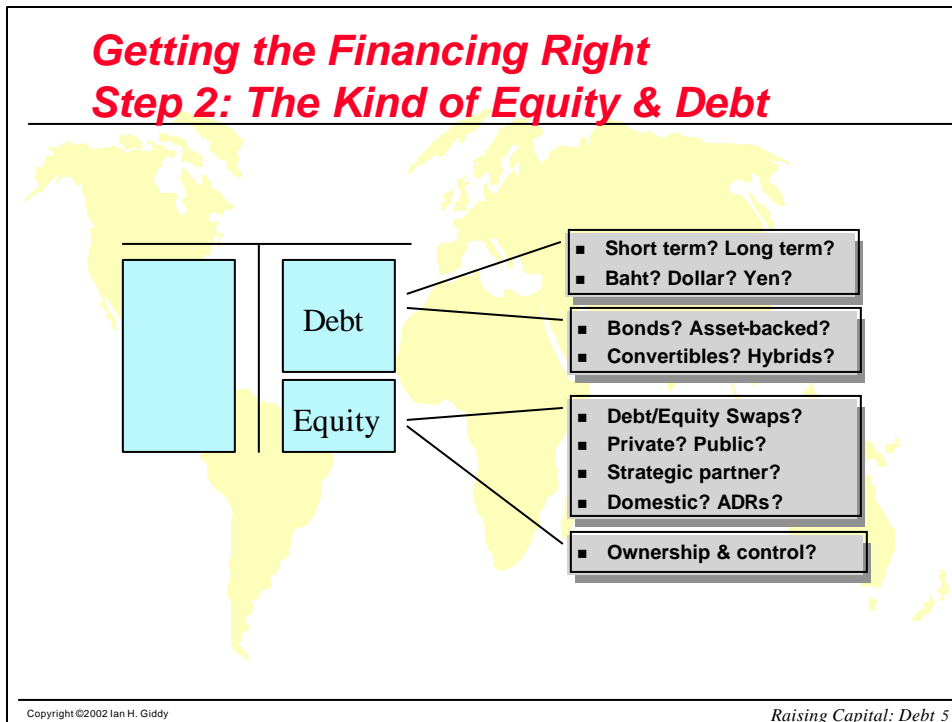
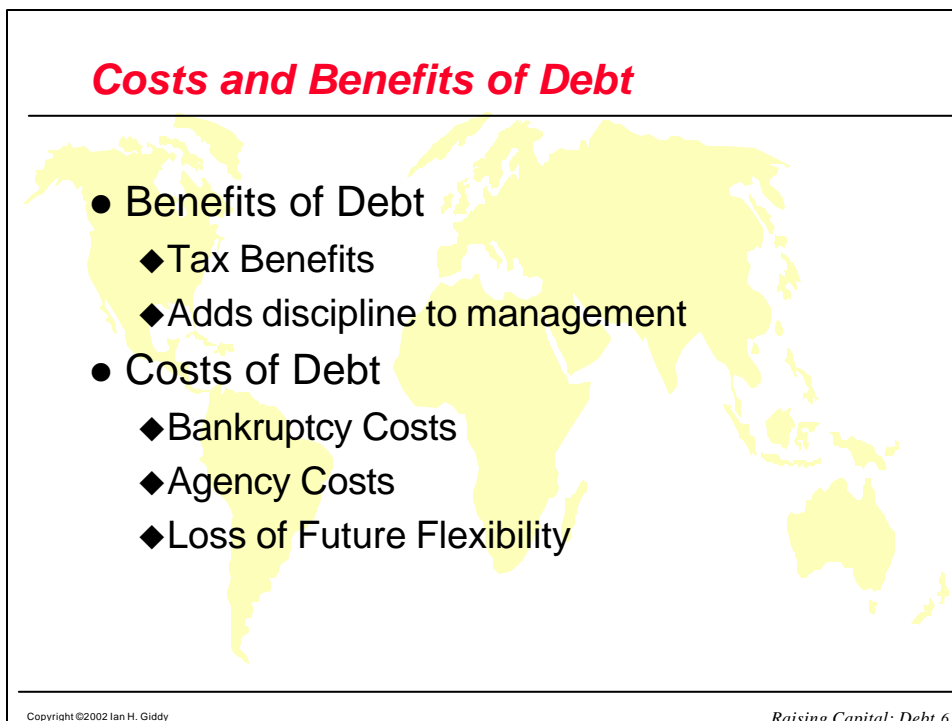


Getting the Financing Right Step 2: The Kind of Equity & Debt



Costs and Benefits of Debt



Tax Benefits of Debt

- Tax Benefits: Interest on debt is tax deductible whereas cash flows on equity (like dividends) are not.
 - ◆ Tax benefit each year = $t r B$
 - ◆ After tax interest rate of debt = $(1-t) r$
- *Other things being equal, the higher the marginal tax rate of a corporation, the more debt it will have in its capital structure.*

Debt Adds Discipline to Management

- Equity is a cushion; Debt is a sword;
- The management of firms which have high cash flows left over each year are more likely to be complacent and inefficient.

