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

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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

- 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

On mandatory terms in lending/bankruptcy:
− Priority for secured credit: Bebchuk and Fried 1996, Schwartz 1996
− Ipso-facto clauses: Che and Schwartz 1999
  − *This paper: first to model costs and benefits of the stay*

Secured credit as solution to information problems/monitoring costs:
− Securitization/separate entities: Hill 1996, Iacobucci and Winter 2005
  − *This paper: suggests that lack of knowledge/monitoring is a double-edged sword.*

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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

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 \( \omega = \{\text{withdraw, stay}\} \), and required repayment \( F \downarrow 2 \) to maximize her payoff in the success state:

\[
\max_{\eta, \omega, \omega} p(X \downarrow 3 - F \downarrow 1 - F \downarrow 2), \text{ subject to } pF_2 + (1-p) R \uparrow P2 \uparrow \eta, \omega (\eta, \omega) \geq \eta \theta i_2 + (1-\eta) i_2
\]

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

\[
(1-p) R \uparrow P2 \uparrow \eta, \omega (\eta, \omega) - \eta \theta i_2 - (1-\eta) i_2
\]

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E’s date 1 problem

If we call the solution to the date 2 problem \(\{\eta^\star, \omega^\star, F_{\downarrow 2\star}\}\), then E’s date 1 problem is

\[
\max_{F_{\downarrow 1}} p(X_{\downarrow 3} - F_{\downarrow 1} - F_{\downarrow 2\star}) \quad \text{subject to} \quad pF_{\downarrow 1} + (1-p)R_{\downarrow P1} (\eta^\star, \omega^\star, F_{\downarrow 2\star} ) \geq i_{\downarrow 1}
\]

In my setup, \(F_{\downarrow 1}\) has no effect on P1’s expected distress payoff \(R_{\downarrow P1}\).
(interpretation: P1’s deficiency claim is large relative to P2).
Hence, just set \(F_{\downarrow 1}\) so that P1’s participation constraint binds.

Note: P1 is “fully adjusting”: rationally anticipates E’s contract with P2 when setting \(A_{\downarrow 1}\).
Bargaining in Distress State: Withdrawal Rights

- 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 \{recovery, 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 \( \beta \downarrow 3 \).

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Withdrawal Rights: Informed vs. Uninformed P2

• 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

- 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

- 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 $\pi\nabla l \left(X\nabla l - \beta_3 - (1 - \pi) L_4 / \pi\right) < \alpha_3$, 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

- 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 $\{t_{\uparrow h}, t_{\uparrow l}\}$.
  - “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 $\{t_{\uparrow h}, t_{\uparrow l}\}$ 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

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

- Efficiency requires maximizing total recovery in bankruptcy less financing costs: \( (1-p) \left( R_{\downarrow P1} + R_{\downarrow P2} \eta, \omega \right) - \eta \theta i_2 - (1-\eta)i_2 \)

- 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.

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Recap/Takeaways

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

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