

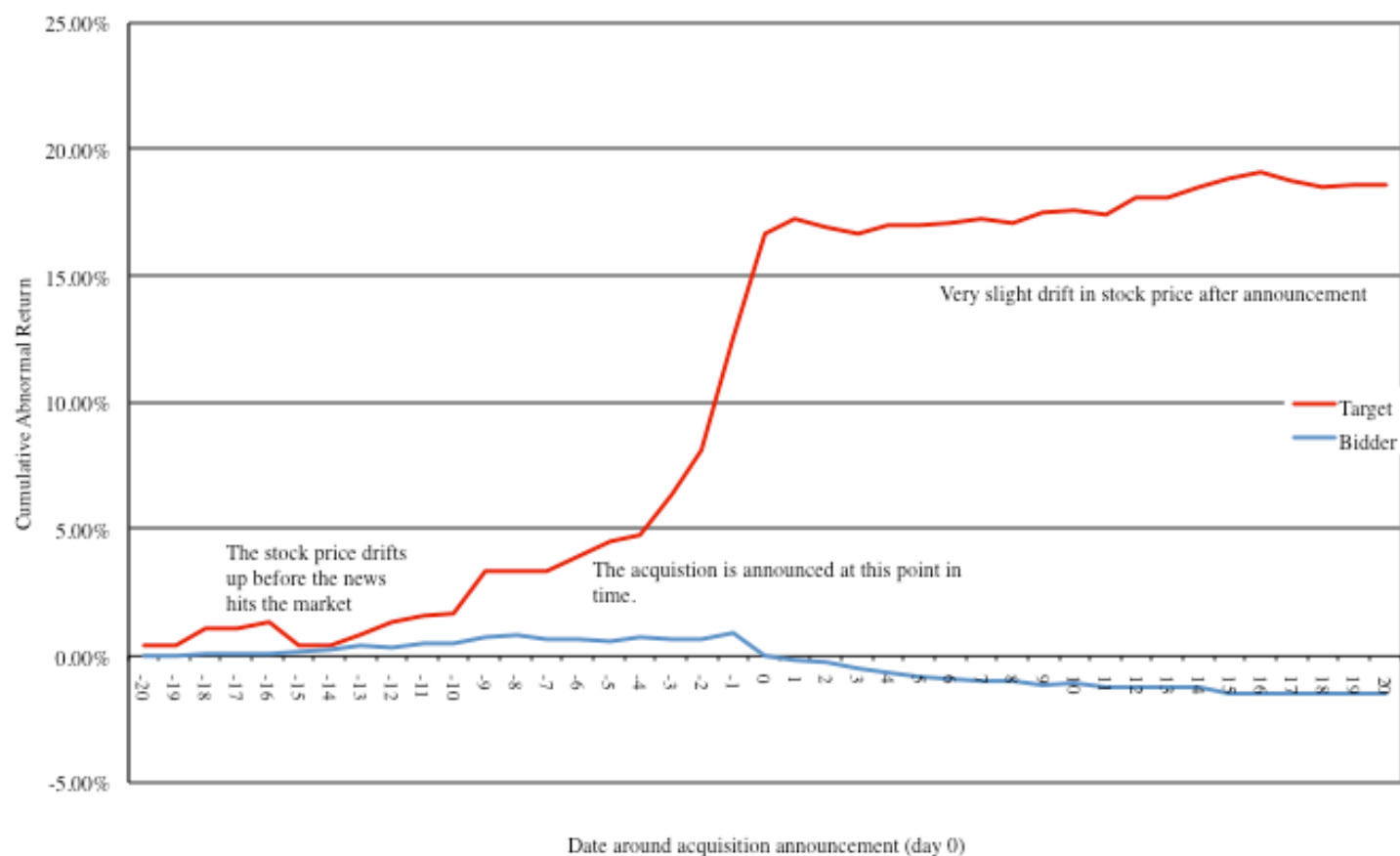
ACQUIRERS ANONYMOUS: SEVEN STEPS BACK TO SOBRIETY...

85

Aswath Damodaran

GREAT FOR TARGET COMPANIES BUT NOT FOR ACQUIRING COMPANY STOCKHOLDERS...

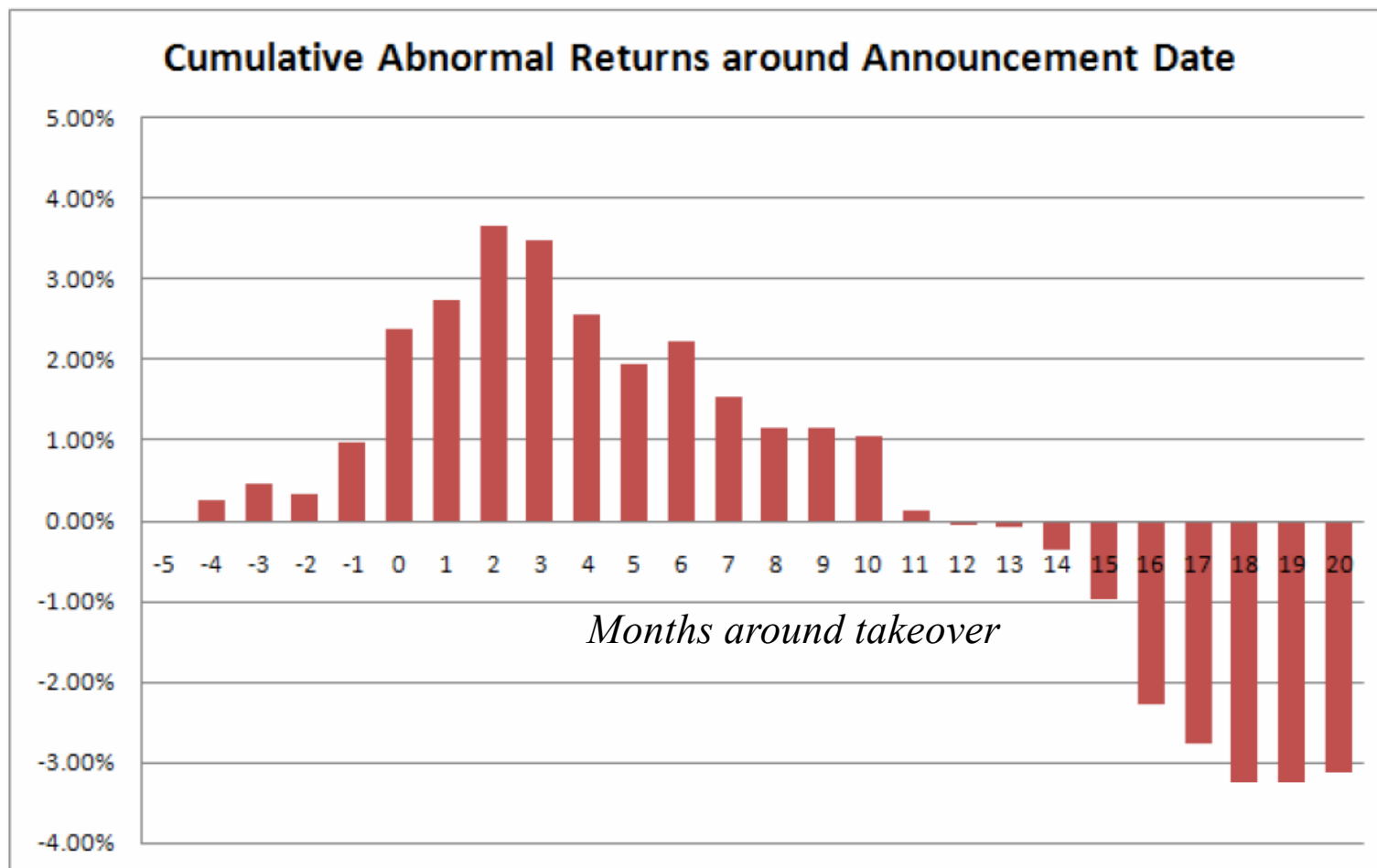
Cumulative Returns: Target and Bidder firms in Public Acquisitions



