Overview of Corporate Financing

Patterns of Corporate Financing

Most of the money for new investments conmes from profits that companies retain and reinvest. The remainder comes from selling new debt or equity securities.

Most of the cash is generated **internally**.

→ coming from cash flow allocated to **depreciation** and from **retained earnings** (earnings not paid out as cash dividends)

Reason: Shareholders are happy to plow money back to firms whose investments have positive-NPV outlay that increases shareholder value.

What to do when internal cash flow cannot cover investments?

1.cut back dividends to increase retained earnings

2.raise new debt or equity capital from outside investors

Net issues: Negative when cash raised by share issues **<** cash paid out to shareholders by repurchase of previously outstanding shares → mostly negative

Stock repurchases: Especially large when negative net equity issues are large

Debt issues: Mostly positive

How Much Do Firms Borrow?

Assets		$ Billions	Liabilities		$ Billions
Current assets[a]		$2,454	Current liabilities[a]		$1,802
Fixed assets	$3,321		Long-term debt	$2,014	
Less depreciation	1,791		Other long-term liabilities[b]	1,324	
Net fixed assets		1,530	Total long-term liabilities[b]		3,338
Other long-term assets		5,129	Stockholders' equity		3,973
Total assets		$9,113	Total liabilities and stockholders' equity		$9,113

TABLE 14.1 Aggregate balance sheet for manufacturing corporations in the United States, fourth quarter, 2014 (figures in $ billions).

[a] See Table 30.1 for a breakdown of current assets and liabilities.
[b] Includes deferred taxes and several miscellaneous categories.

Source: U.S. Census Bureau, *Quarterly Report for Manufacturing, Mining and Trade Corporations,* 2014 (www.census.gov/econ/qfr).

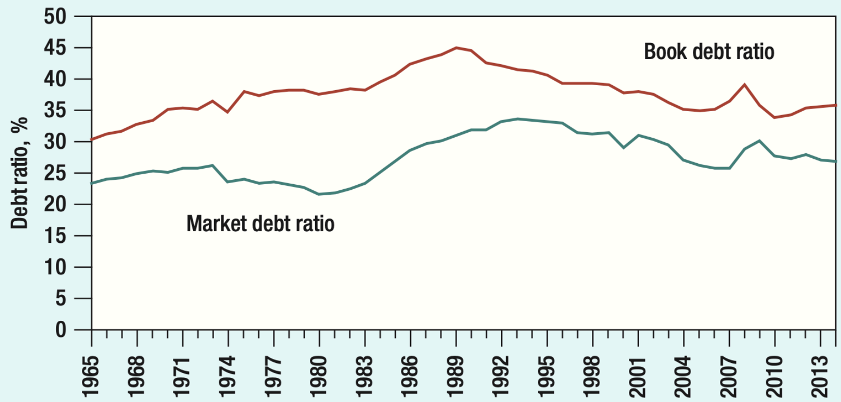
Assets and liabilities are entered at book values, that is, accounting values. These do not generally equal market values.

- Long-term debt = $2,014 billion
- Equity = $3,973 billion
- $\frac{Debt}{Total\ assets} = \frac{\$1{,}802+\$3{,}338}{\$9{,}113} = 0.56$
- $\frac{Long\ term\ liabilities}{Long\ term\ liabilities+equity} = \frac{\$2{,}014}{\$2{,}014+\$3{,}973} = 0.34$

FIGURE 14.2

Ratio of debt to debt plus net worth for nonfinancial corporations, 1965–2014.

Source: Board of Governors of the Federal Reserve System, Division of Research and Statistics, Flow of Funds Accounts Table B.102 at **www.federalreserve.gov/releases/z1/current/data.htm.**



*The debt ratios are lower when computed from marlet values rather than book values. This is because the market value of equity is generally **greater** than the book value.*

