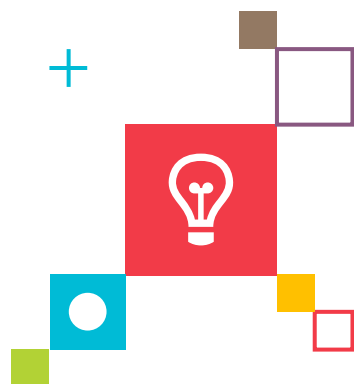




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第五讲：财务计算与退出策略

学习目标



- 理解财务计算器的基础
- 熟练掌握利用财务计算器来计划退出策略以及提高回报率

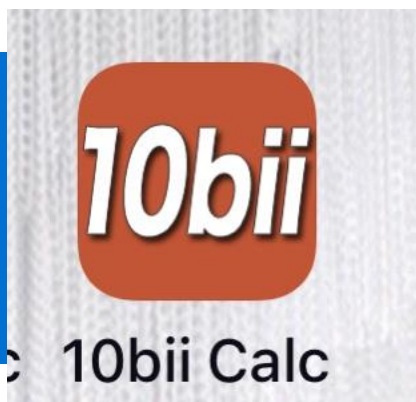


Objectives



- Understand the Basics of Financial Calculator
- Familiar with Using Financial Calculator to Structure your Exit Strategies and Improve the Return

财务计算器



基本元素



知道其中任意4个值，可以求出第5个值
+ 代表进账，- 代表出账

I: 利率/复利 (单位与时间相同，同为年或者同为月份，使用此计算器时默认为“年”) Interest

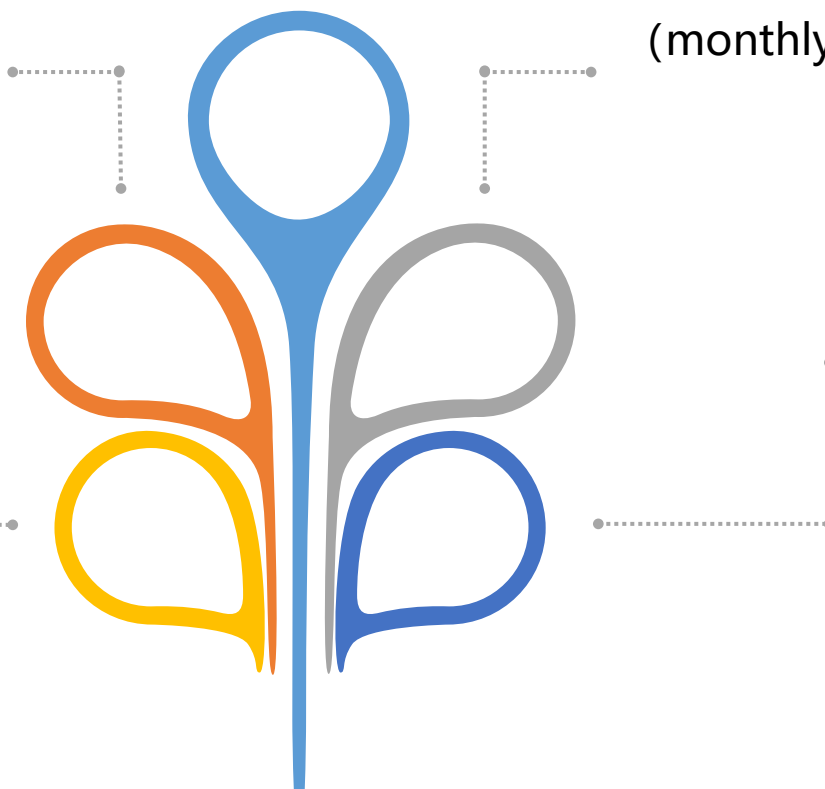
PV: 现值
(present value)

PMT: 月付额
(monthly payment)



N: 时间
(number of months/years
使用此计算器时默认为“月”)

FV: 终值
(future value)



基本元素



Know any of the 4, to calculate the 5th.