AND THE LONG-TERM FOLLOW UP IS NOT POSITIVE EITHER..

- Managers often argue that the market is unable to see the long term benefits of mergers that they can see at the time of the deal. If they are right, mergers should create long term benefits to acquiring firms.
- The evidence does not support this hypothesis:
 - McKinsey and Co. has examined acquisition programs at companies on
 1. Did the return on capital invested in acquisitions exceed the cost of capital?
 2. Did the acquisitions help the parent companies outperform the competition?
 3. Half of all programs failed one test, and a quarter failed both.
 - **Synergy is elusive.** KPMG in a more recent study of global acquisitions concludes that most mergers (>80%) fail - the merged companies do worse than their peer group.
 - **Regret is common:** A large number of acquisitions that are reversed within fairly short time periods. About 20% of the acquisitions made between 1982 and 1986 were divested by 1988. In studies that have tracked acquisitions for longer time periods (ten years or more) the divestiture rate of acquisitions rises to almost 50%.

THE DISEASE IS SPREADING: INDIAN FIRMS ACQUIRING US TARGETS — 1999 - 2005



GROWING THROUGH ACQUISITIONS IS A “LOSER’S GAME”

- Firms that grow through acquisitions have generally had far more trouble creating value than firms that grow through internal investments.
- In general, acquiring firms tend to
 - Pay too much for target firms
 - Over estimate the value of “synergy” and “control”
 - Have a difficult time delivering the promised benefits
- Worse still, there seems to be very little learning built into the process. The same mistakes are made over and over again, often by the same firms with the same advisors.
- **Conclusion: There is something structurally wrong with the process for acquisitions which is feeding into the mistakes.**

THE SEVEN SINS IN ACQUISITIONS...

1. **Risk Transference:** Attributing acquiring company risk characteristics to the target firm.
2. **Debt subsidies:** Subsidizing target firm stockholders for the strengths of the acquiring firm.
3. **Auto-pilot Control:** The “20% control premium” and other myth...
4. **Elusive Synergy:** Misidentifying and mis-valuing synergy.
5. **Its all relative:** Transaction multiples, exit multiples...
6. **Verdict first, trial afterwards:** Price first, valuation to follow
7. **It's not my fault:** Holding no one responsible for delivering results.

TESTING SHEET

Test	Passed/Failed	Rationalization
Risk transference		
Debt subsidies		
Control premium		
The value of synergy		
Comparables and Exit Multiples		
Bias		
A successful acquisition strategy		

LET'S START WITH A TARGET FIRM

- The target firm has the following income statement:

	Next Year
Revenues	\$ 100.00
Operating Expenses (includes depreciation of \$20 million)	\$ 80.00
Pre-tax Operating Income	\$ 20.00
Taxes	\$ 8.00
After-tax Operating Income	\$ 12.00

- Assume that this firm will generate this operating income forever (with no growth) and that the cost of equity for this firm is 20%. The firm has no debt outstanding. What is the value of this firm?

TEST 1: RISK TRANSFERENCE...

- Assume that as an acquiring firm, you are in a much safer business and have a cost of equity of 10%. What is the value of the target firm to you?
 - a. \$60 million
 - b. \$90 million
 - c. \$120 million
 - d. Other

LESSON 1: DON'T TRANSFER YOUR RISK CHARACTERISTICS TO THE TARGET FIRM

- Let's start with a basic capital budgeting principle, which is often ignored: **The discount rate used for an investment should reflect the risk of the investment and not the risk characteristics of the investor who raised the funds.**
 - Risky businesses **cannot become safe** just because the buyer of these businesses is in a safe business.
 - The right cost of equity to use in valuation is the **one that reflects the risk in equity in the target firm.**

TEST 2: CHEAP DEBT?

- Assume as an acquirer that you have both **excess debt capacity** (because you have not chosen to borrow as much as you could have, given your assets) and **access to cheap debt**.
- You **plan to borrow money at 4%** (in after-tax terms) and that you plan to **fund half the acquisition with debt**. How much would you be willing to pay for the target firm?

LESSON 2: RENDER UNTO THE TARGET FIRM THAT WHICH IS THE TARGET FIRM'S BUT NOT A PENNY MORE..