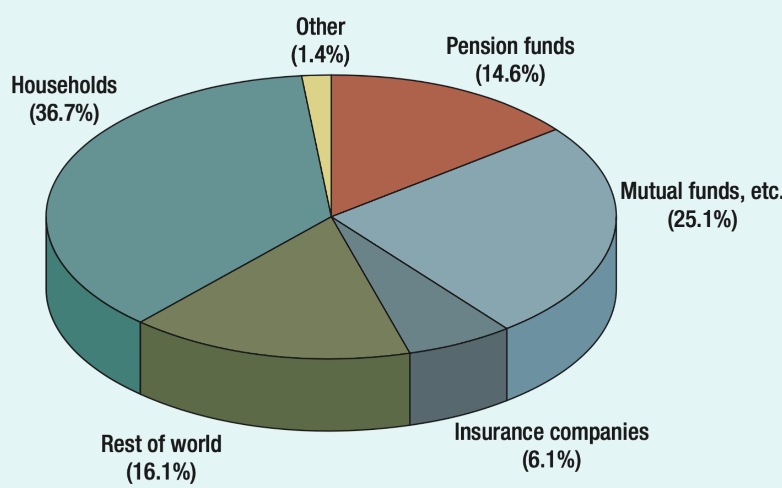
In both cases, the debt ratio is somewhat higher now than it was in 1965. Higher debt ratios mean that more companies will fall into financial distress when a serious recession hits the economy, but it's not true that less risk is better.

Common Stock

FIGURE 14.3

Holdings of corporate equities, December 2014.

Source: Board of Governors of the Federal Reserve System, Division of Research and Statistics, Flow of Funds Accounts Table L.213 at **www.federalreserve.gov/releases/z1/current/data.htm.**



*Greater proportion of common stocks belong to **financial intermediaries** such as mutual funds, pension funds, and insurance companies.*

Common stock is a **residual claim** on the firm's assets and cash flow.

→ If the firm borrows money from the bank, the bank will get a priviledged but limited right to cash flows, while th residual cash-flow rights are left with the stockholder.

The owner of common stock retains the **residual rights of control** over operating and investment decisions that are not restricted or determined by the bank.

Residual cash-flow rights and residual control rights **may not go together**.

For a firm with too many shareholders, the control of those shareholders is limited to n entitlement of vote:

- In person
- By proxy → on appointments to **the board of directors** and other crucial matters

Voting Procedures

Classified board: Only <u>a third of</u> the directors come up for re-election each year.

Declassifying boards can increase company value and help to entrench management by easily replcing the board.

Majority voting: Each director is voted upon <u>separately</u> and stockholders can cast one vote for each share that they own.

Cumulative voting: The directors are voted upon <u>jointly</u> and stockholders can, if they wish, allot all their votes to just one candidate. Cumulative voting makes it easier for <u>a minority group</u> among the stockholders to elect directors who will represent the group's interests.

Supermajority: Some decisions need more than a simple majority of the votes to make, such as specify 75% of those eligible to vote for a change to the charter.

Dual-Class Shares and Private Benefits

An example of dual-class shares:

- The A shares: sold to the public, one vote each
- The B shares: owned by the founders, 10 votes each

→ The 2 classes have **same cash-flow rights** but **different control rights**.

→ There are **private benefits** captured by the owners of shares with premium.

Preferred Stock

Preferred stock provodes only a small part of most companies' cash needs, and it can be a useful method of financing in mergers and certain other special situations.

Preferred stock offers a series of **fixed payments** to the investor.

The company can choose **not** to pay a preferred dividend, but in that case it may **not** pay dividends to common stockholders.

Cumulative preferred stock: The firm must pay all past preferred dividends before common stockholders get a cent. If the company does miss a preferred dividend, the preferred stockholders generally gain some voting rights, so that the common stockholders are obliged to share control of the company with the preferred holders. The failure to pay the preferred dividend will earn the company a black mark with investors.

Debt

- Regular interest payments
- Principal repaid
- Limited liability

Stockholders have the right to **default** on the debt.

Debt has **first claim** on cash flows, but its claim is limited.

Debt	Equity
Doesn't have residual cash-flow rights	Have residual cash-flow rights
Doesn't participate in the upsides of the business	Participate in the upsides of the business
Offers no control rights unless the firm defaults or violates debt covenants	Offers control rights
Lenders are not considered to be owners of the firm and normally have no voting power	Lenders are owners of the firm and have voting power
The interest is paid from before-taxed income	The dividends of common and preferred stocks are paid from after-taxed income
The government provides a tax subsidy for debt	The government doesn't provide a tax subsidy for equity