PV: Present Value

PMT:
Monthly Payment

FV: Future Value

I: Interest (monthly/annually)

N: Number of Months/Years





示例1 - 练习使用财务计算器

- 30年，6%年利率的贷款，贷款金额 \$100,000的分期偿还贷款（amortized）。

$$N = 360$$

$$I = 6$$

$$PV = 100,000$$

$$FV = 0$$

$$\text{PMT是多少? } \text{PMT} = -599.55$$





Case Study 1 – Using Financial Calculator

- 30-year \$100,000 mortgage, interest is 6% annually, amortized.

$$N = 360$$

$$I = 6$$

$$PV = 100,000$$

$$FV = 0$$

What is the PMT? $PMT = -599.55$





示例2 - 练习使用财务计算器

- 10年，6%年利率，贷款金额\$100,000的纯利息贷款（Interest Only）。
- $N = 120$
- $I = 6$
- $PV = 100,000$
- $FV = -100,000$

PMT是什么？ $PMT = -500$





Case Study 2 – Using Financial Calculator

- \$100,000 is borrowed for 10 years with a nominal interest rate of 6% annually, interest only payment.

- $N = 120$
- $I = 6$
- $PV = 100,000$
- $FV = -100,000$

What is the PMT? $PMT = -500$



退出策略



重贷(Refinance)以便还清第二顺位贷款 (如有必要可做信用修复)

01

与屋主协商出售房屋以便收回全部贷款

02

修改贷款条款(Loan Modification)使屋主能重新按时支付还款，之后持有期票

03



什么都不做，等待屋主重贷或出售房屋

06

法拍 (Foreclosure丧失抵押品赎回权) 或者代替没收契据(Deed in Lieu of Foreclosure)，之后出租或转卖房屋

05

修改贷款条款使屋主能重新按时支付还款，之后转卖期票

04

Exit Strategy



Refinance to pay off the second (credit repair if necessary)

01

Work with the owner to sell the property and get paid in full

02

Loan Modification to get them reperforming, then keep the note

03



06

Do nothing and wait until the owner refinances or sells the property

05

Foreclosure or Deed in Lieu (then flip or keep it as rental)

04

Loan Modification to get them reperforming, then flip the note



情景 1-1

- 贷款额\$100,000的不良贷款，30年6%年利率的分期偿还贷款 (amortized)
- \$10,000购入
 - (借款人) 计算 $PMT (N = 360, I = 6, PV = 100,000, FV = 0) = -599.55$
- 投资人花费\$10,000购入
 - (投资人) 计算 $I (N=360, PV=-10,000, PMT=599.55, FV=0) = 71.95\%$



Scenario 1-1



- The NPL is \$100,000 (original balance) with 6% annual interest rate, amortized over 30 years. It was purchased for \$10,000.
 - (Debtor) Calculate the PMT ($N = 360$, $I = 6$, $PV = 100,000$, $FV = 0.00$) = -599.55
- Investor purchased the note for \$10,000
 - (Investor) Calculate the yield ($N=360$, $PV=-10,000$, $PMT=599.55$, $FV=0.00$) = 71.95%



情景 1-2



- 贷款额\$30,000的不良贷款，10年6%年利率的纯利息贷款(Interest Only).
 - (借款人) 计算 $PMT (N = 120, I = 6, PV = 30,000, FV = -30,000) = -150$
- 投资人花费\$9,000购入
 - (投资人) 计算 $I (N=120, PV=-9,000, PMT=150, FV=30,000) = 25.27\%$





Scenario 1-2

- The NPL is \$30,000 (original balance) for 10 years with 6% annual interest rate, interest only payment.
 - (Debtor) Calculate the PMT ($N = 120, I = 6, PV = 30,000, FV = -30,000$) = -150
- Investor purchased it for \$9,000
 - (Investor) Calculate I ($N=120, PV=-9,000, PMT=150, FV=30,000$) = 25.27%





情景2 - 转卖Re-Performing的期票

01

这个期票是Bob在1/1/2010贷款\$100,000时写下的，6%年利率，30年分期付款，20年后到期（1/1/2030）。

02

在1/1/2020, 期票投资人Frank花费\$20,000买下这个期票。他设法成功让屋主Bob重新按时支付每月还款后，于5/1/2020将这个期票卖给了想要拿到每年10%复利的投资人Henry。

03

投资人Frank最终得到的 “I” （复利）是多少？



Scenario 2 – Flip the Re-Performing

01

The original note was made to Bob on 1/1/2010 at \$100,000, 6% interest, 30-year amortization, due in 20 years.

