Financial planning

Where are you now?
How'd you get there?
Where do you want to be?
How're you going to get there?

Financial planning

- Process of developing and implementing a coordinated series of strategies to achieve your financial goals

Financial goals

- Establish **specific** short-term and long-term goals – where do you want to be?
- To be of value, your goals must be
  - Measurable
  - Attainable
  - Relevant
  - Time-related
- Vague goals such as to buy a car, retire early, own a house are worthless

A specific short-term goal

- Buy a new $35,000 SUV in 4 years
  - You estimate trade-in will be worth $5,000
  - You're willing to borrow $10,000
  - You need to save the remaining $20,000
  - If interest rate i = 6% per year
    - 20,000 = PMT($FVIF_a$ – 6/12 - 4x12)
      - -20,000=>FV .5=>i 48=>n PMT=$370 per month
  - You need to save $370 each month
    - Measurable, attainable(?), relevant, time-related

A specific long-term goal

- Have a $1,000,000 nest egg at age 65
- If you assume you can earn 8% per year
- FV = PMT($FVIF_a$ – i% - n)
- 1,000,000 = PMT($FVIF_a$ – 8% – 45)
  - -1,000,000=>FV 8=>i 45=>n PMT=$2,587
- You need to invest $2,587 each year
    - Measurable, attainable(?), relevant, time-related

Checking your financial health

- Financial statements
  - Where are you today?
  - How'd you get there?
- Financial ratio analysis
  - Where are you strong?
  - Where are your weak?
    - Can you take steps to fix any deficiencies?

Financial statements

- ***Balance sheet***
  - Snap-shot of your financial position at a particular point in time, say Dec. 31, 20XX
    - Your assets (what you own)
    - Your liabilities (what you owe)
    - Your net worth or equity (assets – liabilities)
- ***Income and expense statement***
  - Record of what you spent and received over a period of time, say May 20YY or all of 20ZZ

Balance sheet components

- **Assets**=> everything you own stated at its fair market value – not what you paid for it
  - Liquid assets=> cash, checking accts, savings accts, CD's (Wachovia, not Barry Manilow)
  - Tangible assets=> **car, house,** appliances, furnishings, jewelry, tools, stereo
  - Capital assets=> stocks, bonds, mutual funds, insurance policies, retirement plans, IRA's, real estate holdings

More BS

- Liabilities=> everything you owe **(debts)**
  - Short-term (due < 1 year)=> your credit card and charge acct balances, personal loans
  - Long-term (due > 1 year)=> unpaid balance on your **car loans, mortgages,** school loans
    - **Your car and your house are assets; the loans you took out to buy them are liabilities**
- Net worth or equity = assets – liabilities
  - To increase your net worth, you need to spend less than you make

Two diverse examples

Joe

Cleavers

Joe Cool

As of June 30, 20XX

Assets	
Cash	$150
Checking	350
South Mountain Gold	200
Savings	450
Personal property	4,280
Car	24,500
Total assets	**$29,930**

Liabilities	
Phone bill	$70
This course (parents)	1,850
Car loan	17,000
School loans	19,700
Visa balance	650
Total liabilities or debt	**$39,270**
Net worth or equity	**(-9,340)**

The Cleavers

As of June 30, 20XX

Assets	
Cash	$560
Checking	1,400
Savings	4,700
CD	7,000
Total liquid assets	**$13,660**
Home	315,000
Cars	85,000
Personal property	27,500
Total tangible assets	**$427,500**
Vanguard mutual funds	18,700
BellSouth Stock	7,500
IRA	10,750
Life insurance cash value	7,550
Total capital assets	**$44,500**
Total assets	**$485,660**

Liabilities	
Credit card debt	$1,875
Car loans	32,725
Mortgage	275,500
Total liabilities (debt)	**$310,100**
Net worth (equity)	**$175,560**

Income and expense statement

- Income (what you took in)
  - Salaries and wages
  - Bonuses and commissions
  - Income from sale of assets
  - Interest and dividends
  - Gifts
- Expenses (what you spent it on)
  - Fixed expenses
  - Variable expenses

Fixed expenses

- Fixed=> same each month, stuck with them
  - Housing (rent, mortgage & property taxes)
  - **Savings and investment – "pay yourself first"**
  - Car (monthly payment or lease)
  - Insurance (life, homeowner's, car)
  - Installment loan payments (appliances, TV)
  - Taxes (federal, state and local income)
  - **Retirement plan contributions (401(k), IRA)**

Variable expenses

- Variable=> you may have some control
  - Utilities (electricity, water, phone, cable)
  - Meals (home and away – maybe split up)
  - Medical expenses
  - Transportation (gas, car maintenance)
  - Education
  - Child-care (day-care)
  - Entertainment
  - Miscellaneous (break out if significant to you)