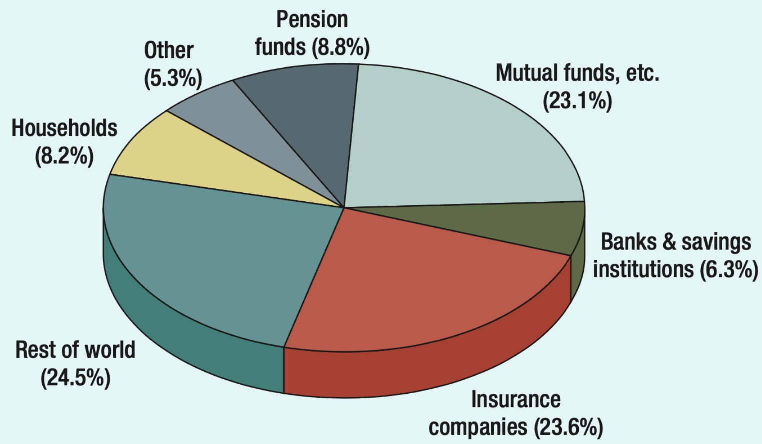


FIGURE 14.4

Holdings of bonds issued in the U.S. by U.S. and foreign corporations, December 2014.

Source: Board of Governors of the Federal Reserve System, Division of Research and Statistics, Flow of Funds Accounts Table L.212 at **www.federalreserve.gov/releases/z1/current/data.htm.**

Financial intermediaries *own the majority of company's bonds, the biggest part of which is insurance companies.*

Debt Comes in Many Forms

1.Should the company borrow short-term or long-term?

- **Short-term:** If the company simply needs to finance a temporary increase in inventories and so on.

→ take out a short-term bank loan

- **Long-term:** If the company needs cash to pay for a big program like an oil refinery whose facilitates may operate for 20 years

→ issue a long-term bond

Loans can be repaid either in a steady, regular way or only at maturity. Both borrowers anf lenders have the option to alter the payment arrangement or terminate the loan.

2.Should the debt be fixed or floating rate?

The interest paymant, or coupon, on long-term bonds is commonly **fixed** at time of issue.

Most bank loans and some bonds offer a variable, or **floating**, rate, such as 1% above LIBOR changing with which.

3.Should you borrow dollars or some other currency?

If one company needs to **spend foreign currency**, it probably makes sense to borrow foreign currency.

Firms with overseas operations may borrow dollars abroad or issue debt in a foreign currency.

Because thses international bonds have usually been marketed by the London branches of international banks, they have traditionally been known as **eurobonds** and the debt is called **eurocurrency debt**.

A eurobond may be denominated in dollars, yen, or any other currency, but not just euros(like eurobonds).

4.What promises should you make to the lender?

If default occurs, **senior** debt is first in line to be repaid. The **junior**, or **subordinated**, debtholders are paid only aftr all senior debtholders are satisfied.

All debtholders rank **ahead** of the preferred and common stockholders.

Some promises:

- The firm may set aside some of its assets specifically for the protection of particular creditors. Such debt is said to be **secured**, and the assets that are set aside are known as **collateral**.
- Usually the firm provides assurances to the lender that it will not take unreasonable risks, like agreeing to limit the amount of extra debt that it can issue.
- Lenders are concerned that, if trouble occurs, others will push ahead of them in the queue. Therefore, the firm may agree not to create new debt that is senior to existing debtholders or to put aside assets for other lenders.

5.Should you issue straight or convertible bonds?

Companies often issue securities that give the owner an option to convert them into other securities. These options may have a substantial effect on value.

The most dramatic example is provided by a **warrant**, which is nothing but an option. The owner of a warrant can purchase a set number of the company's shares at a set price before a set date. Warrants and bonds are often sold together as a package.

A **convertible bond** gives its owner the option to exchange the bond for a predetermined number of shares. If the issuing company's share price:

- **zooms up:** the bond can be converted at a big profit;
- **zooms down:** there is no obligation to convert, and the bondholder remains a bondholder

Venture Capital

Equity investment in young private companies is generally known as **venture capital**.

Venture capital may be provided by **investment institutions** or by **wealthy individuals** who are prepared to back an untried company in return for a piece of the action.

Venture capital organizations aim to help growing firms over that awkward adolescent period before they are large enough to go public.

Venture capitalists rarely give a young company up front all the money it will need. At each stage they give enough to reach th next major checkpoint.

→ Funds are usually **dispersed in stages**, after a certain level of success is achieved.

When a new business raises venture capital, cash-flow rights and control rights are are usually negotiated **separately**.

