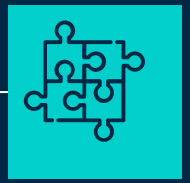
Bank Analytics Project

Domain : Finance

PROJECT OVERVIEW



01

Work Done

Created different dashboards on Bank loan of customers.

02

Tools Used

Excel, Power BI, Tableau and SQL

03

TARGET

Analysing insights using KPI's

PROJECT SUMMARY

Objective :

- The objective of the project is to comprehensively analyze bank loan data by tracking Key performance indicators (KPI's) such as Year wise loan amount, Grade & subgrade wise revolving balance, Total payment for Verified vs Not verified status, State wise and last credit pull date wise loan stats and Home ownership vs last payment date status.

Scope :

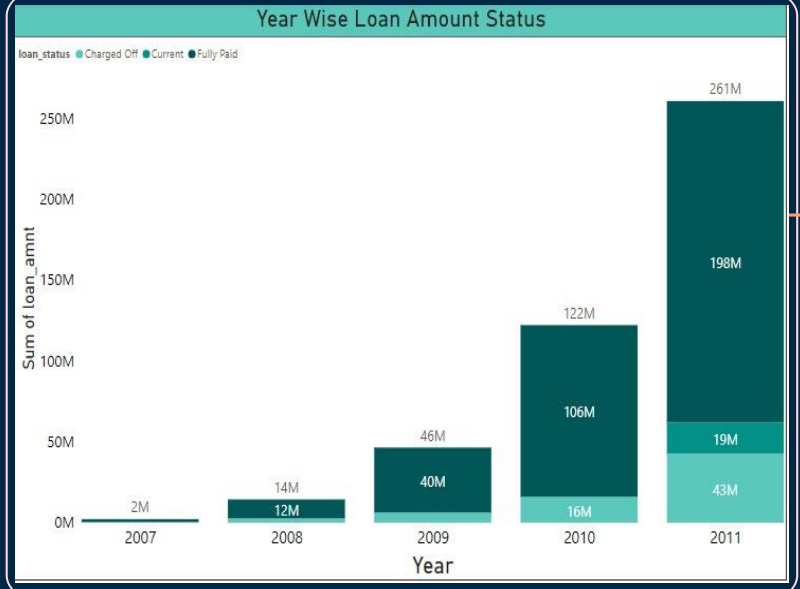
- Data Collection and Analysis
- Predictive Modeling
- Designing Bank Strategies

KPI 1 - Year wise loan amount stats

- Highest percentage increased in loan amount is 600% as a result of less outstanding between the year 2007 & 2008.
- Lowest percentage increased in loan amount is 114% as a result of huge outstanding between the year 2010 & 2011.

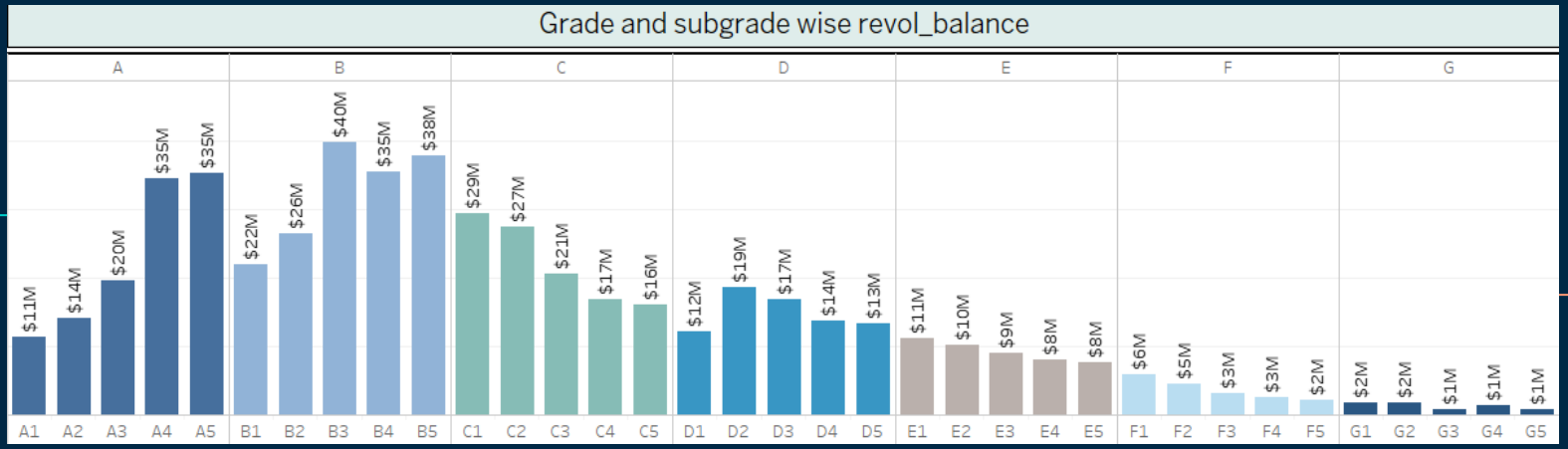
Conclusion :

