

## Modeling Workflow Overview

1. Capture the current loan baseline: balance, rate, payment, and PMI schedule.
2. Configure each refinance offer's rate, term, points, and fees \ (with financing as chosen).
3. Generate amortization schedules, PMI streams, and monthly payment savings for the offers.
4. Apply the savings rule:
  - Keep savings as cash ? no extra principal or investing.
  - Apply savings to principal ? redirect the payment gap back into the mortgage.
  - Invest savings monthly ? invest upfront cash slack plus monthly savings in the selected investment.
5. Grow home value along the CPI path and apply the chosen PMI cancellation trigger.
6. For investing, run nominal return paths adjusted for CPI across rolling windows to capture the best investment.
7. Combine equity, side-account value, and cash effects \ (in both nominal and real dollars).