16. Going private & LBOs

Going private

= quoted (Public) company stops listing on stock exchange
= delisting ↔ IPO

= Offer to buy all publicly held shares (free float)

**Potential source of finance**

= increase leverage & repurchase shares

* Leveraged buyout (LBO)
* Management buyout (MBO)
= for smaller companies & divisions
= crucial role for existing (incumbent) management
= takeover led by new managers (Management buy-in MBI)
* Long term goal
= take company back to stock exchange at higher P

1. LBO vs. MBO vs. LEVERAGED RECAP

1.1 LBO vs. Leveraged recap

**Leveraged buyout**
= issuing debt to buy company’s stock or pay dividends, initiated by outside party

**Leveraged recapitalization**
= when initiated by company itself for internal reasons



1.2 LBO deal structure

Shell company
= created only for transaction

**LBO/MBO example: Wavell corporation**

* Stable CF, low leverage ratio
* Parent dissatisfied
	+ Low growth opp
	+ Activity non-core to group
* Management negotiated takeover P of $2 mln
	+ Assumes they can generate sufficient CF to repay loans
	+ Make **bank loan repayment schedule**
		- Loan
		- Interest rate
		- Payments
			* Annuity factor PVAF(t,r%) = [1-1/(1+r)t]/r
			* Payment = loan/PVAF(t,r%)
			= consists of both interest & principal payment!
	+ **Make Pro-forma CF statement**
	! Because you take large risk: need to show bs assumptions are realistic e.g. stable EBIT
		- EBIT – interest – taxes + depreciation – Principal repaid = addition to cash
	+ **Cash reserves** always +
	= NI + depreciation – debt repayment + previous cash balance
	+ **Profits retained**= previous equity + NI
	= value of equity increases
	+ **Make pro-forma BS**
	= cash + other current assets + property + net plant & equipment
	= total assets
	= debt + equity
	+ **Managers get rest of equity value after buy back shares**= Value equityt - #shares\*guaranteed returnt
	+ **Expected return managers**= (Rest of equity/#shares)1/t - 1
	+ **° Debt free company that can return to stock exchange (SIPO)**

**🡪** Risk especially high in 1st years following LBO

 Peak LBO = later bc as time passes, uncertainty rises

2. VALUATOIN OF LBO COMPANIES

2.1 Discounted Cash Flow (DCF) method

= using WACC as discount factor
= not convenient as debt ratio ∆ through time
🡪 WACC ≠ contstant

2.2 Capital Cash Flow (CCF) method

1. Compute FCF of 100% equity financed company
2. Compute interest tax shield
3. CCF
= FCF + tax shield
4. Discount at expected return on assets (asset return = ka)
ka = Rf + ßa x (RM – Rf)
where ßa = asset beta (beta of 100% equity financed company)
5. Leads to same results as appropriately modified version of DCF or adjusted Present Value methods

**Projected operating relationships**
= operational efficiency

* NOI = net operating income = EBIT
* NOPAT = net operating profit after taxes = (1-tax).NOI
* FCF corrections
= ∆ working capital, extra capital expenditures, ∆ other assets
= assumption driven
* FCF = NOPAT + depr - ∆ working capital – capital exp – change other assets net
* Interest expenses can be determined based on debt repayment schedule (given)

Rev 5000, growth 8% first 5y, 3% after, tax 40%, 2000 book debt, 100m shares



* Terminal value = CCFn+1/(Ka-g)
! Solution extremely sensitive to assumed growth value (g)
* Operating value (V)
= PV (CF y1-y5) + PV(Terminal value)
* Value equity = V – value D
* Intrinsic share P
= value equity/# shares

2.3 LBO value creation

* Financial
=raises leverage ratio & tax shield
* Operational
= increases efficiency (profit margins) & sales growth
* Every assumption affect company value
= sensitivity analysis
* ! Whatever the number, should still be > current share P
🡪 Do transaction for a reason

2.4 Valuation multiples

= reference points for comparison of valuation across companies & deals

1. Operating value/ rev0  (cf. P/sales)
2. Operating value/NOI0 (cf. P/E)
3. Operating value/EBITDA0 (cf. P/E)
	1. EBTIDA = earnings before interest, taxes, depr & amortization

3. LBO STAGES

1st stage

= planning & fund raising

* Financing
	+ 10% cash from investor group
	+ 50-60% bank loans, balance from senior x junior subordinated debt
* Management incentives
= stock price-based incentives (options, etc.)

2nd stage

= firm taken private

* Stock-purchase (buy outstanding shares)
or asset-purchase (buy assets and form new privately held corporation)
* New owners usually sell off parts of acquired firm to reduce debt

3rd stage

= attempt to increase CF

* Cut operating C & spending
* When possible: delay capital expenditures
* Try new M to revenues

4th stage

= reverse LBOs increase liquidity

* Investor group may take improved company public again through public equity offering
(Second initial public offering – SIPO)
* Investors reaching SIPO realized 268.4% annual return on LBO investment

Attractive LBO targets

1. Typical target industries
	1. Basic, non-regulated industry
	= stable earnings, predictable/low financial requirements
	e.g. retail, textiles, food, apparel, soft drinks (half of all LBOs)
	2. High-tech industry less appropriate
	= more risk, no track record, fewer assets, high P/Es
2. Target firm characteristics
	1. Capable management
	= willing to bet personal wealth on success
	2. Strong market position within industry
	3. Liquid balance sheet
	with undervalued assets

4. EXIT STRATEGIES

= Private equity investors need to recover their investment
(± 5y after deal)

1. Sell other company in industry
= strategic buyer
2. Secondary buyout (SBO)
= sell it to other buyout firm
3. (Secondary) IPO
= take company (back) to stock exchange
4. Bankruptcy
5. MBO
6. Other