- As an acquiring firm, it is entirely possible that you can borrow much more than the target firm can on its own and at a much lower rate.
- If you build these characteristics into the valuation of the target firm, you are essentially transferring wealth from your firm's stockholder to the target firm's stockholders.
- When valuing a target firm, use a cost of capital that reflects the debt capacity and the cost of debt that would apply to the firm.

TEST 3: CONTROL PREMIUMS

- Assume that you are now told that it is conventional to pay a 20% premium for control in acquisitions.
- That premium is justified by pointing to historical studies that show that this is what acquirers pay for control, i.e., pay roughly a 20% premium over the market price.
 - a. How much would you be willing to pay for the target firm?
 - b. Assuming that you are paying a control premium, how would you justify it?

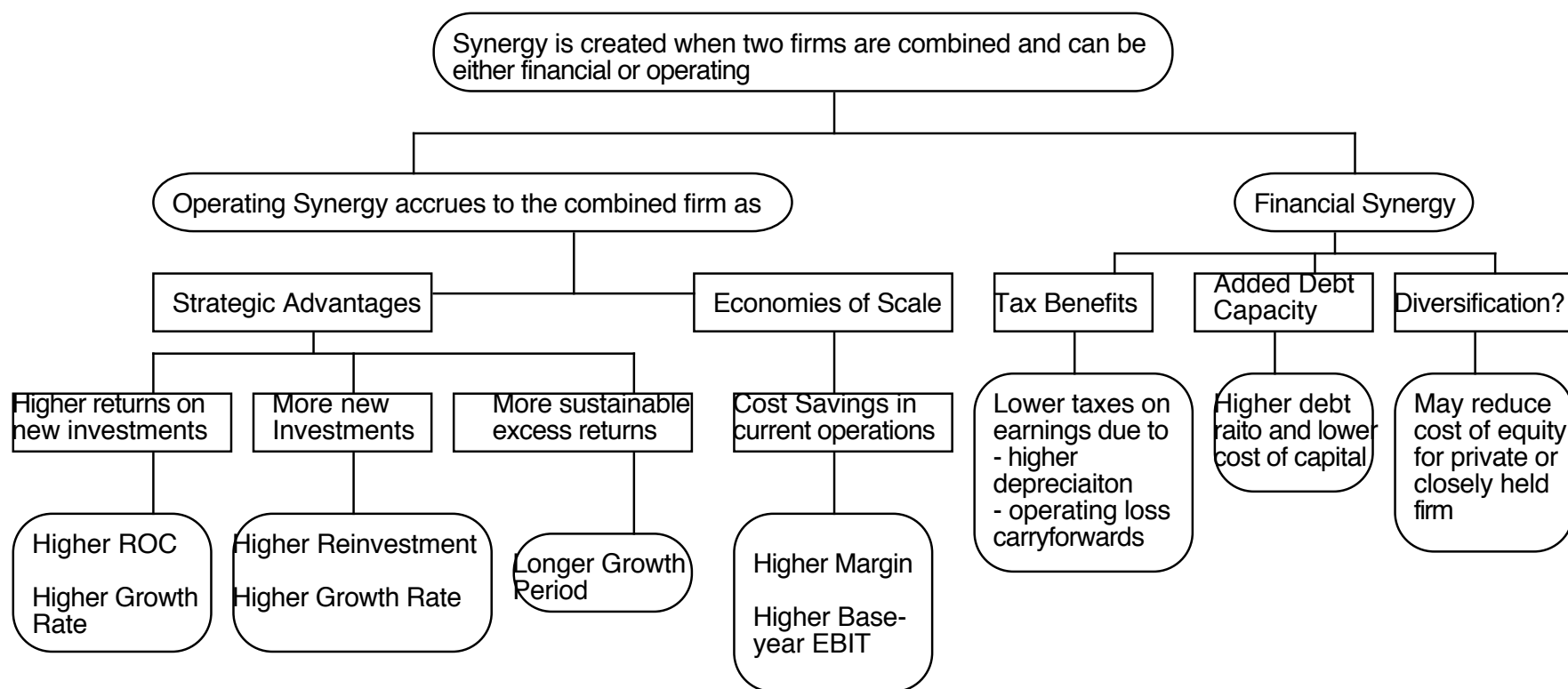
LESSON 3: BEWARE OF RULES OF THUMB...

- Valuation is cluttered with rules of thumb. After painstakingly valuing a target firm, using your best estimates, you will be often be told that
 - It is common practice to add arbitrary premiums for brand name, quality of management, control etc...
 - These premiums will be often be backed up by data, studies and services. What they will not reveal is the enormous sampling bias in the studies and the standard errors in the estimates.
 - If you have done your valuation right, those premiums should already be incorporated in your estimated value. Paying a premium will be double counting.

TEST 4: SYNERGY....

1. Assume that you are told that the combined firm will be less risky than the two individual firms and that it should have a lower cost of capital (and a higher value). Is this likely?
 - a. Yes
 - b. No
2. Assume now that you are told that there are potential growth and cost savings synergies in the acquisition. Would that constitute value added?
 - a. Yes
 - b. No
3. Should you pay this as a premium?
 - a. Yes
 - b. No

THE VALUE OF SYNERGY



VALUING SYNERGY

- (1) the firms involved in the **merger are valued independently**, by discounting expected cash flows to each firm at the weighted average cost of capital for that firm.
- (2) the **value of the combined firm, with no synergy**, is obtained by adding the values obtained for each firm in the first step.
- (3) The **effects of synergy are built into expected growth rates and cashflows**, and the combined firm is re-valued with synergy.
 - Value of Synergy = Value of the combined firm, with synergy - Value of the combined firm, without synergy

SYNERGY - EXAMPLE 1

HIGHER GROWTH AND COST SAVINGS

	P&G	Gillette	Piglet: No Synergy	Piglet: Synergy	
Free Cashflow to Equity	\$5,864.74	\$1,547.50	\$7,412.24	\$7,569.73	Annual operating expenses reduced by \$250 million
Growth rate for first 5 years	12%	10%	11.58%	12.50%	Slightly higher growth rate
Growth rate after five years	4%	4%	4.00%	4.00%	
Beta	0.90	0.80	0.88	0.88	
Cost of Equity	7.90%	7.50%	7.81%	7.81%	Value of synergy
Value of Equity	\$221,292	\$59,878	\$281,170	\$298,355	\$17,185

SYNERGY: EXAMPLE 2

TAX BENEFITS?