02

On 1/1/2020, note investor Frank, bought the note for \$20,000. He made the note re-performing, and sold the note on 5/1/2020 to Henry who would like to get a yield of 10%.

03

What was the “I” that Frank got?



情景2 - 转卖Re-Performing的期票 (计算)

(Bob) 计算PMT。 (-\$599.55)

01

(Bob) 计算借款到期时的借款余额
(loan balance) (-\$54,003.59)

02

(Henry) 计算Henry需要付多少钱
从Frank手中购买这个期票来得到
10%的复利 (-\$65,094.24)

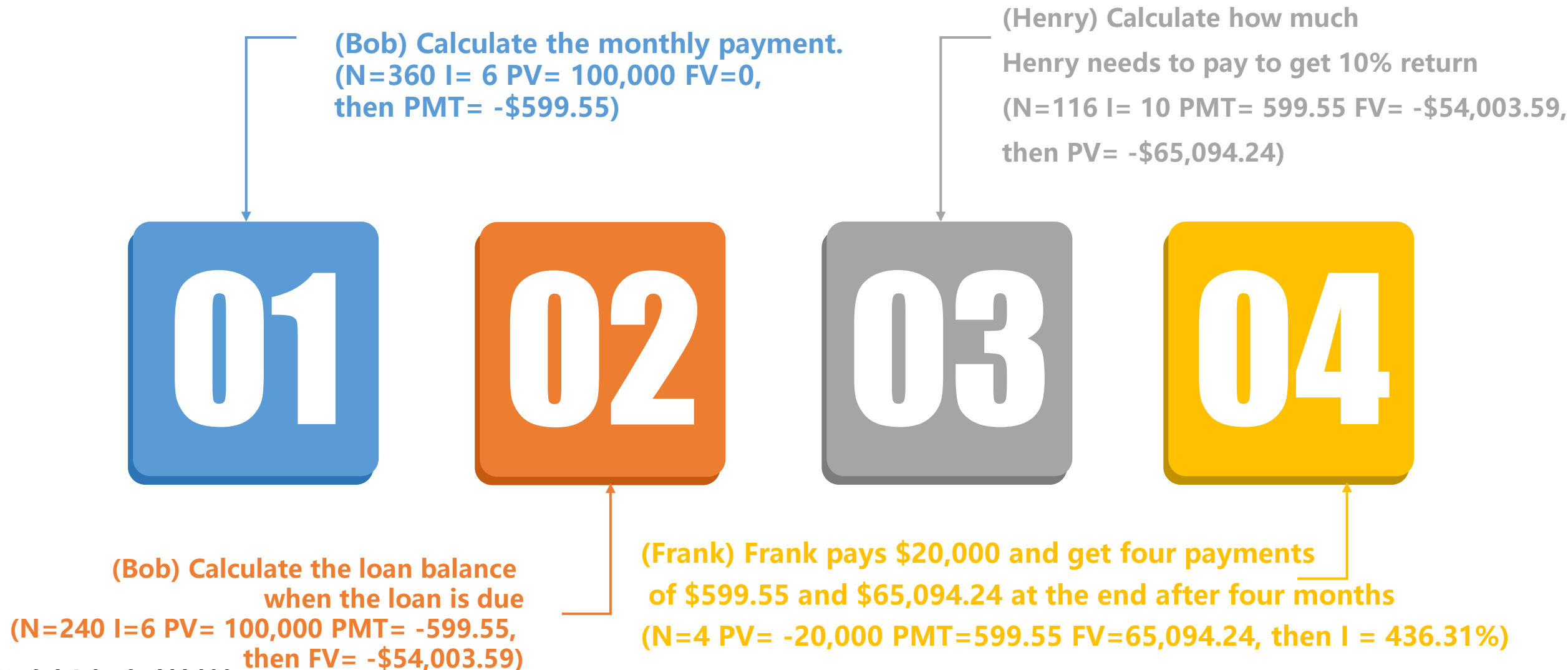
03

(Frank) Frank花费\$20,000购入期票,
之后收回四个月的还款 (\$599.55/月),
四个月后又从Henry手中收回\$65,094.24。
计算得到Frank最终的复利 ($I = 436.31\%$)

