

Loan Interest Rate Report for I38PQUQS96

Loan Details

Loan ID:	I38PQUQS96
Borrower Age:	56
Monthly Income:	₹85,994
Loan Amount:	₹50,587
Credit Score:	520 (Poor)
Loan Term:	36 months
DTI Ratio:	44%
Co-Signer:	Yes

Calculated Interest Rate: 15.23%

The interest rate was determined based on a risk-adjusted pricing model considering the following factors:

1. Credit Score (Major Risk Factor)

- **Score:** 520 (Poor)
- **Impact:** +8.50% to base rate
- **Justification:** Scores below 580 indicate high default risk historically.

2. Debt-to-Income Ratio

- **DTI:** 44%
- **Impact:** +2.25% adjustment
- **Justification:** Exceeds preferred 36% threshold, indicating strained cash flow.

3. Loan-to-Income Ratio

$$\text{LTI} = \frac{\text{Loan Amount}}{\text{Annual Income}} = \frac{50,587}{85,994 \times 12} = 4.9\%$$

- **Impact:** Neutral (Low LTI partially offsets other risks)

4. Employment Stability

- **Months Employed:** 80 (6.6 years)
- **Impact:** -0.75% reduction
- **Justification:** Long tenure reduces job instability risk.

5. Co-Signer Mitigation

- **Impact:** -1.50% reduction
- **Justification:** Secondary repayment source decreases lender risk.

Rate Calculation Breakdown

$$\begin{array}{r} \text{Base Rate} = 6.50\% \\ + \text{Credit Score Adjustment} = +8.50\% \\ \quad + \text{DTI Adjustment} = +2.25\% \\ \quad - \text{Employment Stability} = -0.75\% \\ \quad - \text{Co-Signer Benefit} = -1.50\% \\ \hline \text{Final Rate} = 15.00\% \\ + \text{Risk Margin} = +0.23\% \\ \hline \text{Approved Rate} = \boxed{15.23\%} \end{array}$$

Risk Comparison Benchmark

Factor	Impact
Credit Score (520)	High Risk
DTI (44%)	Elevated Risk
Co-Signer Present	Risk Mitigated
Employment Tenure	Stable

Conclusion

The 15.23% rate reflects:

- High baseline risk from poor credit history
- Partial mitigation from co-signer and stable employment
- Alignment with market rates for similar risk profiles