- Bank can expect 5.74% of increase in loan amount in the year 2012 and 18% for the year 2014.
- To resolve any payment errors bank can take a step of chasing up on missing or overdue payments from clients and seizing assets.



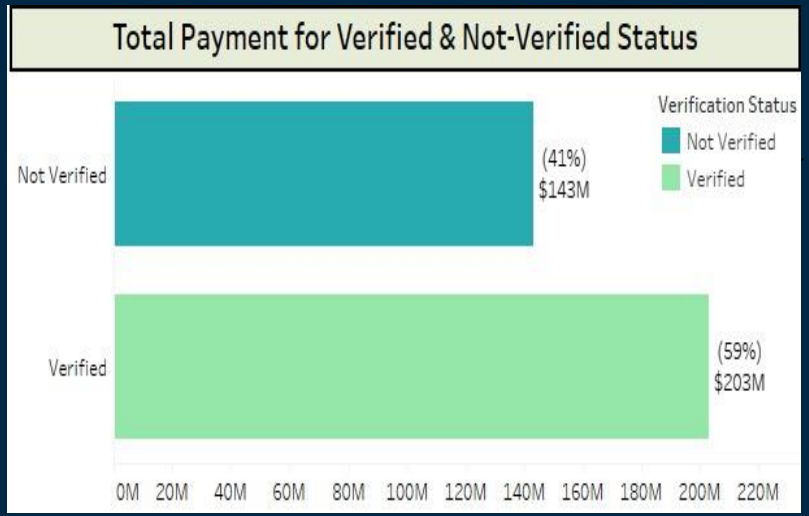
KPI 2 – Grade & subgrade wise revolving balance

- Grade B has the highest sum of revolving balance at 161M.
- Grade G has the lowest sum of revolving balance at 7M.
- The data may reflect creditworthiness, with higher balances in the earlier categories suggesting larger available credit.
- There is significant variation in the sum of "revolving balance" within each category, indicating differing levels of revolving credit usage.



KPI 3 - Total payment for Verified vs Not verified status

- Verified loans have undergone stricter documentation and verification processes and are associated with higher total payments.
- Not verified loans have higher risk of assurance of repayment of loans and have higher interest rate.

