
Direcció Financera II

Chapter 4: Equity financing

Albert Banal-Estanol

In this chapter, we'll talk about...

- Sources of equity financing:
 - Start-ups: business angels, venture capital, IPOs
 - Public firms: seasoned equity offerings
- Payout policy:
 - How much money to retain and how much to pay out?
 - Dividends or repurchases?
 - Effects of taxes, information asymmetry,...

Why Most New Ventures Need Funding

Three Reasons Start-Ups Need Funding

Cash Flow Challenges

Inventory must be purchased, employees must be trained and paid, and advertising must be paid for before cash is generated from sales.

Capital Investments

The cost of buying real estate, building facilities, and purchasing equipment typically exceeds a firm's ability to provide funds for these needs on its own.

Lengthy Product Development Cycles

Some products are under development for years before they generate earnings. The up-front costs often exceed a firm's ability to fund these activities on its own.

Alternatives for Raising Money for a Start-Up

Personal Funds

Equity Capital

Debt Financing

Other (Creative) Sources

Sources of Personal Financing for new ventures

- Personal funds:
 - The vast majority of founders contribute personal funds,
 - along with “sweat” equity (value of time and effort)

- Friends and family:
 - Friends and family are the second source of funds
 - Often loans or investments but also gifts, forgone or delayed compensation (for a family member who works for the new firm), or reduced or free rent

Bootstrapping Methods

Finding ways to avoid the need for external financing or funding through creativity, ingenuity, thriftiness, cost-cutting, or any means necessary.

Buying used instead of new equipment

Coordinating purchases with other businesses

Leasing equipment instead of buying

Obtaining payments in advance from customers

Minimizing personal expenses

Avoiding unnecessary expenses

Sharing office space with other businesses

Applying for and obtaining grants

Business Angels

- Individuals who invest their personal capital directly in start-ups:
 - Typically, about 50 years old, has high income and wealth, well educated, has succeeded as an entrepreneur, and is interested in the start-up process
 - The number of angel investors has increased dramatically over the past decade
- Valuable because of willingness to make relatively small investments:
 - Access to equity funding to a start-up that needs 50,000 rather than 1 million minimum investment that most venture capitalists require
 - But, they are difficult to find, remain fairly anonymous and are matched up with entrepreneurs through referrals

Venture Capital

- **Venture Capital firms invest in:**
 - Start-ups and small businesses with exceptional growth potential
 - Much fewer entrepreneurial firms in comparison to business angels.
 - Look for big successes and so reject the majority of the proposals they consider.
 - New ventures need to go through the due diligence process
 - Money is disbursed in “stages,” not at the same time

- **Venture capital firms:**
 - Limited partnerships raising money in funds to invest in start-ups and growing firms
 - The funds are raised from wealthy individuals, pension plans, ...
 - Typical fund: \$75m to \$200m, invests in 20-30 companies over 3-5 years
 - Sometimes specialize in certain “stages” of funding (first or second stage)
 - In the US: about 650 VC firms providing funding to about 3,000 firms per year
 - Much less activity in Europe, mostly in the UK, but also in Holland,.. less in Spain

Initial Public Offering (IPO)

- Initial Public Offering
 - Company's first sale of stock to the public. When a company goes public, its stock is traded on one of the major stock exchanges.
 - Typically, when firm has demonstrated it is viable and has bright future
 - "Market" values firm for the first time
- Complicated and expensive process: hire an investment bank:
 - Such as Credit Suisse First Boston, ...
 - Acts as an advocate and adviser and walks a firm through the process
 - Establishes initial valuation (based on firm private information) and finds out the investors willing to pay
 - Typically takes the firm's top management team on a "road show", a tour of meetings with investors where the firm presents its business plan

Reasons to go public

Reason 1

Is a way to raise equity capital to fund current and future operations.

Reason 2

An IPO raises a firm's public profile, making it easier to attract high-quality customers, alliance partners, and employees.

Reason 3

An IPO is a liquidity event that provides a means for a company shareholders (including its investors) to cash out their investments.

Reason 4

By going public, a firm creates another form of currency that can be used to grow the company.

RealNetworks' IPO Prospectus (1997)



RealNetworks

3,000,000 Shares

RealNetworks, Inc.
(formerly "Progressive Networks, Inc.")

Common Stock
(par value \$.001 per share)

All of the 3,000,000 shares of Common Stock offered hereby are being sold by RealNetworks, Inc. Prior to the offering, there has been no public market for the Common Stock. For factors considered in determining the initial public offering price, see "Underwriting".