Bankruptcy Cost

- The expected bankruptcy cost is a function of two variables--
 - ◆ the cost of going bankrupt
 - direct costs: Legal and other Deadweight Costs
 - indirect costs: Lost Sales...
 - ✓ durable versus non-durable goods (cars)
 - ✓ quality/safety is important (airlines)
 - ✓ supplementary services (copiers)
 - ◆ the probability of bankruptcy

The Bankruptcy Cost Proposition

- *Other things being equal, the greater the implicit bankruptcy cost and/or probability of bankruptcy in the operating cash flows of the firm, the less debt the firm can afford to use.*

Agency Cost: Lenders' Rights

- Stockholders incentives are different from bondholder incentives
 - ◆ Taking on risky projects
 - ◆ Withholding information
 - ◆ Paying large dividends
- *Other things being equal, the greater the agency problems associated with lending to a firm, the less debt the firm can afford to use.*


Loss of Future Financing Flexibility

- When a firm borrows up to its capacity, it loses the flexibility of financing future projects with debt.
- *Other things remaining equal, the more uncertain a firm is about its future financing requirements and projects, the less debt the firm will use for financing current projects.*

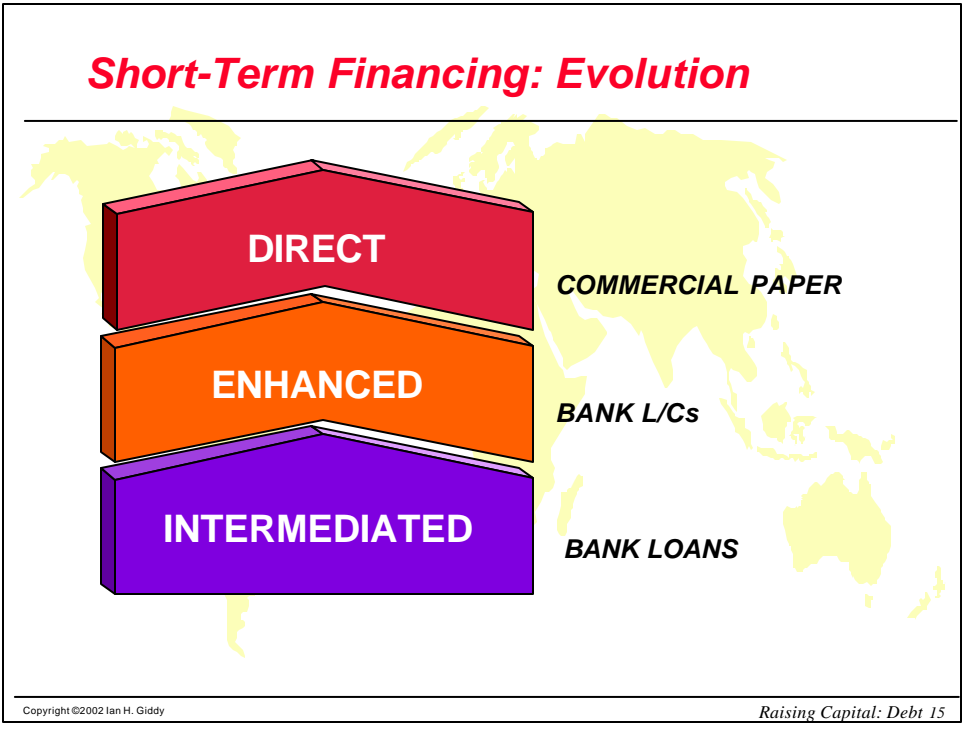
Debt Financing Techniques

Prof. Ian Giddy
New York University

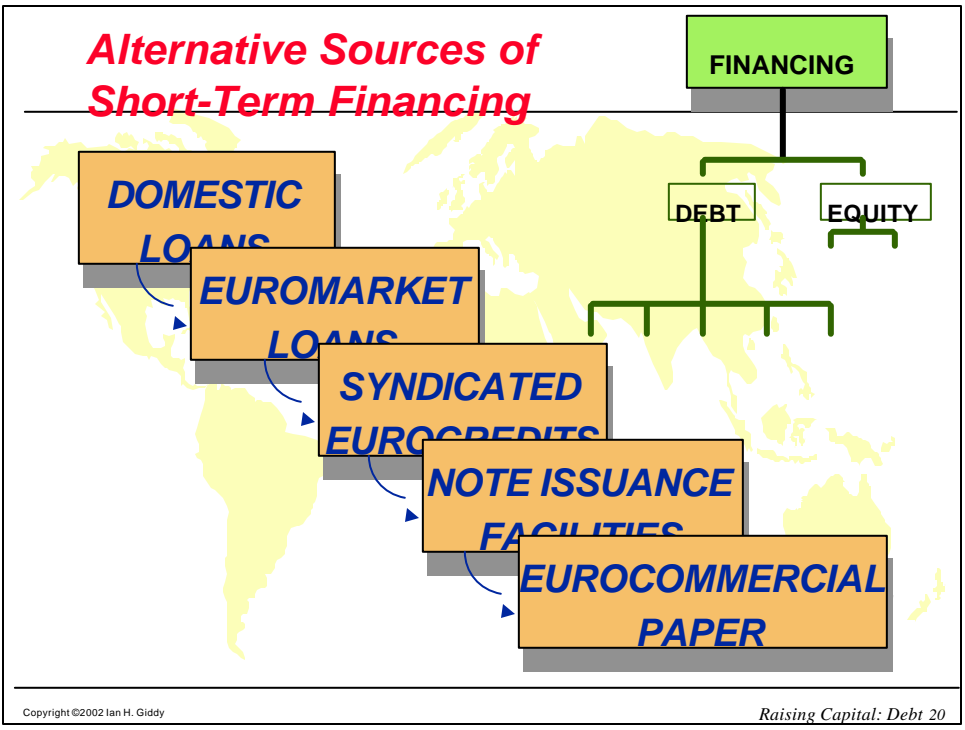
The International Capital Market

- 
- International bank financing
 - Eurobonds, foreign bonds and global bonds
 - Bond ratings
 - Eurobond issuance

Short-Term Financing: Evolution



Alternative Sources of Short-Term Financing



Alternative Sources of Long-Term Financing

- Bank credits - syndicated lending and facilities
- Bonds
 - ◆ Domestic, foreign, Euro
 - ◆ Public, private
 - ◆ Structured, such as principle-indexed notes
- Medium-term notes
- Asset-backed financing and leasing
- Project financing

```

graph TD
    FINANCING[FINANCING] --> DEBT[DEBT]
    FINANCING --> EQUITY[EQUITY]
    DEBT --> D1[ ]
    DEBT --> D2[ ]
    DEBT --> D3[ ]
    DEBT --> D4[ ]
    EQUITY --> E1[ ]
    EQUITY --> E2[ ]
            
```

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Long-Term Financing: Evolution

