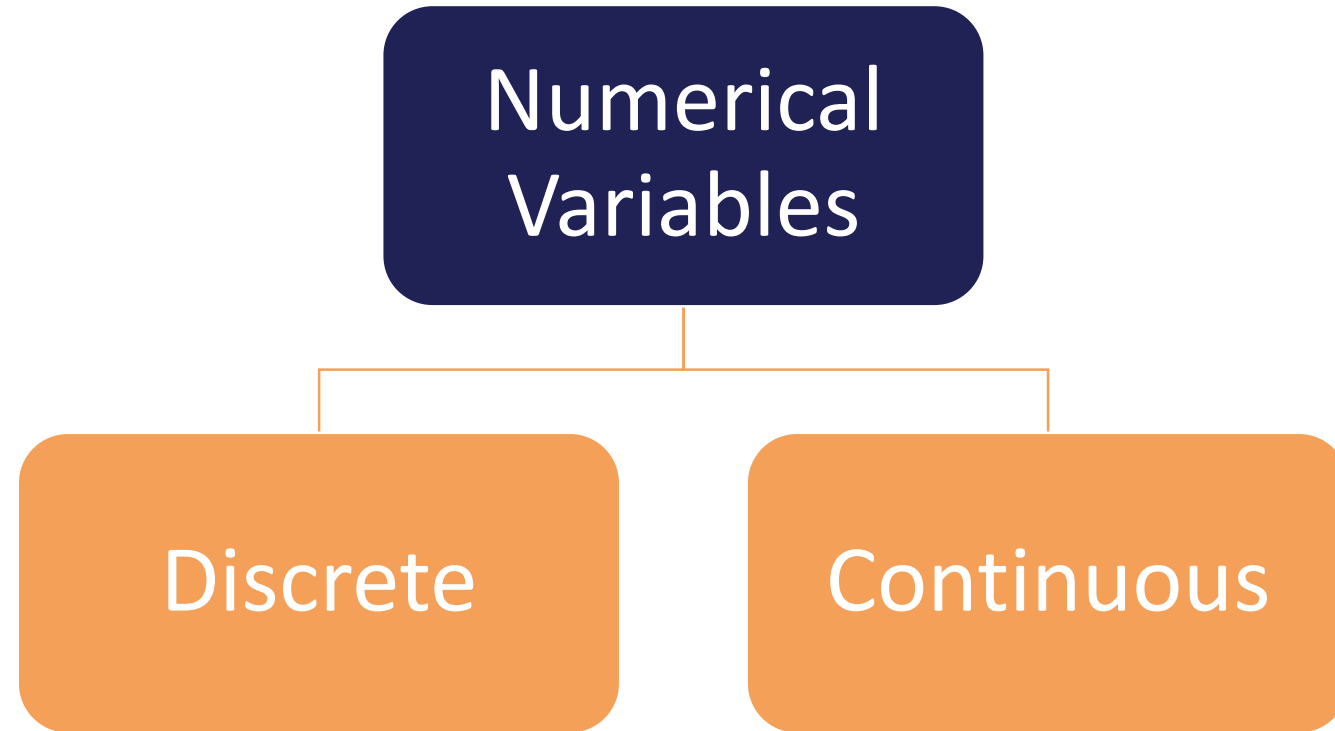# Numerical Variables

Variable Types

Numerical Variables

Discrete

Continuous

Discrete Variables

A variable which values are whole numbers (counts) is called discrete. Examples:

- Number of items bought by a customer in a supermarket (10, 50, …)
- Number of active bank accounts of a borrower (1, 4, 7, …)
- Number of pets in the family
- Number of children in the family

Continuous Variables

A variable that may contain any value within some range is called continuous. Examples:

- Amount paid by a customer in a supermarket ($32.50, 12,5.20, …)

- House price (GBP 350,000, GBP 57000, GBP 1,000,000, …)

- Time spent surfing a website (3.4 seconds, 5.10 seconds, …)