The Common Stock offered hereby involves a high degree of risk. See "Risk Factors" beginning on page 6.

The Common Stock has been approved for quotation on the Nasdaq National Market under the symbol "RNWK," subject to notice of issuance.

THESE SECURITIES HAVE NOT BEEN APPROVED OR DISAPPROVED BY THE SECURITIES AND EXCHANGE COMMISSION OR ANY STATE SECURITIES COMMISSION NOR HAS THE SECURITIES AND EXCHANGE COMMISSION OR ANY STATE SECURITIES COMMISSION PASSED UPON THE ACCURACY OR ADEQUACY OF THIS PROSPECTUS. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE.

	<u>Initial Public Offering Price(1)</u>	<u>Underwriting Discount(2)</u>	<u>Proceeds to Company(3)</u>
Per Share	\$12.50	\$0.875	\$11.625
Total(4)	\$37,500,000	\$2,625,000	\$34,875,000

- (1) In connection with the offering, the Underwriters have reserved up to 300,000 shares of Common Stock for sale at the initial public offering price to employees and friends of the Company.
- (2) The Company has agreed to indemnify the Underwriters against certain liabilities, including liabilities under the Securities Act of 1933, as amended. See "Underwriting".
- (3) Before deducting estimated expenses of \$950,000 payable by the Company.
- (4) The Company has granted the Underwriters an option for 30 days to purchase up to an additional 450,000 shares at the initial public offering price per share, less the underwriting discount, solely to cover over-allotments. If such option is exercised in full, the total initial public offering price, underwriting discount and proceeds to Company will be \$43,125,000, \$3,018,750 and \$40,106,250, respectively. See "Underwriting".

The shares offered hereby are offered severally by the Underwriters, as specified herein, subject to receipt and acceptance by them and subject to their right to reject any order in whole or in part. It is expected that certificates for the shares will be ready for delivery in New York, New York on or about November 26, 1997, against payment therefor in immediately available funds.

Goldman, Sachs & Co.
BancAmerica Robertson Stephens
NationsBanc Montgomery Securities, Inc.


The date of this Prospectus is November 21, 1997.

Seasoned Equity Offering (SEO) Issues

- SEO Issuances:
 - An already traded firm issues new shares
 - Market values are already established, so placing these securities is generally less difficult than an IPO since there is less asymmetric information
- Types of SEO's
 - Follow-on offering: new shares are issued to the public
 - Secondary offering: existing shares held by current owners (e.g. founder – Bill Gates of Microsoft) are sold to the market
 - Both types of shares can be offered simultaneously

Advertisement for a RealNetworks SEO (1999)

4,600,000 Shares

 **RealNetworks, Inc.**

Common Stock

—
Price \$58 Per Share
—

Upon request, a copy of the Prospectus describing these securities and the business of the Company may be obtained within any State from any Underwriter who may legally distribute it within such State. The securities are offered only by means of the Prospectus, and this announcement is neither an offer to sell nor a solicitation of an offer to buy.

Goldman, Sachs & Co.
BancBoston Robertson Stephens
Donaldson, Lufkin & Jenrette
Lehman Brothers
Thomas Weisel Partners LLC

Bear, Stearns & Co. Inc.	Credit Suisse First Boston	Ragen MacKenzie <small>Incorporated</small>
Warburg Dillon Read LLC		Wasserstein Perella Securities, Inc.
Friedman Billings Ramsey		Pacific Crest Securities Inc.