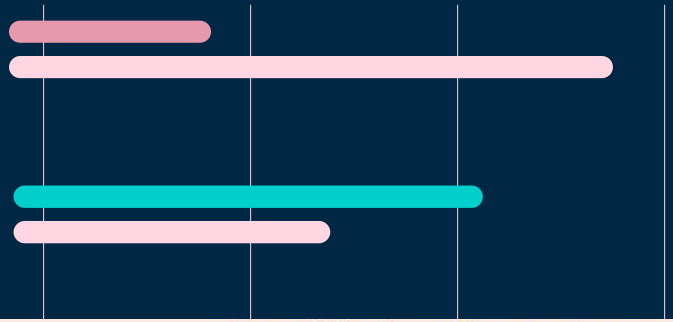


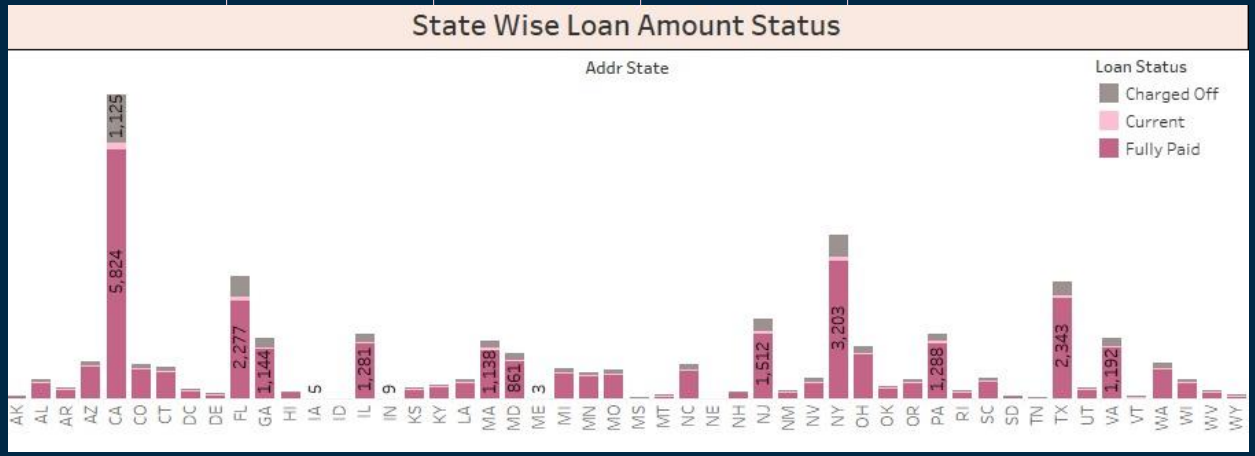
Conclusion :

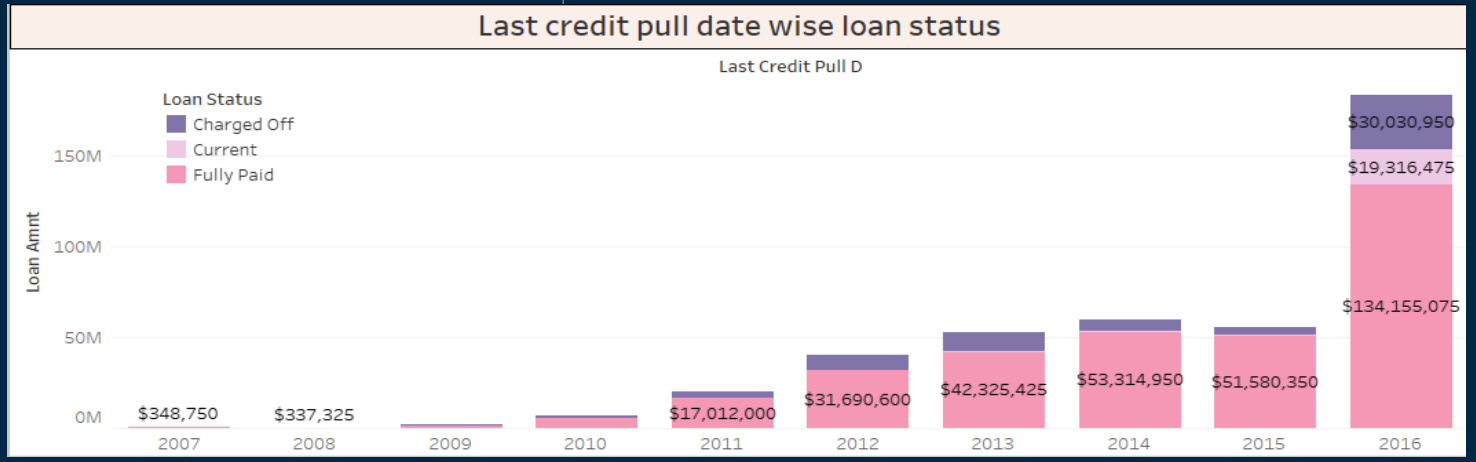
Bank should involve refining verification procedures, targeting specific customer segments and checking customers financial stability for lesser risk and more assurance of loan repayment.

