



Business Value Through Integrative Analytics

# SMART INVESTING WITH DATA:

## JASMINE'S SAFER RETURNS

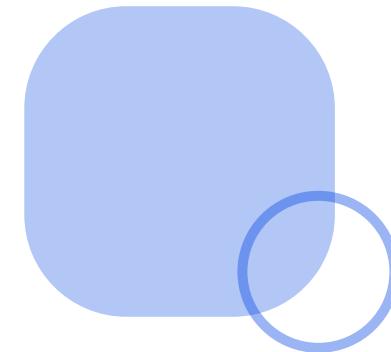
Avani Appalla  
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20th April 2025

 LendingClub



# The Investing Journey So Far....



## Update 1 - Last Week **Descriptive Analysis**

We analyzed Lending Club loans, explored risk factors, and saw how LC grades aren't always reliable.

## Update 2 - Last Week **Predictive Analysis**

We've built smart models to predict both loan risk and return, and crafted 7 real-world investment strategies to help you grow your money.

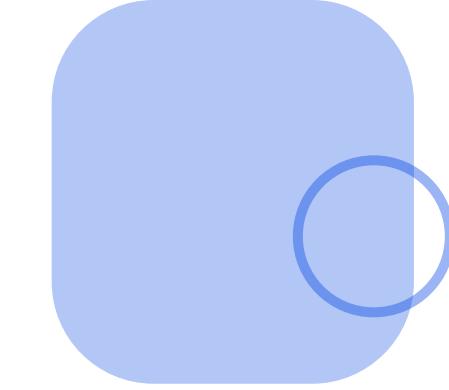
## Update 3 - Today **Prescriptive Analysis**

We're using smart optimization techniques to help pick the best loans to invest in, all while staying within different budget limits.

# HOW CAN JASMINE PICK THE RIGHT LOANS?

You told us:

- I want to grow my money but avoid risky surprises.
- It's hard to tell which loans are actually good.