- Assume that you are Best Buy, the electronics retailer, and that you would like to enter the hardware component of the market. You have been approached by investment bankers for Zenith, which while still a recognized brand name, is on its last legs financially. The firm has net operating losses of \$ 2 billion. If your tax rate is 36%, estimate the tax benefits from this acquisition.
- If Best Buy had only \$500 million in taxable income, how would you compute the tax benefits?
- If the market value of Zenith is \$800 million, would you pay this tax benefit as a premium on the market value?

LESSON 4: DON'T PAY FOR BUZZ WORDS

1. You have to value synergy, before you decide how much to pay (not after): Synergy will be the buzzword that explains away the premium that you are paying.
2. To value synergy, you need specifics: Before you value synergy, you need to be specific about what synergies you see in a merger and where they will show up in a valuation.
3. Don't mistake control for synergy: If the benefits can be generated by just one of the two entities in the merger, it is not synergy.
4. Negotiate for your fair share: As the acquiring firm, you should negotiate for your share of the synergy, not pay it all off as a premium.

TEST 5: COMPARABLES AND EXIT MULTIPLES

- Now assume that you are told that an analysis of other acquisitions reveals that acquirers have been willing to pay 5 times EBIT.. Given that your target firm has EBIT of \$ 20 million, would you be willing to pay \$ 100 million for the acquisition?
- What if I estimate the terminal value using an exit multiple of 5 times EBIT?
- As an additional input, your investment banker tells you that the acquisition is accretive. (Your PE ratio is 20 whereas the PE ratio of the target is only 10... Therefore, you will get a jump in earnings per share after the acquisition...)

BIASED SAMPLES = POOR RESULTS

- **Biased samples yield biased results.** Basing what you pay on what other acquirers have paid is a recipe for disaster. After all, we know that acquirer, on average, pay too much for acquisitions. By matching their prices, we risk replicating their mistakes.
- Even when **we use the pricing metrics of other firms in the sector**, we may be basing the prices we pay on firms that are not truly comparable.
- When **we use exit multiples**, we are assuming that what the market is paying for comparable companies today is what it will continue to pay in the future.

LESSON 5: IF YOU ARE GOING TO PRICE A TARGET FIRM, DO IT RIGHT..

- **Pick your game:** If you are acquiring other companies not for the cash flows but because you think that you can sell them to someone else at a higher price, it is perfectly okay to play the pricing game. If you are acquiring a firm for its cash flows, you have to play the value game.
- **Don't get distracted:** If you are playing the pricing game, dispense with the DCF and do an honest pricing. If you are playing the value game, stop looking at what other people are paying.
- **To do an honest pricing,** you have to be unbiased in your choice of multiple and comparable firms, and control for differences between your firm & the peer group.

TEST 6: THE CEO REALLY WANTS TO DO THIS... OR THERE ARE COMPETITIVE PRESSURES...

1. Now assume that you know that the CEO of the acquiring firm really, really wants to do this acquisition and that the investment bankers on both sides have produced fairness opinions that indicate that the firm is worth \$ 150 million. Would you be willing to go along?
 - a) Yes
 - b) No

2. Now assume that you are told that your competitors are all doing acquisitions and that if you don't do them, you will be at a disadvantage? Would you be willing to go along?
 - a) Yes
 - b) No

CEO EGOS AND OVERCONFIDENCE: THE DIRTY SECRET IN MERGERS

- **The Deal Rules:** The premiums paid on acquisitions often have nothing to do with synergy, control or strategic considerations (though they may be provided as the reasons). They are just what you have to pay to get the deals done, because management really, really wants it done.
- **The Ego Problem:** They may just reflect the egos of the CEOs of the acquiring firms. There is evidence that “over confident” CEOs are more likely to make acquisitions and that they leave a trail across the firms that they run.

DEFENSIVE MERGERS: SIGNS OF A DEEPER ROT?

- **Me-tooism:** Pre-emptive or defensive acquisitions, where you over pay, either because everyone else is overpaying or because you are afraid that you will be left behind if you don't acquire are dangerous.
- **Weak businesses?** If the only way you can stay competitive in a business is by making bad investments, it may be best to think about shrinking or even getting out of the business.
- **There is no glory in survival**, for the sake of survival. Corporate sustainability, as a corporate objective, is not just a joke, but an expensive one.