The venture capital firm will want a say (influence) in how that business is run and will demand representation on the board and a significant number of votes. The venture capitalist may agree that it will relinquish some of this these rights if the business subsequently performs well. If performance turns out to be poor, the venture capitalist may automatically get a greater say in how the business is run and whether the existing management should be replaced.

The Initial Public Offering

An **initial public offering**, or **IPO**, may be:

- **a primary offering:** new shares are sold to raise additional cash for the company
- **a secondary offering:** the existing shareholders decide to cash in by selling part of their holdings

Many IPOs are a **mixture** of primary and secondary offerings.

IPOs raise cash for the company or the shareholders, but there may be other motives for going public.

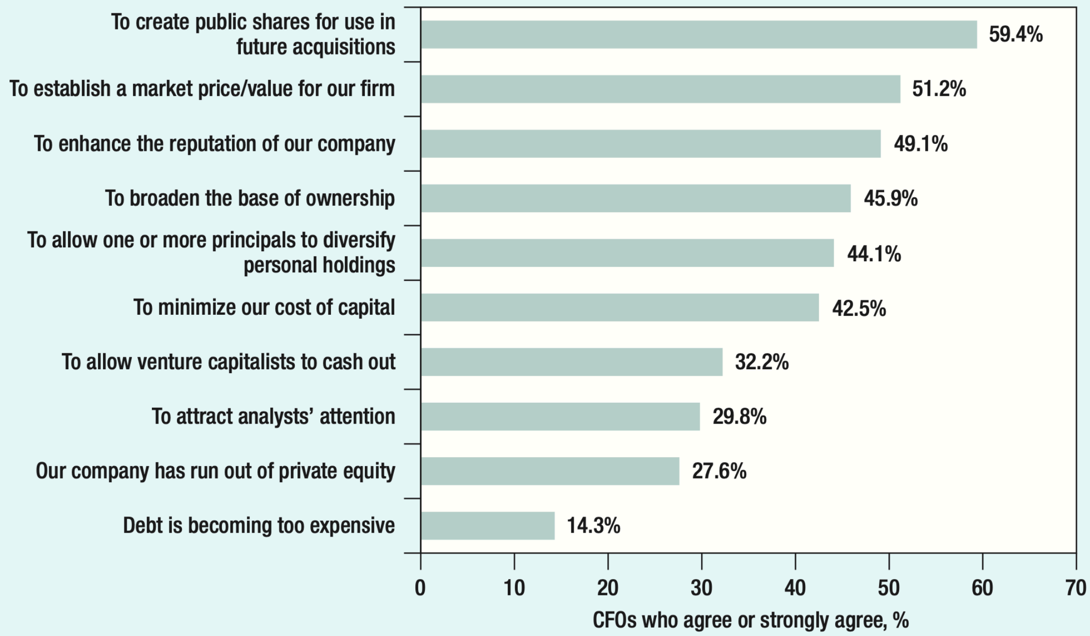


FIGURE 15.2 Survey evidence on the motives for going public.

Source: J. C. Brau and S. E. Fawcett, "Evidence on What CFOs Think about the IPO Process: Practice, Theory and Managerial Implications," *Journal of Applied Corporate Finance* 18 (October 2006), pp. 107–117.

Not every company wants to go public, and public firms often go into reverse and return to being privately owned.

Arranging an Initial Public Offering

Underwriters act as financial midwives to a new issu of stocks. Usually they play **a triple role**: First they provide the company with procedural and financial advice, then they buy the issue, and then they resell it to the public.

Firms need to prepare a **registration statement** for the approval of the SEC. This statement is a detailed and somewhat cumbersome document that presents information about the proposed financing and the firm's history, existing business, and plans for the future.

The most important sections of the registration statement are distributed to investors in the form of a **prospectus**. It's a formal summary that provides information on an issue of securities.

Cost of a New Issue

Underwriters will receive payment in the form of a **spread** in return, that is, they will be allowed to buy the shares for less than the offering price at which the shares are sold to investors. The spread will be allocated among the syndicate manager, the underwriters who have bought the issue, and the firms that provide the sales force.

The percentage spread will decline with issue size.

A new issue also entails substantial administrative costs like payments to legal counsel and accountants.

Underpricing of IPOs

Underpricing: Issuing securities at an offering price set **below** the true value of the security.