**That's where we come in —**  
Our mission is to help you:



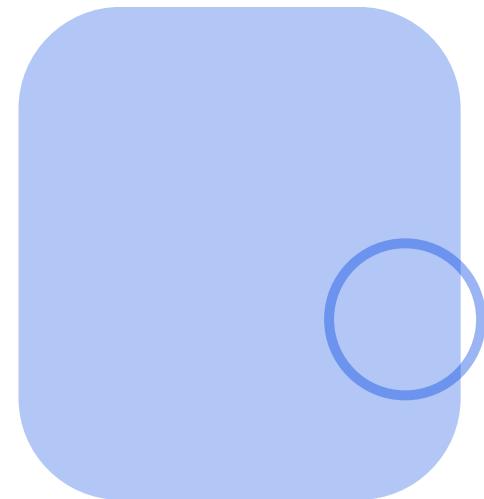
Earn strong,  
steady  
returns



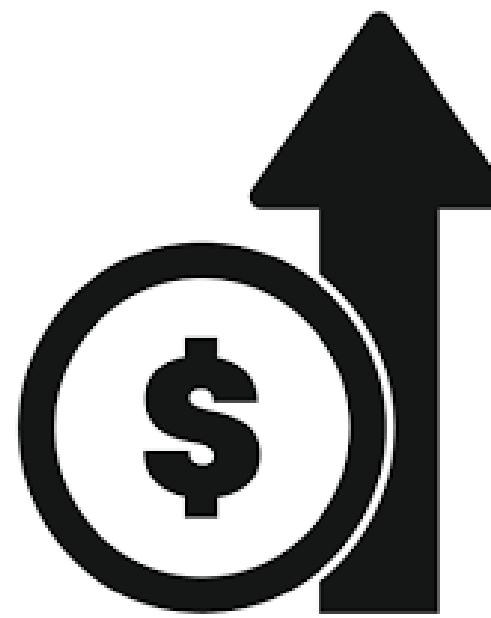
Keep your  
investments  
safe



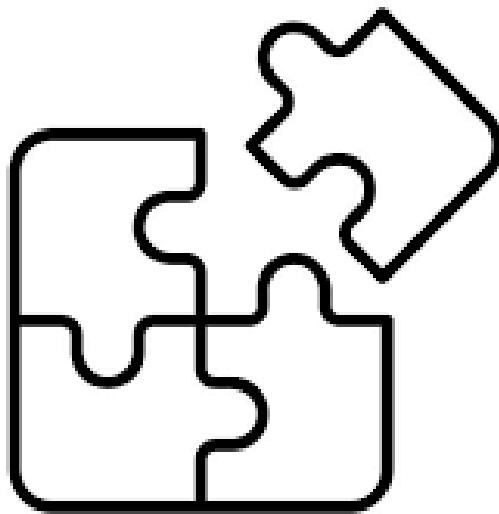
Stay within  
your budget



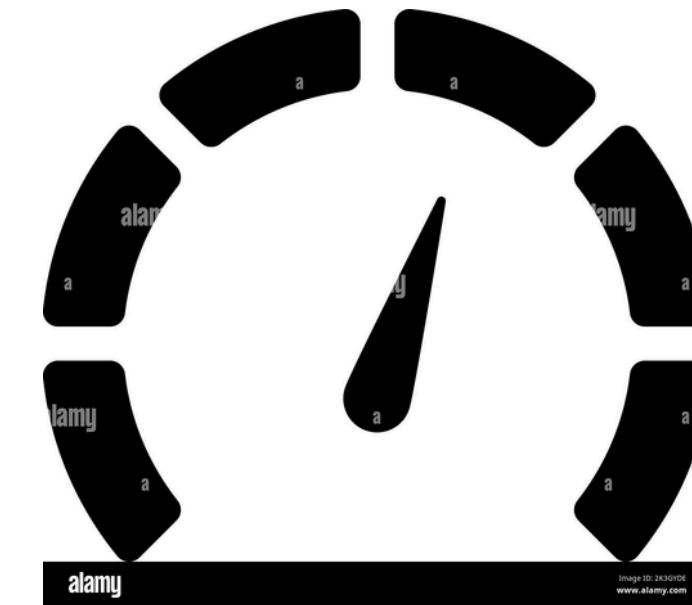
# HOW CAN JASMINE PICK THE RIGHT LOANS?



We predicted  
how much each  
loan might earn



We grouped  
similar loans  
together



We measured  
how steady  
the returns  
were

Think of it like sorting  
socks by type  
(A/B/C...) — or using a  
scale to balance  
reward and risk.

# NOW WE LET THE MATH BUILD YOUR LOAN BASKET

We used a smart planning tool (called “optimization”) that:

- Picks the best combination of loans
- Makes sure you stay within your investment budget
- Avoids putting too much into risky areas

Think of it like a custom shopping cart — you set your budget, and it fills up with great picks that balance earnings and safety.

