

# The Double-Edged Sword of Withdrawal Rights

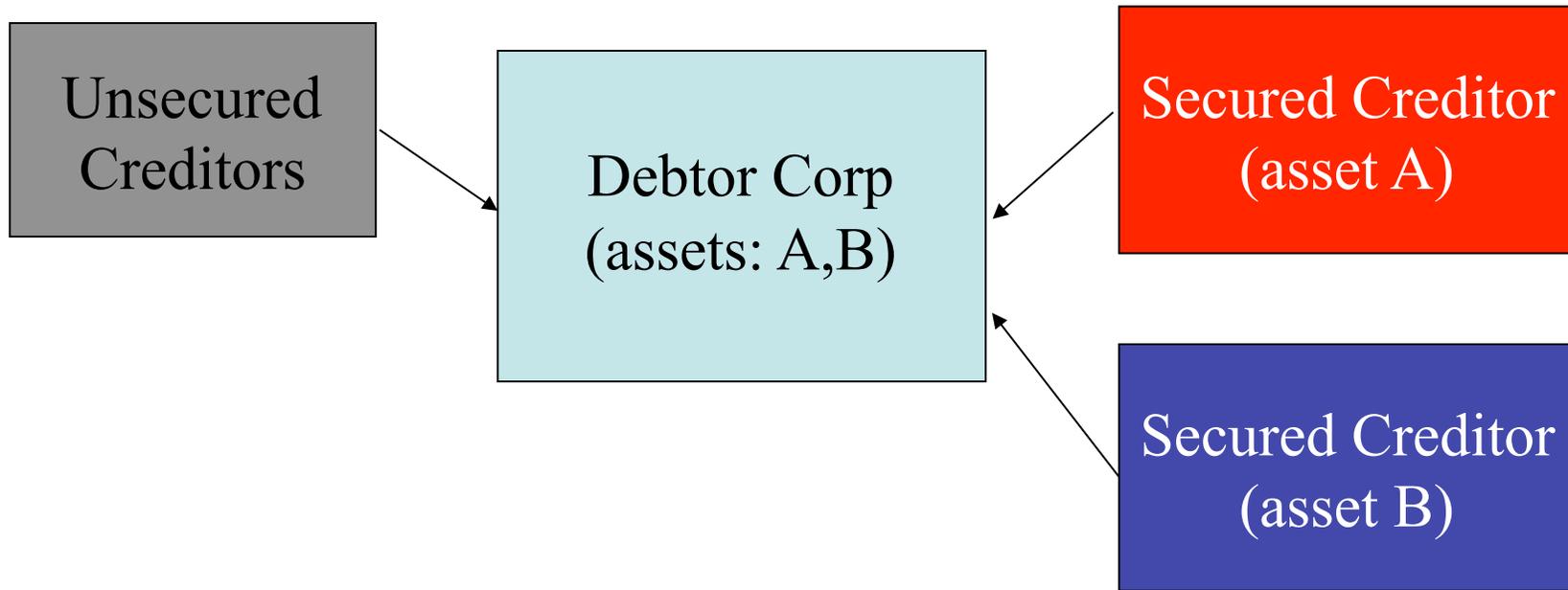
Alternative title for punk fans:  
“Should I Stay or Should I Go? The Clash of  
Creditors in Bankruptcy”

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Work in progress--comments very welcome