DIRECT

ENHANCED

INTERMEDIATED

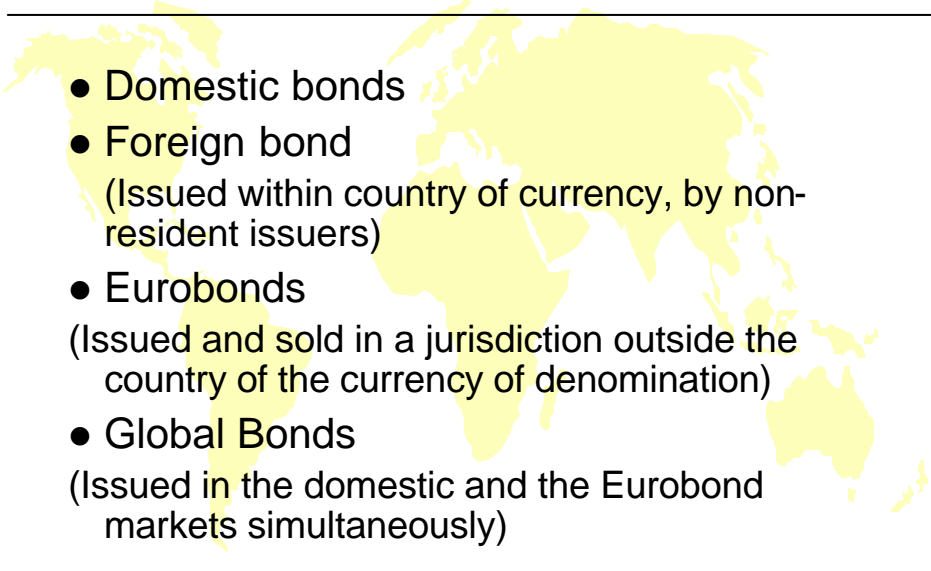
PUBLIC BONDS

BANK-GUARANTEED BONDS

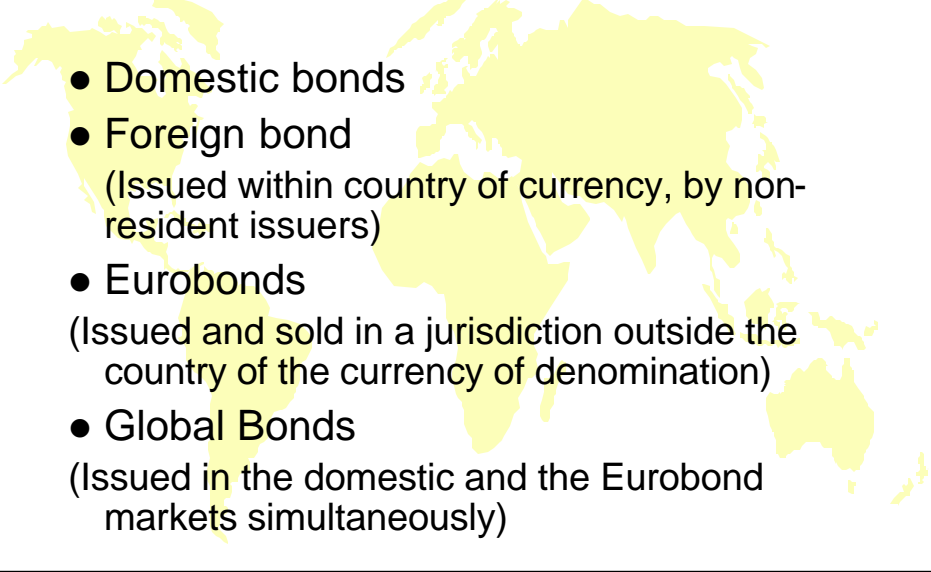
BANK TERM LOANS

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The Global Bond Market

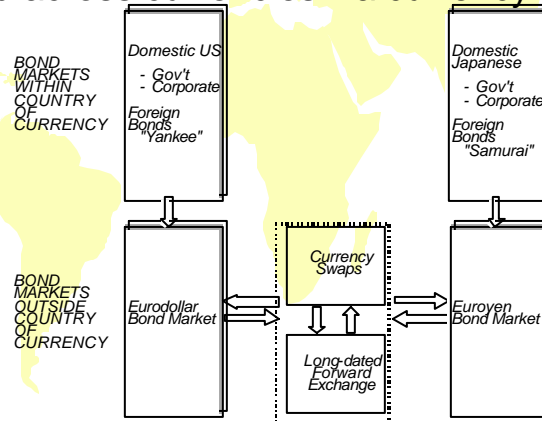
- 
- Domestic bonds
 - Foreign bond
(Issued within country of currency, by non-resident issuers)
 - Eurobonds
(Issued and sold in a jurisdiction outside the country of the currency of denomination)
 - Global Bonds
(Issued in the domestic and the Eurobond markets simultaneously)

The Global Bond Market

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- Domestic bonds
 - Foreign bond
(Issued within country of currency, by non-resident issuers)
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(Issued and sold in a jurisdiction outside the country of the currency of denomination)
 - Global Bonds
(Issued in the domestic and the Eurobond markets simultaneously)

International Bond Markets are Linked

- Issuers and investors compare terms in the domestic and Eurobond markets, which are linked across currencies via currency swaps



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Foreign Bonds

- A foreign bond is a bond issued in a host country's financial market, in the host country's currency, by a foreign borrower
- The three largest foreign bond markets are Japan, Switzerland, and the U.S., representing issuance of about \$40 billion in bonds annually

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Private Placements and Rule 144A

The private placement exemption from registration and disclosure is extended to Eurobonds as long as the U.S. investors meet the following requirements:

- ◆ They are large and sophisticated
- ◆ There are only a few investors
- ◆ They have access to information and analysis similar to that which would ordinarily be contained in a registered offering prospectus
- ◆ They are capable of sustaining the risk of losses, and
- ◆ They intend to purchase the bonds for their own investment portfolios, and not for resale.

