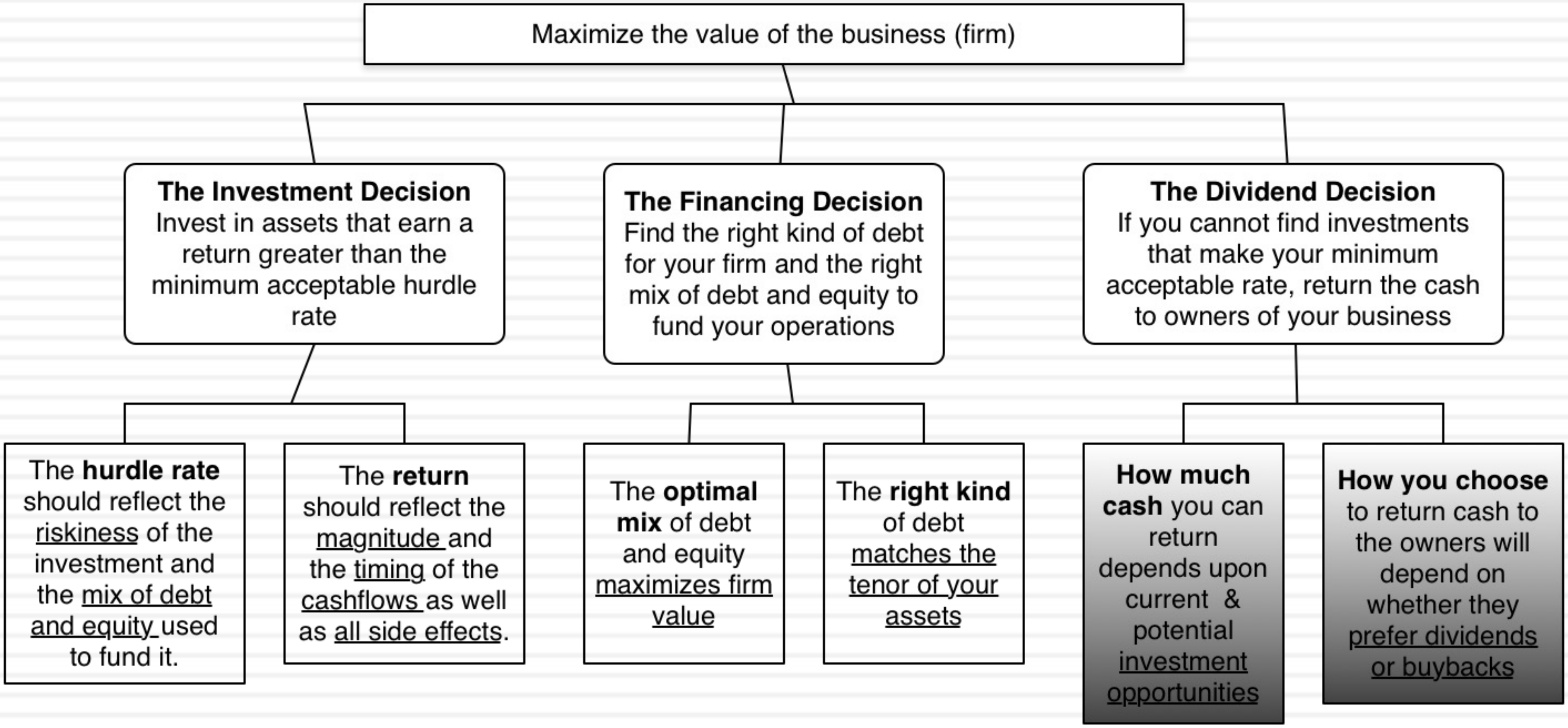
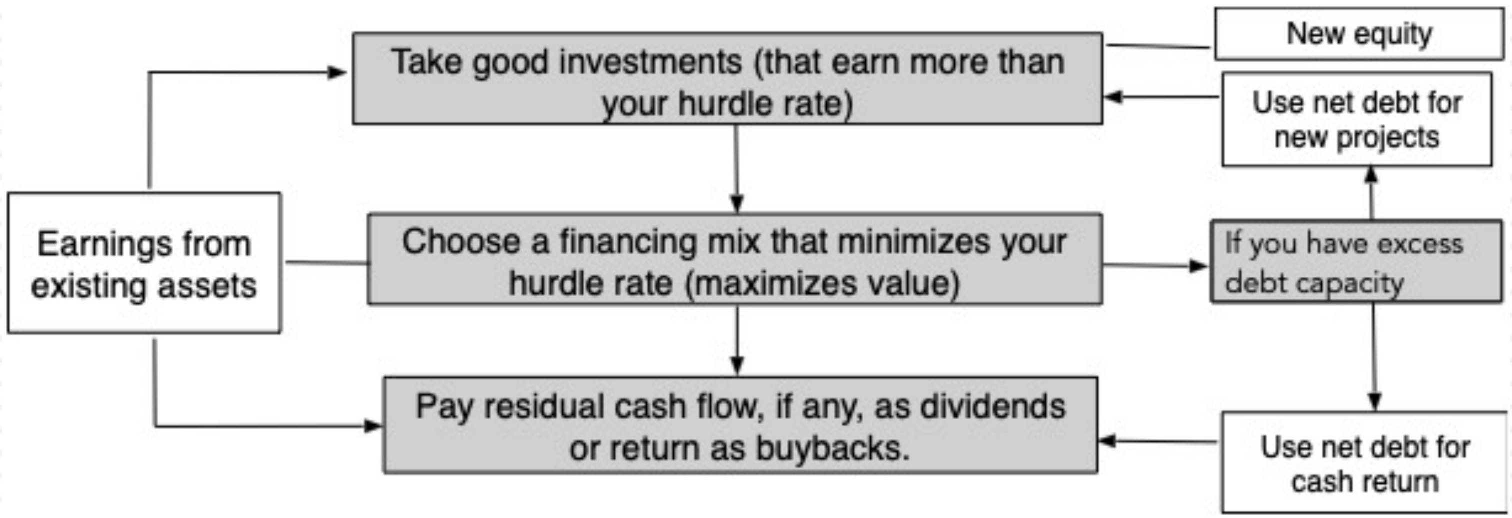
RETURNING CASH TO THE OWNERS: DIVIDEND POLICY

"Companies don't have cash. They hold cash for their stockholders."