KPI 4 – State wise & last credit pull date wise loan status

- There are notable differences in loan status distributions across states. States with stronger economies, such as California (CA), New York (NY), and Texas (TX), tend to have higher counts across all loan statuses.

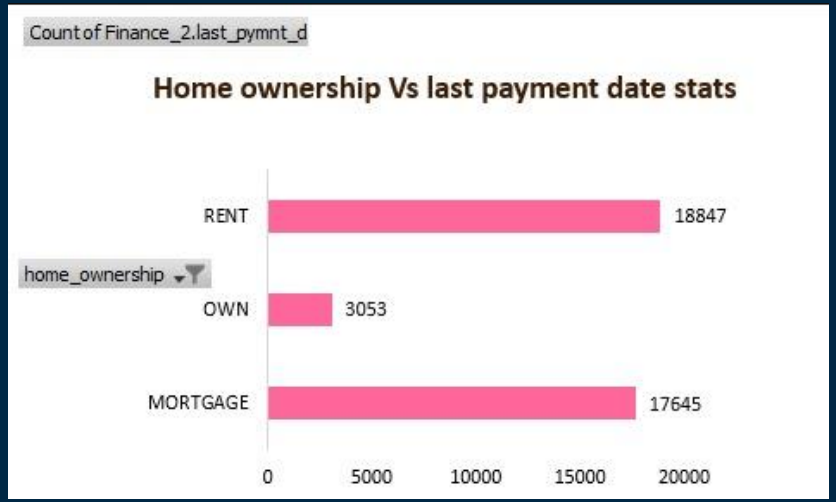






- There is a substantial increase in the total loan amount over the years, with significant growth observed particularly from 2012 onwards.
- The "Charged Off" category indicate loans that have been declared as losses. The total amount of charged-off loans increases over the years, peaking in 2016.
- The "Current loan" category refers to the loans that are currently active and being repaid by the borrowers. The amounts in this category are relatively stable across the years, with a slight increase observed in later years.
- The "Fully paid“ category represents loans that have been fully repaid by the borrowers. The amounts under this category show a consistent upward trend over the years, indicating an increase in successful loan repayments.

KPI 5 – Home ownership vs last payment date stats



➢Rent category represents the first largest group, it indicates that a significant portion of individuals are renting their homes rather than owning.

➢ Mortgage category represents the second largest group, it indicates substantial no. of individuals are homeowners with active mortgage loans.

➢Own category is the smallest among the three categories which indicates that least no. of individuals have more flexibility to manage their finances.

Conclusion :

➢ Renters prioritize on time payments to maintain their rental agreements and avoid potential consequences.

➢ Homeowners exhibit the highest level of financial stability and commitment to on time payments.

➢ Mortgage holders committed to their housing payments and may face higher financial pressure.

Conclusion

- Bank need to understand the demographics of customers taking loans, such as age, income level, occupation, and credit score. This information can help the bank design targeted loan products and marketing strategies.

- By analyzing the most common purposes for which customers are taking loans like home purchase, car loan, education, personal use etc. This helps to understand customer needs, accordingly bank can offer the loan products.

- By examine the range of interest rates and loan terms offered to customers, bank can provide insights into the competitiveness of the loan offerings and how they compare with other financial institutions.

