Structured Finance & Restructuring

Prof. Ian Giddy
New York University

Structured Finance

- Corporate financial restructuring
- Asset-backed securitization
- Synthetic and whole business securitization
- Credit-linked structured finance
- Structured financing techniques
  - Debt-linked
  - Equity-linked
- Leveraged finance
### Structured Finance

<table>
<thead>
<tr>
<th>Date</th>
<th>Topics</th>
<th>Readings</th>
<th>Assignment</th>
<th>Slides</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feb 12</td>
<td>Introduction to structured finance and impact of credit derivatives on structuring</td>
<td>Advanced Bond and Credit Markets</td>
<td>Complete restructuring of senior debt instruments</td>
<td>S1</td>
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<tr>
<td>Feb 19</td>
<td>Lending with (un)secured Collateral</td>
<td>Introduction to Risk</td>
<td>Read credit risk senior loans</td>
<td>S2</td>
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<tr>
<td>Mar 1</td>
<td>Collateralized Debt Obligations: Structure and Valuing</td>
<td>Collateralized Debt Obligations (Chap 6)</td>
<td>Read collateralized debt options</td>
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<tr>
<td>Mar 4</td>
<td>Whole Loan Asset Securitization and Structured Credit</td>
<td>Intro to escape clauses and fungibility</td>
<td>Read bankruptcy securities</td>
<td>S4</td>
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<tr>
<td>Mar 8</td>
<td>Credit default swap (CDS) and related instruments</td>
<td>Credit default swap (CDS) and related instruments</td>
<td>Study of credit derivatives and structured credit</td>
<td>S5</td>
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<tr>
<td>Mar 11</td>
<td>Credit linked notes: Introduction</td>
<td>Credit linked notes (CDS) and related instruments</td>
<td>Read credit linked notes (CDS) and related instruments</td>
<td>S6</td>
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<tr>
<td>Apr 1</td>
<td>Enron credit swap default (what happens next)</td>
<td>Enron credit default swap (what happens next)</td>
<td>Turn in the Assignments</td>
<td>S7</td>
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<tr>
<td>Apr 5</td>
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<td>Enron credit default swap default</td>
<td>Turn in the Assignments</td>
<td>S8</td>
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<td>Apr 12</td>
<td>Leverage buy-out financing</td>
<td>Leverage buy-out financing</td>
<td>Assignments</td>
<td>S9</td>
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<tr>
<td>Apr 19</td>
<td>Leverage buy-out financing</td>
<td>Leverage buy-out financing</td>
<td>Assignments</td>
<td>S10</td>
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<tr>
<td>May 6</td>
<td>Review of course and Final Exam</td>
<td>Review of course and Final Exam</td>
<td>Sample Final</td>
<td>S11</td>
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</table>

### Assignments

- **Individual 30%**
- **Team 30%**
- **Caselets 20%**
- **Final 40%**
Investor economics

- SPONSORING COMPANY
- ACCOUNTS RECEIVABLE
- SALE OR ASSIGNMENT
- SPECIAL PURPOSE VEHICLE
- ISSUES ASSET-BACKED CERTIFICATES

- Rates
- Ratings
- Risk
- Liquidity
- Spread analysis

Bowie Rights: Where's the Money?

Sources of Revenue:

- **Publishing Royalties**: The owner of the copyright in the musical composition receives income from licensing, sale or performance use of the copyrighted songs (from record companies and otherwise). Royalties received include a portion payable to the songwriter, as well as a portion payable to the publisher.

- **Mechanical Royalties**: Monies paid by record companies to publishers for the right to use songs on records, regardless whether they are original or cover versions.

- **Performance Royalties**: Payments from broadcast and public performances are collected by performing rights societies such as ASCAP, BMI or SESAC and their foreign affiliates from radio and television (among many other uses) that broadcast or use songs owned or written by members of their society. Royalties are distributed to writers and publishers under formulas established by each society that determine the appropriate distribution to each writer and publisher.

- **Synchronization Royalties**: Songwriters and copyright owners receive payments when a song they own and/or composed is synchronized to a film or videotape, regardless of who performs the song. Royalties are based on negotiated agreements between the copyright owner and the licensor.

- **Artist Royalties**: Artists receive payments under their contracts with record companies based on record sales. The royalties are only for the recording artist, not the songwriter or publisher.
Credit-Linked Notes

BANK

Credit Default Swap

Credit Guarantee

Fee (like spread on bond)

SPV

Credit-Linked Notes (ABS)

REFERENCE POOL OF LOANS

Credit-Linked Notes

BANK

Credit Default Swap

Credit Guarantee

Fee (like spread on bond)

SPV

Credit-Linked Notes (ABS)

Structure of the US MBS Market

Mortgage Loan

Bank (mortgage originator) makes a whole loan
Ancillary: brokers, servicers, insurers

Mortgage Pass-Through

FNMA or GMAC (conduit) pools mortgage loans with similar characteristics

CMO or REMIC

Takes a mortgage pool and makes the cash flows more predictable by assigning priority of claims to the cash flows

MBS Portfolio

Institutional investor evaluates risk/return behavior of mortgage-backed securities through option-adjusted price and spread analysis

Mortgage Strips

Interest-Only and Principal-Only
Convexity of Callables

Mortgage-backed securities and other callable bonds may have negative convexity which cushions a bond’s price rise and accelerates its fall!