Characteristics of Eurobonds

- Issued outside country of currency
 - Not subject to domestic registration or disclosure requirements
 - In most cases take form of private placements
 - Placed through syndicates in many countries who sell principally to nonresidents
 - Bonds are structured so as to be free of withholding tax
 - Bearer form
- But...
- Eurobonds usually influenced de facto by government and banks of country of currency

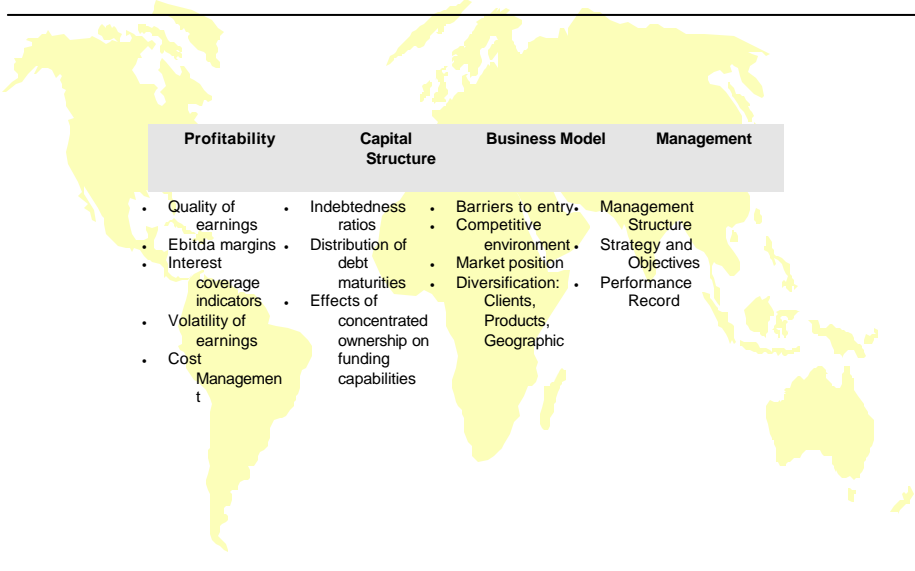
Corporate Bonds: Spread over Benchmark

MDYS	S/P	SIZE	ISSUE	COUPON	MAT	SPRD TO TRSY
Baa1	BBB	250	SALOMON INC MED TERM SR MT BE	8.550	02/17/97	+40 to comp
A3	A-	300	GENERAL MTRS ACCEP CORP MTN E	7.750	02/20/97	+25 to comp
Aaa	AAA	500	GENERAL ELEC CAP CORP MTNS BE	8.390	03/19/97	+15 to comp
A3	A-	300	GENERAL MTRS ACCEP CORP MTN E	7.800	05/05/97	+24 to comp
A1	A	275	IBM CORP NC	6.375	11/01/97	+17 to comp
A3	A-	2000	CHRYSLER FINL CORP MTN BE	5.710	12/15/97	+23 to comp
A3	A-	1455	GENERAL MTRS ACCEP CORP MTN E	7.625	02/06/98	+30 to 2/98
Baa3	A	355	AT&T CAP CORP MTNS BK EM	7.800	02/10/98	+50 to comp
A3	A-	5000	CHRYSLER NC	6.500	02/26/98	+23 to comp
A1	A+	2000	FORD GLOBAL NC	6.250	02/26/98	+22 to 2/98
Baa1	BBB	360	SALOMON BROS NC	9.375	02/26/98	+56 to 4/98
A2	A	1000	HOUSEHOLD FIN CORP SR MTNS BE	9.840	02/27/98	+25 to 3/98
A2	A	2750	AMERICAN BRANDS INC MTNS BE	8.870	03/04/98	+25 to 3/98
A3	A-	1000	GENERAL MTRS ACCEP CORP MTN E	5.375	03/09/98	+30 to 3/98
A2	A	5000	MELLON FINL CO SR MTNS BE	10.100	03/15/98	+27 to 3/98
A2	A-	1000	SEARS ROEBUCK & CO MTNS BK EM	7.320	03/20/98	+28 to comp
A2	A-	5000	DISCOVER CR CORP	9.000	04/01/98	+23 to comp

Bond Credit Ratings

Moody's	Standard & Poor's	Interpretation
Aaa	AAA	High-quality debt instruments
Aa	AA	
A	A	Strong to adequate ability to pay principal and interest
Baa	BBB	
Ba	BB	Ability to pay interest and principal speculative
B	B	
Caa	CCC	In default
Ca	CC	
C	C	
	D	