# Parent/Sub Structure

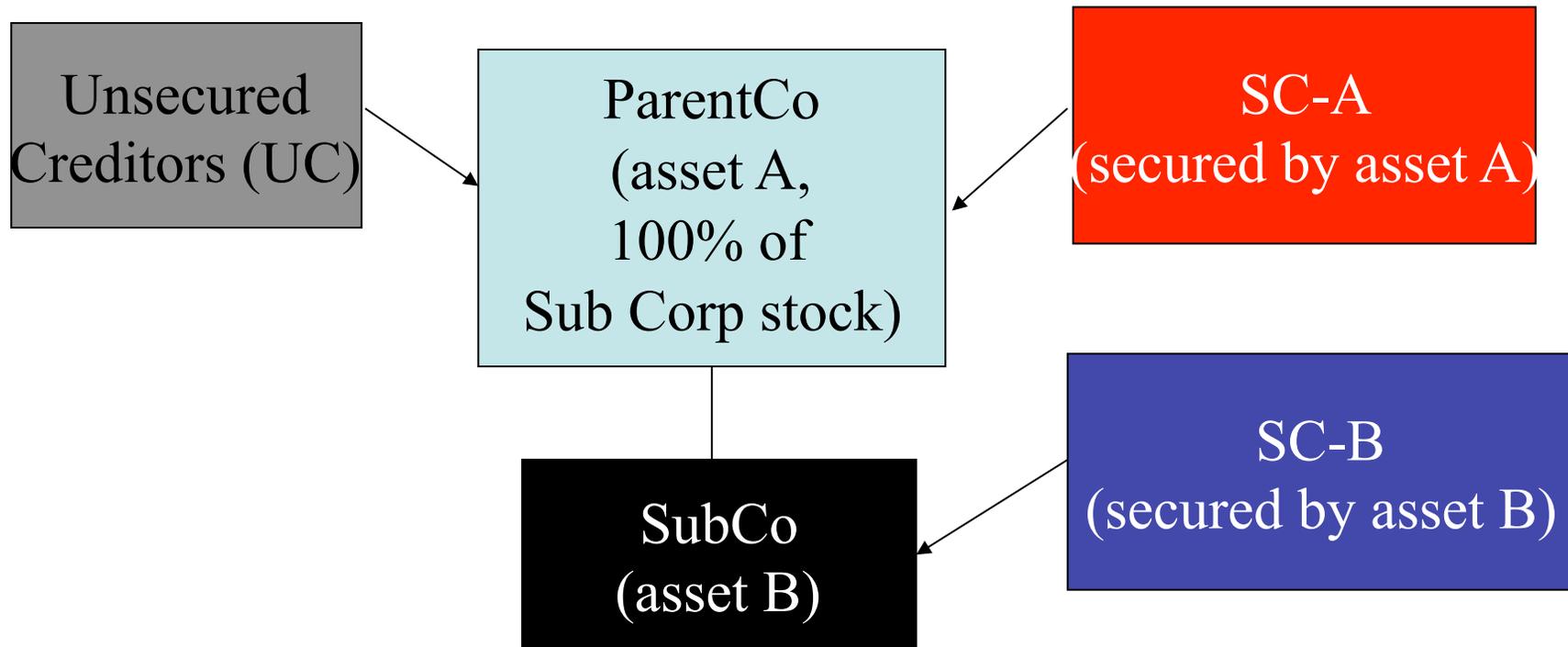
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- If Debtor Corp files for bankruptcy, all secured and unsecured creditors are subject to an *automatic stay*.
- Cannot seize collateral without court permission
- Stay is mandatory: can not waive by contract

## Parent/Sub structure changes the outcome

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- If ParentCo files for bankruptcy but SubCo does not, then SC-B is not affected by automatic stay in ParentCo bankruptcy.
- If SC-B contracted for the right to withdraw asset B when ParentCo defaults, it can do so.

# Related literature

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## On mandatory terms in lending/bankruptcy:

- Priority for secured credit: Bebchuk and Fried 1996, Schwartz 1996
- Ipso-facto clauses: Che and Schwartz 1999
- Justifying mandatory laws in financial markets/bankruptcy generally: Longhofer and Peters 2004, Ayotte and Bolton 2011
- *This paper: first to model costs and benefits of the stay*