July 7, 1999

Payout Policy: dividend vs stock repurchases

Microsoft

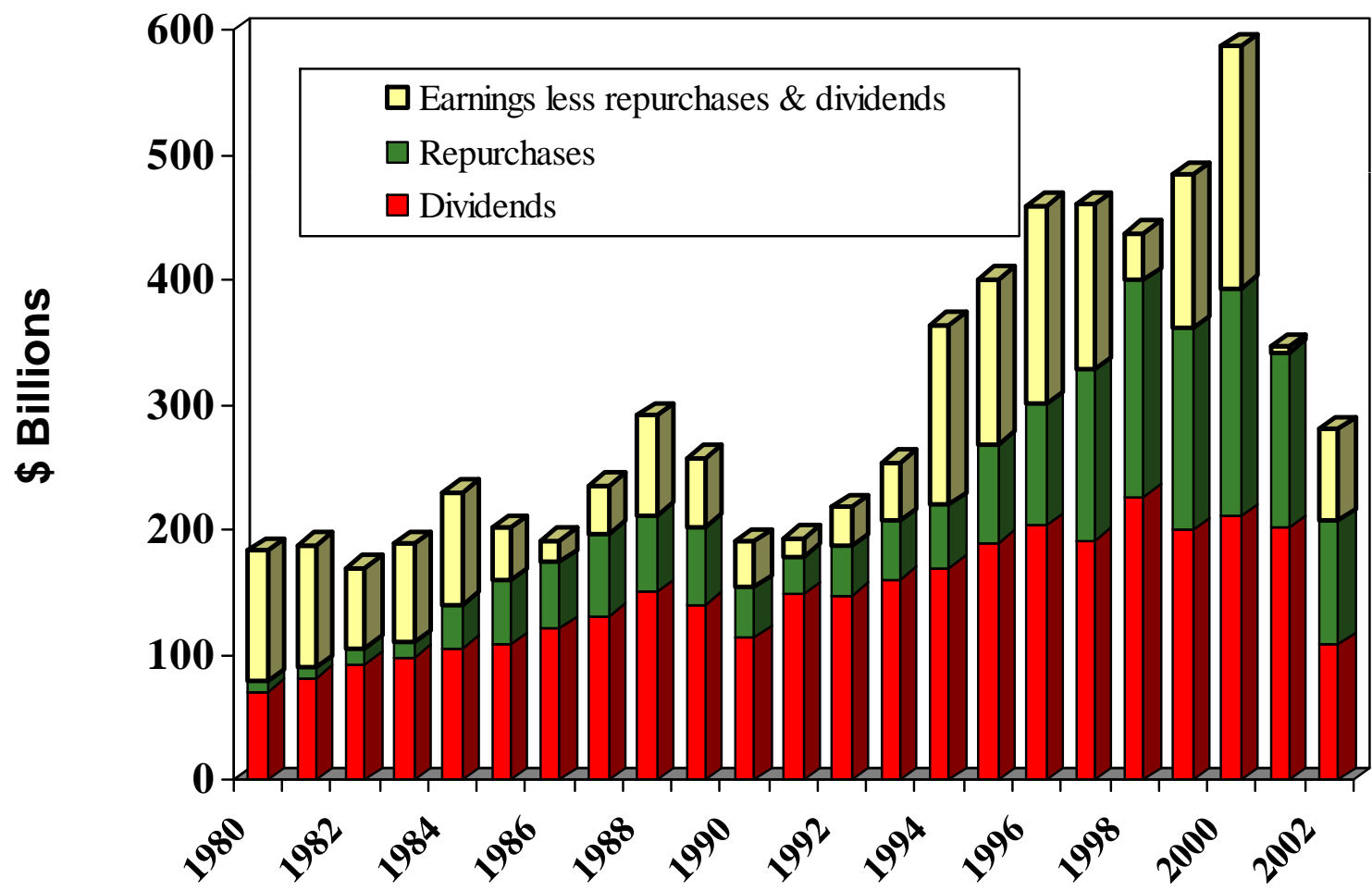
- Share repurchases:
 - 5.4b per year on average from 1999 until 2004
- Dividends:
 - “Starter” dividend of \$0.08 per share in 2003
 - One-time dividend of \$3 per share (total \$32b) in 2004
- Four year plans from 2004:
 - Repurchase \$30b of its stock
 - Pay regular annual dividends of \$0.32 per share

Payout Policy

- Free cash flows can be retained or...
- ... handed back cash to shareholders by...
 - Paying dividends (in cash):
 - Regular cash dividend
 - Special cash dividend
 - Stock dividend or splits
 - Buying back shares:
 - Buy shares directly in the market
 - Fixed price offers to shareholders (tender offer)
 - Private negotiation (greenmail)