04



Scenario 2 – Flip the Re-Performing





- 贷款额\$30,000的不良贷款，10年6%年利率的纯利息贷款(Interest Only).
 - (借款人) 计算 $PMT = -150$ ($N = 120, I = 6, PV = 30,000, FV = -30,000$)
 - 如果将这个期票立刻卖给一个想要年复利10%的投资人，那么 $N = 120, I = 10, PMT = 150, FV = 30,000$ ，计算 $PV = -22,432.88$

你最初花费\$9,000买下这个期票，最终以\$22,432.88的价格卖出，中间的差价就是你的利润。





Scenario 3

- The loan is \$30,000 for 10 years with 6% annual interest rate, interest only payment. It was purchased for \$9,000.
 - The borrower's original PMT = -150 ($N = 120$, $I = 6$, $PV = 30,000$, $FV = -30,000$)
 - If you want to sell the note to a passive investor who wants a yield of 10% yield, then $N = 120$, $I = 10$, $PMT = 150$, $FV = 30,000$. $PV = -22,432.88$

You only spent \$9,000 to purchase the loan. So the difference is the profit you made.





情景3 - 修改贷款条款 (Loan Mod)

- 方法一：先拿到一部分还款，降低利息

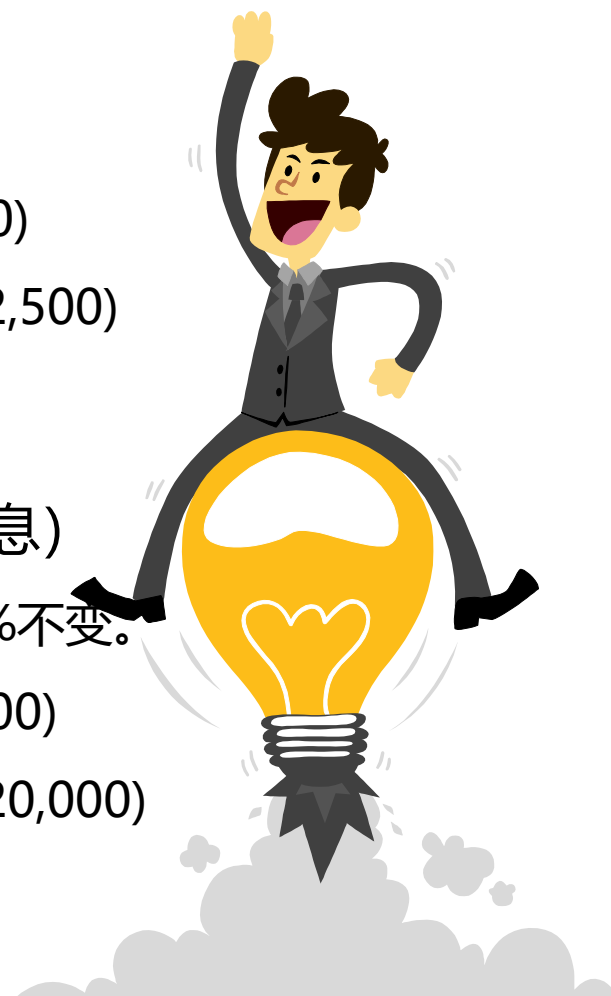
例如：让借款人先还款\$7,500，并承诺降息至4%

- 从借款人的角度： $PMT = -75$ ($N=120, I=4, PV=22,500, FV = -22,500$)
- 从投资人的角度： $I = 62.05\%$ ($N=120, PMT=75, PV = -1,500, FV=22,500$)

-
- 方法二：先拿到一部分还款，并在账面上给出更多的折扣（不降息）

例如：让借款人先还款\$7,500，在账面上记录为\$10,000，年利息保持6%不变。

- 从借款人的角度： $PMT = -100$ ($N=120, I=6, PV=20,000, FV = -20,000$)
- 从投资人的角度： $I = 80.41\%$ ($N=120, PMT=100, PV = -1,500, FV=20,000$)