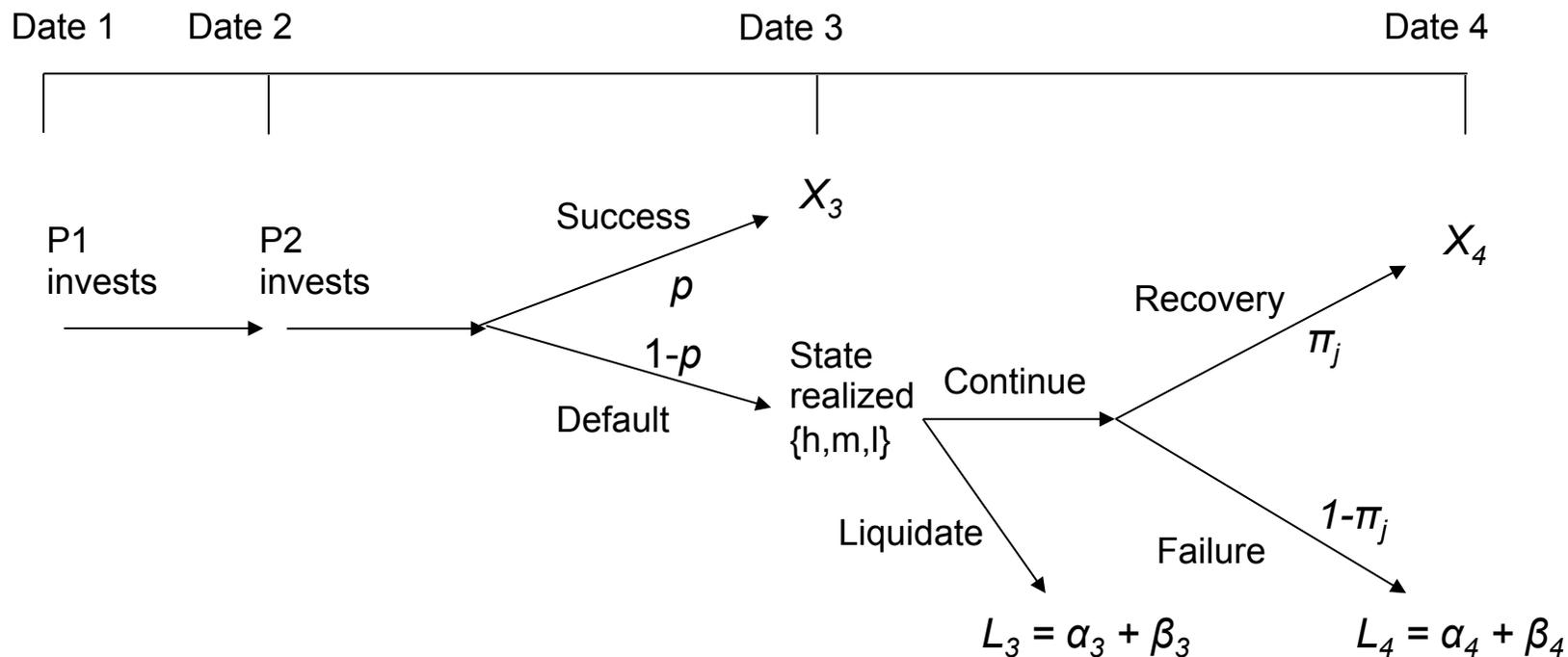
## Secured credit as solution to information problems/ monitoring costs:

- Secured credit: Myers and Majluf 1984, Bester 1985, Besanko and Thakor 1987, Jackson and Kronman 1979, Triantis 1992
- Securitization/separate entities: Hill 1996, Iacobucci and Winter 2005
- *This paper: suggests that lack of knowledge/monitoring is a double-edged sword.*

Date 1: E borrows from secured creditor(s) P1, purchases asset A.  
 P1 = the firm's "other creditors".

Date 2: E borrows from secured creditor P2, purchases complementary asset B  
 E chooses whether P2 is **informed** or **uninformed** about Date 3 state,  
 and whether P2 is subject to a **stay** or can **withdraw**.

Date 3: Success pays off all creditors and dividend to E  
 Failure pays 0, state of world realized. Continuation efficient in states  
 h,m but liquidation efficient in state l. P1 and P2 bargain, E wiped out.



# E's date 2 problem

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Key to the problem: sequential contracting. By date 2, P1's contract is fixed. Hence, E chooses P2's contract terms: information  $\eta = \{0 = \text{uninformed}, 1 = \text{informed}\}$ , withdrawal right  $\omega = \{\text{withdraw}, \text{stay}\}$ , and required repayment  $F_2$  to maximize her payoff in the success state:

$$\max_{\eta, \omega, F_2} p(X_3 - F_1 - F_2), \text{ subject to}$$

$$pF_2 + (1-p)R_{P2}(\eta, \omega) \geq \eta\theta i_2 + (1-\eta)i_2$$

Easy to show that this problem reduces to maximizing P2's expected payoff in distress  $(1-p)R_{P2}(\eta, \omega)$ , less the cost of financing, which depends on whether P2 is informed or not:

$$(1-p)R_{P2}(\eta, \omega) - \eta\theta i_2 - (1-\eta)i_2$$

# E's date 1 problem

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If we call the solution to the date 2 problem  $\{\eta^*, \omega^*, F_{2*}\}$ , then E's date 1 problem is

$$\max_{F_{11}} p(X_{13} - F_{11} - F_{2*}) \text{ subject to}$$

$$pF_{11} + (1-p)R_{P1}(\eta^*, \omega^*, F_{2*}) \geq i_{11}$$

In my setup,  $F_{11}$  has no effect on P1's expected distress payoff  $R_{P1}$ .

(interpretation: P1's deficiency claim is large relative to P2).  
Hence, just set  $F_{11}$  so that P1's participation constraint binds.

