

## ML Summary

Our client is Bipa, the portfolio manager (who lends to multiple people of different risk profiles).

Goals-

1. Maintain balance in risk and interest rates chosen.
2. Maximize return on each portfolio
3. Analyze options for partial loan investments in building a portfolio.
4. Compare Ret and DefRet to analyze complex investment portfolios.
5. Use DefRet to find returns based on portfolio size as a parameter.
6. The results given by the Lending Club suggests that returns decrease with increase in portfolio size. Goal is to find the right portfolio size to maximize profit.

We understand that Bipa needs to have a balanced risk in the investments she makes in the Lending Club, hence the reason to invest in various risk profile such that she can manage the risks along with having a long-term profit. Her investment strategies vary depending on the portfolio size of the investment.

Thus, Lending Club proves to be an advantageous platform for Bipa to invest. Lending Club has a feature in which Bipa can invest in fractions of loans, so her portfolio can be subdivided, and these sub portfolios can be invested in high risk and low risk profiles so that she can always have marginal profit and improve returns. With the varied sizes of portfolio, the number of good performing loans increase and in turn the returns as well. Hence maintaining the portfolio size is an important factor for Bipa to have good returns.

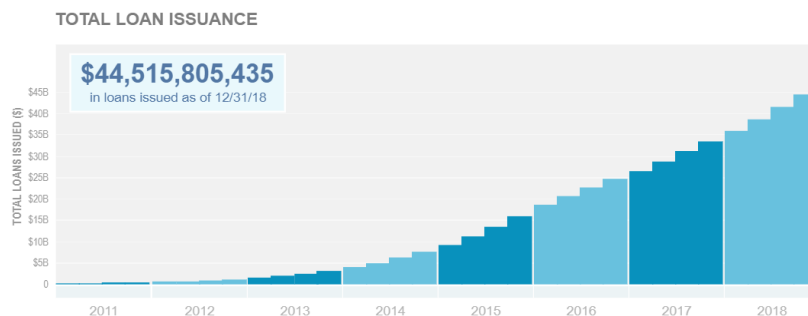
Based on analysis and statistics provided by the Lending Club, we can see that groups with the grades D, E, F have increasing interest rates over the years for both the 36- and 60-months term. So Bipa can invest small portfolios in these groups of profiles to have high returns.

Also, the profiles with grade value B and C have the maximum number of loans sanctioned. Though their interest rates are low, majority of the loans are fully repaid on time.

One of the other insights from the statistics is shown that Lending club investors with diverse accounts usually have better returns when compared to concentrated holdings.

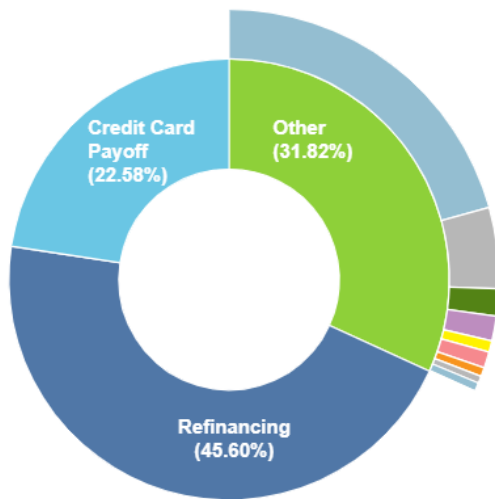
These are some of the insights that might help Bipa to decide on what type of investment she needs to make.

### Key Take-away from Lending Club Charts



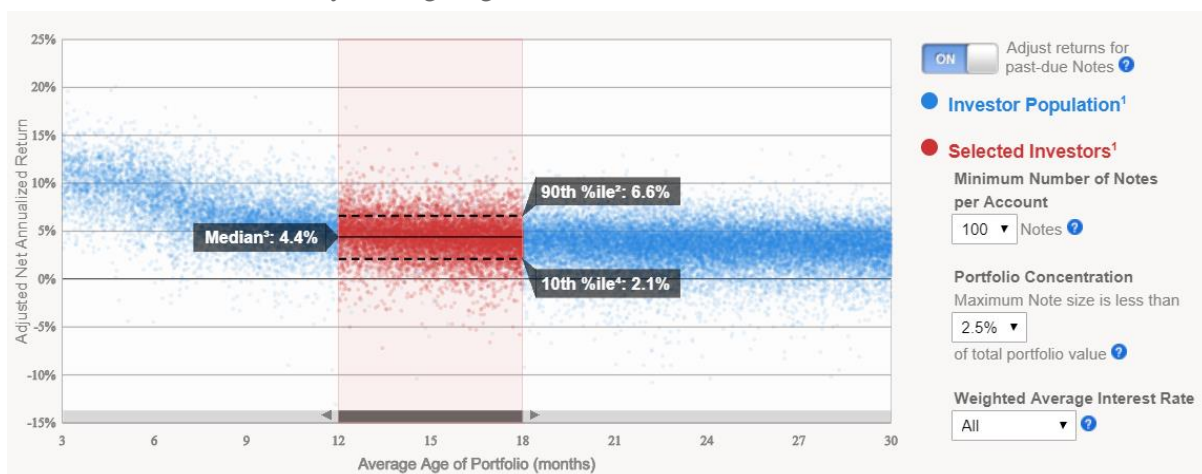
- Assures the client of the growing popularity of Lending Club

## Purpose



- Majority in refinance - assures client of lower interest rate loans to borrow and re-invest in other domains

## Investor Account Returns by Average Age of Portfolio



- Lending club investors with diverse accounts usually have better returns when compared to concentrated holdings.
- Diversification increases when additional notes are purchased with respect to different borrower loans.

Accounts with more than 100 notes of only grades A to E have likely to have positive returns. For example, If Bipa needs to invest \$2000 in Lending club , instead of investing the entire amount in one borrower , she can invest varied amounts in different borrowers like \$20 in 100 different accounts.