Scenario 3 – Loan Modification

- Strategy 1: get upfront payment, and lower the interest rate

E.g. if \$7,500 credit given to the borrower, promise to reduce the interest rate to 4%:

- From borrower's perspective: $PMT = -75$ ($N=120, I=4, PV=22,500, FV=-22,500$)
 - From investor's perspective: Yield = 62.05% ($N=120, PMT=75, PV=-1,500, FV=22,500$)
-

- Strategy 2: get upfront payment with extra credit instead of lowering interest rate

E.g. if \$7,500 credit given to the borrower, consider this \$7,500 to be \$10,000 on paper, interest rate stays 6%

- From borrower's perspective: $PMT = -100$ ($N=120, I=6, PV=20,000, FV=-20,000$)
- From investor's perspective: Yield = 80.41% ($N=120, PMT=100, PV=-1,500, FV=20,000$)



案例分析：The Rockefeller Deal

- **借款人：**某大型企业工程师，离异，信用分数小于500分
- **房产：**康斗（Condominium），建于1977年，室内面积1628平方尺，3房3浴。占地1934平方尺。现屋主于3/17/1987以 \$180,000的价格购入。地税 \$3284.66/年，市场房租价格约 \$3200/月。距离海滩仅1英里。房屋市值估价\$470,000至\$490,000。
- **第一顺位贷款：**起始日期 01/14/2004，未付额 \$262,887，贷款利率（loan mod）3%，应还款金额\$1,326/月。未欠款。目前的贷款人为当地的一家信用合作社（local credit union）
- **第二顺位贷款：**起始日期 04/27/2005，贷款金额 \$138,900。25年分期贷款。贷款年利率8.15%。每月还款 \$1,085.89。最终于10/18/2011以 \$75,000买下总价值 \$172,793的第二顺位贷款。
- **物业债务：**截止4/14/2009，拖欠\$3,432，到10/2011预计达到 \$15,000
- **国税债务：**截止1/19/2010，拖欠\$57,100以及7/7/2011, \$1,721
- **信用卡债务：**截止 4/5/2010，拖欠\$26,092



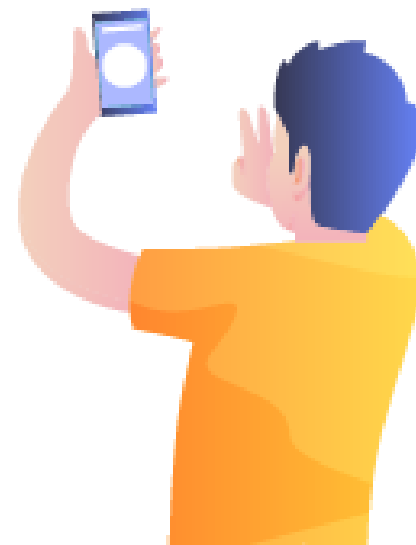
Case Study: The Rockefeller Deal

- **Borrower:** an engineer at a large company, divorced. FICO: < 500
- **Property:** Condo, built 1977, 1,628 sqft, 3bd/3ba. Lot size, 1,934 sqft, Purchased 03/17/1987 for \$180,000. Property Tax \$3,284.66. Rent \$3,200/mo. One mile away from the beach. Value at 470K - 490K.
- **First Loan:** Origination 01/14/2004, UPB: \$ 262,887 at resale, loan mod at 3%, \$1,326 monthly payment. Current. Lender is a local credit union.
- **Second Loan:** Origination 04/27/2005 for \$138,900. Interest rate at 8.15%. 25-year amortization. Monthly payment of \$1,085.89. Bought the second note with a total payoff of \$172,793 on 10/18/2011.
- **HOA Lien:** \$3,432 as of 4/14/2009, estimated \$15,000 as of 10/2011
- **IRS Liens:** \$57,100 on 1/19/2010 and \$1,721 on 7/7/2011
- **Abstract of Judgment from AmEx:** \$26,092 as of 4/5/2010