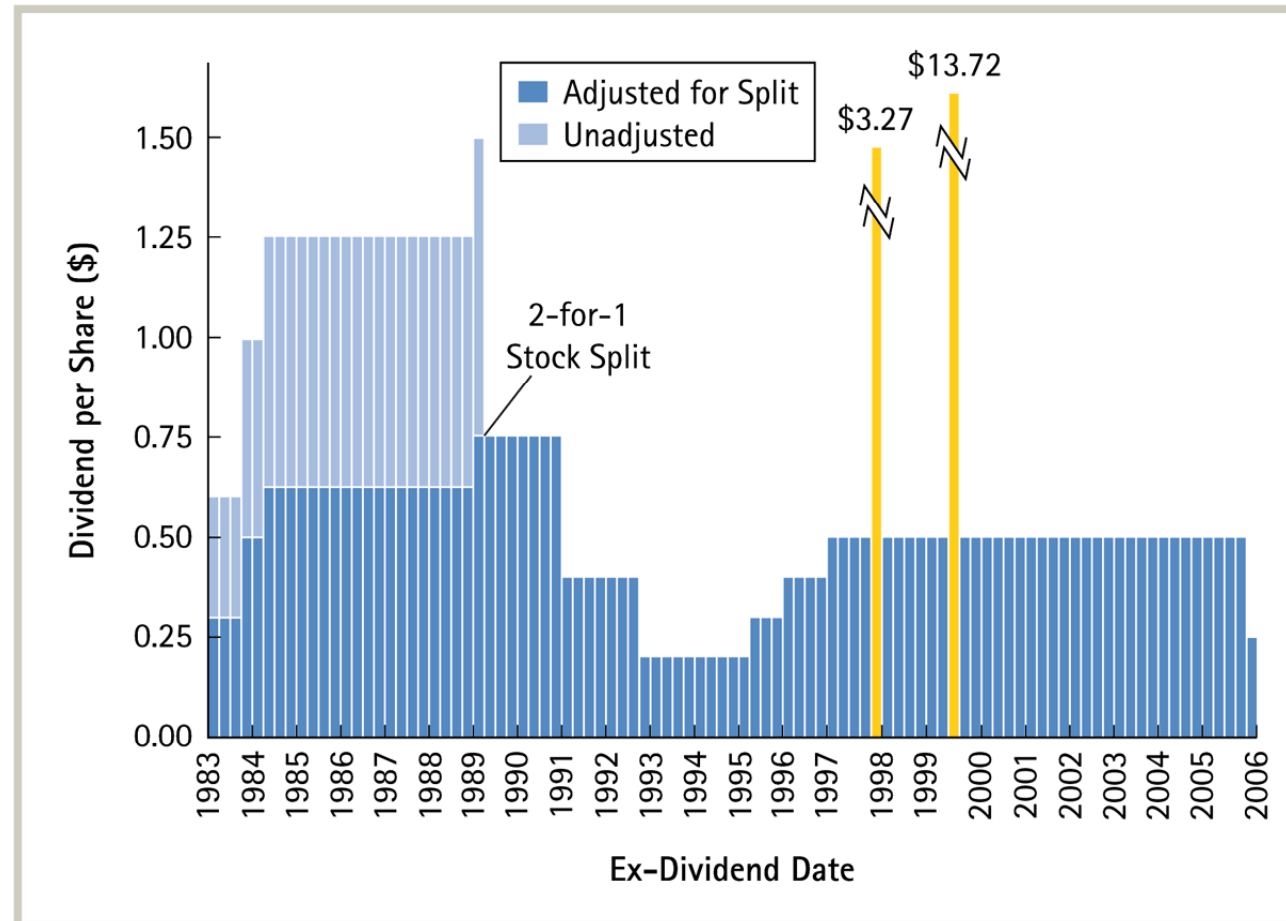
Dividend & Stock Repurchases

U.S. Data 1980 - 2002



Dividend history for GM stock

GM has paid a regular dividend each quarter. GM paid special dividends in Dec. 1997 and May 1999



Example: Genron

- No debt
- Expected cash flows: \$ 48m per year (indefinitely)
- The cost of capital (unlevered) is 12%
- 10 million shares outstanding

- \$ 20m in “excess cash”

- Market value of the equity? Assets? Company?
- How to pay back the \$ 20m? Rest of cash flows?

Option 1

- Dividend policy:
 - Pay £2 through a special dividend per share immediately
 - In the future, pay out cash generated through regular dividends
Future expected dividend per share?

- Share price:
 - Before cash dividend ("cum-dividend")?
 - After the cash dividend ("ex-dividend")?