Tableau Dashboard

Bank Loan Dashboard

Year of Issue D: (All)

Loan Status: (All)

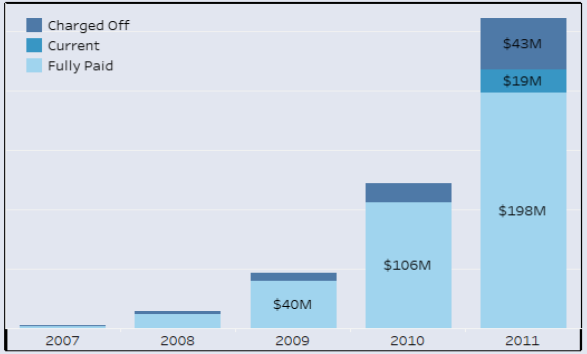
Grade: (All)

Total Loan Amount
$446M

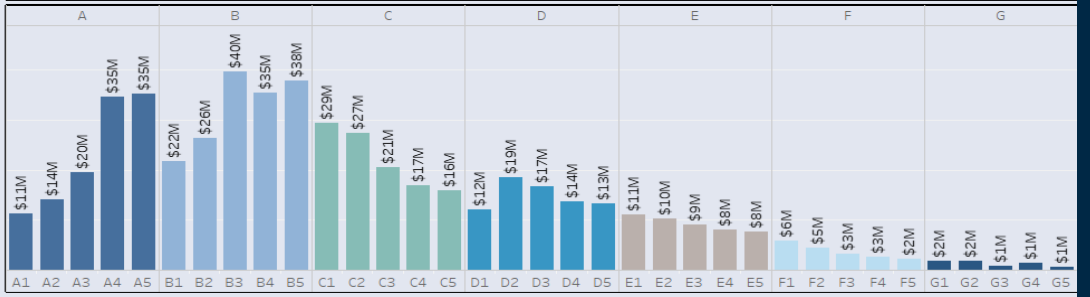
Total Fund
$434.81M

Total Investment
$459.41M

Year wise loan amount

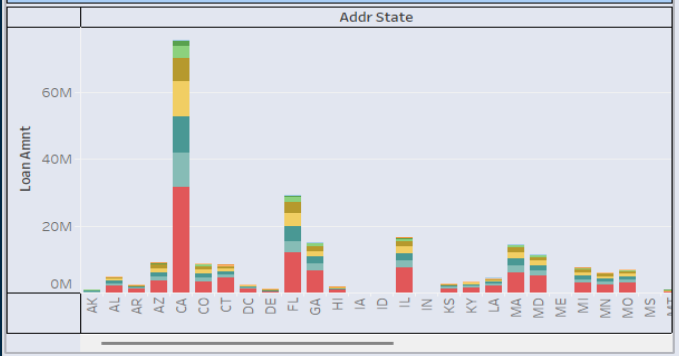


Grade and subgrade wise revol_balance

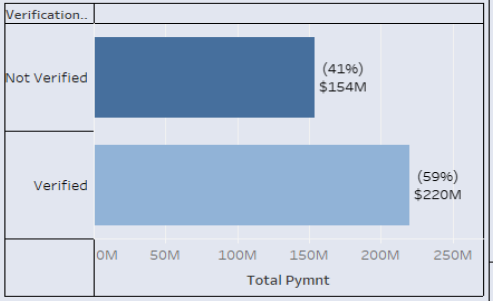


Home Ownership: (Multiple values)

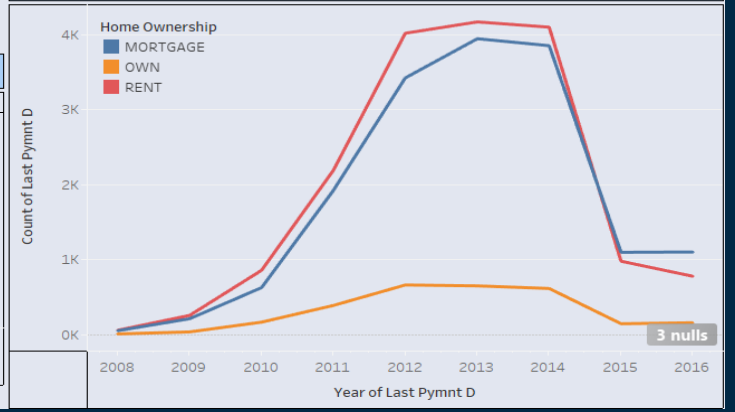
State wise and last credit pull wise loan status