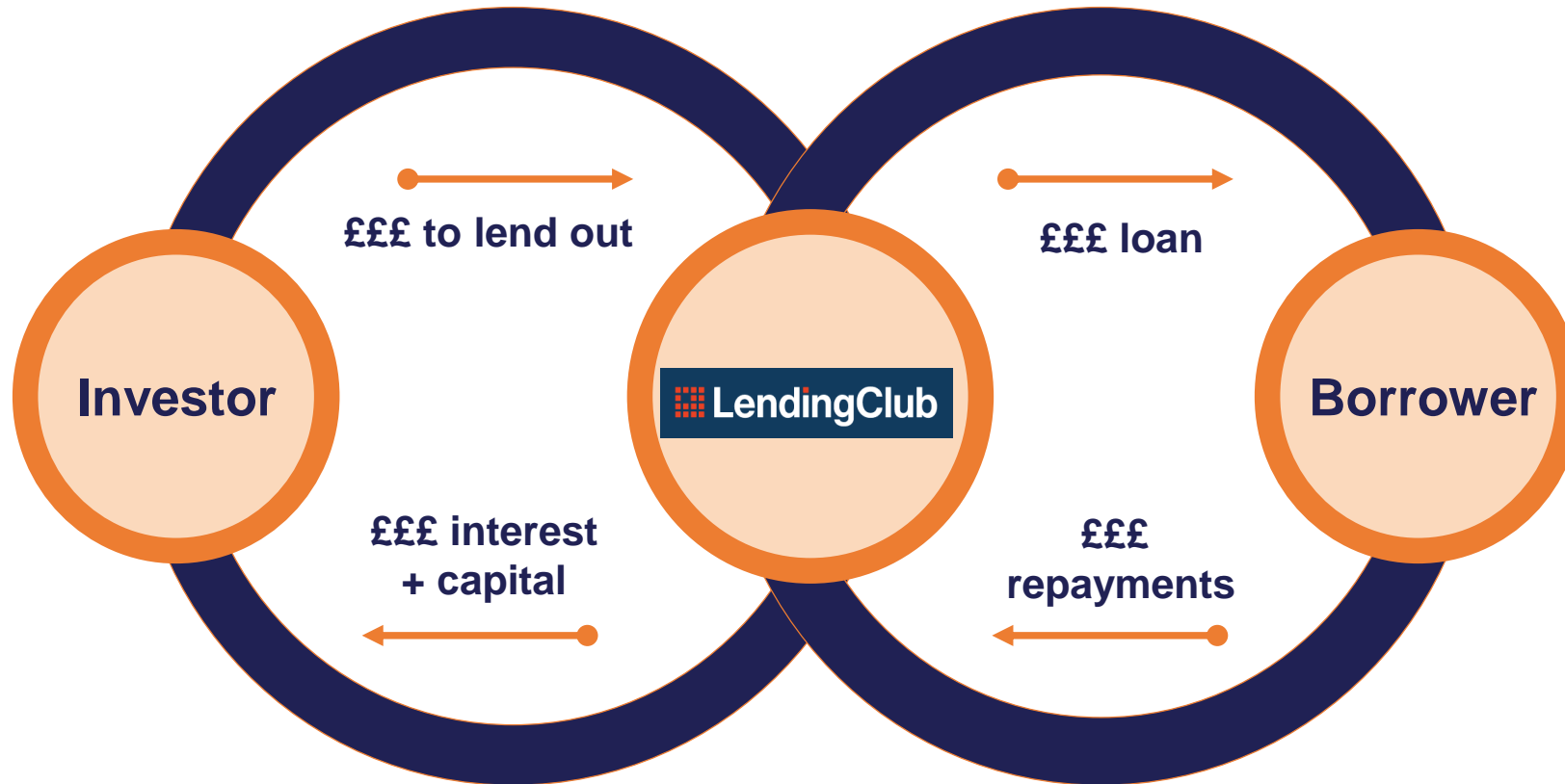- Total debt as percentage of total income in the last month (0.2, 0.001, 0, 0.75, …)