Since the offerig price was less than the true value of the issued securities, investors who bought the issue got a bargain at the expense of the firm's original shareholders. For IPOs, such costs generally exceed all other issue costs.

Underpricing may incur positive first-day return.

Many investment bankers argue that a lower offering price on an IPO raises the price when it is subsequently traded in the market and enhances the firm's ability to raise further capital. And underpricing can be explained by the winner's curse, that the highest bidder in an auction is most likely to have overestimated the object's value, and unless bidders recognize this in their bids, the buyer will on average overpay.

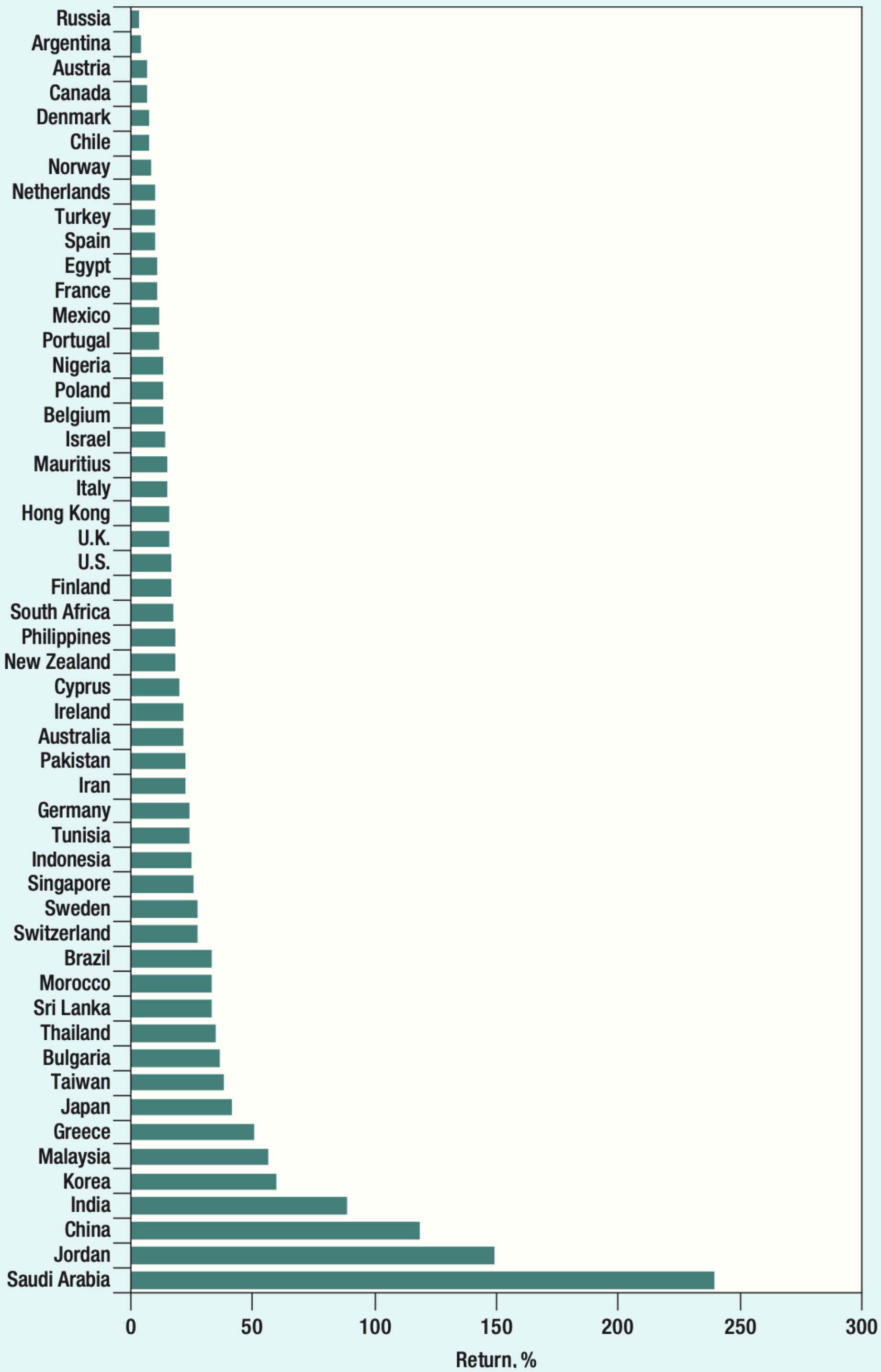


FIGURE 15.3

Average initial returns from investing in IPOs in different countries.