First Principles



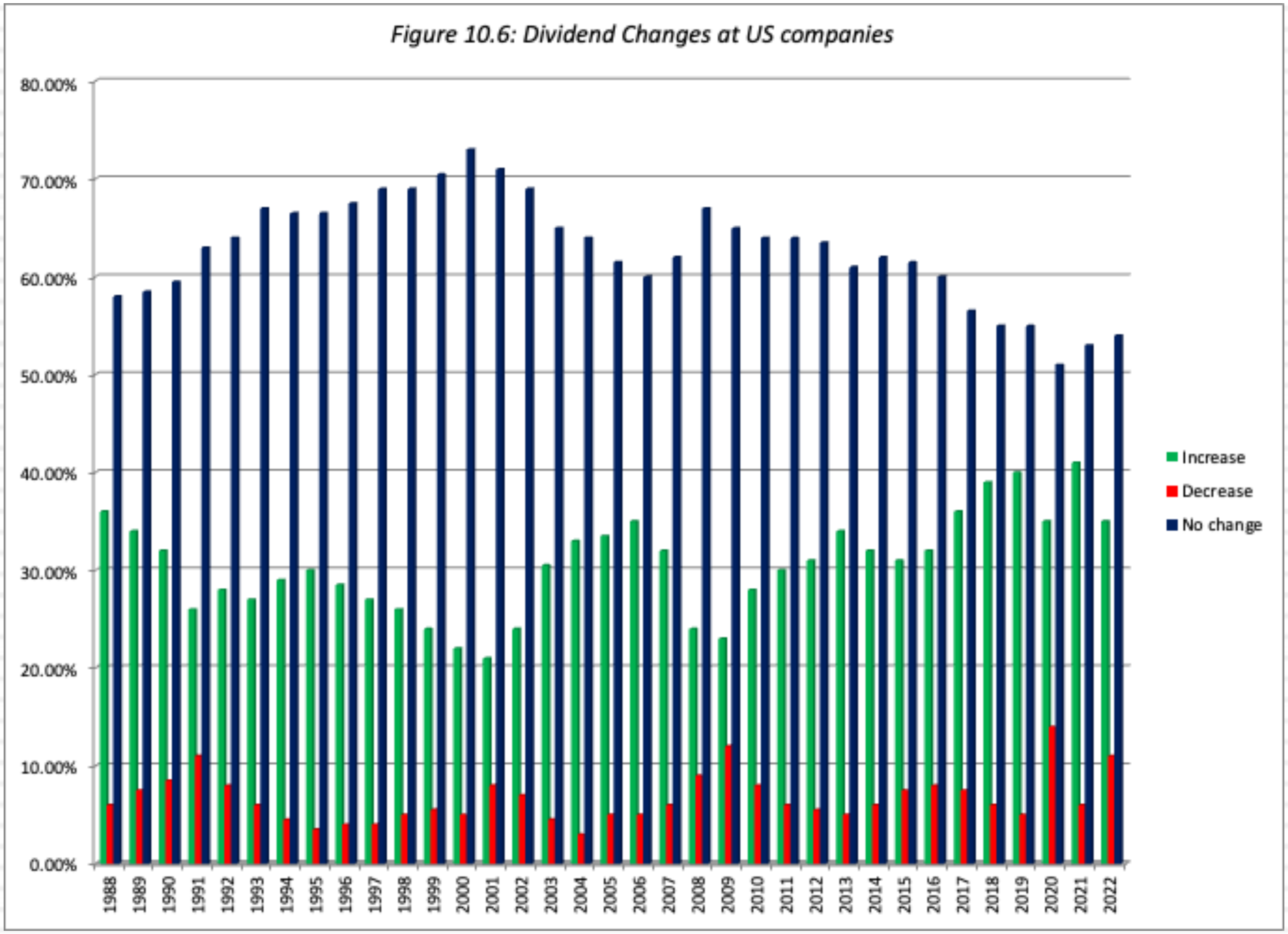
Steps to the Dividend Decision… if it is treated as a residual claim



The Roots of Dividend Dysfunction

- In practice, dividend policy is dysfunctional and does not follow the logical process of starting with your investment opportunities and working your way down to residual cash.
- The two dominant factors driving dividend policy around the world are:
  - Inertia: Companies seem to hate to let of their past, when it comes to dividend policy.
  - Me-too-ism: Companies want to behave like their peer group.