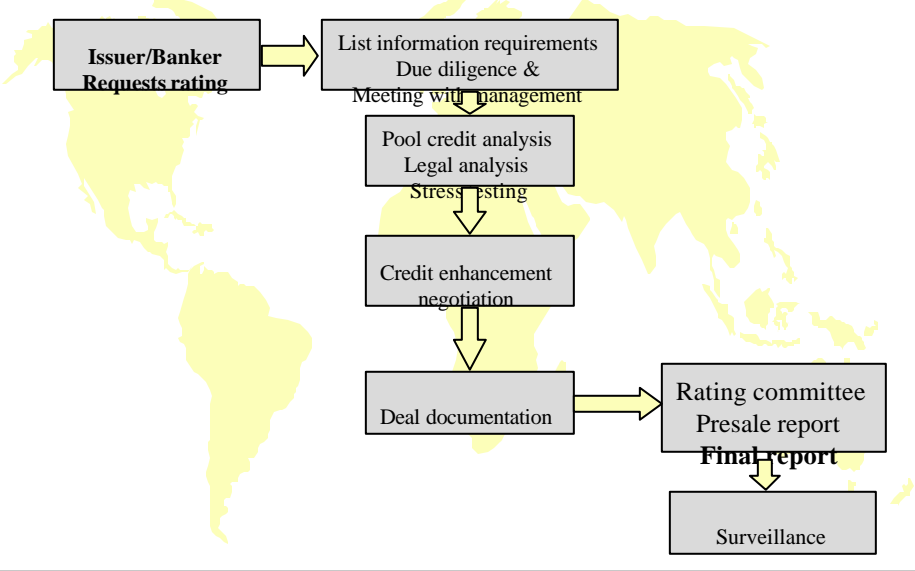
Rating Criteria



Profitability	Capital Structure	Business Model	Management
<ul style="list-style-type: none"> • Quality of earnings • Ebitda margins • Interest coverage indicators • Volatility of earnings • Cost Management 	<ul style="list-style-type: none"> • Indebtedness ratios • Distribution of debt maturities • Effects of concentrated ownership on funding capabilities 	<ul style="list-style-type: none"> • Barriers to entry • Competitive environment • Market position • Diversification: Clients, Products, Geographic 	<ul style="list-style-type: none"> • Management Structure • Strategy and Objectives • Performance Record

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Rating Process



```

    graph TD
      A[Issuer/Banker Requests rating] --> B[List information requirements  
Due diligence &  
Meeting with management]
      B --> C[Pool credit analysis  
Legal analysis  
Stress testing]
      C --> D[Credit enhancement negotiation]
      D --> E[Deal documentation]
      E --> F[Rating committee  
Presale report  
Final report]
      F --> G[Surveillance]
    
```

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Ratings and Spreads

Corporate bond spreads: basis points over Treasury curve							
Rating	1 year	2 year	3 year	5 year	7 year	10 year	30 year
Aaa/AAA	40	45	50	60	74	85	96
Aa1/AA+	45	55	60	70	84	95	106
Aa2/AA	55	60	65	75	89	105	116
Aa3/AA-	60	65	70	85	99	117	136
A1/A+	70	80	90	105	119	142	159
A2/A	80	90	105	120	140	157	179
A3/A-	90	100	110	130	150	176	196
Baa1/BBB	105	115	128	145	165	186	208
Baa2/BBB	120	130	140	160	180	201	221
Baa3/BBB	140	145	155	172	193	210	232
Ba1/BB+	225	250	275	300	325	350	440
Ba2/BB	250	275	300	325	350	385	540
Ba3/BB-	300	350	375	425	445	460	665
B1/B+	375	400	425	500	550	610	765
B2/B	450	500	550	625	670	710	890
B3/B-	500	550	650	750	875	975	1075
Caa/CCC	600	650	800	900	1025	1150	1300

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Protection Against Default: Examples

- Collateral
- Covenants
- Subordination of future debt
- Dividend restrictions
- Sinking funds

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Global Bonds

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Key Dates in the Issuance of a Eurobond