Source: T. Loughran, J. R. Ritter, and K. Rydqvist, "Initial Public Offerings: International Insights," *Pacific Basin Finance Journal* 3, pp.139–140, extended and updated on **bear.cba.ufl.edu/ritter.** Updated September 2014.

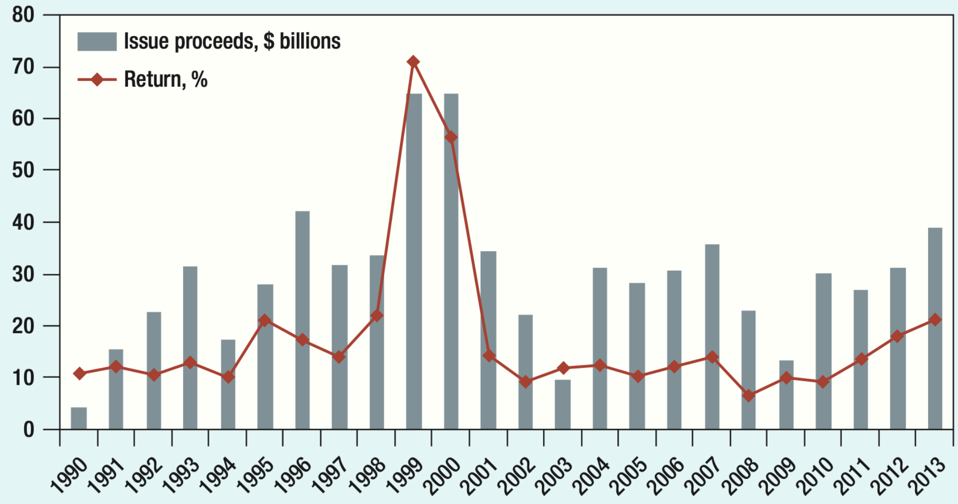
The U.S. IPOs were averagely underpricing of 17.9%. In China the gains from buying IPOs have averaged 118%.

Hot New-Issue Periods

FIGURE 15.4

IPO proceeds in the United States and average first-day returns, 1990–2013.

Source: J. R. Ritter, "Initial Public Offerings: Updated Statistics," May 9, 2014, **bear.cba.ufl.edu/ritter.**



The degree of underpricing fluctuates sharply from year to year.

Why there are hot new-issue periods?

- Hot new-issue periods arise because investord are prone to periods of excessive optimism and would-be issuers time their IPOs to coincide with these periods;
- A fall in the cost of capital or an improvement in the economic outlook may mean that a number of new or dormant projects suddenly become profitable, so at such times, many entrepreneurs rush to raise new cash to invest in these objects.

Security Sales by Public Companies

A company's forst public issue of stock is seldom the last, and as the firm grows, it is likely to make further issues of debt and equity.

Public companies can issue securities either by offering them to investors at large or by making a rights issue that is limited to existing stockholders.

Seasoned offering: Sale of securities by a firm that is already publicly traded.

General Cash Offers

General cash offer: Sale of securities open to all investors by an already public company.

The procedure for a corporation making a general cash offer of debt or equity is the same as its first time going public.

Shelf registration: Large companies are allowed to file a single registration statement covering financing plans for up to three years into future, and the actual issues can then be done with scant additional paperwork, whenever the firm needs the cash or thinks it can issue securities at an attractive price.

Not all companies eligible for shelf registration actually use it for all their public issues.

→ making one large issue through traditional channels may be better sometimes

Shelf registration is less often used for issues of common stock or convertible securities than for garden-variety corporate bonds.

The Costs of a General Cash Offer

Whenever a firm makes a cash offer of securities, it incurs substantial administrative costs, and the firm also needs to compensate the underwriters by selling them securities below the price that they expect to receive from investors.

TABLE 15.3
Gross underwriting spreads of selected issues. Spreads are percentages of gross proceeds.

*Excludes the exercise by the underwriters of an option to sell an additional 48 million Alibaba shares.

