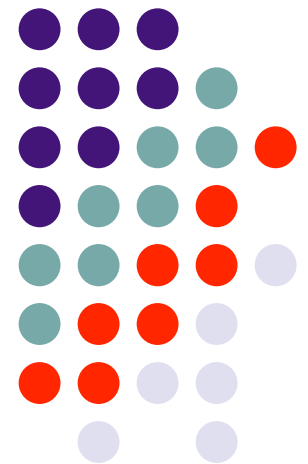
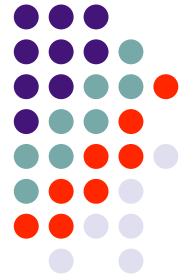


Cash Flow Analysis

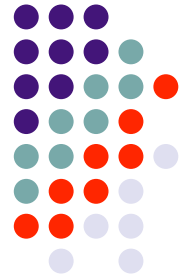
Venture Business Perspective





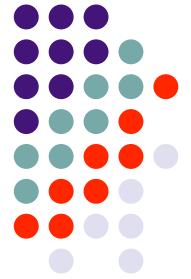
Cash Flow (CF) Analysis

- What is CF and how is determined?
 - CF
 - Free CF
- Managing CF
 - Cash Conversion Cyclical
 - CF Break-even
- Valuing venture businesses based on CF
 - Multiple Method
 - Growing Perpetuity
 - Discounted Projected FCF



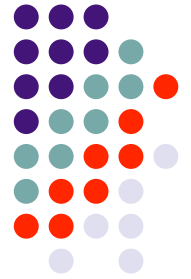
Cash Flow: The Big Picture

- What kind of company/venture?
- Industry Characteristics
 - Cyclical or Defensive
 - High growth or mature
- Venture's growth stage
 - Startup
 - Survival
 - Growth
 - Mature



Statement of Cash Flows

- Changes the picture from **accrual** to **cash**
 - Key step in financial analysis
- Shows Cash Flows divided into 3 categories:
 - Cash flow from operations
 - Cash flow from investments
 - Cash flow from financing activities

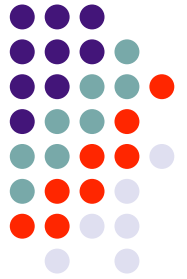


Statement of Cash Flows

- Cash flows from operations
 - Net Income adjusted for all non-cash or non-reoccurring items
 - +/- changes in working capital (e.g. money spent on inventories)
- Cash flows from investing activities
 - Purchase plant & equipment, cash goes out to pay for it
 - Sell fixed assets, cash comes in from the sale
- Cash flows from financing activities
 - Cash inflow if we borrow money (bonds and loans) or issue stock
 - Cash outflow if we pay off debt, buyback stocks or pay dividends
- Cash position
 - Shows the change in the company's beginning and ending cash position based on the cash flows from the 3 categories above

RUBY TUESDAY INC, 10-K, 8/3/09 Statement of Cash Flows			
For fiscal year ended	June 2, 2009	June 3, 2008	June 5, 2007
Operating activities:			
Net (loss)/income	(17,918)	26,377	91,668
Adjustments to reconcile net (loss)/income to net cash flow			
Depreciation and amortization	75,699	94,561	77,788
Loss on impairments, including disposition of assets	42,500	4,172	478
Other	14,194	12,019	(6,117)
Changes in operating assets and liabilities:	(11,906)	(35,240)	20,845
Net cash provided by operating activities	102,569	101,889	184,662
Investing activities:			
Purchases of property and equipment	(17,186)	(116,918)	(125,827)
Acquisition of franchise and other entities	(673)	(2,464)	(4,669)
Proceeds from disposal of assets	11,660	8,395	17,289
Other, net	9,394	6,768	(1,368)
Net cash provided/(used) by investing activities	3,195	(104,219)	(114,575)
Financing activities:			
Net (payments)/proceeds on debt	(112,036)	42,478	120,372
Proceeds from issuance (repurchase) of stock	0	(36,882)	(157,785)
Dividends paid	0	(13,126)	(29,147)
Net cash used by financing activities	(112,036)	(7,530)	(66,560)
Cash and short-term investments:			
Decrease/(increase) in cash and short-term investments	(6,272)	(9,860)	3,527
Beginning of year	16,032	25,892	22,365
End of year	9,760	16,032	25,892
Created by Morningstar Document Research.			