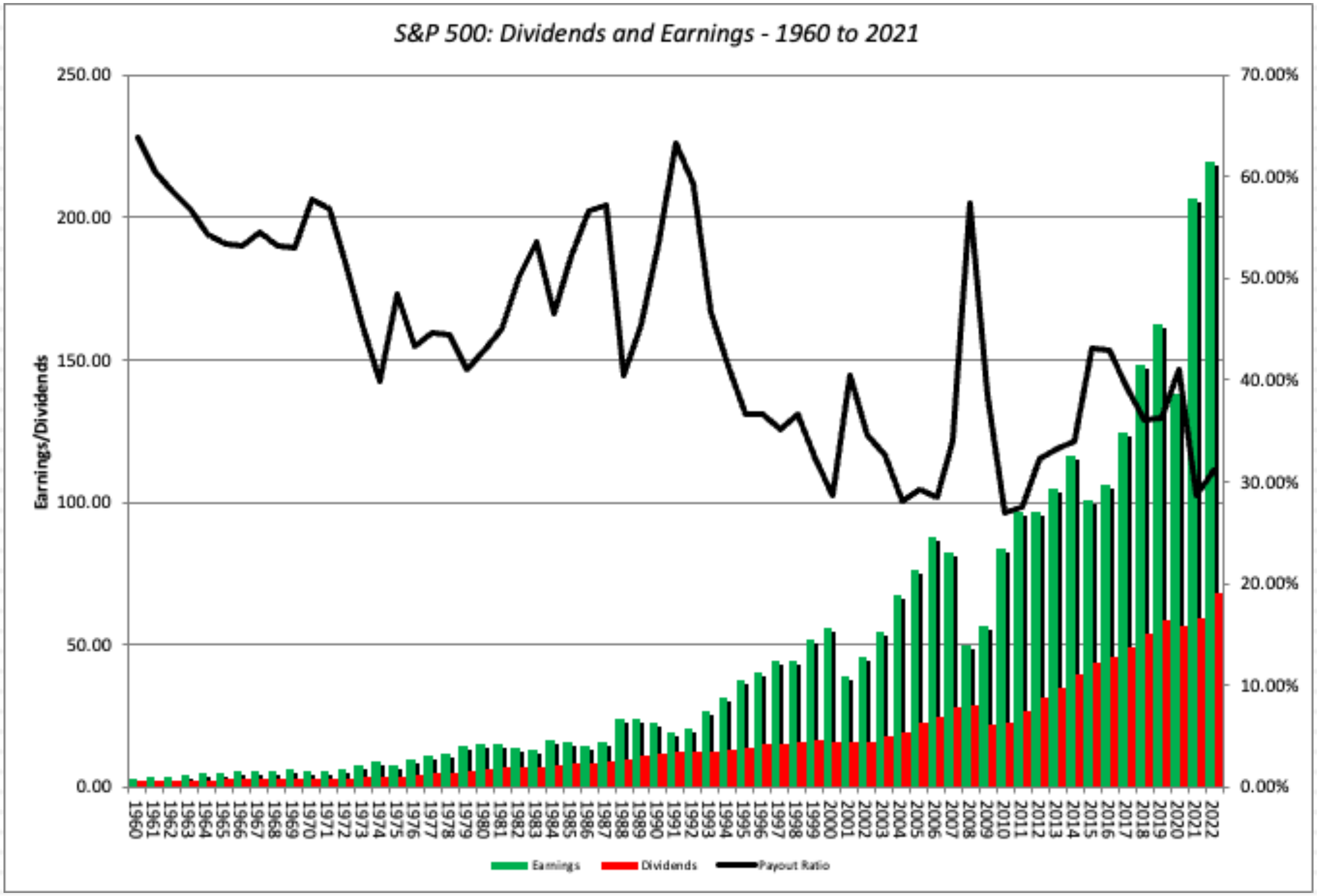
I. Dividends are sticky



In 2020, a crisis year for many companies...here is what they did..

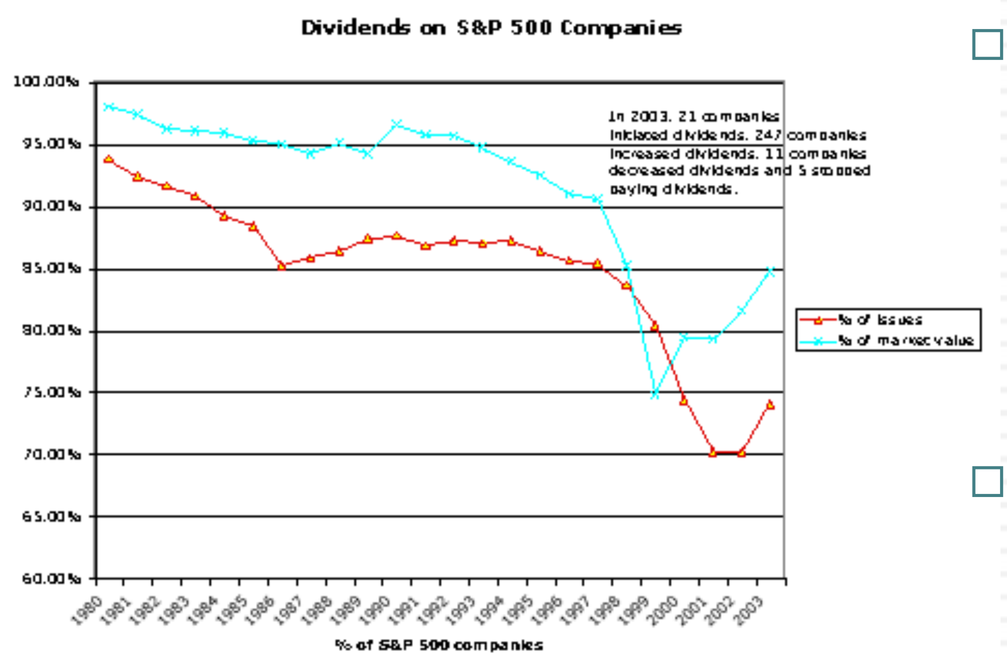
- Of the S&P 500 companies, 287 companies increased their dividends and 11 companies initiated dividends.
- Of the S&P 500 companies, 27 decreased dividends and 42 suspended dividends.
  - While the 42 dividend suspensions were the most in the last 20 years, the number of companies that increased divbidends (298) vastly exceeded the number that cut or suspended dividends (69).
  - In perhaps the most revealing statistic of all, 133 of the 500 largest market cap companies did not pay dividends leading into 2020 or in 2020.