(Registration date - date that determines which shareholders receive the dividend)

Market value balance sheet

	Cum-dividend	Ex-dividend
Cash	20	0
Other assets	400	400
Total market value of assets	420	400
Shares (millions)	10	10
Share price	£42	

Option 2

- Pay out policy:
 - No immediate dividend but £20m used to repurchase shares in the open market
 - In the future, pay out cash generated through regular dividends
- Share price:
 - How many shares will it be able to buy?
 - How many shares will there be outstanding?
 - What happens to the expected dividends per share?
 - Does the share price drop? Why?
 - Differences for Stanley (owns 2000 shares) across options?
 - What if he preferred option 1?

Market value balance sheet

	Cum-dividend	Ex-dividend
Cash	20	0
Other assets	400	400
Total market value of assets	420	400
Shares (millions)	10	?
Share price	£42	?

Option 3

- Pay out policy:
 - Suppose it wants to pay more than £2 per share
 - Suppose it wants to pay \$48m in dividends (needs extra £28m)
 - Issue new stock (an alternative: borrow)
- Share price:
 - How many shares does it need to issue?
 - How many shares will there be outstanding?
 - What will the dividend per share be?
 - What will be the share price ("cum- and ex-dividend")?
 - What if Stanley prefers option 3 but company adopts 1?

Modigliani-Miller theorem, again!

Choice of paying dividends or repurchasing stock is irrelevant for shareholders in the absence of...

- ❑ Arbitrage opportunities
- ❑ Taxes
- ❑ Transaction costs
- ❑ Information problems

and if the investment, financing and operating policies are held fixed (the firm knows how much to redistribute).