案例分析：The Rockefeller Deal

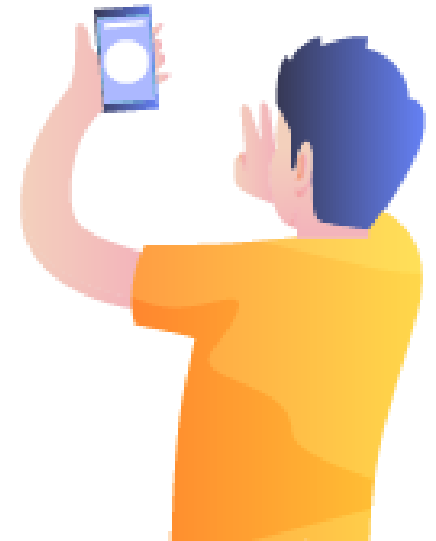
- 策略一：提出与屋主分摊折扣（还款\$50,000，账面上记为还款\$100,000）
 - 屋主（借款人）能得到什么？
 - Note投资人能得到什么？
- 已知：
 - $N = 222$ ($300 - 78$ (4/27/2005 – 10/18/2011))
 - $I = 8.15$
 - $PMT = 1085.90$
 - $FV = 0$





Case Study: The Rockefeller Deal

- Exit 1: Offered the owner to split the Discount (pay \$50,000 to the note holder and get \$100,000 credit)
 - What' s in it for the homeowner?
 - What' s in it for the note holder?
- Known Factors:
 - $N = 222$ (300 - 78 (4/27/2005 – 10/18/2011))
 - $I = 8.15$
 - $PMT = 1085.90$
 - $FV = 0$





案例分析：The Rockefeller Deal



第一步：计算投资人与屋主谈判时，屋主的未付余额（UPB）

- $N = 78$
- $I = 8.15$
- $PV = 138,900$
- $PMT = -1,085.90$
- 那么 $FV = -124,304.12$



Cast Study: The Rockefeller Deal



Step 1: Calculate the UPB at the Time of Negotiation

- $N = 78$
- $I = 8.15$
- $PV = 138,900$
- $PMT = -1,085.90$
- Then $FV = -124,304.12$



案例分析：The Rockefeller Deal



第二步：计算新的每月还款额

- $N = 222$
- $I = 8.15$
- $PV = 72,793$ (\$172,739 - \$100,000)
- $FV = 0$
- 那么 $PMT = -635.90$



Case Study: The Rockefeller Deal



Step 2: Calculate New Monthly Payment

- $N = 222$
- $I = 8.15$
- $PV = 72,793$ (\$172,793 - \$100,000)
- $FV = 0$
- Then $PMT = -635.90$



案例分析：The Rockefeller Deal



- 减少了欠款额
- 减少了每月还款额



Cast Study: The Rockefeller Deal



- Lower the debt amount
- Lower the monthly payment



案例分析: The Rockefeller Deal



第一步: 计算投资人的回报 (复利)

- $N = 222$
- $PV = -25,000 (-\$75,000 + \$50,000)$
- $PMT = 635.90$
- $FV = 0$

- 那么 $I = 30.41$



Cast Study: The Rockefeller Deal



Step 1: Calculate Investor's Return

- $N = 222$
- $PV = -25,000 (-\$75,000 + \$50,000)$
- $PMT = 635.90$
- $FV = 0$
- Then $I = 30.41$

Homework 1

如果投资人六个月后卖掉了这个期票，他的回报（复利）是多少？

案例分析：The Rockefeller Deal



- 策略二：修改贷款条款
 - 修改哪些条款？
 - a. 让屋主先还\$20,000来换取4%的利率
 - b. 在接下来的48个月内每个月支付\$1,000美金来还清拖欠的金额 (\$48,972.94)
 - c. 暂缓债务偿还 (Forbearance) , 最后再支付拖欠的金额 (\$48,972.94)
 - d. 延长贷款至30年限



Cast Study: The Rockefeller Deal



- Exit 2: Offer the homeowner to do a loan mod
 - What to mod?
 - a. What if \$20,000 upfront in exchange of 4% interest?
 - b. What if \$1,000 per month over 48 months for the past dues (\$48,972.94)?
 - c. What if do a forbearance (\$48,972.94 at the end of the loan)?
 - d. What if extend the loan to 30 years?