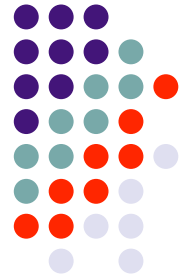




Cash Flow

- A venture's basic CF can be measured two ways:
 - Cash Sales – Cash Expenses
 - Net Income adjusted for non-cash items such as Depreciation and Impairment losses
- CF from Operations
 - CF +/- changes in working capital

Free Cash Flow (Levered)

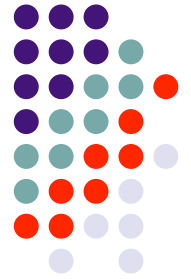


$$\text{FCF} = \text{ATCFO} - \text{Increase in NOWC} - \text{Increase in gross fixed assets} \\ + \text{Decrease in NOWC} + \text{Decrease in gross fixed assets}$$

(Net Income minus non-cash items) (NOWC = CA – CL) Did the company make new capital investments (Capex)?

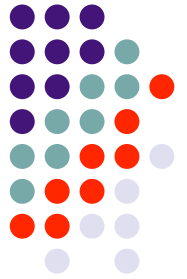
Did the company need to invest more In working capital?

- FCF is a Venture's actual CF after all investments are completed
- Short cut for calculating a company's Levered FCF is found on the CF Statement. Levered FCF = Net cash flow from Operations – Capital Expenditures.
- Future FCF streams discounted for time and risk are a good indicator of equity values.



Cash Flow is the Key

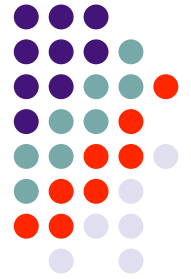
- Is the venture burning or building cash and at what level (CF, CF from operations, FCF)?
- Dissecting CF
 - What are the key drivers to cash flow?
 - Adjustments to normalize.
- Financial Policies and Strategies for managing CF
 - Working Capital
 - Capex
 - Dividends
 - Capital Raising (Debt or Equity)
 - Cash Position



Cash Flow Issues

- What does venture do with positive FCF:
 - Pay interest and dividends
 - Repay debt or Repurchase Stock
 - M&A
 - Build cash balances and invest in marketable securities
- How does venture finance negative FCF
 - Issue new debt or equity
 - Sell Assets
 - Drain Cash
- Look forward anticipating cash flow situation and funding requirements over next 5 years

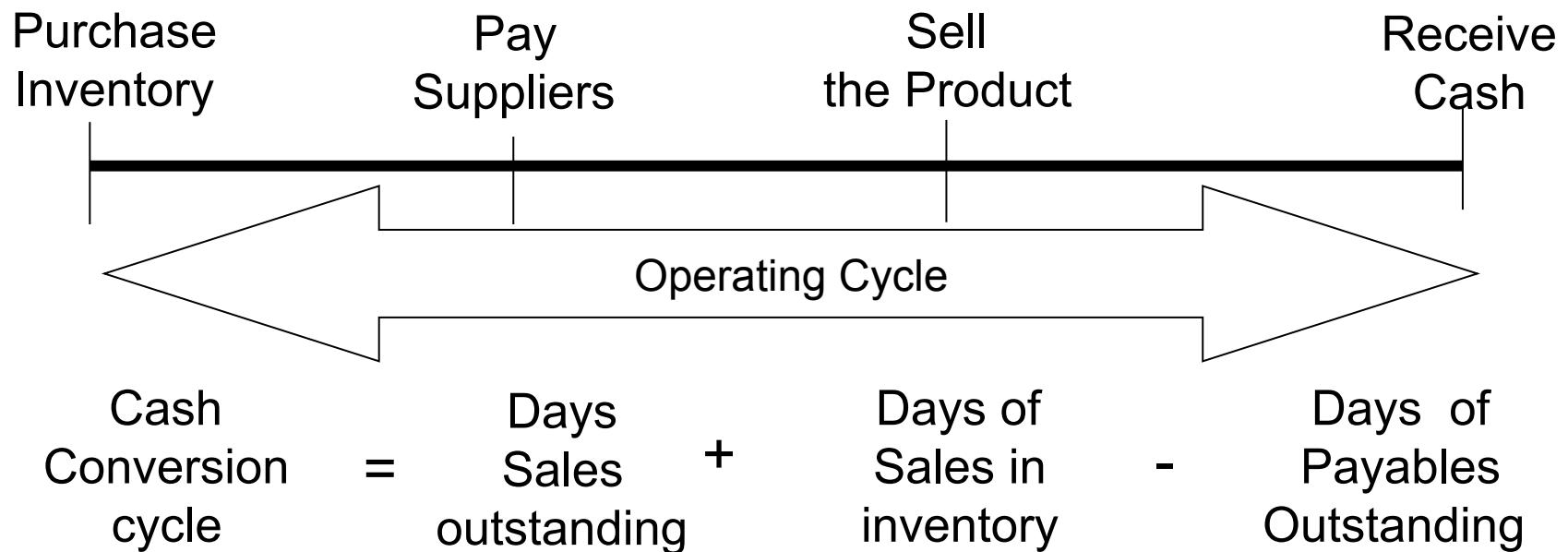
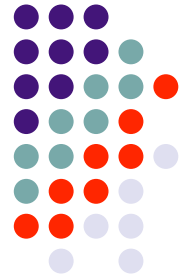
Importance of Cash Flows