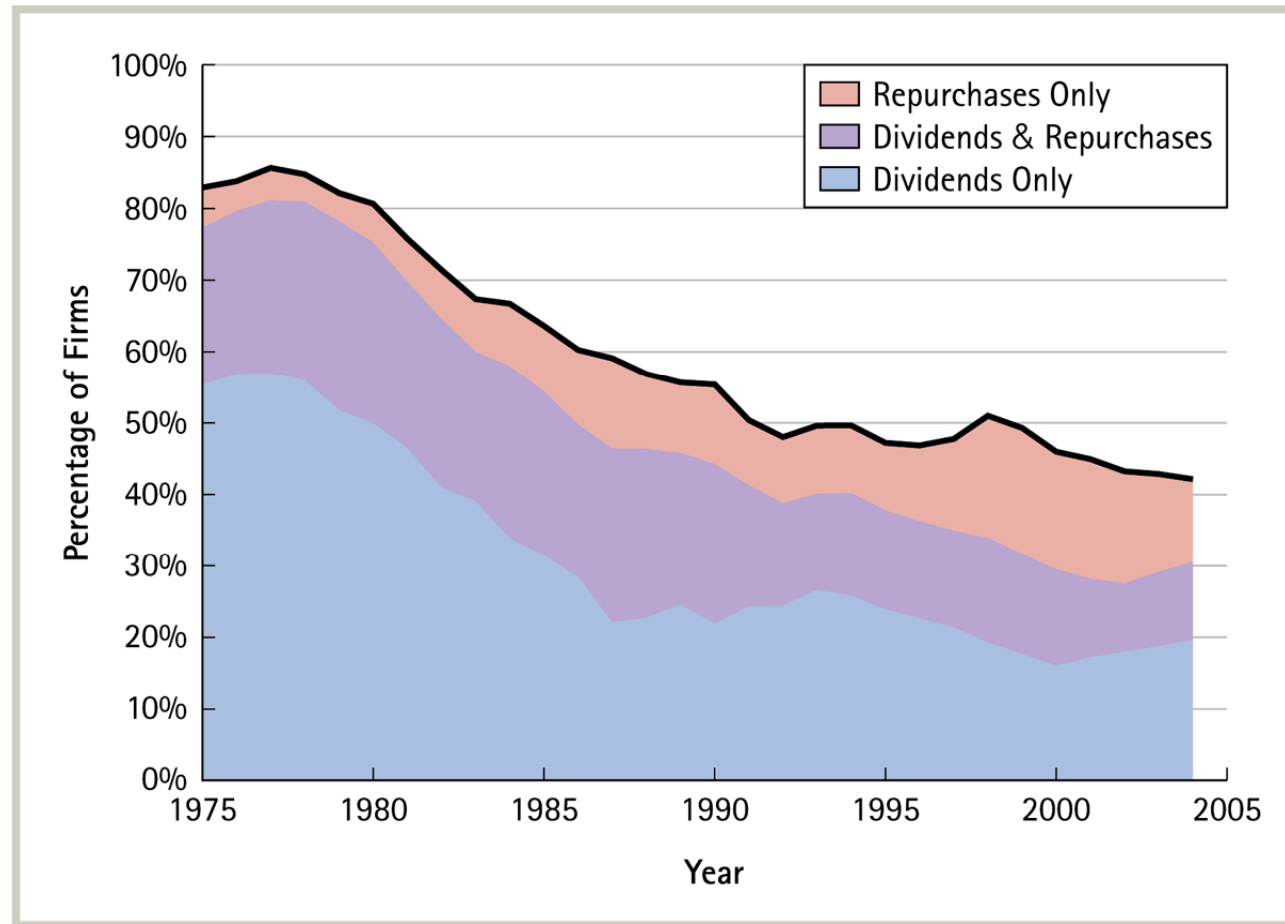
Effects of Taxes

- Remember that...
 - Companies pay corporate taxes on earnings
 - Dividends are taxed as ordinary income
 - Capital gains are (usually) taxed at a lower rate
- Still, tax rates differ according to...
 - Income level
 - Income horizon
 - Tax jurisdiction
 - Type of investor account
- Investors have different preferences

How Taxes Affect Dividend Policy

- No difference between pretax distribution through stock rep or dividends
- But dividends pay more *immediate* taxes
 - Higher rate
 - All gains are immediately taxed
- *Future* tax liabilities are lower for dividends because capital gains will be lower
- However, the total amount paid in taxes (and its present value) will be higher for dividends

Recognising tax advantages?