II. Dividends tend to follow earnings



III. Are affected by changes in tax laws…

In 2003

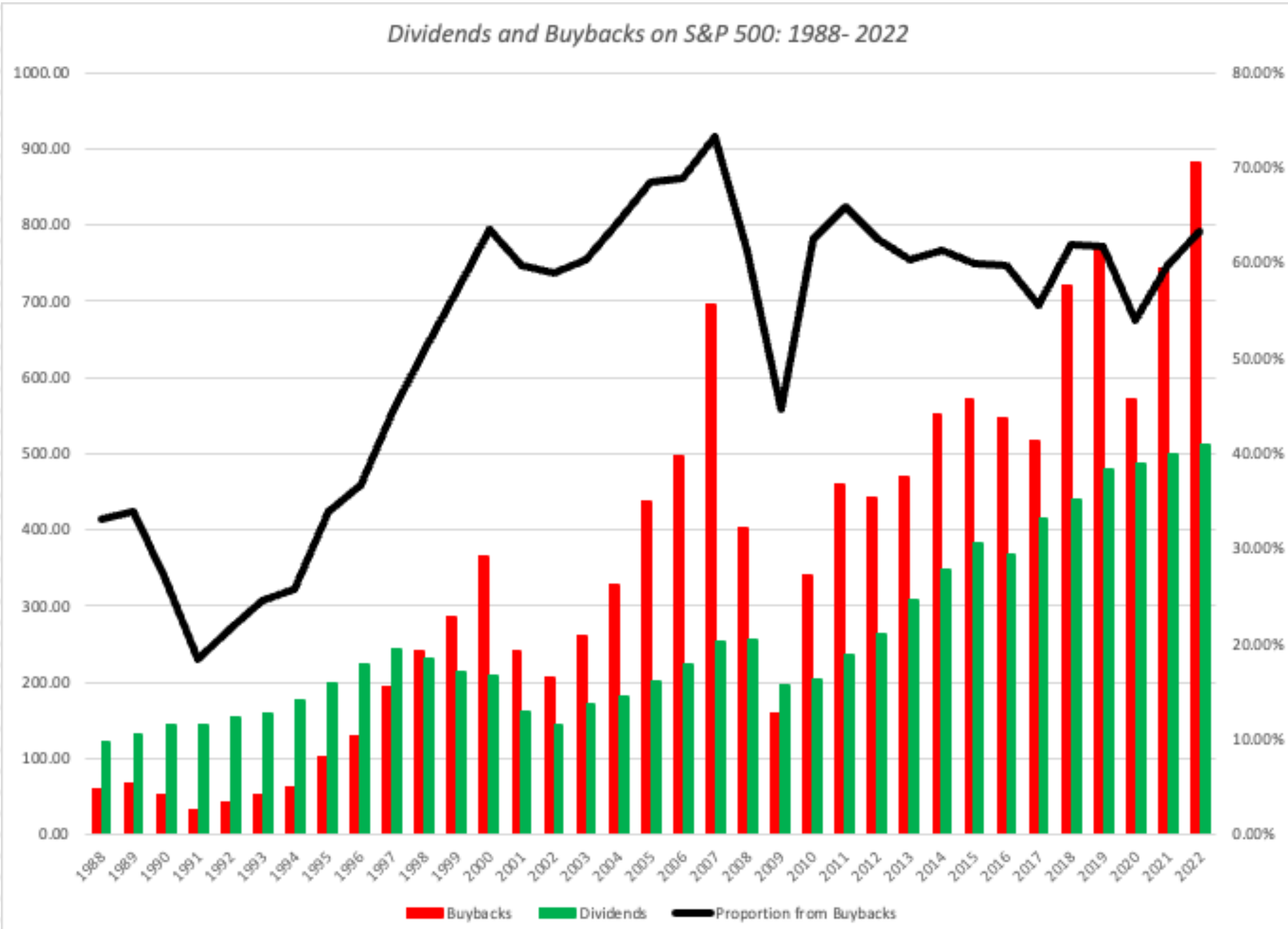


Tax rates on dividends brought down to the tax rate on capital gains in 2003

In the last quarter of 2012

- As the possibility of tax rates reverting back to pre-2003 levels rose, 233 companies paid out $31 billion in dividends.
- Of these companies, 101 had insider holdings in excess of 20% of the outstanding stock.