案例分析：The Rockefeller Deal

- 策略三：法拍，整修，保留为出租房
 - 房租：\$3,200/月
 - 支出：\$2,220/月（第一顺位贷款\$1,326/月，HOA: \$275/月，地税：\$300/月，预估10%空房率及维修）
 - 净现金流：\$980/月
 - 现金的现金回报率：第一年8.29%
 - 总支出（购买期票价格 + 整修价格 + 交易费用）：\$141,900
 - 地产净值：接近\$300,000 (\$575,000 ARV - \$262,000 还清第一顺位贷款)
 - 逐年：房租增长，贷款减少，房屋增值，重贷





Cast Study: The Rockefeller Deal

- Exit 3: Foreclosure, Rehab, then Keep It as a Rental
 - Gross Rent: \$3,200/month
 - Monthly Expenses: \$2,220/month (1st loan \$1,326/mo., HOA: \$275/mo., Property Tax: \$300/mo. Estimated 10% vacancy & repair)
 - Net Monthly Cash Flow: \$980/mo.
 - Cash on Cash Return: 8.29% the first year
 - Total Expense (note purchase & rehab & transaction costs): \$141,900
 - Equity: Close to \$300,000 (\$575,000 ARV - \$262,000 lien payoff)
 - Over the Years: rent increases, mortgage pay down, appreciation, later refi.



案例分析：The Rockefeller Deal

- 策略三：法拍，整修，**重贷**，保留为出租房
 - ARV: \$575,000.
 - 65% LTV = 373,750
 - 净资本投入: $\$141,900 - (\$375,000 - \$262,000) = \$28,900$
 - 30年3.5%的年利率，月付: \$1,678
 - 月支出: \$2,572
 - 每月净现金流: \$628
 - 现金的现金回报率: 26%





Cast Study: The Rockefeller Deal

- Exit 3: Foreclosure, Rehab, Refi, and Keep It as a Rental
 - ARV: \$575,000.
 - 65% LTV = 373,750
 - Net Capital Investment: $\$141,900 - (\$375,000 - \$262,000) = \$28,900$
 - At 3.5%, 30-year fixed, monthly payment = \$1,678
 - Monthly Expense: \$2,572
 - Net Monthly Cash Flow: \$628
 - Cash on Cash Return: 26%

案例分析：The Rockefeller Deal



- 策略三：法拍，整修，然后保留出租房至2020年1月，市场估价...
- 回报是多少？？足够高！





Case Study: The Rockefeller Deal

- Exit 3: Foreclosure, Rehab, then Keep It as a Rental... Until Jan. 2020
- What Would Be the Return? Good ENOUGH!

案例分析：The Rockefeller Deal



- 策略三：法拍，整修，然后保留出租房至2020年1月，市场估价...

zillow.com/homedetails/ [redacted]

CORRECT HOME FACTS SAVE SHARE MORE

Public View Owner View California

[redacted] Rockefeller Ln [redacted]

● OFF MARKET
Zestimate®: \$875,998
Rent Zestimate®: \$3,500 /mo

3 beds · 3 baths · 1,628 sqft



Cast Study: The Rockefeller Deal

- Exit 3: Foreclosure, Rehab, then Keep It as a Rental, until Jan 2020, estimate value...