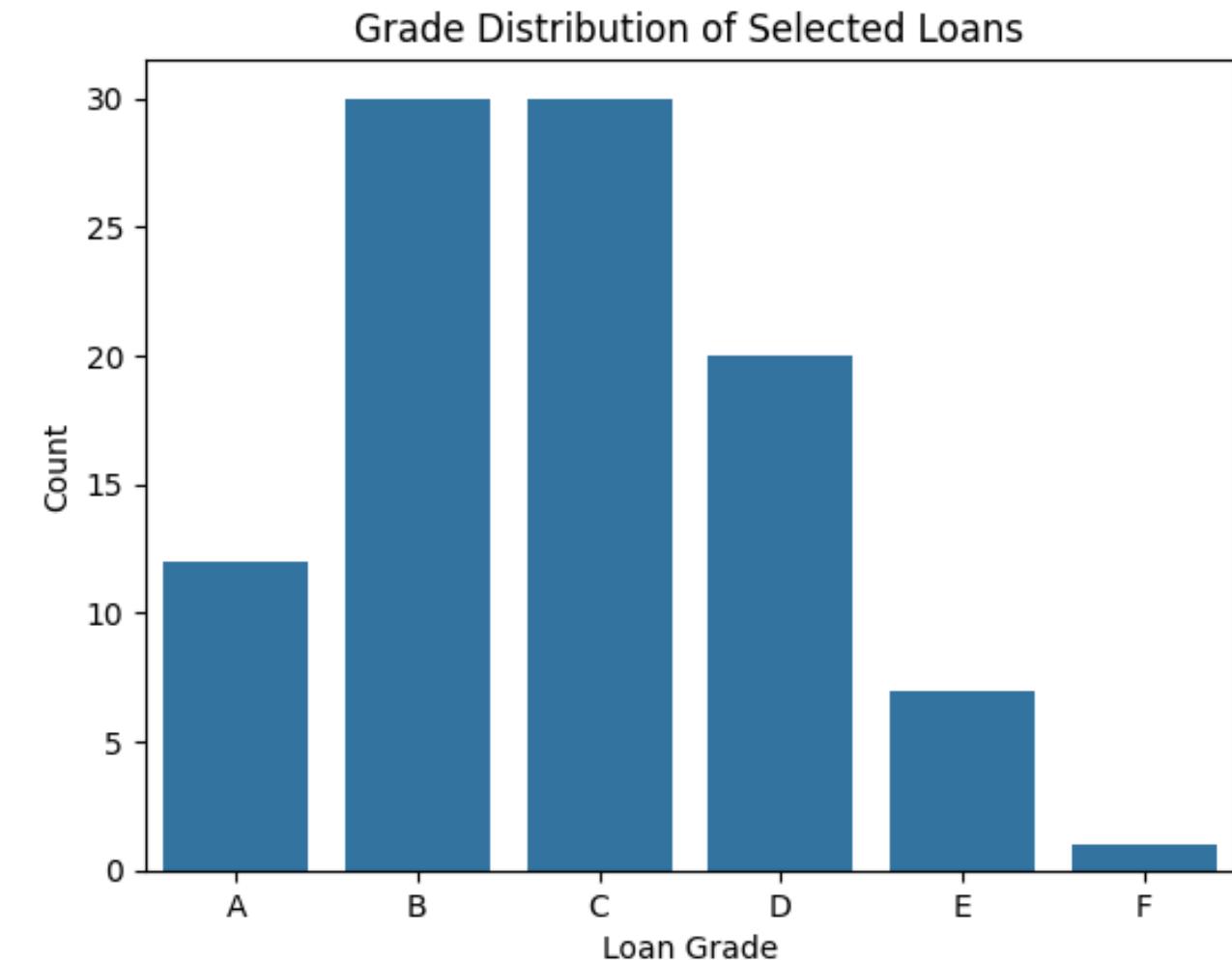