IV. More and more US firms are buying back stock, rather than pay dividends…



And its going global.. In 2022

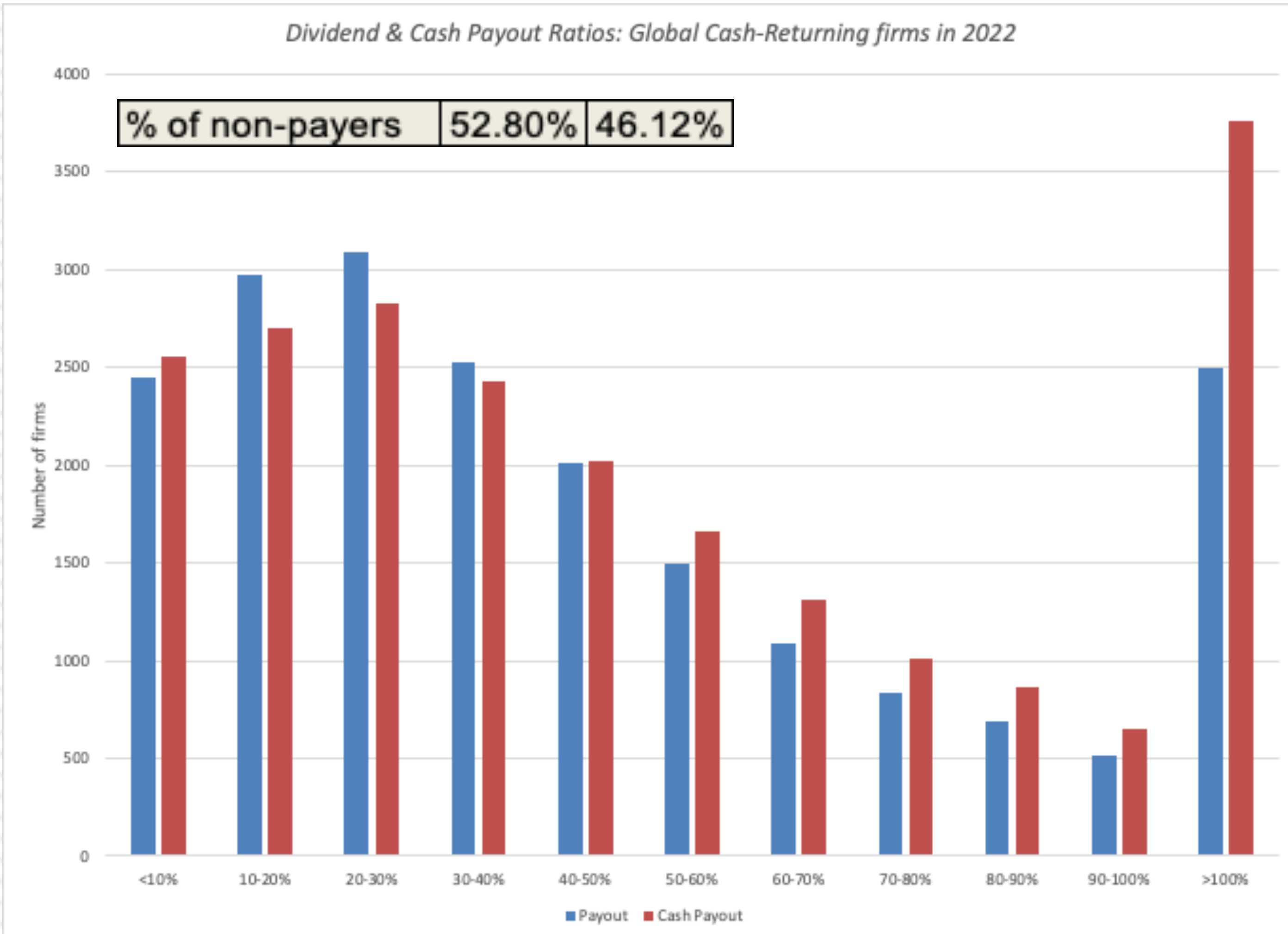
Age Decile	Number of firms	Dividends: % of Payers	$ Dividends	Dividend Yield	Buybacks: % buying back	$ Buybacks	Buybacks as % of Cash Return
Eastern Europe & Russia	357	41.18%	$4,130	4.28%	14.01%	$674	14.03%
Australia & NZ	1,895	25.01%	$64,082	3.99%	9.92%	$20,937	24.63%
Latin America & Caribbean	1,023	60.90%	$67,914	4.26%	28.15%	$24,988	26.90%
Canada	2,900	12.45%	$71,749	2.74%	16.28%	$76,480	51.60%
India	4,149	33.00%	$45,820	1.35%	3.74%	$4,872	9.61%
Africa and Middle East	2,409	53.42%	$164,956	3.48%	12.08%	$8,015	4.63%
UK	1,232	45.62%	$107,251	3.53%	28.17%	$75,643	41.36%
Small Asia	9,591	54.49%	$184,032	3.17%	11.96%	$17,193	8.54%
Japan	3,974	68.70%	$114,262	2.15%	28.51%	$57,410	33.44%
EU & Environs	5,952	41.06%	$372,319	2.79%	21.47%	$214,706	36.58%
China	7,266	76.59%	$510,651	3.34%	20.56%	$68,615	11.85%
United States	7,165	26.20%	$636,300	1.58%	40.87%	$1,144,809	64.28%
Global	**47,913**	**47.30%**	**$2,343,465**	**2.41%**	**20.39%**	**$1,714,342**	**42.25%**

