Lecture 7

Dividend Signalling/Free cash flow Model.

Dividend Policy: Integrating Signalling and Free Cash Flow Hypothesis (Fairchild 2008).

- MM Irrelevance: Key assumptions: Symmetric Information, no managerial incentive (agency) problems.
- Signalling Hypothesis: Asymmetric Information: Dividends provide signals to investors (eg Miller and Rock 1985).
- Free Cashflow Hypothesis: Dividends eliminate FCF that mgr may otherwise invest in –ve NPV projects (Jensen 1986)
- Both Positive signals.

New Agency cost of Dividends (Cohen and Yagil 2006)

- What if firm needs to cut dividends to take positive NPV project?
- But refuses to do so, since mkt believes dividend cut is a bad signal?
- => Agency cost of dividends (Cohen and Yagil).
- => divs ambiguous: High divs +ve signal of high current income, and +ve effect of reducing FCF problem (-ve NPV projects).
- But Low divs could be a signal of good +ve NPV projects.

Dividend Puzzle.

- Black (1976). "The harder we look at the dividend picture, the more it seems like a puzzle, with pieces that just don't fit together."
- Fuller and Thakor (2002): "We lack an integrated theory that incorporates both the signaling and FCF motivations for dividends."

My Model.

- Dividend signalling model that incorporates both Asymmetric info and free cashflow problems.
- Dual Role for dividends: High dividend: positive signal of current income (like Miller and Rock).
- Dividends affect mgr's ability to invest in a new project (case 1: negative NPV => High divs positive signal: Case 2: +ve NPV: high divs: cannot take the new good project).

High divs good?

- Wolldridge and Ghosh: Dividend cuts may be good
- Allen and Michaely: "But, with asymm info, dividend may be viewed as bad news.
 Firms that pay divs may be the ones that have no +ve NPV projects to invest in."
- Black: "Perhaps a corporation that pays no dividends is demonstrating confidence that it has +ve NPV projs."

Case 1: -ve NPV project.

- FCF problem: Mgr gets private benefits from taking new project.
- Therefore, may wish to choose high divs to commit no to take the project.
- Depends on level of private benefits, and level of mgrl equity compensation.

Case 1: Continued $N_g > N_b > 0$

Timeline:

Date 0: Each Firm's net income revealed to the manager, but not to investors. New project becomes available, requiring investment I > 0.

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With a date 2 return on equity \rho < 0.
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At date 1: Each mgr makes a simultaneous (committed) dividend announcement.

Date 1.5: pays out div: if enough cashflow left; takes the project.

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Date 2: If proj taken, private benefits b > 0.
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Managerial Compensation $M = \alpha V_1 + B$

Each manager's dividend choice signals something to market.

Bayesian Updating: Specify market beliefs.

Check whether, in eqm, mkt is correct.

<u>Moral Hazard Problem</u>: Mgr gets equity compensation, then chooses to take project: therefore, commitment problem.

Solving the Game

- Specifying market beliefs:
- If one mgr chooses high div and one chooses low div, mkt believes that high div signals good firm, low div signals bad firm.
- (Is mkt correct in eqm?)
- If mkt observes that both firms pay same div: mkt cannot update beliefs: still equal prob of good or bad firm.

Normal Game

G\B	

Case 2

$$N_g - I < N_b$$

•Focus on positive NPV project: zero Private Benefits.

•Mkt beliefs: as before: high divs: good firm: low divs: bad firm (behaviourally conditioned: eg div catering (Baker and Wurgler: self-control problems Shefrin and Statman: see later BCF section)

•Adverse selection problem: mgr may refuse to cut divs to take good project, since mkt thinks div cuts bad news (agency cost of divs: Yagil and Cohen).

How can firm get round adverse selection problem and cut divs to take +ve NPV Project?

- Communication (see Wooldridge and Ghosh).
- But "cheap-talk": bad firm can mimic.
- Add reputation (eg Brucato and Smith 1997, and Gillet et al 2008).