Daiwan

Discount Rate	15%
Income Tax Rate	25%

Howard Picard	
Duration in years	$5.00
Annual lease payement pre-tax	$30,000.00
Equipment Value- Purchase Price	$125,000.00
Down payment	$125,000.00
Depreciation (Per year)	$25,000.00
Annual interest rate on debt	8.00%
Year to repay	5

Lease For Howard Picard	**Year 1**
Annual Rate (before Tax)	$30,000.00
Tax Effect	$7,500.00
Net Cost (After Tax)	$22,500.00
NPV	($75,423.49)

Conventional finance	**Interest Expense**
Year 1	$10,000.00
Year 2	$8,295.44
Year 3	$6,454.51
Year 4	$4,466.30
Year 5	$2,319.04

	Loan Payments
Year 1	-$31,307.06
Year 2	-$31,307.06
Year 3	-$31,307.06
Year 4	-$31,307.06
Year 5	-$31,307.06

Year 2	Year 3	Year 4
$30,000.00	$30,000.00	$30,000.00
$7,500.00	$7,500.00	$7,500.00
$22,500.00	$22,500.00	$22,500.00

Income Statement

Depreciation	Maintenance Exp	Operating Income(Pre-Tax)
$25,000.00	-	$35,000.00
$25,000.00	-	$33,295.44
$25,000.00	-	$31,454.51
$25,000.00	-	$29,466.30
$25,000.00	-	$27,319.04

Cash Flow statement

Tax Shield Effects	Maintenance Expe	Salvage Value?
$8,750.00	-	
$8,323.86	-	
$7,863.63	-	
$7,366.58	-	
$6,829.76	-	

Year 5
$30,000.00
$7,500.00
$22,500.00

Tax Shield effect
$8,750.00
$8,323.86
$7,863.63
$7,366.58
$6,829.76

Net Cash Flow
-$22,557.06
-$22,983.20
-$23,443.43
-$23,940.48
-$24,477.30

Finance - Howard Picard		Beginning Balance
Debt Amortization		
	Year 1	$62,500.00
	Year 2	$51,846.47
	Year 3	$40,340.66
	Year 4	$27,914.39
	Year 5	$14,494.01

Depreciation Schedule		Beginning Balance
	Year 1	$125,000.00
	Year 2	$100,000.00
	Year 3	$75,000.00
	Year 4	$50,000.00
	Year 5	$25,000.00

Loan Amortization schedule		Beginning Balance

Year 1	$125,000.00
Year 2	$103,692.94
Year 3	$80,681.32
Year 4	$55,828.77
Year 5	$28,988.02

Interest	Payment	Ending Balance
$5,000.00	($15,653.53)	$51,846.47
$4,147.72	($15,653.53)	$40,340.66
$3,227.25	($15,653.53)	$27,914.39
$2,233.15	($15,653.53)	$14,494.01
$1,159.52	($15,653.53)	$0.00

CCA	Ending balance
$25,000.00	$100,000.00
$25,000.00	$75,000.00
$25,000.00	$50,000.00
$25,000.00	$25,000.00
$25,000.00	$0.00

Interest	Payment	Ending Balance
8%		$125,000.00

$10,000.00	-$31,307.06	$103,692.94
$8,295.44	-$31,307.06	$80,681.32
$6,454.51	-$31,307.06	$55,828.77
$4,466.30	-$31,307.06	$28,988.02
$2,319.04	-$31,307.06	$0.00

Daiwan

Discount Rate	15%
Income Tax Rate	25%

Macrosoft	
Duration in years	$5.00
Annual lease payement pre-tax	$36,000.00
Equipment Value- Purchase Price	$135,000.00
Down payment	$15,000.00
Depreciation (Per year)	$30,000.00
Annual interest rate on debt	7.50%
Year to repay	5

Lease For Macrosoft	**Year 1**
Annual Rate (before Tax)	$36,000.00
Tax Effect	$9,000.00
Net Cost (After Tax)	$27,000.00
NPV	($90,508.19)