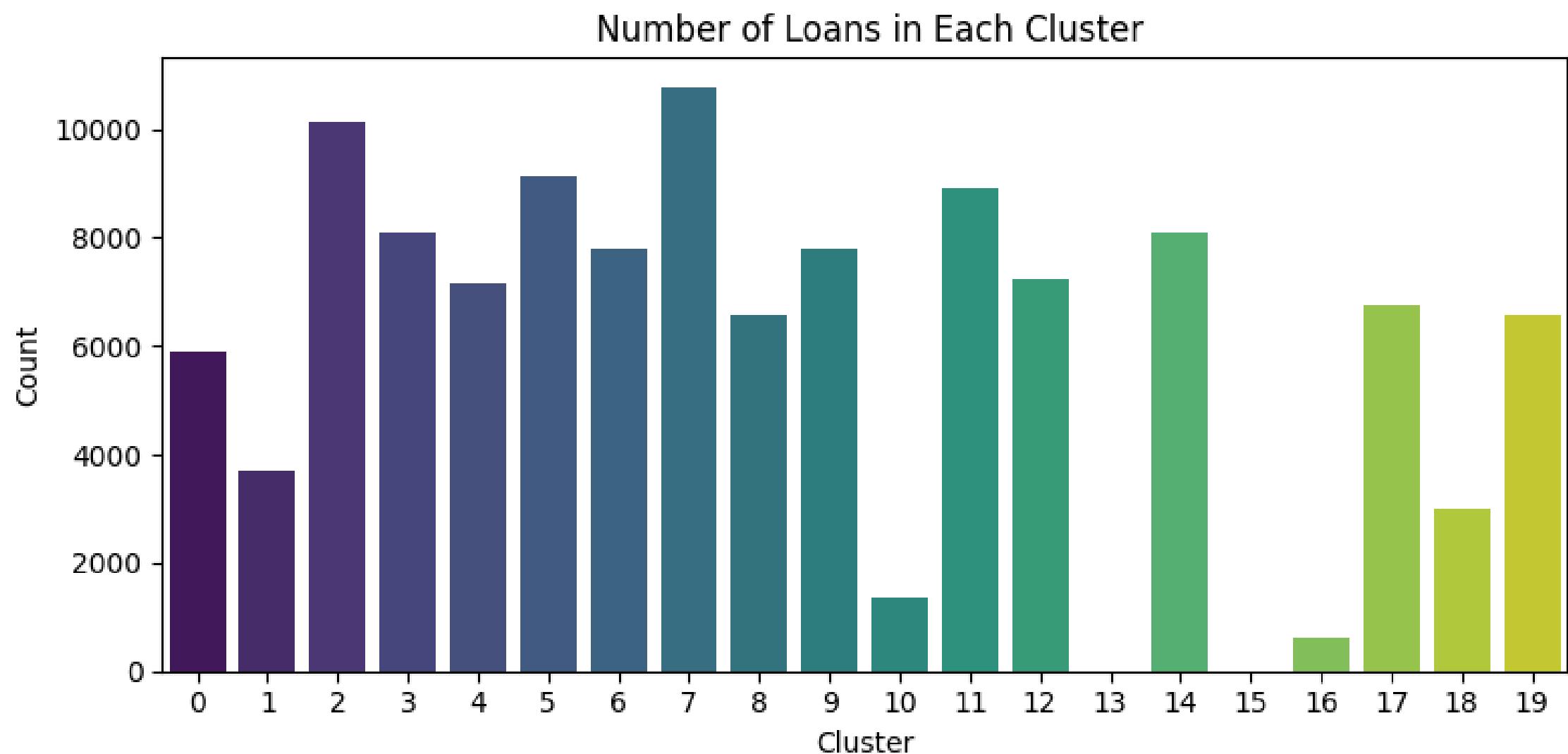
Our Strategy Outperformed the Rest