Note: P1 is "fully adjusting": rationally anticipates E's contract with P2 when setting  $F_{11}$

# Bargaining in Distress State: Withdrawal Rights

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- I make parameter assumptions so that E always receives 0 in default. So bargaining is only between P1 and P2.
  - More realistic. Equity typically wiped out in Ch 11.
- First, suppose that P2 has a withdrawal right: can take asset B and liquidate it.
- Bargaining structure under withdrawal rights:
  - P1/P2 chosen to make TIOLI offer w.p.  $\frac{1}{2}$ .
  - Offeror can choose liquidation or make an offer of a state-contingent continuation payoff to offeree. Let  $\{t \downarrow h, t \downarrow l\}$  be P2's payoff in  $\{\text{recovery}, \text{failure}\}$  at date 4.
  - P1 always has full information about state; P2's information depends on E's choice of financing at date 2.
  - If offer refused by offeree, liquidation. P1 gets  $\alpha \downarrow 3$ , P2 gets  $\beta \downarrow 3$ .

# Withdrawal Rights: Informed vs. Uninformed P2

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- If P2 is informed, then bargaining under withdrawal rights is ex-post efficient. Offeror takes all surplus, so surplus is split in expectation.
- If P2 is uninformed, then bargaining under asymmetric information can be inefficient.

# When P2 makes offer: inefficient liquidation

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- When P2 makes TIOLI offer to P1, she may be faced with a trade-off:
  - Continuation is efficient in both medium and high states
  - Trade-off: P2 may be forced to choose between an offer that either
    - A) captures all surplus in medium state (may leave surplus on the table in high state)
    - B) captures all surplus in the high state (which results in P1 refusing the offer in the medium state).
  - If P2 prefers (B), then inefficient liquidation results.

# When P1 makes offer: inefficient continuation

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- PBE: P2 must form a belief about state, given P1's offer, beliefs must be consistent on eqbm path.
  - P2's beliefs: anything other than senior debt is suspicious—comes from low type. (Myers and Majluf 1984). So P1 offers senior debt.

Prop 1: If  $\beta_3 < L_4$ , or  $\beta_3 > L_4$  and  $\pi \downarrow (X \downarrow 4 - \beta_3 - (1 - \pi)L_4 / \pi) < \alpha_3$ , ex-post efficiency obtains. Otherwise, pooling eqbm with inefficient continuation in the low state.

- Intuition: high state-P1's subsidize low state P1's.
- *Key points: Relative to an informed P2, the costs of inefficient continuation are borne by P1 ex-post (Lemma 3).*
- *Hence, E is biased toward uninformed debt (Prop 4). Bias is greater when prob of default (1-p) is larger.*

# Next step:

## Bargaining Under the Stay

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- I contrast withdrawal against a stay of P2, with treatment approximating bankruptcy law:
  - P1 (representing the bankruptcy estate) proposes either liquidation, or a continuation offer  $\{t \downarrow h, t \downarrow l\}$ .
  - “Adequate protection”: the offer must be worth at least  $\beta \downarrow 3$  according to bankruptcy judge, and pay  $\beta \downarrow 4$  after a failure.
  - Judge has no information about state; only prior probabilities. P2 can convince judge about state, but only if informed.
  - Judge leans toward continuation: considers P2 “adequately protected” if there is some probability that  $\{t \downarrow h, t \downarrow l\}$  is worth  $\beta \downarrow 3$ , given her information.

*Results: automatic stay results in*

- *Excess continuation when P2 is uninformed;*
- *At date 2, E is biased toward issuing informed debt*

# Withdrawal (W) vs. Stay (S): Efficiency Comparison

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- Efficiency requires maximizing total recovery in bankruptcy less financing costs:  $(1-p) (R \downarrow P1 + R \downarrow P2 \uparrow \eta, \omega) - \eta \theta i_2 - (1-\eta) i_2$
- If  $\theta$  is low enough that E would choose informed debt under W or S, then W and S are equivalent.
- If  $\theta$  is large enough that E would choose uninformed debt, then either a stay or a withdrawal right in favor of P2 may be efficient. The stay is more favorable when:
  - a) the probability of continuation being efficient is higher;
  - b) P2's collateral deteriorates less in continuation.

*But if E can choose freely, E always gives P2 a withdrawal right.*

# Recap/Takeaways

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## *Necessary conditions for a mandatory stay to create value:*

1. (Some) early lenders cannot police a debtor's subsequent contracts
  - Trade creditors, asset-based lenders, landlords, bonds
2. The firm may have going-concern value,
3. Bargaining may break down, and
4. Asset subject to withdrawal right is specific

## *The model further suggests that the stay is more likely to be efficient, compared to withdrawal, when:*

1. The secured creditor's collateral deteriorates less in continuation;
2. The debtor is more distressed when it borrowed
  1. This leads to a bias toward uninformed debt, which can create inefficient bargaining under withdrawal