- Key business decisions are based on FCF
 - What projects to invest in (capital allocation)?
 - What is the optimal method of financing a company?
 - When and how much financing will be necessary?
 - Working capital management
- Bottom Line: Does business' long-term after-tax free cash flow provide a good risk-adjusted return to investors?

Managing Cash Flows

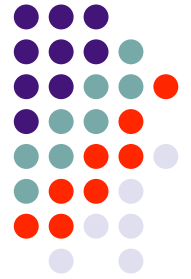
Liquidity: The Cash Conversion Cycle



Improve Liquidity and Cash Flow by Shortening your Cash Conversion Cycle!

Survival Sales CF Breakeven

Some Basics



- Basic Equation:

$$\text{EBDAT} = \text{Revenues (R)} - \text{Variable Costs (VC)} - \text{Cash Fixed Costs (CFC)}$$

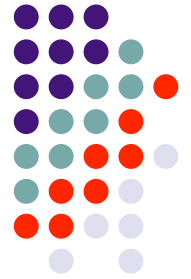
- Where:

CFC includes both fixed operating (e.g., general & administrative, & possibly marketing expenses) & fixed financing (interest) costs

- When EBDAT is Zero:

$$R = VC + CFC$$

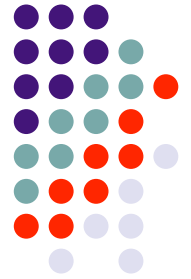
Solving for the Breakeven CF Level of Survival Revenues



- Starting Point:
Ratio of variable costs (VC) to revenues (R) is a constant (VC/R) & is called the Variable Cost Revenue Ratio (VCRR)
- Survival Revenues (SR) = VC + CFC
- Rewriting, CFC = SR – VC
- By substitution, CFC = SR[1 – (VCRR)]
- Solving for SR, SR = [CFC/(1 – VCRR)]

Survival Revenues

CF Breakeven: An Example



If the PSA venture were expecting:

Revenues = \$1,000,000

Cost of Goods Sold = \$650,000

Administrative Expenses = \$200,000

Marketing Expenses = \$180,000

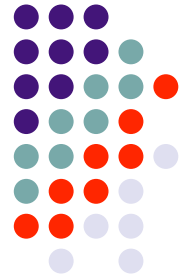
Depreciation Expenses = \$100,000

Interest Expenses = \$20,000

Tax Rate = 33%

Survival Revenues

CF Breakeven: An Example

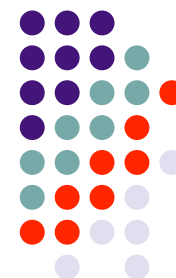


Note: only Cost of Goods Sold is expected to vary directly with Sales

- $VCRR = \$650,000 / \$1,000,000 = .65$
- $CFC = \$200,000 + \$180,000 + \$20,000 = \$400,000$
- $SR = \$400,000 / (1 - .65) = \$1,143,000$
rounded

Survival Revenues

CF Breakeven: An Example



Check:

Survival Revenues	\$1,143,000
Cost of Goods Sold (65%)	<u>-743,000</u>
Gross Profit	400,000
Administrative Expenses	-200,000
Marketing Expenses	-180,000
Interest Expenses	<u>-20,000</u>
EBDAT	\$0

Scenarios

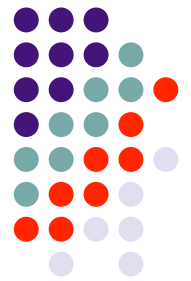


TABLE 4.7

PSA Corporation's Three-Year EBDAT Experience

	YEAR 1	YEAR 2	YEAR 3
Number of units sold	5,000	15,000	25,000
Revenues	\$500,000	\$1,500,000	\$ 2,500,000
–Cost of goods sold (65% of revenues)	<u>–325,000</u>	<u>–975,000</u>	<u>–1,625,000</u>
Gross profit	175,000	525,000	875,000
–Administrative expenses	–200,000	–200,000	–200,000
–Marketing expenses	–180,000	–180,000	–180,000
–Leasing and interest expenses	<u>–20,000</u>	<u>–20,000</u>	<u>–20,000</u>
EBDAT	–\$225,000	\$ 125,000	\$ 475,000
Percent of revenues	–45.0%	8.3%	19.0%