Verified vs Not verified status payment



Year wise Home ownership vs last pymnt date stats



Power BI Dashboard (Page-1)

BANK LOAN DASHBOARD

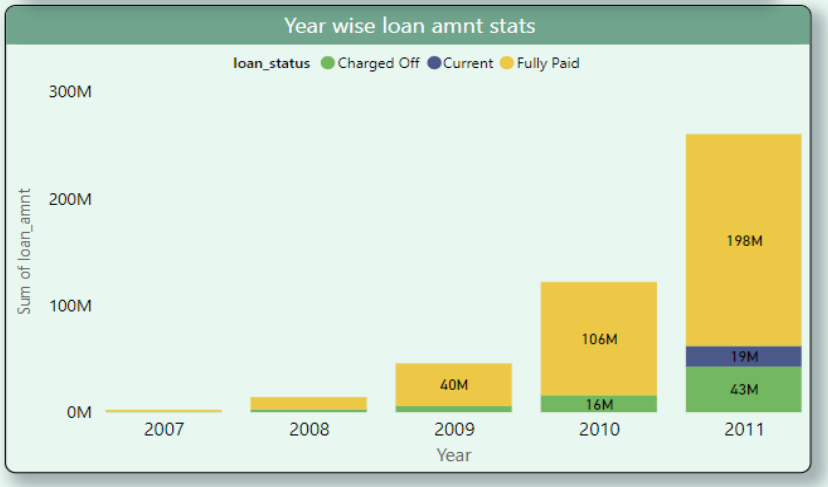
Total Loan Amount	Total Fund	Total Investment
445M	434M	459M

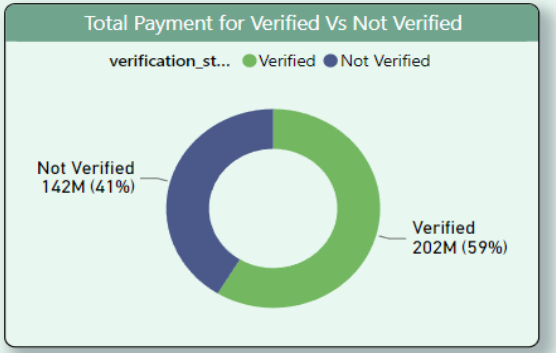
loan_status: Charged Off | Current | Fully Paid

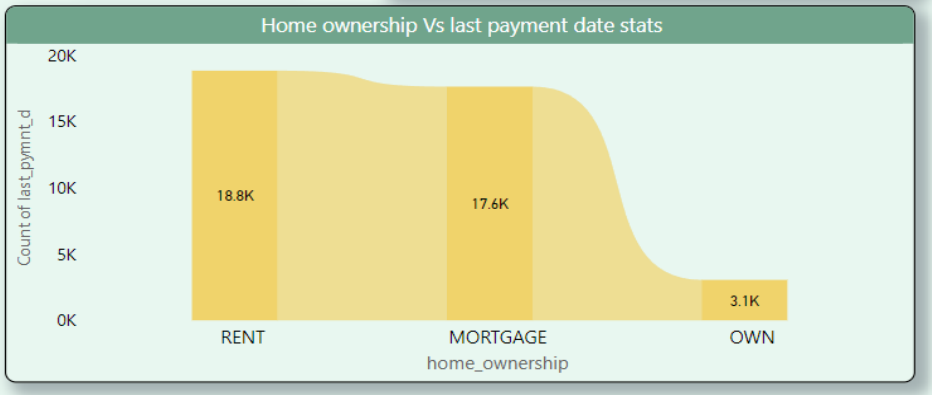
verification_status: Not Verified, Source Verified, Verified