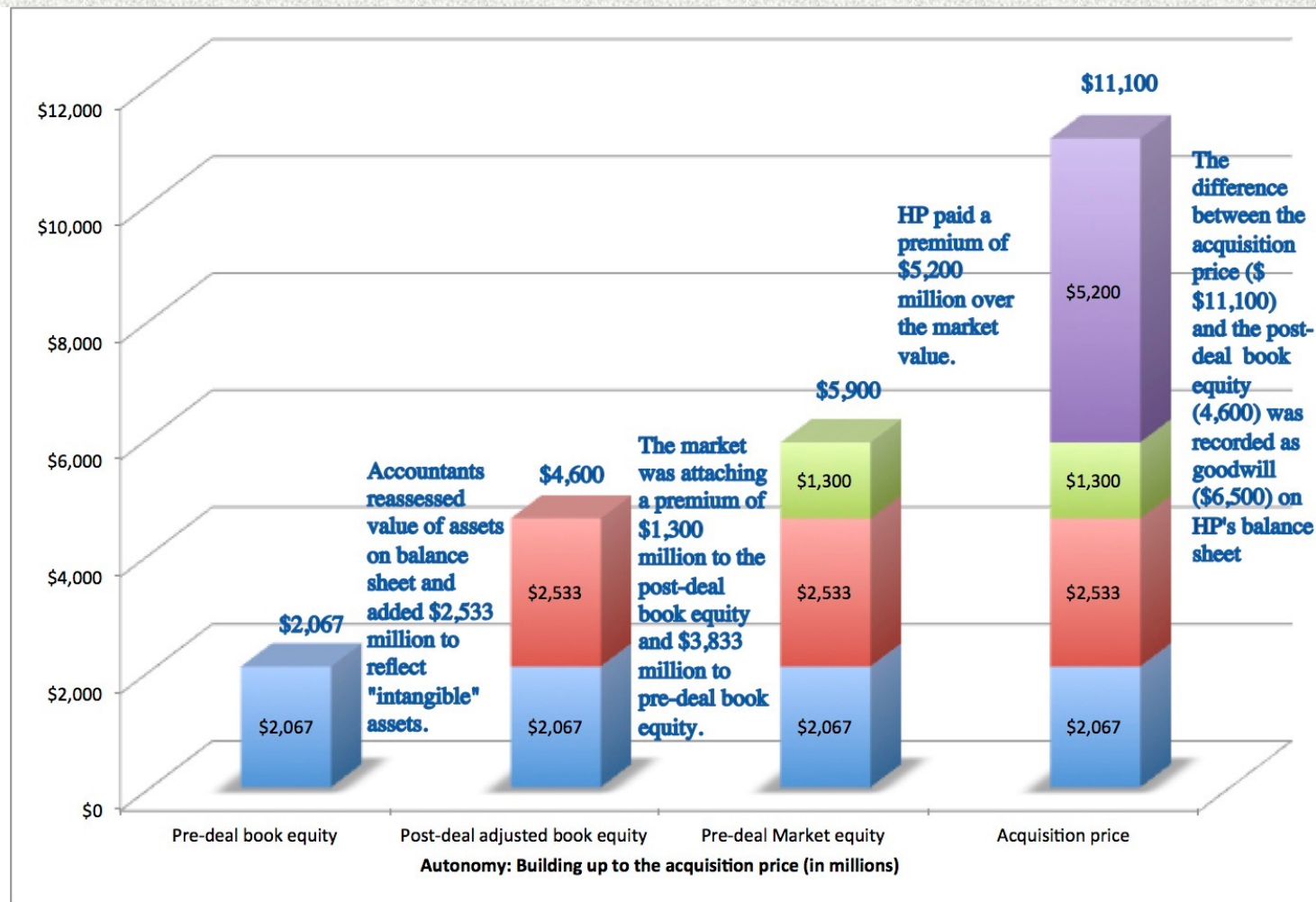
LESSON 6: DON'T LET EGOS OR INVESTMENT BANKERS GET THE BETTER OF COMMON SENSE...

- If you **define your objective in a bidding war as winning the auction** at any cost, you will win. But beware the winner's curse!
- The **premiums paid on acquisitions often have nothing to do with synergy, control or strategic considerations.** They may just reflect the egos of the CEOs of the acquiring firms. There is evidence that “overconfident” CEOs are more likely to make acquisitions and that they leave a trail across the firms that they run.
- Pre-emptive or defensive acquisitions, where you over pay, either because everyone else is overpaying or because you are afraid that you will be left behind if you don't acquire are dangerous. If the only way you can stay competitive in a business is by making bad investments, it may be best to think about getting out of the business.

TEST 7: WHEN DEALS FALL APART..

- When deals fall apart, as many do, there seems to be little or no accountability in the system, and the larger the deal, the less accountability there is for mistakes.
- Breaking it down:
 - The **managers** who initiate these bad deals seem to face few consequences and often move up the ranks.
 - The **boards** that okay these deals protect themselves by claiming that they did due diligence and listened to experts.
 - The **bankers** keep their fees, arguing that their missed forecasts were just mistakes.

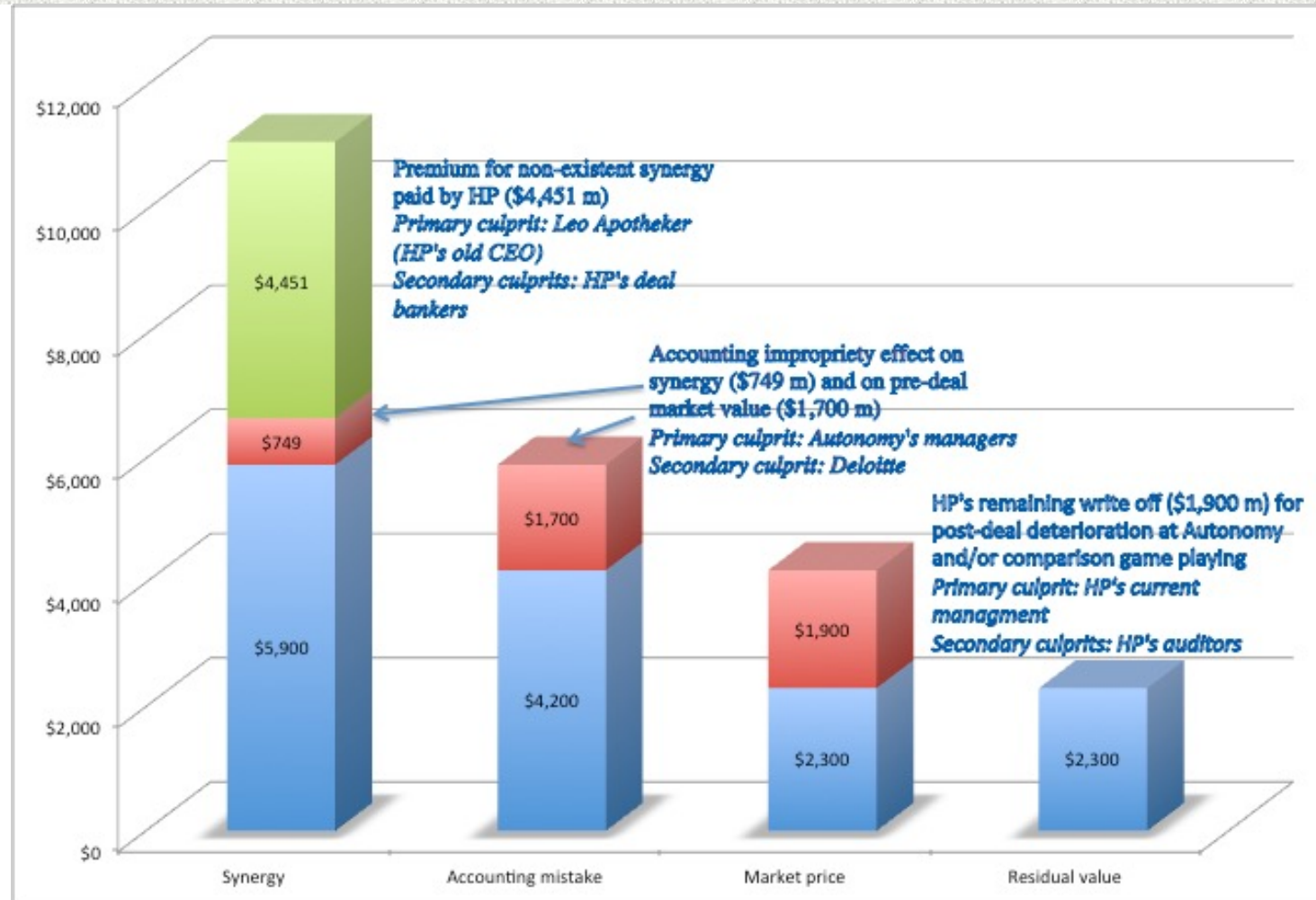
TO ILLUSTRATE: A BAD DEAL IS MADE, AND JUSTIFIED BY ACCOUNTANTS & BANKERS!