Graphically

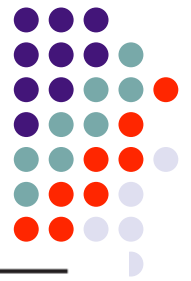
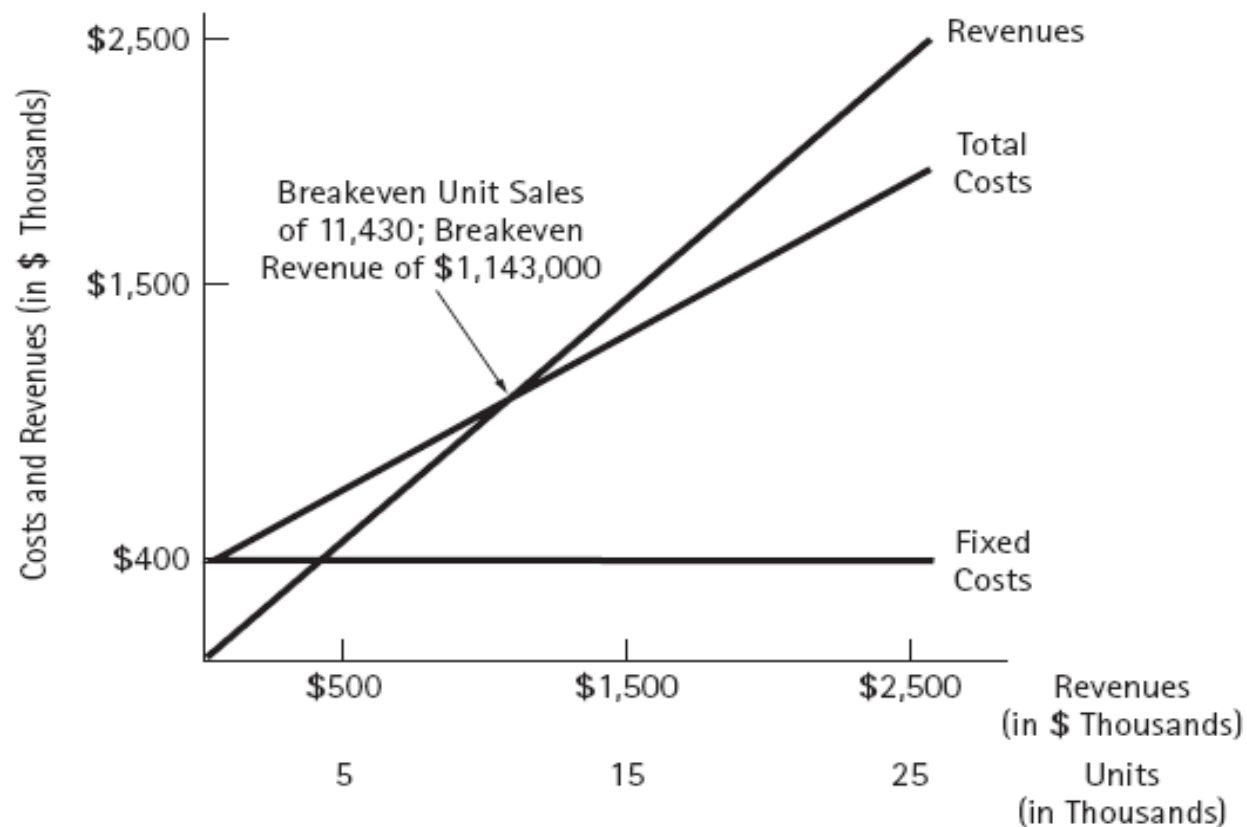


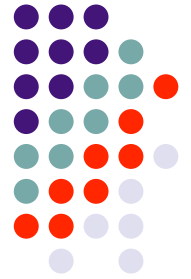
FIGURE 4.2

EBDAT Breakeven Chart for PSA Corporation (Where Variable Costs Are 65 Percent of Revenues)



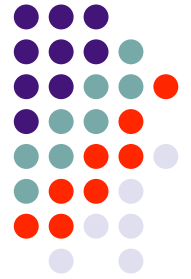
Valuing Equity with FCF

FCF Multiple Method



- Determine what multiple of FCF comparable listed companies are trading at (Equity Market Cap / FCF)
- Multiply this comp multiple by your venture's FCF to determine total equity value of your venture.
- Problem is often new ventures do not generate much (if any) positive FCF. Therefore many use pro-forma analysis to value venture 5-7 years in the future and discount this value to its PV.