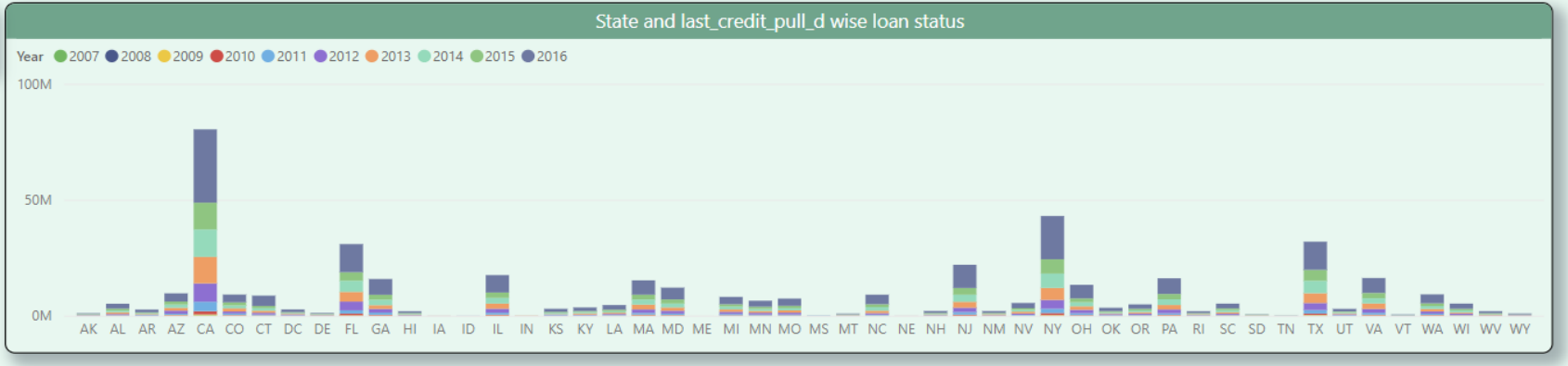
home_ownership: Multiple selectio...

Year: 2007 — 2011





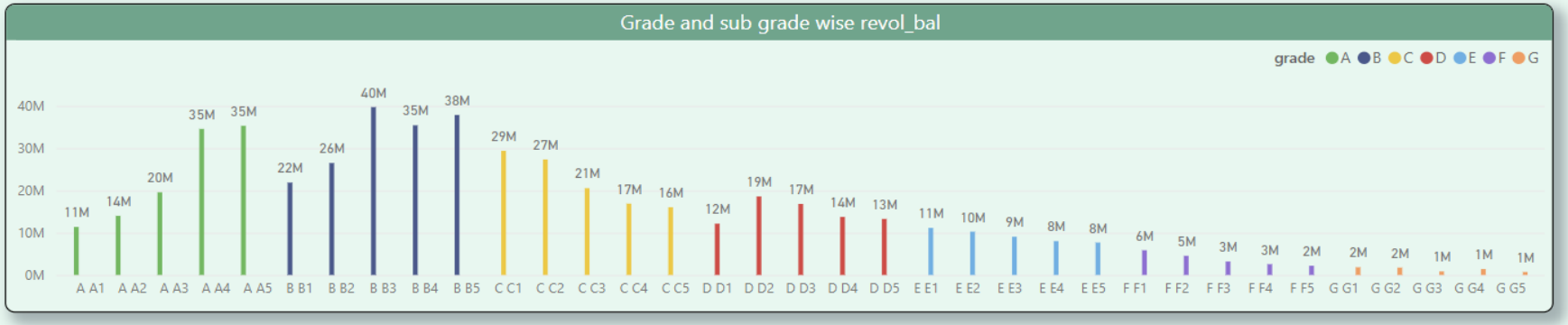




Year
Multiple selections

grade
All

addr_state
All



THANKYOU