Income and Cash Flow Statments

Goals

- Make what you learned about taxes and depreciation understandable to others.
- Use accounting conventions to convey your cash flow projections.

Background

- We will be focusing on the cash flow effects of some investment.
- We will not be looking at the whole business, just the thing that changed.
- We are looking at a counterfactual, "How would cash flow change?"

The Example Counterfactuals

- How would cash flow change if we purchased a new inventory managment system that reduces our need for inventory?
- How would cash flow change if we purchased a new delivery truck with a loan?
- Is cash flow better than without the loan?

Sign Conventions Revenue

Income Statement

	Year 0	Year 1	Note
Operating Revenue	100	(500)	
Operating Expenses			
Interest			
Depreciation			
Taxable Income			
Tax			
Net Income			

More revenue than current plan in year zero and less revenue than current plan in year one.

Sign Conventions Expenses

Income Statement

	Year 0	Year 1	Note
Operating Revenue	100	(500)	
Operating Expenses	50	(700)	
Interest			
Depreciation			
Taxable Income			
Tax			
Net Income			

More expenses than current plan in year zero and fewer expenses than current plan in year one.

Sign Conventions Interest

Income Statement

	Year 0	Year 1	Note
Operating Revenue	100	(500)	
Operating Expenses	50	(700)	
Interest		300	
Depreciation			
Taxable Income			
Tax			
Net Income			

Increase in interest expense, relative to current plan, in year 1. Note that this is just the interst expense, not a full loan payment.

Sign Conventions Depreciation

Income Statement

	Year 0	Year 1	Note
Operating Revenue	100	(500)	
Operating Expenses	50	(700)	
Interest		300	
Depreciation	4000	3200	
Taxable Income			
Tax			
Net Income			

If you replaced an asset with one that cost less, and had less depreciation in years zero and one, then you would see negative values.

Taxable Income

Subtract your expenses from your revenue.

Income Statement

	Year 0	Year 1	Note
Operating Revenue	100	(500)	
Operating Expenses	50	(700)	
Interest		300	
Depreciation	4000	3200	
Taxable Income	(3950)	(6000)	
Tax			
Net Income			

Year 0 Taxable Income = 100 -50 -4000

Year 1 Taxable Income = -5000 - (-700) -300 - 3200

Tax

Apply your tax rate (40%) to the Taxable Income. Note that increases in taxes are positive but decreases in taxes are shown as a negative.

Income Statement

	Year 0	Year 1	Note
Operating Revenue	100	(500)	
Operating Expenses	50	(700)	
Interest		300	
Depreciation	4000	3200	
Taxable Income	(3950)	(6000)	
Tax	(1580)	(2400)	
Net Income			

This says that your taxes will be *lower* because of the action you are taking.

Net Income

Subtract Tax from Taxable Income to get Net Income, i.e., profits.

Income Statement

	Year 0	Year 1	Note
Operating Revenue	100	(500)	
Operating Expenses	50	(700)	
Interest		300	
Depreciation	4000	3200	
Taxable Income	(3950)	(6000)	
Tax	(1580)	(2400)	
Net Income	(2370)	(3600)	

This says that our profits are lower than they would be otherwise.

Cash Flow

Cash from operations is just copied from the income statement

Cash Flow Statement

	Year 0	Year 1	Note
Operations			
Net Income	(2370)	(5520)	
Depreciation	4000	3200	
Investments			
Working Capital			
Gains Tax			
Finance			
Net Cash Flow			

Keep in mind that the convention is cash inflows are postive and cash outflows are negative.

Asset Purchase

The Asset is a 20K, 5-Year Asset

Cash Flow Statement

	Year 0	Year 1	Note
Operations			
Net Income	(2370)	(5520)	
Depreciation	4000	3200	
Investments			
The Asset	(20000)		
Working Capital			
Gains Tax			
Finance			
Net Cash Flow			

Outflows of cash are negative. Note depreciation reflects sale in year 1.