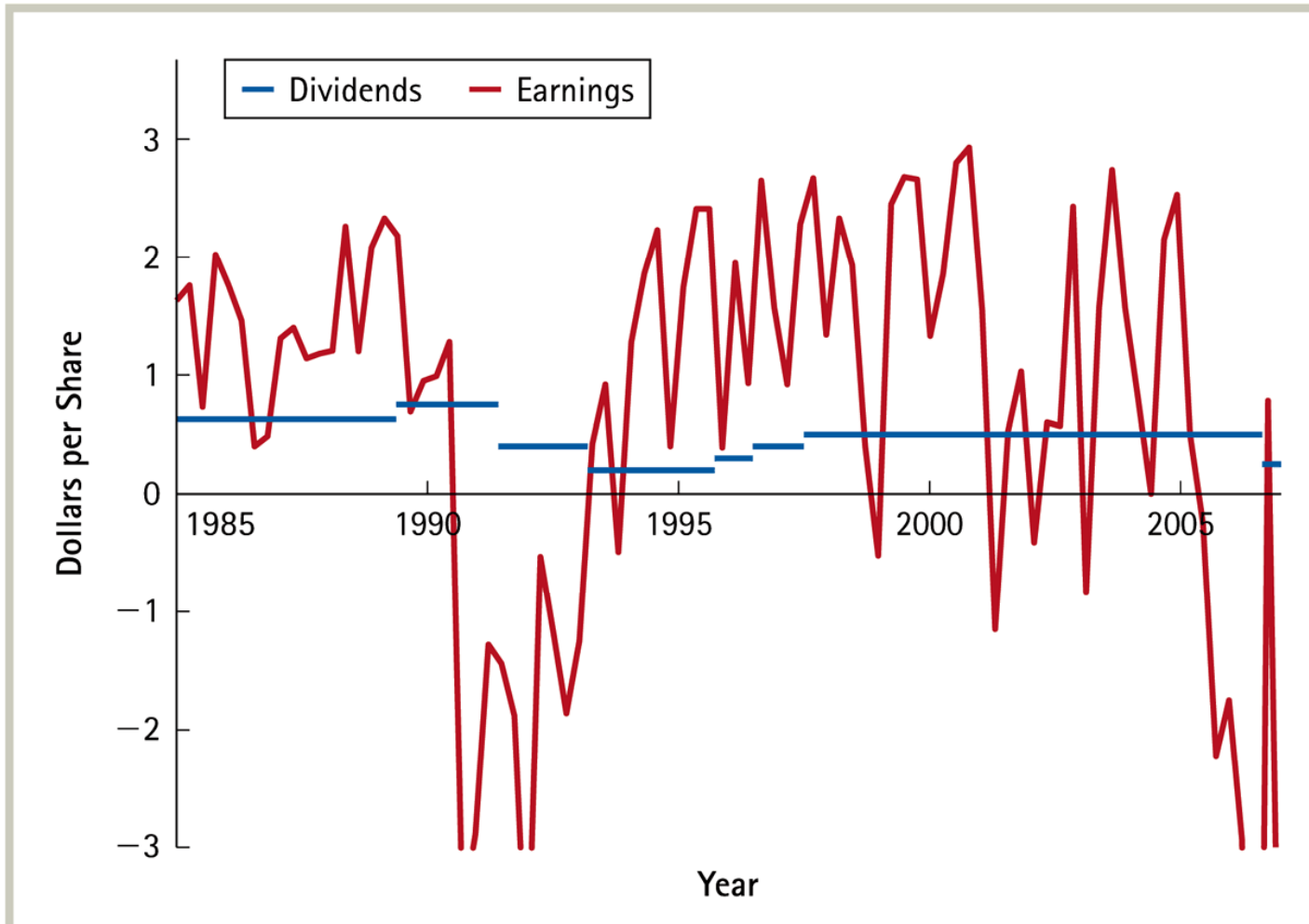


Dividend Puzzle: why firms pay dividends?

- Because:
 - Tax-exempt shareholders may prefer dividends (transaction costs of repurchases: brokerage fees, registration costs)
 - Corporations that hold shares of other corporations may prefer dividends because they are taxed at a lower rate
- Summarising, there might be clientele effects: firms may have different payout ratios to appeal to investors
- Or, conversely, it can be that investors choose which company to invest depending on their dividend policies

Payout Policy and Asymmetric Information

Earnings and dividends per share, GM



Small and slow changes to the dividend policy. Why?

Reactions of the stock market

- Announcement of...
 - An increase in dividends (+2%)
 - Initiation of quarterly dividends (higher)
 - Omission of a dividend (-9.5%)

- A repurchase of share with tender offer (+16%)
- A repurchase of share at the open market (3%)

Questions

- How does the market react to payout policy announcements?
- How market reactions affect payout policy?
- Implicit assumption: managers (insiders)...
 - Have more information than investors
 - Not always are able or willing to disclose this information
 - Their actions may indirectly reveal part of this info

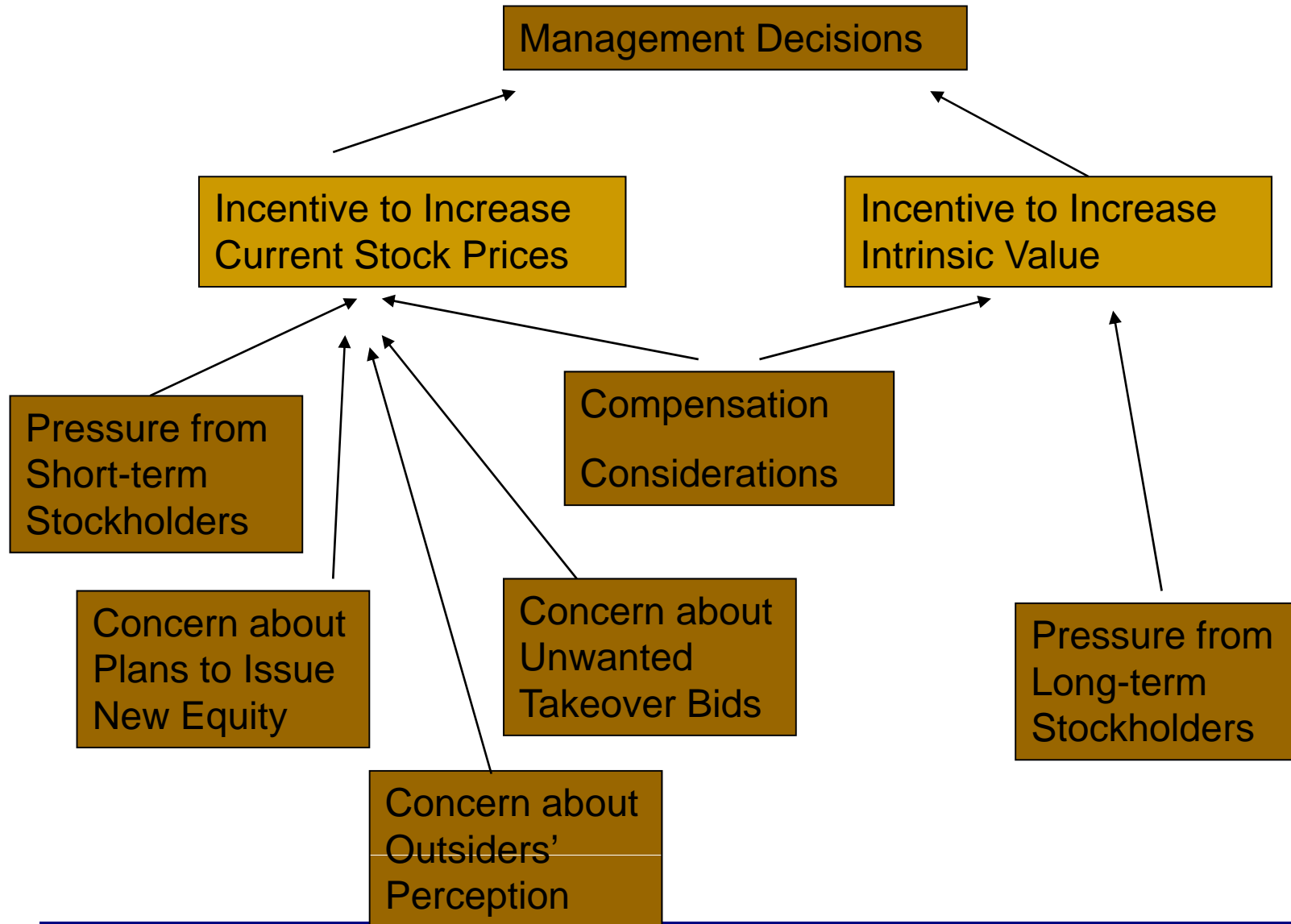
What do managers maximise?