Numerical Variables
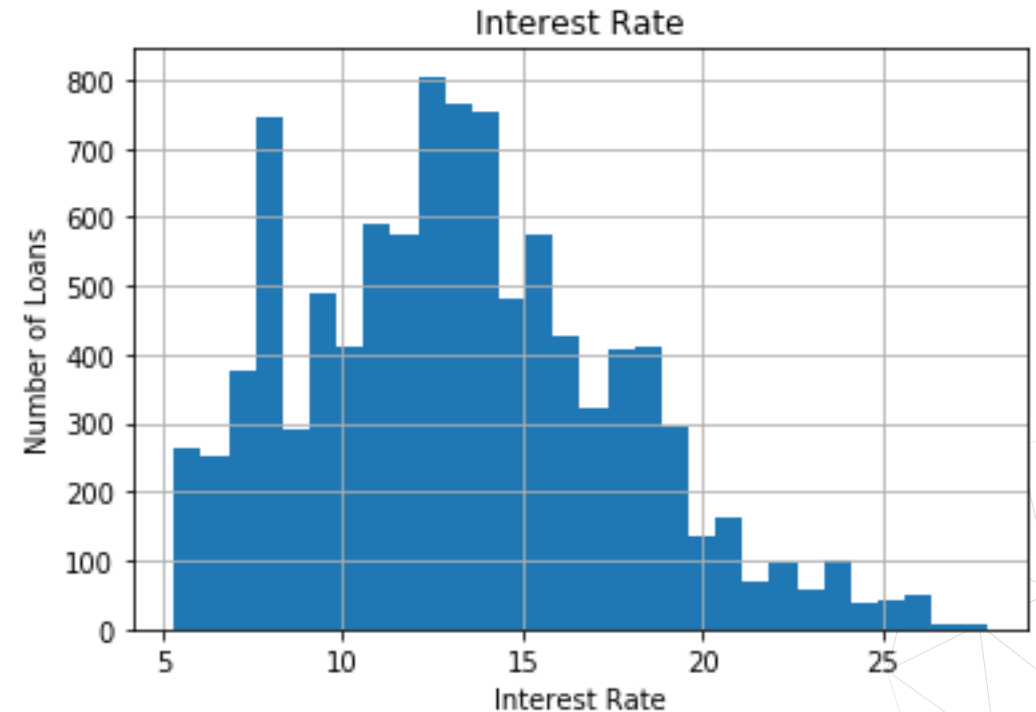
Notebook demo

Peer to Peer Finance

Numerical Variable Examples

- Interest rate - continuous

- Number of accounts opened in last 12 months - discrete
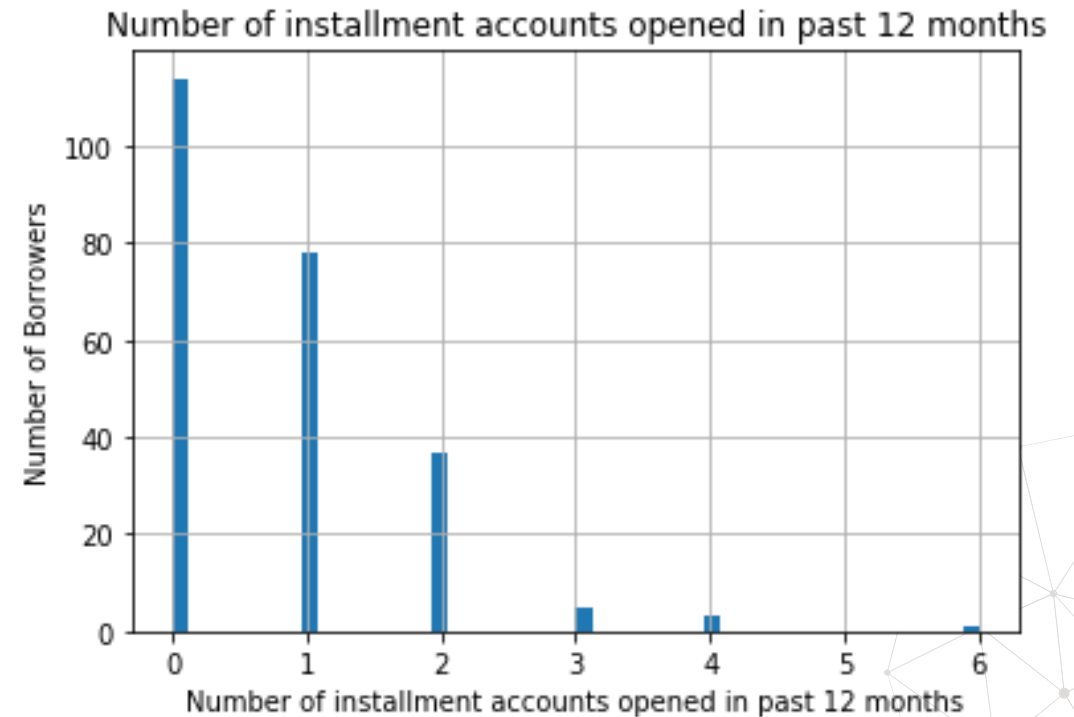
- Loan defaulted - binary