Type	Company	Issue Amount ($ millions)	Underwriting Spread (%)
Common Stock:			
IPO	Alibaba Group	$21,767*	1.2%
IPO	Twitter	1,820	3.25
IPO	Virgin America	307	6.25
IPO	Bellicum Pharmaceuticals	140	7.0
IPO	Histogenics Corp.	65	7.0
IPO	Spark Energy	54	7.0
Seasoned	Hilton Worldwide	2,250	0.50
Seasoned	Plains GP Holdings	1,500	0.5625
Seasoned	Textura Corp.	174	1.71
Seasoned	Shutterstock	276	4.5
Seasoned	Rally Software	121	4.9
Debt:			
3.375% notes, 2024	Google	$1,000	0.450%
4.7% notes, 2044	Arizona Public Service Co.	250	0.875
4% senior notes, 2024	The Kroger Co.	500	0.650
2.75% convertible senior notes, 2034	Fluidigm	175	3.0

The underwriting spreads for debt securities are lower than for common stocks, less than 1% for many issues. Larger issues tend to have lower spreads than smaller issues. This may stem from the fact that there are fixed costs to selling securities, and large issues are generally made by large companies that are better known and easier to monitor.

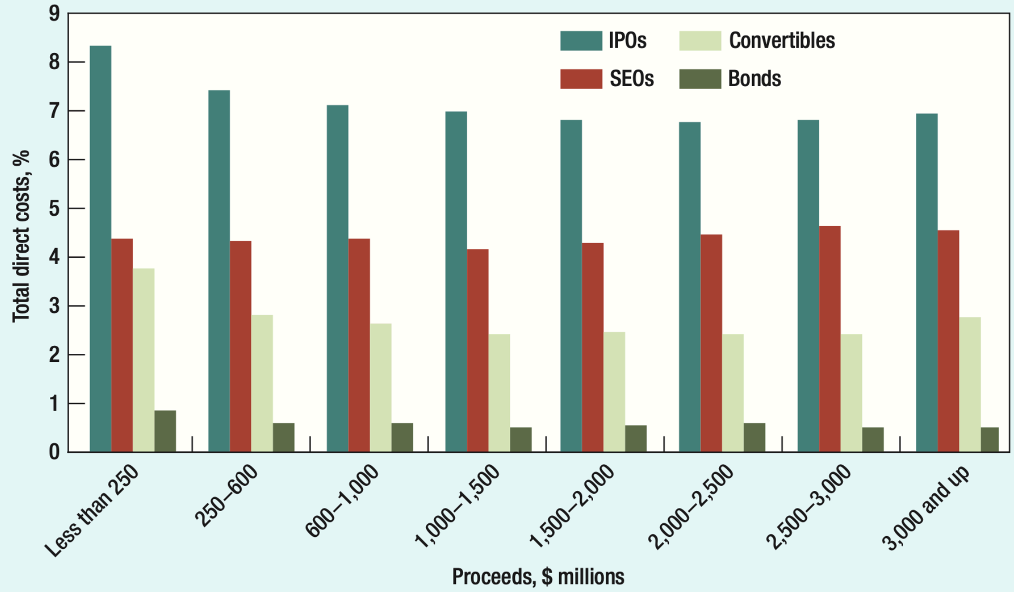


FIGURE 15.5 Total direct costs as a percentage of gross proceeds. The total direct costs for initial public offerings (IPOs), seasoned equity offerings (SEOs), convertible bonds, and straight bonds are composed of underwriter spreads and other direct expenses.

Source: SDC Platinum.

Notes: There were 5706 domestic issues between 2004 and 2008. Closed-end funds (SIC 6726), REITS (SIC 6798), ADRs, mortgage-backed and federal agency (SIC 6011, 6019, 6111 and 999B) issues are excluded.

Rights Issues

Priviledged subscription issues or **right issues**: Issue of securities offered only to current stockholders. Companies give their existing shareholders the right of first refusal.

The total value of a shareholder's holding remains the **same** before and after a rights issue.

Summary

Chapter 14

Financial managers are faced with **two broad financing decisions**:

1. How much of internally generated cash flow should be plowed back into the business? How much should be paid out to shareholders by cash dividends or share repurchases?
2. To what extent should the firm use debt rather than equity financing?

The answers to these questions depend on the firm’s payout policy and debt policy.

Figure 14.1 summarizes how U.S. corporations raise and spend money. Notice that internally generated cash is the major source of financing for investment. Borrowing is also significant. Net equity issues have been negative, however—that is, share repurchases have been larger than share issues.