THE CEO STEPS IN... AND DIGS A HOLE...

- Leo Apotheker was the CEO of HP at the time of the deal, brought in to replace Mark Hurd, the previous CEO who was forced to resign because of a “sex” scandal.
- In the face of almost universal feeling that HP had paid too much for Autonomy, Mr. Apotheker addressing a conference at the time of the deal: “We have a pretty rigorous process inside H.P. that we follow for all our acquisitions, which is a D.C.F.-based model,” he said, in a reference to discounted cash flow, a standard valuation methodology. “And we try to take a very conservative view.”
- Apotheker added, “Just to make sure everybody understands, Autonomy will be, on Day 1, accretive to H.P..... “Just take it from us. We did that analysis at great length, in great detail, and we feel that we paid a very fair price for Autonomy. And it will give a great return to our shareholders.

A YEAR LATER... HP ADMITS A MISTAKE...AND EXPLAINS IT...

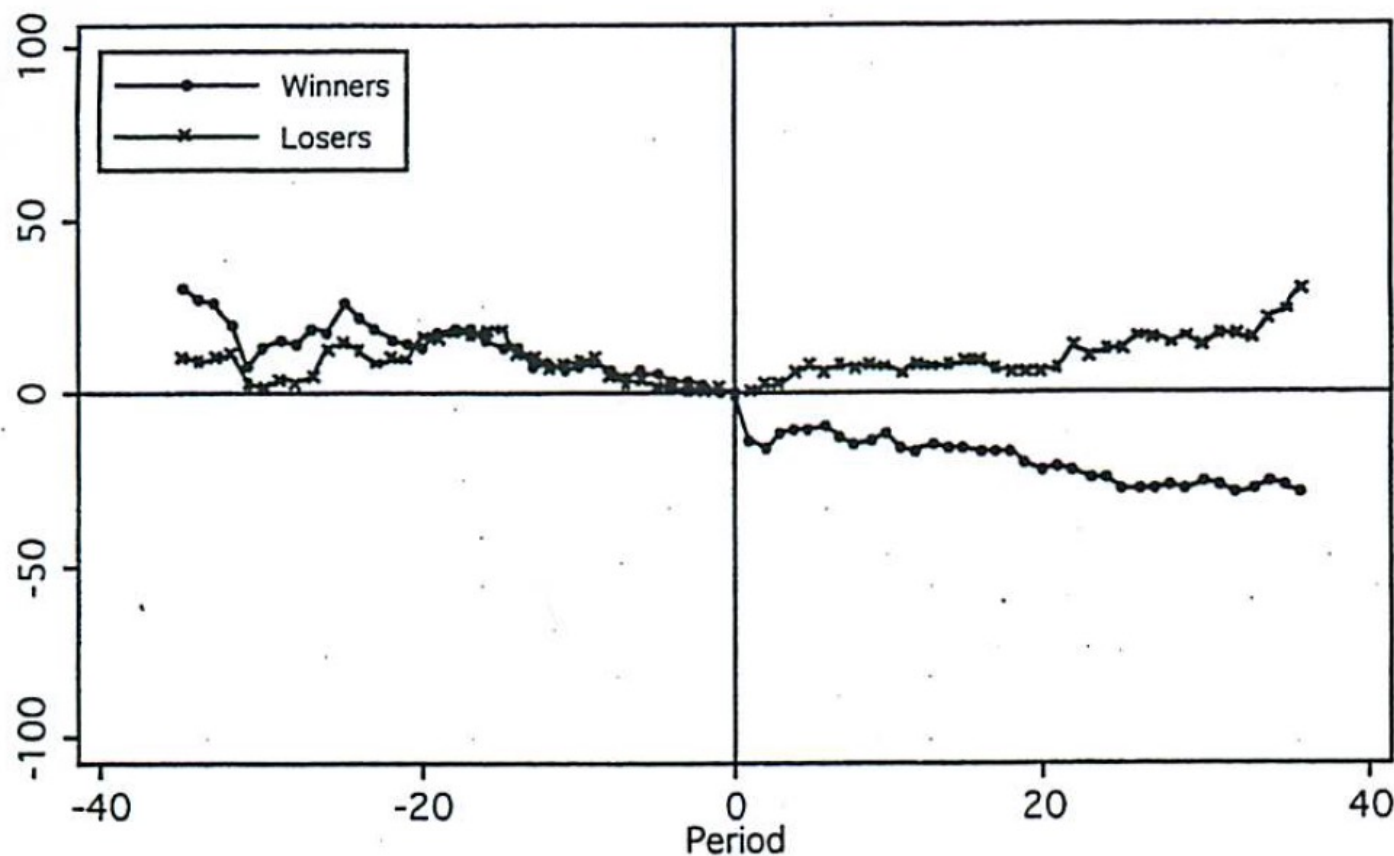


A MEASURED ASSESSMENT: IS IT HOPELESS?