Issuance need or opportunity identified

Issuer discusses deal with lead manager

Announcement of Eurobond issue

Syndicate formed, bonds "presold" prior to final terms

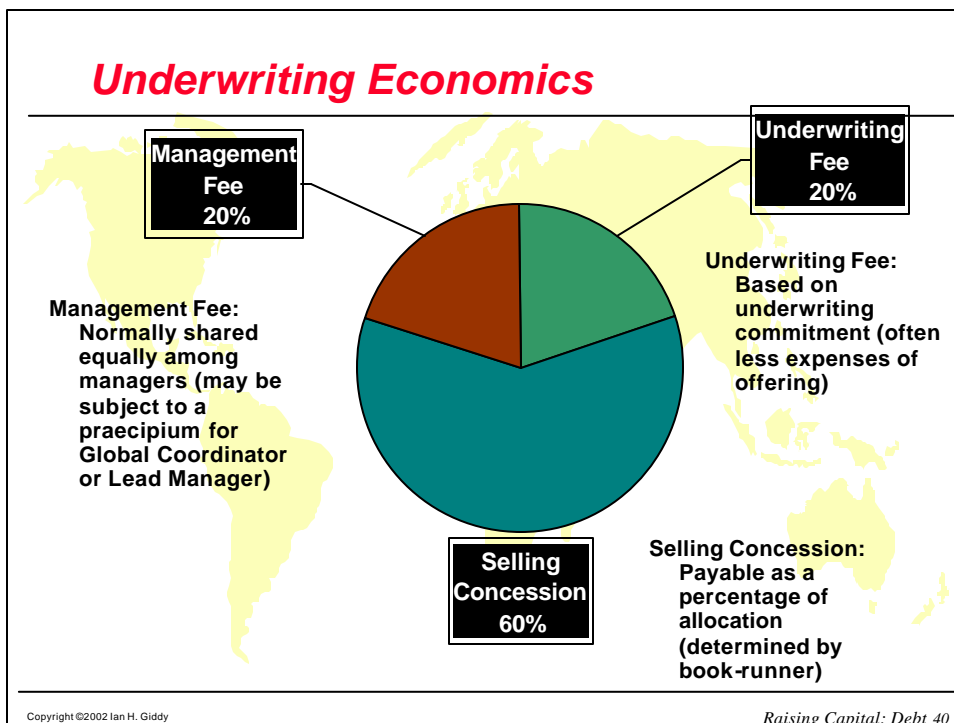
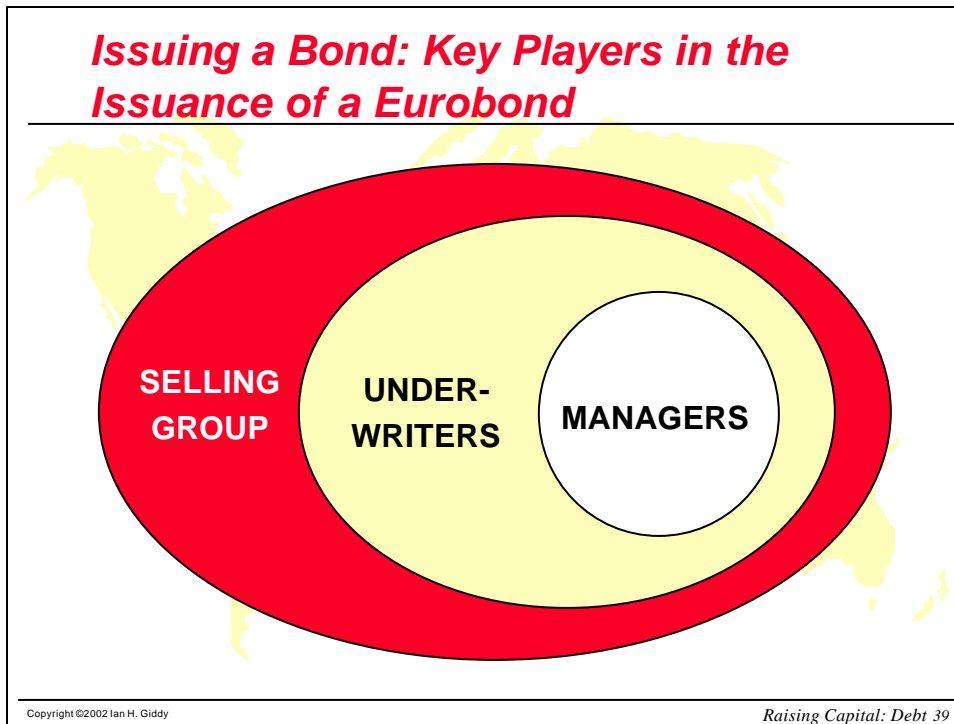
Offering day: Eurobond issued

Final terms, bonds sold by selling group to investors

Closing day: Eurobonds delivered, Issuer gets money

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Application

A Day in the Life of the Eurobond Market

- Examine the deals
 - ◆ Which were structured financing?
 - ◆ Why were each done in that particular form?
 - ◆ What determines the pricing?
- What is the effective cost of financing to the different companies?

A Day in the Life...