Convertibles

Option Value

Bond Value

Breakeven stock price

Current stock price

Stock Price
Getting LBO Financing to Work

Free Cash Flow Analysis of LBO

LBO Financing

What securities? What returns? What investors?

NEWCO

Cash Flow Business

Senior debt $1b

Mezzanine

Equity $0.25b
Structured Finance

- Corporate financial restructuring
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Corporate Financial Restructuring

Why Restructure?

- **Proactive**
  - *Example:* Sealed Air
  - Management acts to preserve or enhance shareholder value

- **Defensive**
  - *Example:* Loewen 1996
  - Management acts to protect company, stakeholders and management from change in control

- **Distress**
  - *Example:* Loewen 1999
  - Lenders and shareholders lose, but try to work out best way to minimize loss
Restructuring at Tower

Music Retailer Seeks Bankruptcy Protection

By: Sanford Scott

Tower Records, one of the largest specialty retailers of music and video in the country and one of the last family-run businesses in an industry increasingly dominated by mass merchants like Wal-Mart, file for Chapter 11 bankruptcy protection Tuesday.

The filing by Tower and parent company, MTS Inc., comes at a time when the traditional record stores, whose generations of American first-dimensions music, are under siege from larger chains and discount stores as well as from the growing availability of music videos.

The filing is intended to restructure the company’s debt by 50% to 70%, so that interest costs will consume less of the company’s earnings.

“Ian” H. Giddy/NYU Structured Finance

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Structured Finance 16

Match the Solution to the Problem

Trouble!

Reason

The financing is bad

Business mix is bad

The company is bad

Remedy

Raise equity, or do debt/equity swap

Sell some businesses or assets to pay down debt

Change control or management through M&A

Portfolio?

Financial?

Organizational?

Or what?
What is Corporate Restructuring?

- Any substantial change in a company’s financial structure, or ownership or control, or business portfolio.
- Designed to increase the value of the firm
A Simple Framework

- A company is a “nexus of contracts” with shareholders, creditors, managers, employees, suppliers, etc
- Restructuring is the process by which these contracts are changed – to increase the value of all claims.
- Applications:
  - restructuring creditor claims (Conseco);
  - restructuring shareholder claims (AT&T);
  - restructuring employee claims (UAL)

“Nexus of Contracts”
Example

Conseco

Debt

Equity

Bondholders were offered the chance to get a more senior position in exchange for deferring repayment of their debt.

Novartis
Novartis: Financial Restructuring

- Fixed the cash and working capital
- Divested Non-core business
- Fixed the capital structure

Assets:
- Cash
- Fixed Assets

Liabilities:
- Debt
- Equity

Ciba
**Financial Restructuring**

The increase in value that comes from a purely financial effect:
- Lower taxes
- Higher debt capacity
- Better use of idle cash

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**Corporate Restructuring: It’s All About Value**

- How can corporate and financial restructuring create value?

<table>
<thead>
<tr>
<th>Assets</th>
<th>Liabilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fix the business</td>
<td>Operating Cash Flows</td>
</tr>
<tr>
<td></td>
<td>Debt</td>
</tr>
<tr>
<td></td>
<td>Equity</td>
</tr>
<tr>
<td>Or fix the financing</td>
<td></td>
</tr>
</tbody>
</table>
## Restructuring Checklist

<table>
<thead>
<tr>
<th>Action</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Figure out what the business is worth now</td>
<td>Use valuation model – present value of free cash flows</td>
</tr>
<tr>
<td>Fix the business mix – divestitures</td>
<td>Value assets to be sold</td>
</tr>
<tr>
<td>Fix the business – strategic partner or merger</td>
<td>Value the merged firm with synergies</td>
</tr>
<tr>
<td>Fix the financing – improve D/E structure</td>
<td>Revalue firm under different leverage assumptions – lowest WACC</td>
</tr>
<tr>
<td>Fix the kind of equity</td>
<td>What can be done to make the equity more valuable to investors?</td>
</tr>
<tr>
<td>Fix the kind of debt or hybrid financing</td>
<td>What mix of debt is best suited to this business?</td>
</tr>
<tr>
<td>Fix management or control</td>
<td>Value the changes new control would produce</td>
</tr>
</tbody>
</table>

### Getting the Financing Right

**Step 1: The Proportion of Equity & Debt**

- Achieve lowest weighted average cost of capital
- May also affect the business side
Getting the Financing Right
Step 2: The Kind of Equity & Debt

- Debt
- Equity

- Short term? Long term?
- Baht? Dollar? Yen?
- Bonds? Asset-backed?
- Convertibles? Hybrids?
- Debt/Equity Swaps?
- Private? Public?
- Strategic partner?
- Domestic? ADRs?
- Ownership & control?