Your surplus

- ❑Your income minus all your expenses is your surplus
- ❑You can
  - Spend it on stuff
  - Invest it in stocks, bonds, mutual funds
  - Save it for a rainy day
    - ❑Use it when you have a loss in a future period

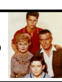
Joe Cool

Jan 1, 20XX – Dec 31, 20XX

Income	
Wages (net)	$6,250
Scholarship	15,000
Government loan	2,600
Community scholarship	500
Parents’ support	2,400
Total income	**$26,750**

Expenses	
Rent	$3,000
Laundry	220
Food	3,700
Car loan	2,400
Car insurance	650
Tuition	21,000
Phone	480
Clothes	800
Entertainment	650
Other	415
Total expenses	**$33,315**
Deficit	**($6,565)**

The Cleavers



Jan 1, 20XX – Dec 31, 20XX

Income	
Ward’s salary (pretax)	$78,600
June’s (part-time) salary (pretax)	15,400
Interest & dividends	4,800
Sale of stock	4,500
Total income	**$103,300**

Expenses	
Mortgage and property taxes	$18,700
Homeowner’s insurance	950
Car loans	7,200
Car insurance	2,100
Federal income taxes	10,700
State & local income taxes	3,980
FICA (Social security)	4,370
Retirement plans	4,000
Total fixed	**$52,000**
Food	$5,900
Utilities	2,450
Gas	3,750
Clothes	3,100
Church	1,000
Personal allowances	3,600
Beaver and Wally’s activities	3,200
Miscellaneous	700
Total variable	**$23,700**
Total expenses	**$75,700**
Surplus	**$27,600**

Now what?

- **Financial ratio analysis**
- You can calculate a few basic financial ratios using data from your balance sheet and income & expense statement
- Then you can look at the trends of these ratios over time to see if you're improving your financial health
- Many ratios are possible – we'll discuss 4

Liquidity ratios

- Liquidity ratios => ability to *quickly* convert your assets to cash *without loss of value*
  - Basic liquidity ratio => how many months could your family pay its expenses from liquid assets alone (say you lose your job!)
  - Basic liquidity ratio = liquid assets/monthly expenses
  - Experts recommend 3 months minimum
  - Cleavers' liquidity = 13,660 / (75,700/12 months) = 2.2 months

Debt ratios

- Debt ratios => ability to handle your present debt situation - is debt a burden?
  - Debt to asset ratio=>the percentage of your assets financed by debt or creditors
  - Debt to asset ratio = total debt / total assets
    - Measures solvency and ability to pay debts
    - Cleavers' D/TA = 310,100 / 485,660 = 64%
      - Dangerously high due to mortgage and car loans
      - Strive to pay off car loans ASAP and pay down mortgage

Another debt ratio

- Debt picture from a different angle
  - Debt-service coverage ratio=>number of times the ability to pay exceeds amount due
  - Debt-service coverage ratio = gross income / annual debt payments (interest + principal)
    - Measures whether you earn enough to adequately service your debts – should be 2.8 or higher
    - Cleavers' coverage=103,300/(18,700 + 7,200)=4.0
    - 103,300=income 18,700=mortgage 7,200=car loans

Income producing ratio

- Accumulating income producing assets
  - Capital assets to net worth ratio => measures capital assets as a percent of your net worth
  - Capital assets to net worth = capital assets / net worth
    - Should be at least 50% but will be less for Joe who has few capital assets
    - Cleavers' ratio = 44,500 / 175,560 = 25%
    - Good measure of whether you're building for your future by accumulating investment assets

Ratios can be deceiving

- Beaver finds $10,000 in the backyard – what should the Cleavers do with it?
- Invest in capital assets?
  - Capital assets and net worth both +$10,000
  - Capital assets/net worth rises to 54,500/185,560=30%
- Pay off car loan or put toward mortgage?
  - Assets +0, net worth +10,000 and liabilities -10,000
  - Capital assets/net worth falls to 44,500 / 185,560=24%
- If ratio rises, building for future but paying down debt is smarter if interest rate is high

The Cleavers invest $10K

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Life insurance cash value	7,550
Total capital assets *+10,000*	**$54,500**
Total assets	**$495,660**

Liabilities	
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The Cleavers pay down loan

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Total liabilities (debt)	**$300,100**
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Follow your gut

- Balance sheets and income & expense statements and financial ratios are tools
- Use them as guides, not ultimate goals
- As you get older and earn more, your ratios will get better, but don't make dumb decisions just to look good on paper
- But at the same time, don't forget car dealers and mortgage lenders will also be calculating your ratios