- The odds seem to be clearly weighted against success in acquisitions. If you were to create a strategy to grow, based upon acquisitions, which of the following offers your best chance of success?

This	Or this
Sole Bidder	Bidding War
Public target	Private target
Pay with cash	Pay with stock
Small target	Large target
Cost synergies	Growth synergies

BETTER TO LOSE A BIDDING WAR THAN TO WIN ONE...

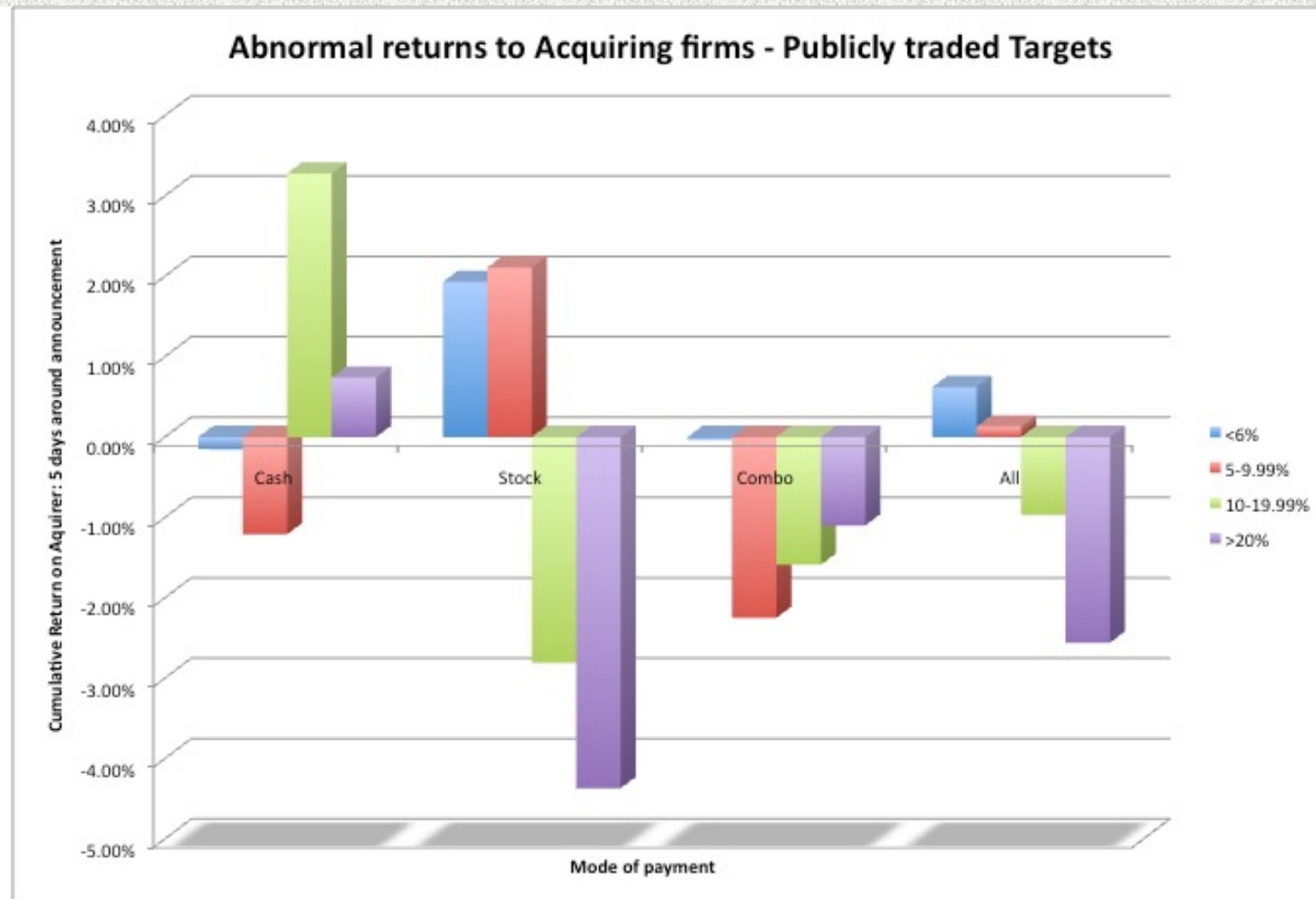


(a) Market-adjusted CARs

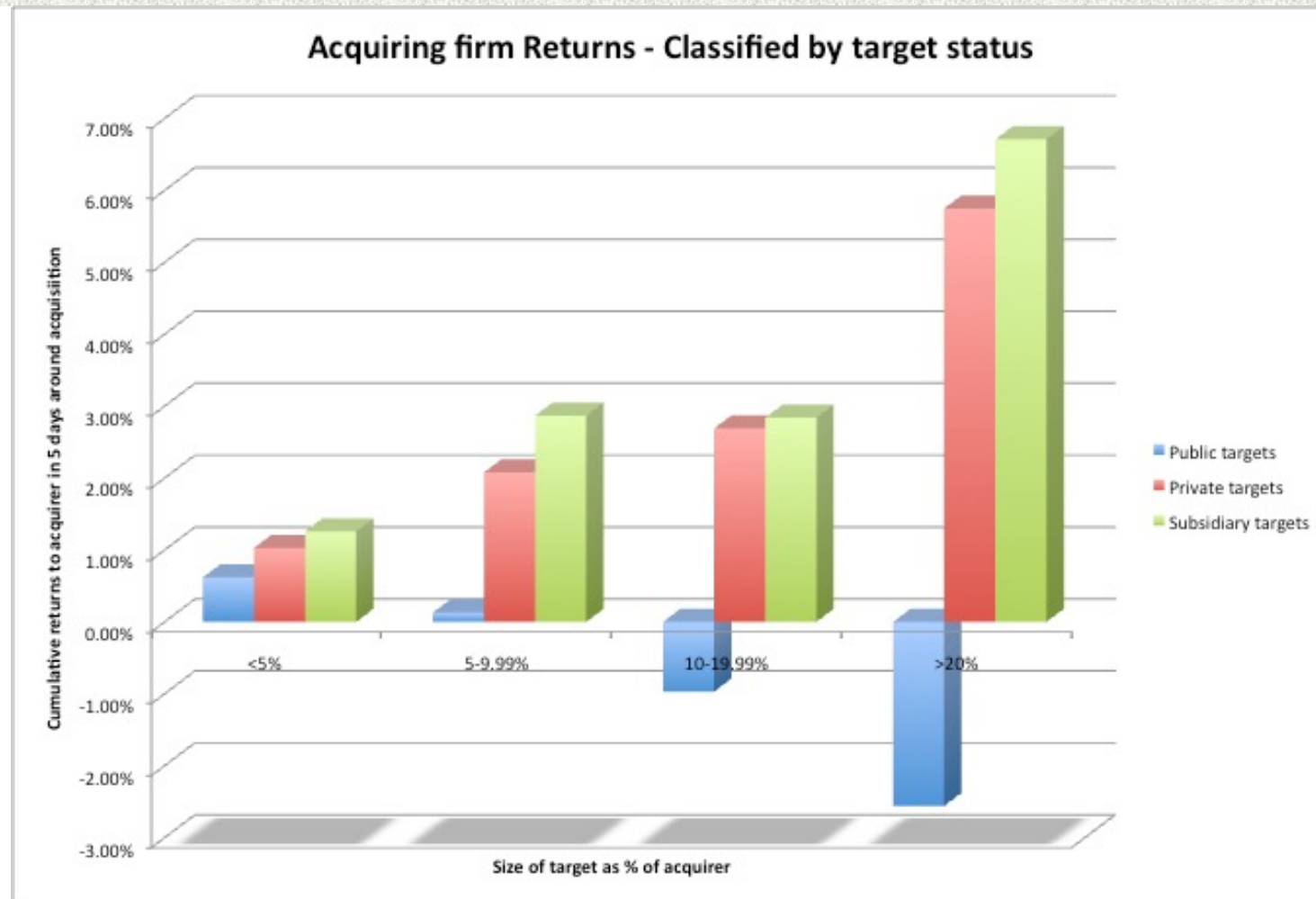
Returns in the 40 months before & after bidding war

Aswath Damodaran, Michael Malmendier, Moretti & Peters (2011)

BETTER OFF BUYING SMALL RATHER THAN LARGE TARGETS... WITH CASH RATHER THAN STOCK



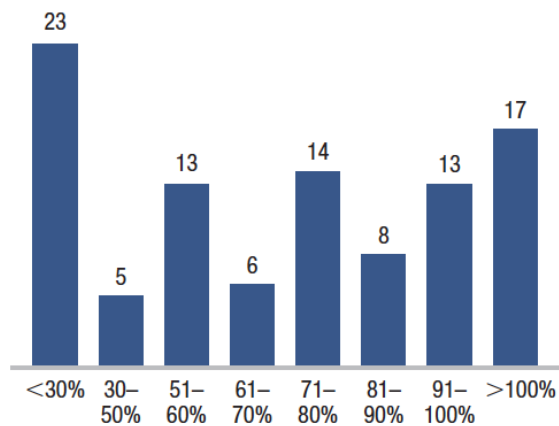
AND FOCUSING ON PRIVATE FIRMS AND SUBSIDIARIES, RATHER THAN PUBLIC FIRMS...



GROWTH VS COST SYNERGIES

Top-line trouble: 70 percent of mergers failed to achieve expected revenue synergies

Mergers achieving stated percentage of expected revenue synergies, percent $N = 77$



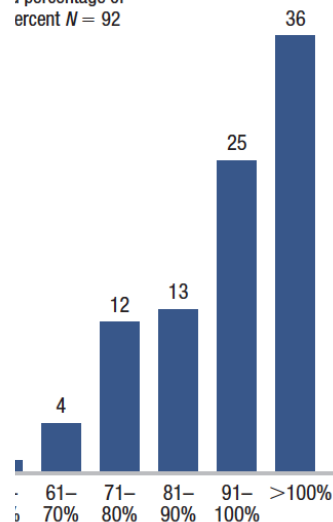
Typical sources of estimation error

- Ignoring or underestimating customer losses (typically 2% to 5%) that result from the integration
- Assuming growth or share targets out of line with overall market growth and competitive dynamics (no “outside view” calibration)

Source: McKinsey (2002) Postmerger Management Practice client survey; client case studies

Optimization is better, but there are errors in the errors

Percent of mergers achieving stated percentage of expected revenue synergies, percent $N = 92$



Typical sources of estimation error