Restructuring and Structured Finance

- Restructuring debt to make it cash-flow responsive
- Converting debt into equity
- Securing asset-backed funding
- Securing mezzanine and subordinated debt financing
- Securing equity-linked and hybrid financing
- Raising new equity
The Challenge

- Solving corporate financing problems by creating securities that are responsive to investors’ and issuers’ needs, constraints and views.
- Example: Getronics (how did this work?)

Getronics’ Financial Restructuring

by Prof. Ian H. Giddy, New York University

Bond of brothers

Getronics has drawn up a novel alternative to the bond buyback as a method of restructuring excessive debt. The Dutch technology services company issued too many convertible bonds during boom times. When its stock price subsequently slumped, these effectively became short-dated straight loans. The value of the group’s publicly traded debt—even the out of the money convertibles—slumped.

Companies in a similar predicament often try to reduce their liabilities by repurchasing bonds at less than face value. If successfully executed, this exercise can relieve the debt burden on the company. In theory, all investors benefit. But because such operations are perceived to benefit the shareholders at the bondholders’ expense, negotiations over them can be protracted. And sometimes, as in the case of Verenigd, the Dutch telecom group, the bondholders dig their heels in. Then repurchases don’t get done at all.

Getronics sidestepped this adversarial exercise by handing things over to the bondholders. It has created a framework by which they can effectively set the terms on which they convert their bonds into equity. It is allowing holders of its £150m of two convertible notes temporarily to convert up to 36% of the stock at a much lower conversion price. If executed, this should reduce the group’s outstanding debt by 33%, returning its debt obligations to investment grade status.

To ensure that this happens, Getronics has offered bondholders a significant incentive to tender. It has set a very low minimum conversion price. For example, if holders of one class of the convertibles tendered bonds with a face value of £3,000 at the minimum conversion price of 84.60, they would receive 217 shares worth £369.90 at Monday’s closing price. The same £3,000 nominal of bonds traded at about 82.05 on Monday.

That all looks fine for bondholders, but how does it help shareholders? Enjoying debt almost at par helps their position. Here the cunning bit kicks in. To protect shareholders against dilution, the bondholders must bid in a book-building exercise to set the final conversion price. To be more certain of earning, they must offer to accept less stock in return for their bonds. That way fewer shares should be issued.

One thing that can stop restructurings in their tracks is antagonism between holders of the various classes of capital. The merit of the Getronics mechanism is that it leaves all stakeholders with some measure of control.
Next: Asset-Backed Securities

$1,462,716,000
Ford Credit Auto Owner Trust 1999-A

Ford Credit Auto Receivables Two L.P.
Ford Motor Credit Company

The trust will issue the following securities:

<table>
<thead>
<tr>
<th>Principal Amount</th>
<th>Interest Rate</th>
<th>Final Maturity Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class A-1 Notes</td>
<td>$250,000,000</td>
<td>5.01%</td>
</tr>
<tr>
<td>Class A-2 Notes</td>
<td>$500,000,000</td>
<td>5.99%</td>
</tr>
<tr>
<td>Class A-3 Notes</td>
<td>$405,000,000</td>
<td>5.51%</td>
</tr>
<tr>
<td>Class A-4 Notes</td>
<td>$313,767,000</td>
<td>5.31%</td>
</tr>
<tr>
<td>Class A-5 Notes(1)</td>
<td>$250,000,000</td>
<td>5.38%</td>
</tr>
<tr>
<td>Class A-6 Notes</td>
<td>$250,000,000</td>
<td>6.41%</td>
</tr>
<tr>
<td>Class B Notes</td>
<td>$68,566,000</td>
<td>6.79%</td>
</tr>
<tr>
<td>Class C Certificates</td>
<td>$39,264,000</td>
<td>6.62%</td>
</tr>
<tr>
<td>Class D Certificates(1)</td>
<td>$39,264,000</td>
<td>6.00%</td>
</tr>
</tbody>
</table>

(1) The Class A-5 Notes, the Class A-6 Notes and the Class D Certificates are not being offered by the prospectus supplement.

Before you purchase any of these securities, be sure you understand the structure and the risks. See especially the risk factors beginning on page 5-13 of this prospectus supplement and on page 13 of the attached prospectus.

These securities are

Ford Negotiation

Ford → Placement Agreement ← KBIF

Goldman Sachs
Ford In-Class Negotiation Assignment

- Three teams:
  - Ford: why does the ABS deal make sense? What are the cost and funding advantages?
  - Goldman: how can I persuade both parties, and make good money on this deal?
  - Korean Bond Investment Fund: which tranche should I buy, if any?

- Assignment:
  - Study the Ford Motor Credit prospectus, and define the key differences among the securities being offered
  - Negotiate a placement agreement that specifies how much money Ford raises, and at what cost; and how much KBIF invests, and in which securities
  - Turn in your Team Report (2 pages plus exhibits) listing the terms of the agreement by 6pm Friday 20th. (Send it by email to ian.giddy@nyu.edu, with cc to rab276@stern.nyu.edu)

Contact Info

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