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OFF MARKET

Zestimate®: \$875,998

Rent Zestimate®: \$3,500 /mo

3 beds · 3 baths · 1,628 sqft

案例分析：The Rockefeller Deal



- 策略四：法拍，整修，转卖

- 作业：回报（复利）是多少？



Case Study: The Rockefeller Deal



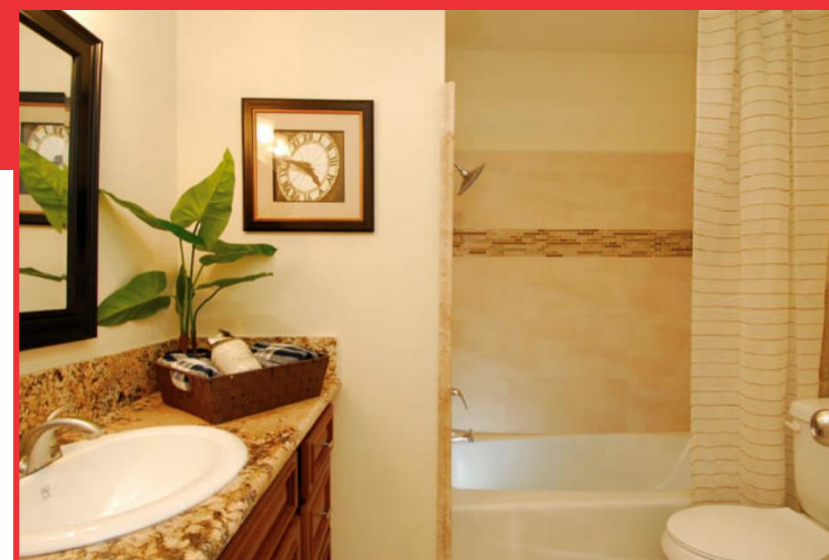
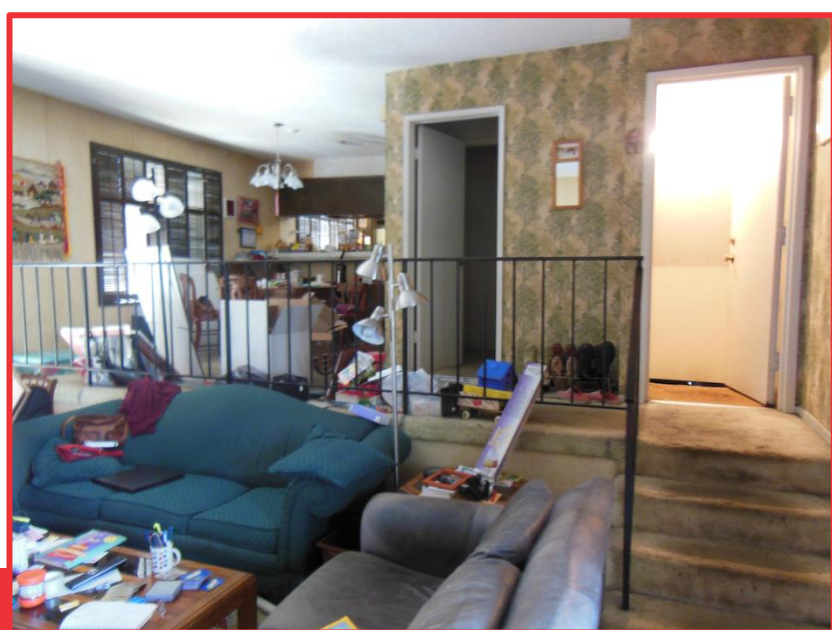
- Exit 4: Foreclosure, Rehab, Resale

• **HW: What is the return (I) for the note holder?**





Net Sale Proceeds	\$ 309,462.95
Closing Expenses	\$ (24,107.14)
TOTAL SALE PROCEEDS	\$ 285,355.81
Purchase Price (for Rockefeller, it's initial contributions)	\$ 76,050.00
Expenses (purchase closing costs + repairs)	\$ 65,851.08
Bonus to Workers	
TOTAL EXPENSES	\$ 141,901.08
NET PROFIT (before private mortgage)	\$ 143,454.73
Lin's Profit (70%)	\$ 100,418.31
Lin's Invested Capital	\$ 131,901.08
Costs of Private Money	\$ -
Lin's Total Capital Investment	\$ 131,901.08
INVESTMENT YIELD	76.13%
Steve's Profit (30%)	\$ 43,036.42
Steve's Invested Capital	\$ 10,000.00
Costs of Private Money	\$ -
Steve's Total Capital Investment	\$ 10,000.00
INVESTMENT YIELD	430.36%
Close of Purchase Escrow	10/18/11
Close of Sale Escrow	12/5/12
Total Number of Days	414
LIN'S ANNUALIZED YIELD	67%
STEVE'S ANNUALIZED YIELD	379%



Homework

- 1. 策略一 (Exit 1) 中, 如果投资人六个月后卖掉了这个期票, 他的回报 (复利) 是多少?
- 2. 策略四 (Exit 4) 中, 投资人的回报 (复利) 是多少?



Questions ?



北美地产学堂

NORTH AMERICA REAL ESTATE ACADEMY

感谢您的观看

THANKS FOR WATCHING