- Ignoring or underestimating customer losses (typically 2% to 5%) that result from the integration
- Assuming growth or share targets out of line with overall market growth and competitive dynamics (no “outside view” calibration)
- Ignoring or underestimating customer losses (typically 2% to 5%) that result from the integration
- Assuming growth or share targets out of line with overall market growth and competitive dynamics (no “outside view” calibration)
- Ignoring or underestimating customer losses (typically 2% to 5%) that result from the integration
- Assuming growth or share targets out of line with overall market growth and competitive dynamics (no “outside view” calibration)

Source: McKinsey (2002) Postmerger Management Practice client survey; client case studies

THE BOTTOM LINE: FOR ACQUISITIONS TO CREATE VALUE, YOU HAVE TO STAY DISCIPLINED..

- If you have a successful acquisition strategy, stay focused on that strategy. Don't let size or hubris drive you to "expand" the strategy.
- Realistic plans for delivering synergy and control have to be put in place before the merger is completed. By realistic, we have to mean that the magnitude of the benefits have to be reachable and not pipe dreams and that the time frame should reflect the reality that it takes a while for two organizations to work as one.
- The best thing to do in a bidding war is to drop out.
- Someone (preferably the person pushing hardest for the merger) should be held to account for delivering the benefits.
- The compensation for investment bankers and others involved in the deal should be tied to how well the deal works rather than for getting the deal done.