$ values are all in millions of US $

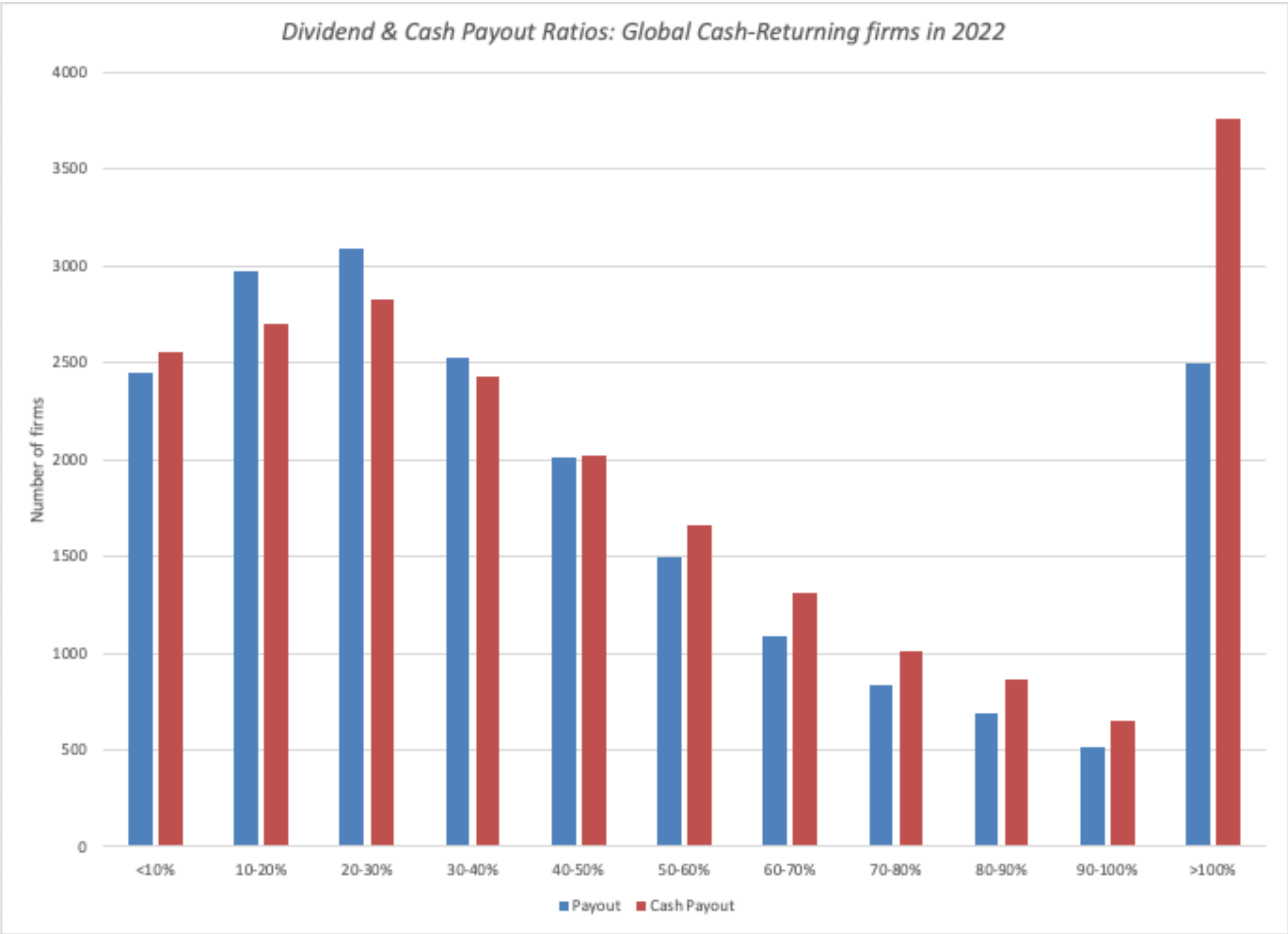
Measures of Dividend Policy

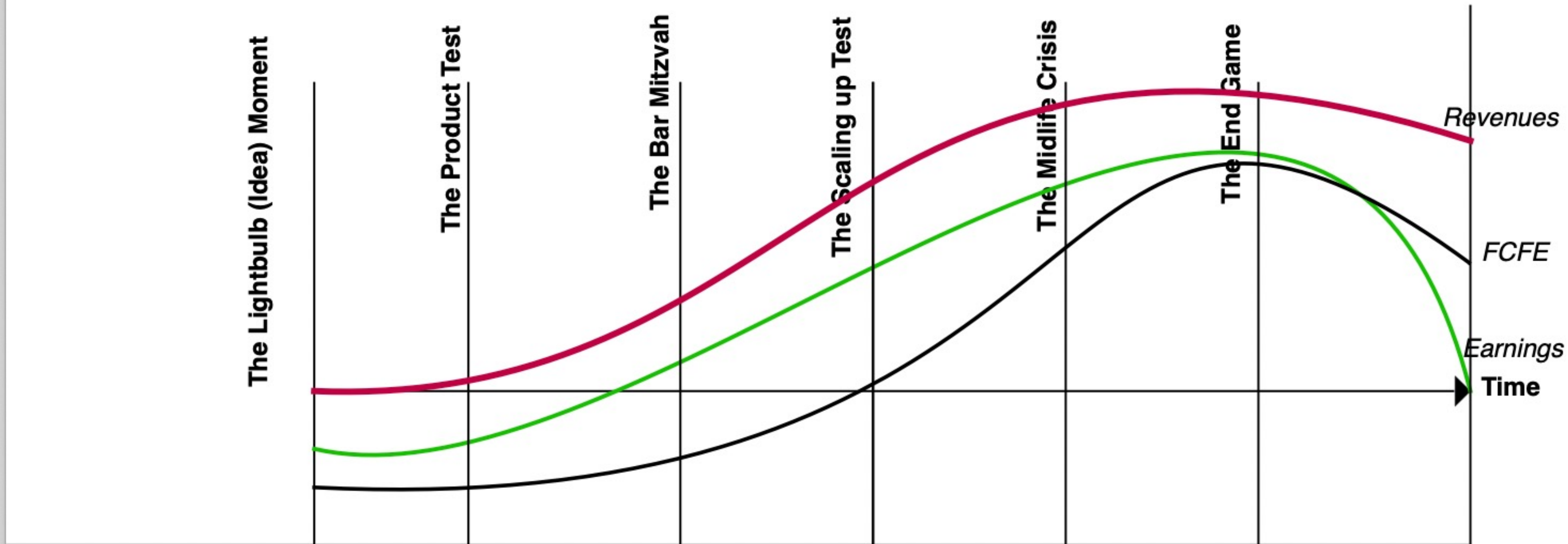
- Dividend Payout = Dividends/ Net Income
  - Measures the percentage of earnings that the company pays in dividends
  - If the net income is negative, the payout ratio cannot be computed.
- Dividend Yield = Dividends per share/ Stock price
  - Measures the return that an investor can make from dividends alone
  - Becomes part of the expected return on the investment.
- Both measures, though, focus on just dividends, even as companies increasingly turn to buybacks. An expanded version would replace dividends with cash returned = dividends + buybacks.