Common stock is the simplest form of finance. The common stockholders own the corporation. They get all of the cash flow and assets that are left over after the firm's debts have been paid. Common stock is, therefore, a residual claim that participates in the upsides and downsides of the business. Debt has first claim on cash flows, but its claim is limited. Debt has no control rights unless the firm defaults or violates debt covenants.

Preferred stock is another form of equity financing. Preferreds promise a fixed dividend, but if the board of directors decides to skip the dividend, holders of the preferred have no recourse. The firm must pay the preferred dividends before it pays any dividends on common stock, however.

Debt is the most important source of external financing. Holders of bonds and other corporate debt are promised interest payments and return of principal. If the company cannot make these payments, the debt investors can sue for payment or force bankruptcy. Bankruptcy usually means that the debtholders take over and either sell the company's assets or continue to operate them under new management.

Note that the tax authorities treat interest payments as a cost and therefore the company can deduct interest when calculating its taxable income. Interest is paid from pretax income, whereas dividends and retained earnings come from after-tax income. That is one reason why preferred stock is a less important source of financing than debt. Preferred dividends are not tax-deductible.

Book debt ratios in the United States have generally increased over the post–World War II period. However, they are not appreciably higher than the ratios in the other major industrialized countries.

The variety of debt instruments is almost endless. The instruments differ by maturity, interest rate (fixed or floating), currency, seniority, security, and whether the debt can be converted into equity.

The majority of the firm's debt and equity is owned by financial intermediaries—notably banks, insurance companies, pension funds, and mutual funds. They finance much of corporate investment, as well as investment in real estate and other assets. They run the payments mechanism, help individuals diversify and manage their portfolios, and help companies manage risk. The crisis of 2007–2009 and its aftermath dramatized the crucial role that these intermediaries play.

Chapter 15

In this chapter we have summarized the various procedures for issuing corporate securities. We first looked at how infant companies raise venture capital to carry them through to the point at which they can make their first public issue of stock. We then looked at how companies can make further public issues of securities by a general cash offer. Finally, we reviewed the procedures for a private placement.

The following part will remind you of some of the most important implications for the financial manager who must decide how to raise financing.

- *Larger is cheaper.* There are economies of scale in issuing securities. It is cheaper to go to the market once for $100 million than to make two trips for $50 million each. Consequently firms bunch security issues. That may often mean relying on short-term financing until a large issue is justified. Or it may mean issuing more than is needed at the moment in order to avoid another issue later.
- *Watch out for underpricing.* Underpricing is often a serious hidden cost to the existing shareholders.
- *The winner's curse may be a serious problem with IPOs.* Would-be investors in an initial public offering (IPO) do not know how other investors will value the stock and they worry that they are likely to receive a larger allocation of the overpriced issues. Careful design of issue procedure may reduce the winner's curse.
- *New stock issues may depress the price.* The extent of this price pressure varies, but for industrial issues in the United States the fall in the value of the existing stock may amount to a significant proportion of the money raised. This pressure is due to the information that the market reads into the company's decision to issue stock.
- *Shelf registration often makes sense for debt issues by blue-chip firms.* Shelf registration reduces the time taken to arrange a new issue, it increases flexibility, and it may cut underwriting costs. It seems best suited for debt issues by large firms that are happy to switch between investment banks. It seems less suited for issues of unusually risky or complex securities or for issues by small companies that are likely to benefit from a close relationship with an investment bank.

Terms

Senior debt 优先债

Junior/Subordinated debt 次级债

Secured debt 抵押债

Collateral 抵押品

Debenture 信用债

Call provision 赎回条款

Put provision 回售条款

Straight bond 直接债券

Convertible bond 可转换债券

Venture capital 创业投资

Entrepreneur 创业者

First-stage financing 首轮(A轮)融资

Second-stage financing 次轮(B轮)融资

Initial public offering (IPO) 首次公开发行

Seasoned offering　增发

Primary offering　一类发行

Secondary offering　二类发行

Primary market　一级市场

Secondary market　二级市场

Shelf registration　暂搁注册

Underwriter　承销商

Spread　价差

Prospectus　招股说明书

Underpricing　抑价

IPO proceeds　IPO募资额

General cash offer　一般现款发行

Private placement　私募

Rights issue　配股发行

3 for 20 rights offer　20配3配股

Ex-rights price　除权价