- Implicitly, we've assumed that they maximise market value
- However, they know whether market over or undervalues

- Intrinsic and perceived value:
 - Intrinsic: real value (given all the information)
 - Perceived value: current market value

- What do they maximise?
- What should they maximise?

What will the manager maximise?



Simple Numerical Example

- A CEO owns 20,000 shares and...
 - Plans to sell 10,000 in near future and
 - Hold 10,000 indefinitely
 - She has a fixed salary
 - Does not have any of the previous concerns...
- She will ...
 - Weight current and intrinsic value equally
 - Reduction of \$1 in intrinsic value needs to be compensated with an increase \$1 in current value

A Simple Model (Miller and Rock, 1985)

- Ent's (all-equity-firm) sources and uses of funds

OPERATING
CASH FLOW

=

INVESTMENT
EXPENDITURES

+

DIVIDENDS

- Even if operating cash flows cannot be fully observed, if investment expenditures and dividends are observable by investors, they can be deduced
- Higher than expected dividends implies higher operating cash flows (good news about Ent)

A Simple Model (Miller and Rock, 1985)

OPERATING
CASH FLOW

=

INVESTMENT
EXPENDITURES

+

DIVIDENDS

- If neither operating cash flow nor investment expenditures can be observed by investors (dividends still observed!)
- ... and manager has incentives to maximise...
 - intrinsic value: THEN pick the optimal investment level
 - perceived value: THEN invest less and increase dividend

Example: operating cash flows: \$25m

Suppose that management gives same weight to intrinsic and perceived value

	Option 1	Option 2	Option 3
	\$10m dividend	\$15m dividend	\$20m dividend
	\$15m invested	\$10m invested	\$5m invested
Intrinsic Value	\$220m	\$210m	\$200
Current Value	\$190m	\$210m	\$215

What is the "best" option?

Which option will be taken?

What happens if dividends end up being larger?

Summary

- A manager with equal weight for short and long term value will choose option two
- Market correctly inferred that the firm would choose this option
- If they had unexpectedly paid more dividends...
 - Because e.g. management face takeover threat
 - Investors would have incorrectly believed that firm had better than expected cash flows

Retaining versus paying out

Retaining versus paying out

- If the firm has cash available...
 - and projects with positive NPV are available: invest!
 - Investor value created!

- If not ...
 - Paying it out, hold it in bank or buy financial assets?
 - In perfect capital markets, it should not matter!
 - Shareholders could do the same investment
 - Modigliani and Miller again!

Advantages and other disadvantages of retaining

- Why firms accumulate cash?
 - Cover future investments (R&D projects, acquisitions)
 - Avoiding direct transaction costs (and indirect (which?)) of raising external capital
 - If the earnings are volatile, can help avoid bankruptcy and its associated costs

- But there can also be agency costs:
 - Management may use funds inefficiently

- Which companies will keep more cash?