NEW INTERNATIONAL BOND ISSUES

Borrower	Amount in.	Coupon %	Price	Maturity	Moody/S&P Ratings	Fees	Bookrunner
Chester Trust 2001-1 (a)	US\$230	4.325	99.80	Mar 2008	Aaa/AAA	0.30	JF Morgan/CSB
Korea Tobacco, Okanag(b)**	US\$200	5-2.50W	100	Oct 2006	Baa1/B1	1.75	CSFB/UBS Warburg
Absolute EdgSec, Cie A(c)	€765	(c)	100	Sep 2011	Aaa/AAA	0.15	Deutsche/SGUERM
IR3 Coop NV (d)	€600	6.50	100	undated	A1/A	undated	IR3 Baring-BEL
SBCF (A,e)	€730	4.1/2	98.55	Nov 2007	Aaa/AAA	0.07	CCF
Cofinova	€300	5.875	99.11R	Oct 2016	-/AA-	0.40	BNP Paribas
Hokkaido	€130	6.125	100.125	Dec 2004	Aaa/AAA-	0.22	CSFB
Manasbank ***	€220180	7.625	101.30R	Sep 2004	Aaa/AAA	0.35	Deutsche
Keppel Telecom*	S\$150m	2.125	100	Sep 2001	Baa1	undated	DBS Bank
C. Agricole Indosuez (f) ***	A\$1.5bn	0	100.334	Mar 2003	-/A-	0.75	CAL HSBC

Final terms, non-callable unless stated. **25th equity security. ***Convertible. ****Private placement @8mm annual coupon. (a) Callable at par after 5 years. If call not exercised, bond pays 50bp over Libor in last year. (b) Floating rate note. Conv. premium: 13.18%. Redemption premium to yield T+125-175bp. Putable on 31/10/04 at accreted value. Callable from 31/10/04 subject to 135% hurdle at accreted value. (c) Structured on Orman into issue augmented by Fiat Bank Ormeh. Av life: 4.34 yrs. (d) 5-mo Eurobor20ky. (e) Also: class M of €835m retained. (f) Floating with €2bn. (g) Long first coupon (h) Redemption linked to hedge fund performance. Unrated (i) Subordinated

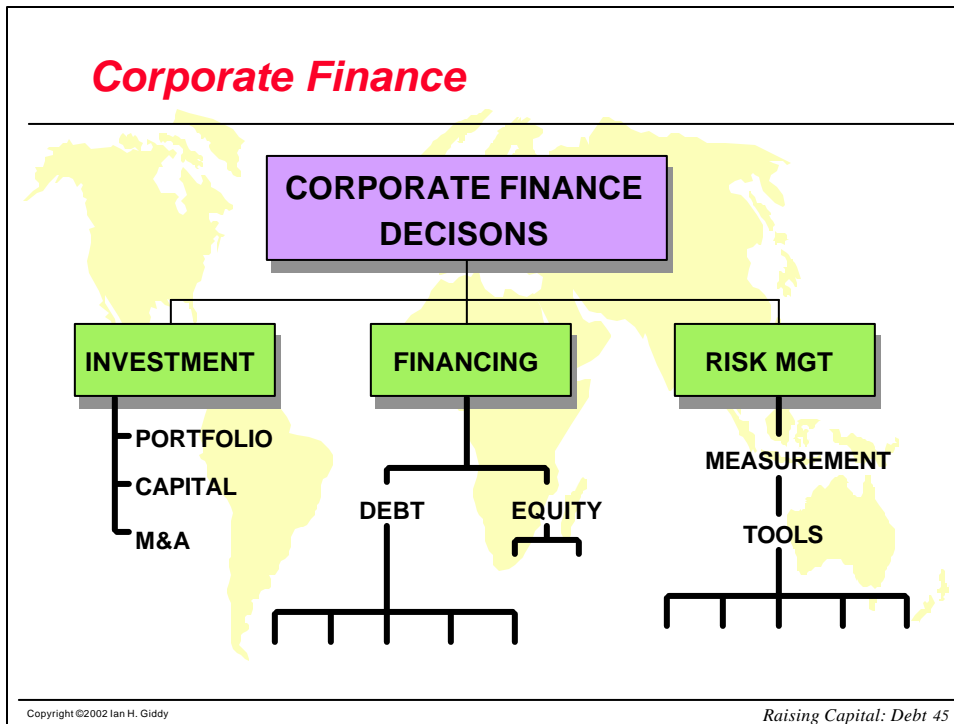
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Equity-Linked Eurobonds



- Convertible Eurobonds
 - ◆ Korea Tobacco
- Eurobonds with warrants
 - ◆ Keppel
- Index-linked Eurobonds
 - ◆ Credit Agricole Indosuez

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