4.1 Empirical studies

**‘80s samples**

* Announcement effect
= usually +20% AR
* Premium paid on top of stock P during (1-2) month(s) before deal
	+ Premium increases with # bidding parties (average from 55% to 69% with ≥ 3)
* Leverage increases (D/E ratio)
* Divisional MBOs
	+ Average divison sold represents 16.6% of parent’s market value
	+ Small + announcement effect
* High-leveraged LBOs
	+ LBO makes EBITDA/interest ratio drop
	+ Almost 1/3 of high-leveraged deal leads to financial distress
* Divestments market response
	+ + if healthy company
	+ – if distressed

**More recent**

* Premium ±30% (lower than in 80s)
* Post-buyout debt to capital 70.5 (lower than 80s)
* 15% IPO, 16% sold, 10% 2nd LBO, 12% bankrupt, 47% still private/unkown

5. VALUE CREATION IN LBOs

5.1 Positive value creation

1. **Tax advantages**
= increased deductability of interest payments, accelerated depreciation,…
	1. Larger potential adv, larger premium
	2. Substantial part of bid premium can be recovered through tax adv
2. **Management incentives & agency costs**= LBO/MBO increases managerial ownership & concentration of ownership
	1. Better alignment of interest of managers & sh
	= more incentives for management to spend effort, lower agency costs
	2. Less asymmetric info problems
	3. Less FCF problems (thanks to higher leverage))
	4. Empirical evidence
	= almost all LBO companies have extensive management incentive plans & higher premiums paid for companies with higher P(FCF problems)
3. **Advantages of being private company**
	1. Focus on LT goals
	2. Frees up management time
	3. Reduces communication needs

5.2 Expropriation

1. Wealth transfer from debt to equity
= from bondholders/preferred stock holders to sh
	1. Massive leverage, value of existing debt instruments, despite existence of covenants
	2. Empirical evidence
	= losses for bondholders statistically significant but quite small compared to gains of sh
2. Wealth transfer from employees to sh
= limited evidence, sometimes LBO ° employment
3. Wealth transfer from tax payers to sh
= deductability is compensated by capital gains tax paid by selling sh in LBO and SIPO deals
= more tax paid after leverage is reduced
4. Asymmetric information
= transfer from outsiders to insiders
= insiders more info about true company value
= premium too low (underpricing)!

5.3 Post buyout

Is there actual LT value creation?

* Compare LBO and SIPO
= + rate of return, correlated with ownership share of management
* Comparison with S&P
= median excess return 26.1% higher in LBO
= similar to premium earned by prebuyout sh
= excess return relates to ∆ OI, not to potential tax benefits
* Performance
= Before SIPO: rise, after little decline (average still rise)
= evidence of info asymmetries, management will ° SIPO in exceptional y
* CAR first 3 years +
= most of gains due to firms taken over
* Firms outperform industries in 4y following SIPO
	+ of leverage loosened cash constraints
	+ Capital expenditures

! Evidence post-deal performance = mixed
🡪 Depending on what you look at, can look very + or very –

6. LBO ACTIVITY

= Correlated with merger waves (M&A activities)
🡪 Large bubble in ’06, ‘07

6.1 LBO waves

**1. Early 90s**
= sharp decline # buyouts

* Too many playesr
= competition drives up bid P & higher P(default) (winner’s curse)
* Recession/lower eco growth
° bankruptcies
* LBOs go out of business
= have attracted too much debt they cannot repay

**2. Rest of 90s**
= recovery in buyout market ~ strong eco growth
! No return to 80s level

**3. Buyout boom (2003-2007)**
= driven by private equity funds (KKR, Blackstone Group)

* **Private equity funds**
= (quasi-) equity investments I non-quoted companies with high growth potential
	+ High risk, high req return
	+ Traditionally limited to early stages of comp life cycle & hih tech industries
	
	+ Problem 1 PE industry
	= traditional venture capital model: historic returns on early stage investments low
	= Internal Rate of Return 5-10% for European PE funds (higher for top quartile)
	+ Problem 2
	= huge inflow of funds
	= more funds available, not necessarily more good ideas
		- Solution
		= shift towards late stages (high historic returns, large deal sizes)
		- Consequence
		= shift from I in high tech to traditional industries
* **Buyout boom: valuations & leverage**
= Due to strong competition on buyout markets: ° ever increasing valuations
= ever increasing post-LBO leverage ratios
🡪 Rise in debt/EBITDA ratios
🡪 EU: P just as high, just less firms willing to take risk (US more risk-taking)

e.g. Blackstone/Hilton: largest hotel buyout in history & largest deal for Blackstone
🡪 Does not do divestitures, but funds the whole transaction by using mortgages on the real estate

**4. Buyout bust (mid 2007)**
= start financial crisis

* Dramatic slowdown of inflow of funds into PE industry
	+ Value & volume of European PE backed buyouts fell
* Market for CLO instruments of buyout loans collapses
= exposure gets stuck in large merchant banks
* Due to spill-over of crisis to “real” economy
	+ High leverage ratios make LBO companies vulnerable to ∆ in bs cycle
	+ Default rates LBO companies increase (1% ’07 to >4% ’08 to >10% ’09)
	+ “Paper” loss in CLO’s vs “real” loss

e.g. Blackstone & Hilton break-up: tripling investment, most profitable PE deal ever

7. LBO: LOWER RISK?

Nowadays
= LBOs exist again, but comp take lower risks (industry has learned)

e.g. Debt-to-EBITDA Dell 2x-3x

🡪 Still highly levered deals, increased pressure from regulators
e.g. Heinz at 6x-9x EBITDA