Interest Rate - Continuous

- Interest rate can take in principle any value within the range

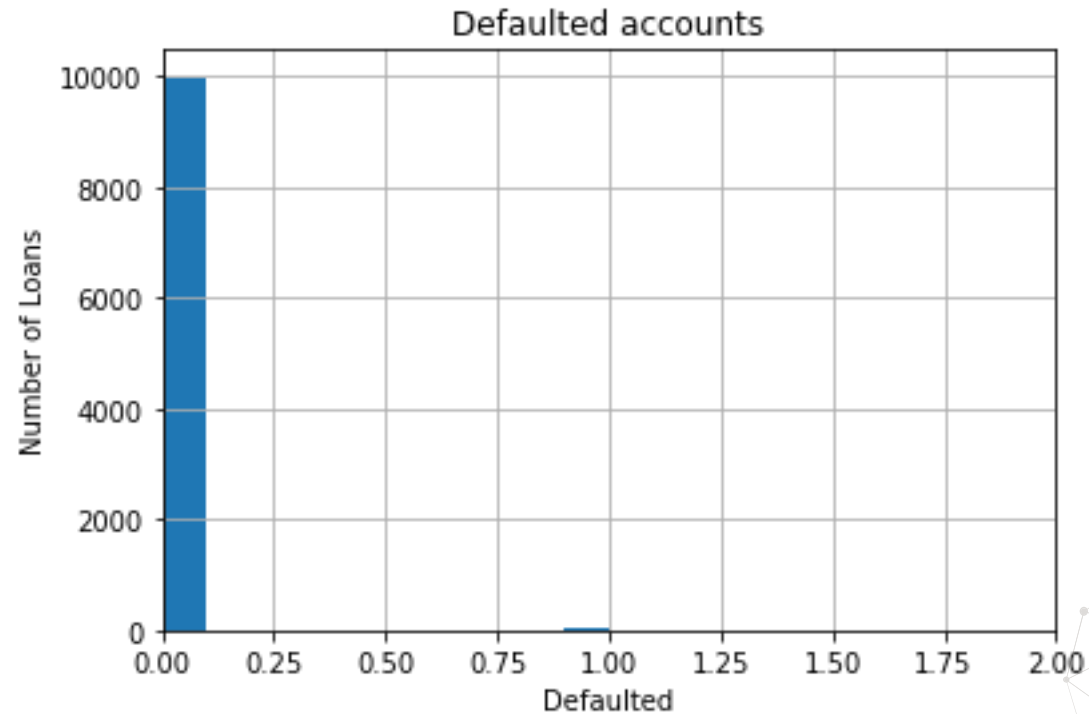- Example values: [15.8 , 11.67, 9.25, 6.24, 19.52.]

Interest Rate

Number Opened Accounts - Discrete

- Only discrete numbers
  - Customer can have 1 account but not 1.5 accounts

- Example values: [4, 1, 6, 2, 0, 5]

Number of installment accounts opened in past 12 months

Loan Defaulted- Binary

- Takes 1 of 2 possible values

- Example values: [1, 0] or [Defaulted, Non-Defaulted]

Defaulted accounts

Accompanying Jupyter Notebook

- Read the accompanying Jupyter Notebook

THANK YOU

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