Valuing Equity with FCF Growing Perpetuity Method



$$\text{Value} = \frac{\text{VCF}_T}{r_\infty - g}$$

where : VCF_T = current value of next period's FCF

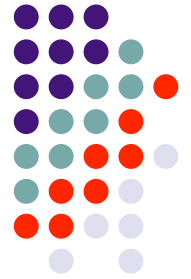
r_∞ = constant discount rate for equity (CAPM)

g = sustainable constant growth rate

To maximize value, Founders need to convince investors that the venture's:

- Future growth will be rapid
- Risk is manageable

Factors Impacting Investors Perception of Required Rate of Return (i.e. Risk)

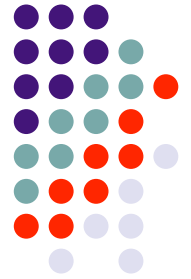


- Volatility in stock price: Beta

$$k_{cs} = k_{rf} + \beta \cdot (k_m - k_{rf})$$

- Volatility in earnings
- Cyclicalities of Industry
- Capital Structure
- Liquidity and Credit strength
- Confidence in management (track record)
- Other risks (sovereign, foreign exchange, etc.)

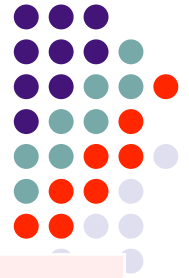
Factors Impacting Growth in Earnings



- Industry growth rate
- Company's ability to gain market share
- Management's focus on growth and earnings
 - Capex and R&D
 - Divestitures of slow growth businesses
 - Potential for value added acquisitions
- Trends in Profit Margins
- New products and services
- Capacity to raise capital
- Dividend policy ($g = ROE \times r$)

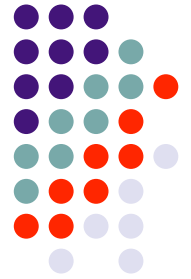
Equity Valuation

Discounted Levered FCF Method



ABC Corp						
	1	2	3	4	5	
<u>Levered</u> Free Cash Flow \$Mil						
	2012E	2013E	2014E	2015E	2016E	
Net Cash from Operations	\$ 16	\$ 18	\$ 20	\$ 23	\$ 25	
Capital expenditures	\$ (7)	\$ (7)	\$ (7)	\$ (6)	\$ (5)	
Free Cash Flow	\$ 9	\$ 11	\$ 13	\$ 17	\$ 20	
Terminal Value					\$ 218.95	
Total (FCF + Terminal Value)	\$ 9	\$ 11	\$ 13	\$ 17	\$ 238.95	
PV	\$7.93	\$8.54	\$8.89	\$10.24	\$126.86	
Comp Beta	1.5					
30 year UST Yield	3.0%					
			<u>Notes</u>			
Avg Market Return	10.0%		1) Terminal Value = (FCF 2016 * (1+g)) / (RRR Equity -g)			
Est. Constant Growth	4.0%		2) FCF and Terminal Value discounted at RRR Equity			
RRR Equity	13.5%		3) RRR determined by CAPM with Comp Beta			
Value Common Equity	\$162.46					

Adjusting for Equity Investments



- Pre-Money Valuation:

present value of a venture prior to new money investment

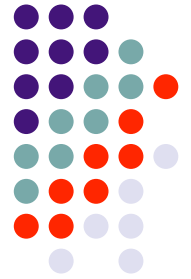
- Post-Money Valuation:

pre-money valuation of venture + money injected by new investors

Example: Selling \$25 million of Equity

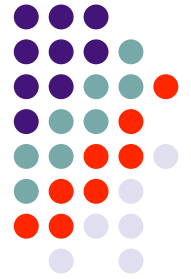
Pre-Money Valuation			100	
Equity Investment			25	
Post-Money Valuation			125	
Percentage of Company Sold			20%	
(Equity Investment / Post-Money Valuation)				

Issues in Valuing new Venture Companies



- Will venture be successful/profitable business and when??
- Lack historical track record and financial information
- Growth rate difficult to estimate and highly volatile
- Identifying risks and appropriate discount rate
- Handling low profitability and cash flow resulting from high Capex and lumpy investment requirements, yet to be realized scale advantages and sales growth

Issues in Valuing new Venture Companies



- Ultimately, “Beauty is the eye of the beholder”, when it comes to valuing a venture. Investors will pay what they perceive is the venture’s value based on growth potential, risk and a whole host of other factors
- Market conditions have a major impact – in periods of low liquidity there is often no bid for startup ventures
- Valuation in M&A scenario
- Valuation perspective: Founder and Diversified Fund