Strategy	Avg. Return
Random picks	8%
Low-risk loans	10%
Top-return loans	14%
Our Plan 🏆	18 - 21%

Less guesswork, more growth — that's what I needed!

# WHAT LOANS DID WE PICK FOR YOU?

## UNDERSTANDING WHAT KIND OF LOANS THE OPTIMIZER PICKED

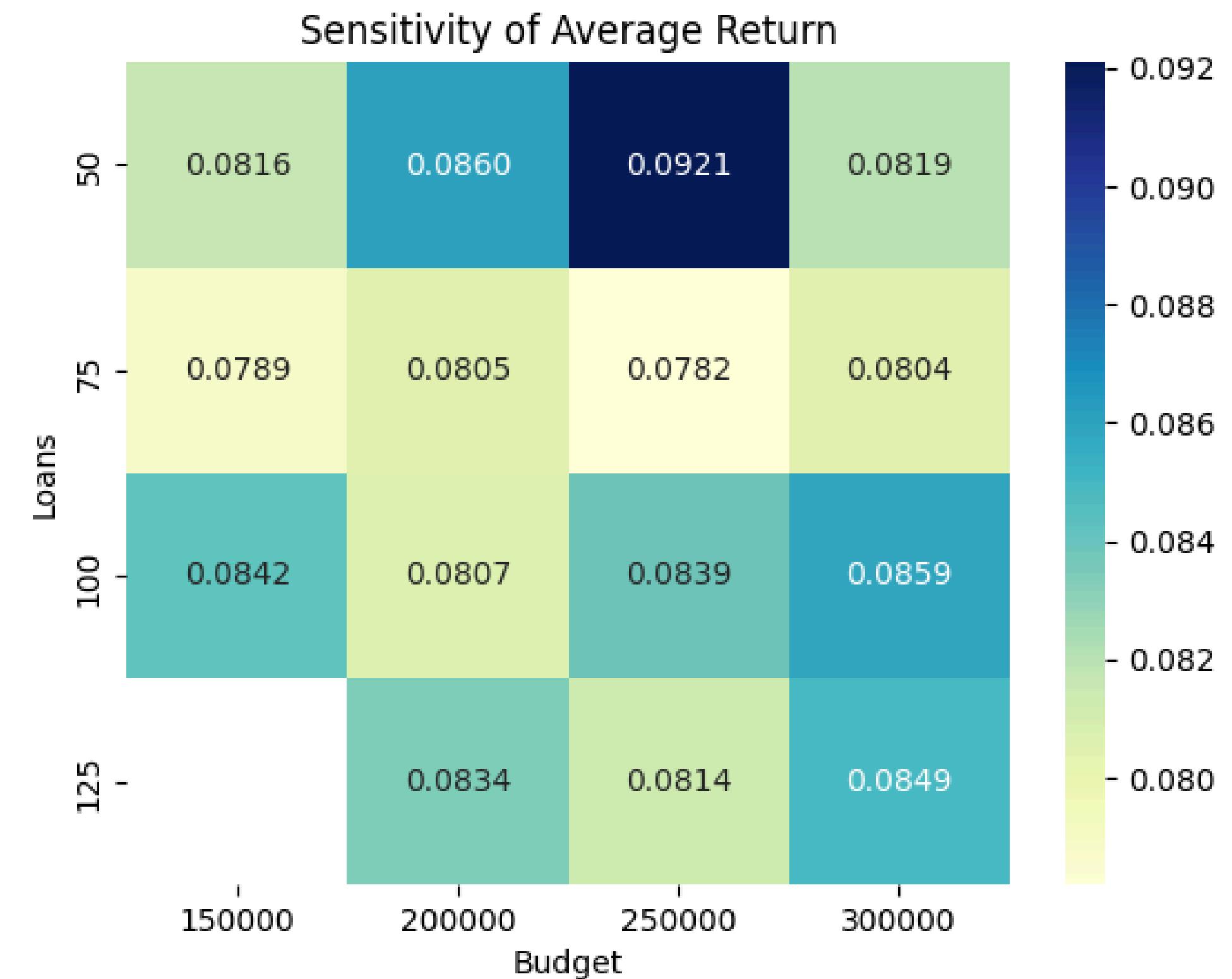


The model favored Grade B-C loans with short terms and strong income signals

# HOW FLEXIBLE IS THIS STRATEGY?



- Return improves as you invest in more loans up to a point.
- Risk is well-managed even when portfolio grows.
- Too few loans = high volatility, too many = returns taper off.



We show how portfolio return changes when you change your budget or number of loans.



## OUR FINAL RECOMMENDATION FOR YOU



### ✓Optimized Portfolio

Our optimization strategy gives the highest returns while managing risk — it's the best option if you can use tools like Gurobi or Excel Solver.

### ⚙️Hybrid Strategy

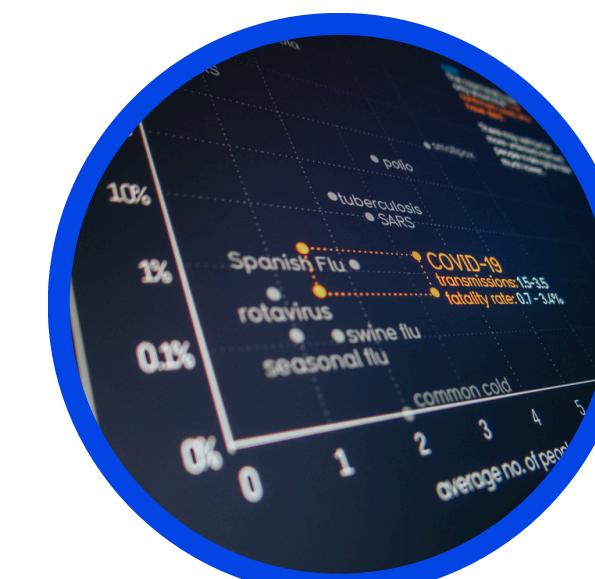
No solver? No problem. The hybrid model picks loans with high return and low default risk — making it a strong backup.

### 💡Backup Option

Relying on interest rate alone is risky. Our data shows it's not a reliable way to find the best-performing loans.

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# RISKS AND WHAT TO WATCH OUT FOR



## Markets Evolve

Borrower behavior can change over time. A strategy that worked well in 2014–2015 may not guarantee the same results today.

## Model Assumptions

Our predictions are based on historical data and simplified return formulas. Real-world loan performance may vary.

## Clustering Accuracy

Risk estimates depend on how well our clusters represent loan behavior. Poor clustering could lead to misleading risk scores.

# THANK YOU