Conventional finance	**Interest Expense**
Year 1	$10,125.00
Year 2	$8,381.83
Year 3	$6,507.93
Year 4	$4,493.48
Year 5	$2,327.95

	Loan Payments
Year 1	-$33,367.24
Year 2	-$33,367.24
Year 3	-$33,367.24
Year 4	-$33,367.24
Year 5	-$33,367.24

Year 2	Year 3	Year 4
$36,000.00	$36,000.00	$36,000.00
$9,000.00	$9,000.00	$9,000.00
$27,000.00	$27,000.00	$27,000.00

Income Statement

Depreciation	Maintenance Exp	Operating Income(Pre-Tax)
$30,000.00	-	$40,125.00
$30,000.00	-	$38,381.83
$30,000.00	-	$36,507.93
$30,000.00	-	$34,493.48
$30,000.00	-	$32,327.95

Cash Flow statement

Tax Shield Effects	Maintenance Expe	Salvage Value?
$10,031.25	-	
$9,595.46	-	
$9,126.98	-	
$8,623.37	-	
$8,081.99	-	

Year 5
$36,000.00
$9,000.00
$27,000.00

Tax Shield effect
$10,031.25
$9,595.46
$9,126.98
$8,623.37
$8,081.99

Net Cash Flow
-$23,335.99
-$23,771.78
-$24,240.26
-$24,743.87
-$25,285.25

Finance -Macrosoft		Beginning Balance
Debt Amortization		
	Year 1	$135,000.00
	Year 2	$111,757.76
	Year 3	$86,772.36
	Year 4	$59,913.05
	Year 5	$31,039.29

Depreciation Schedule		Beginning Balance
	Year 1	$150,000.00
	Year 2	$120,000.00
	Year 3	$90,000.00
	Year 4	$60,000.00
	Year 5	$30,000.00

Loan Amortization schedule		Beginning Balance

Year 1	$135,000.00
Year 2	$111,757.76
Year 3	$86,772.36
Year 4	$59,913.05
Year 5	$31,039.29

Interest	Payment	Ending Balance
$10,125.00	($33,367.24)	$111,757.76
$8,381.83	($33,367.24)	$86,772.36
$6,507.93	($33,367.24)	$59,913.05
$4,493.48	($33,367.24)	$31,039.29
$2,327.95	($33,367.24)	$0.00

CCA	Ending balance
$30,000.00	$120,000.00
$30,000.00	$90,000.00
$30,000.00	$60,000.00
$30,000.00	$30,000.00
$30,000.00	$0.00

Interest	Payment	Ending Balance
7.5%		$125,000.00

$10,125.00	-$33,367.24	$111,757.76
$8,381.83	-$33,367.24	$86,772.36
$6,507.93	-$33,367.24	$59,913.05
$4,493.48	-$33,367.24	$31,039.29
$2,327.95	-$33,367.24	$0.00

Question 1

option from Howard Picard. Given the higher NPV, leasing from Macrosoft appears to be the better financial option. However, other factors such as the quality of the equipment, the terms of the lease, and the reputation of the lessor should also be considered before

Question 2

equipment and the anticipated higher pre-tax gross margins does change the analysis. This additional information suggests that the use of Macrosoft's machine would result in higher revenue due to increased production capability.

To incorporate this information into the analysis, we can calculate the incremental pre-tax gross margins generated by each machine compared to the other.

Incremental pre-tax gross margin for Macrosoft's machine:

$88,000 (Macrosoft) - $72,000 (Howard Picard) = $16,000

Question 3

Dr. Wei's question raises a valid point about the option to purchase Howard Picard's equipment with cash on hand.

Purchase HP's Equipment with Cash:

Equipment Cost: $125,000

Remaining Cash: $140,000 - $125,000 = $15,000

The initial cash outflow is $125,000.

We need to consider the opportunity cost of using the cash instead of investing it elsewhere. This could be the rate of return Dr. Wei could earn by investing the $125,000