Global Payout Ratios: January 2023



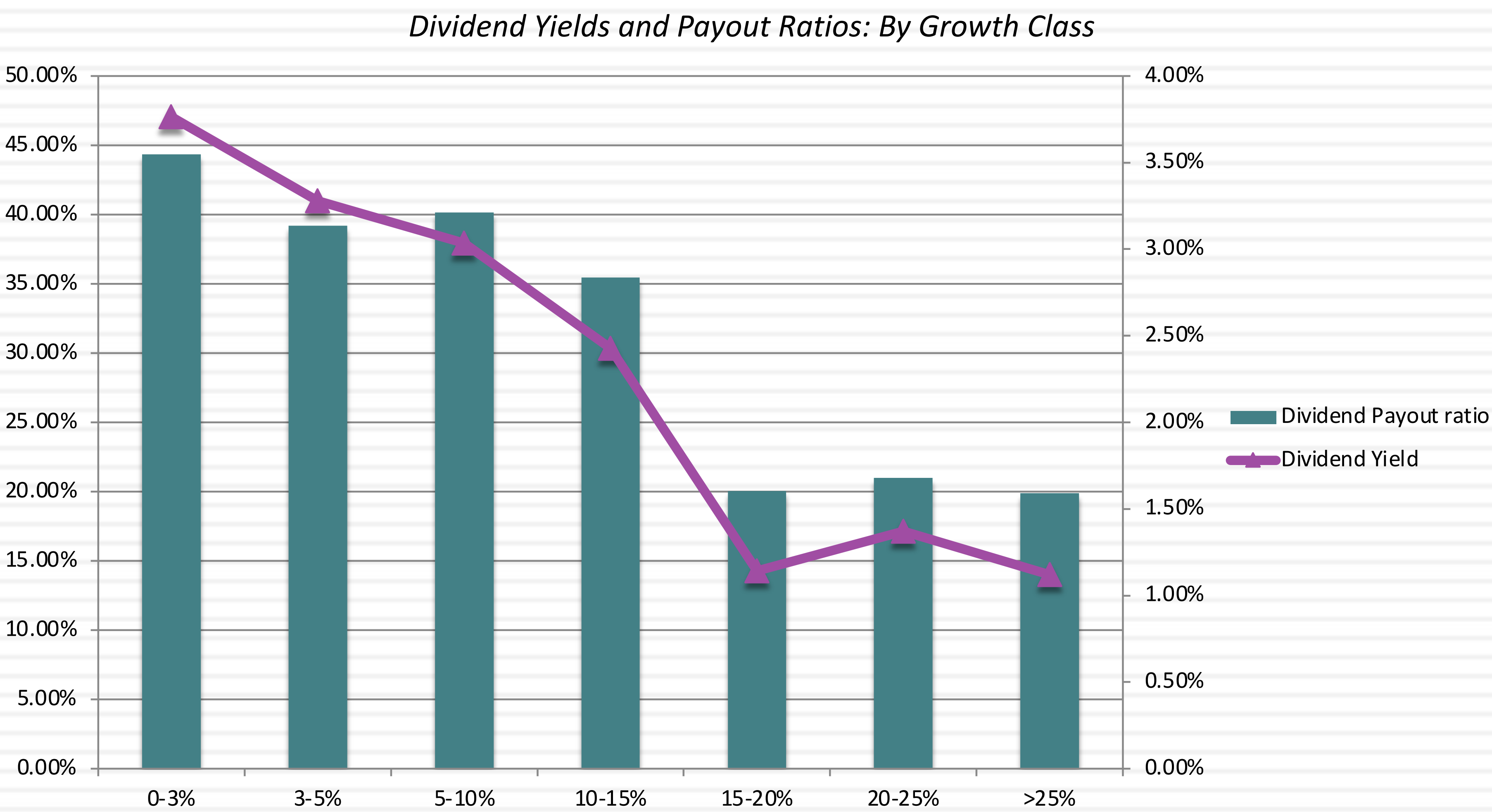
Global Yields: January 2023





Lifecycle Stage	Start-up	Young Growth	High Growth	Mature Growth	Mature Stable	Decline
Earnings	Large net losses	Net losses narrow	Net profits turn positive	Net profits grow quickly	Net profits level off, with debt as wild card.	Net profits decline
Reinvestment needed for growth	Very High	High	Remain large, but scale down in percent.	Continue to decrease on scaled basis.	Low	Divestment (creating positive cash flows)
Debt cash flow (Debt issued - repaid)	Usually none	Usually none	If debt exists, net positive, but small.	Net debt cash flow positive.	Net debt cash flow neutal.	Net debt cash flow negative.
Free CF to Equity (Potential cash return)	Negative	May get more negative, with growth	Turns positive as growth slows	Positive & growing (faster than earnings)	Positive & more stable	Positive & higher than earnings.
Cash from/to Equity	Equity Issuances		Self-funding	Equity Buybacks	Dividends + Buybacks	Liquidating Dividends

Dividend Yields and Payout Ratios: Growth Classes



Dividend Policy: Disney, Vale, Tata Motors, Baidu and Deutsche Bank

	Disney	Vale	Tata Motors	Baidu	Deutsche Bank
Dividend Yield - Last 12 months	1.09%	6.56%	1.31%	0.00%	1.96%
Dividend Payout ratio - Last 12 months	21.58%	113.45%	16.09%	0.00%	362.63%
Dividend Yield - 2008-2012	1.17%	4.01%	1.82%	0.00%	3.14%
Dividend Payout - 2008-2012	17.11%	37.69%	15.53%	0.00%	37.39%

Three Schools Of Thought On Dividends

1. If there are no tax disadvantages associated with dividends & companies can issue stock, at no issuance cost, to raise equity, whenever needed

   Dividends do not matter, and dividend policy does not affect value.

2. If dividends create a tax disadvantage for investors (relative to capital gains)

   Dividends are bad, and increasing dividends will reduce value

3. If dividends create a tax advantage for investors (relative to capital gains) and/or stockholders like dividends

   Dividends are good, and increasing dividends will increase value

The balanced viewpoint

- If a company has excess cash, and few good investment opportunities (NPV>0), returning money to stockholders (dividends or stock repurchases) is good.
- If a company does not have excess cash, and/or has several good investment opportunities (NPV>0), returning money to stockholders (dividends or stock repurchases) is bad.

The Dividends don’t matter school
The Miller Modigliani Hypothesis

- The Miller-Modigliani Hypothesis: Dividends do not affect value
- Basis:
  - If a firm's investment policies (and hence cash flows) don't change, the value of the firm cannot change as it changes dividends.
  - If a firm pays more in dividends, it will have to issue new equity to fund the same projects. By doing so, it will reduce expected price appreciation on the stock but it will be offset by a higher dividend yield.
  - If we ignore personal taxes, investors have to be indifferent to receiving either dividends or capital gains.
- Underlying Assumptions:

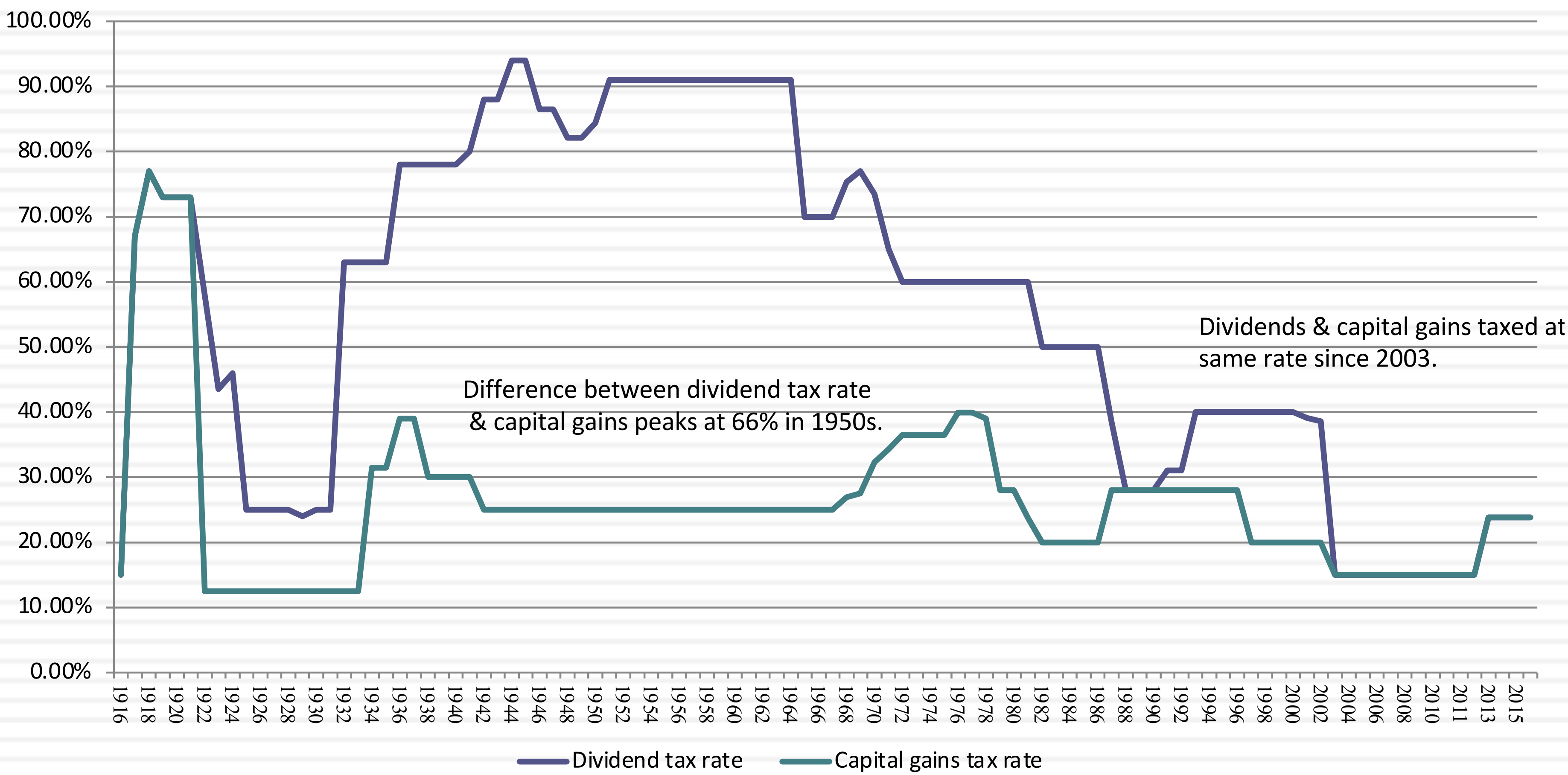
  (a) There are no tax differences to investors between dividends and capital gains.

  (b) If companies pay too much in cash, they can issue new stock, with no flotation costs or signaling consequences, to replace this cash.

  (c) If companies pay too little in dividends, they do not use the excess cash for bad projects or acquisitions.

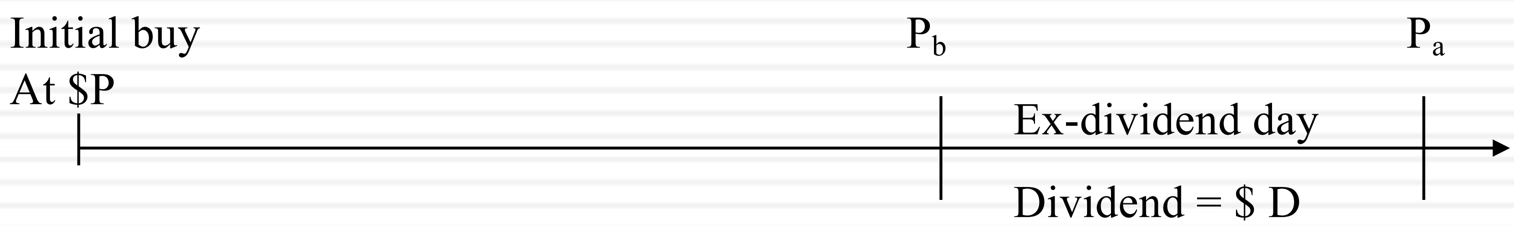
II. The Dividends are "bad" school: And the evidence to back them up…

Figure 10.10: Tax rates on Dividends and Capital Gains- US



What do investors in your stock think about dividends? Clues on the ex-dividend day!

- Assume that you are the owner of a stock that is approaching an ex-dividend day and you know that dollar dividend with certainty. In addition, assume that you have owned the stock for several years.



P = Price at which you bought the stock a "while" back

P_b= Price before the stock goes ex-dividend

P_a=Price after the stock goes ex-dividend

D = Dividends declared on stock

t_o, t_{cg} = Taxes paid on ordinary income and capital gains respectively

Cashflows from Selling around Ex-Dividend Day

- The cash flows from selling before ex-dividend day are:

  $P_b - (P_b - P)\, t_{cg}$
- The cash flows from selling after ex-dividend day are:

  $P_a - (P_a - P)\, t_{cg} + D(1-t_o)$
- Since the average investor should be indifferent between selling before the ex-dividend day and selling after the ex-dividend day -

  $P_b - (P_b - P)\, t_{cg} = P_a - (P_a - P)\, t_{cg} + D(1-t_o)$
- Some basic algebra leads us to the following:

$$\frac{P_b - P_a}{D} = \frac{1 - t_o}{1 - t_{cg}}$$