BASIC PRINCIPLES OF FINANCIAL VALUATION DISCOUNTING

Examples and Applications: Mortgages

James P. Weston

Professor of Finance

The Jones School, Rice University

MORTGAGES

Simple debt instrument

Borrow money today to purchase real estate

Each payment includes principal and interest

Amortization schedule

MORTGAGE EXAMPLE

Problem: Assume a bank charges 7% interest per year. You borrow $10,000 to be repaid in equal yearly installments of $3,810.52 over 3 years. Let's amortize the loan schedule and compute interest and principle repayments.

MORTGAGE EXAMPLE

Year	Payment	Interest	Principal Payment	Balance
0	--	--	--	$10,000
1	$3,810.52	$700.00	$3,110.52	$6,889.48
2	$3,810.52	$482.26	$3,328.26	$3,561.22
3	$3,810.52	$249.29	$3,561.22	0