CLASSES 7-8 SLIDES

Unit 7. Hertz/Avis Budget/Dollar Thrifty

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Hertz/Avis Budget/Dollar Thrifty

Thrifty Car Rental

DOLLAR RENT A CAR

The 2010 Hertz/Dollar Thrifty Deal

2010 Hertz/Dollar Thrifty deal

- Hertz
  - $7.1 billion in revenues
  - Two brands: Hertz and Advantage
  - Hertz
    - 8200 rental locations worldwide
    - Premium global rental car brand
    - Focus on corporate and high-end leisure
    - #1 in U.S. airport rentals (78 major airports)

  - Advantage
    - 26 airports in the U.S.
    - "Flanker" brand to compete for price-conscious travelers at airports[1]
      - A flanker brand is a new brand introduced into the market by a company that already has an established brand in the same product category
      - Designed to compete in the category without damaging the existing item's market share by targeting a different group of consumers
    - Different counters/lower price proposition/fewer service attributes

[1] *See generaly* Nancy Giddens & Amanda Hofmann, Building Your Brand with Flanker Brands (June 2010),

2010 Hertz/Dollar Thrifty deal

- Dollar Thrifty
  - $1.5 billion in revenues
  - $1.9 global enterprise value
  - Dollar Rent A Car and Thrifty Car Rental brands
    - “Middle market” airport brands
  - 1558 corporate and franchise locations worldwide
    - 298 corporate-owned
    - 1260 franchisee locations

2010 Hertz/Dollar Thrifty deal

- 2010 merger agreement
  - Signed on April 26, 2010
  - Hertz to buy Dollar Thrifty for $41.00 per share (= $1.3B equity value)
    - $6.88 in special Dollar Thrifty dividend (= $200 million)[1]
    - $25.92 to be paid by Hertz in cash (= $756 million)
    - $12.88 in Hertz stock (valued at the closing price on April 23, 2010) (= $317 million)
      - As a result, DT shareholders will hold 5.5% of Hertz after closing
  - 19% deal premium to 30-day closing average on Dollar Thrifty stock
    - 81% above lowest closing price over last 3 months
  - Annual recurring synergies: $180 million
    - Primarily in fleet, IT systems, and procurement savings

[1] Compare the Albertsons special dividend of $6.85 per share (= $4 billion) in the pending Kroger/Albertsons merger to be paid in November 2022. Funded with $2.5B of 3.0B cash on hand and $1.5B by its line of credit. Actually paid in January 2023. The Kroger/Albertsons merger agreement was executed as of October 13, 2022.

2010 Hertz/Dollar Thrifty deal

- Two questions

Why did Hertz want to do this deal?

Why did Dollar Thrifty to do this deal?

Hertz business rationale

Significant Strategic & Financial Benefits

Strategic Rationale

- Gain instant scale in middle tier sector with established brand and airport infrastructure
- Allows Hertz to pursue aggressive value strategy without risking dilution to Hertz brand
- Provides Hertz with multiple strategic options to address leisure business and compete with multi-brand peers in all three tiers of the market

Significant Synergy Potential

- At least $180 million of annual run-rate synergies expected
- Key areas of cost reduction / operational improvement include
  - Procurement: significant portion of Dollar Thrifty's spend is decentralized
  - IT: overlapping systems and future capital spend
  - Fleet: benefit from fleet sharing and reduced cap. cost
  - Public company costs

All cost savings

Positive Financial Impact

- 20% equity used to maintain strong credit profile

($ in millions)

	As of December 31, 2009	
	Hertz Standalone	Hertz Pro Forma
Total Corp. Debt / Corp. EBITDA	**4.8x**	**4.4x**
Total Corp. Debt / Corp. EBITDA (w/ syn)		**3.7x**
Total Debt / Gross EBITDA	3.6x	3.4x
Total Debt / Gross EBITDA (w/ syn)		3.2x

- Earnings accretive

Hertz business rationale

Significant Strategic & Financial Benefits

Unquantified revenue synergies

Strategic Rationale

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Total Debt / Gross EBITDA (w/ syn)		3.2x

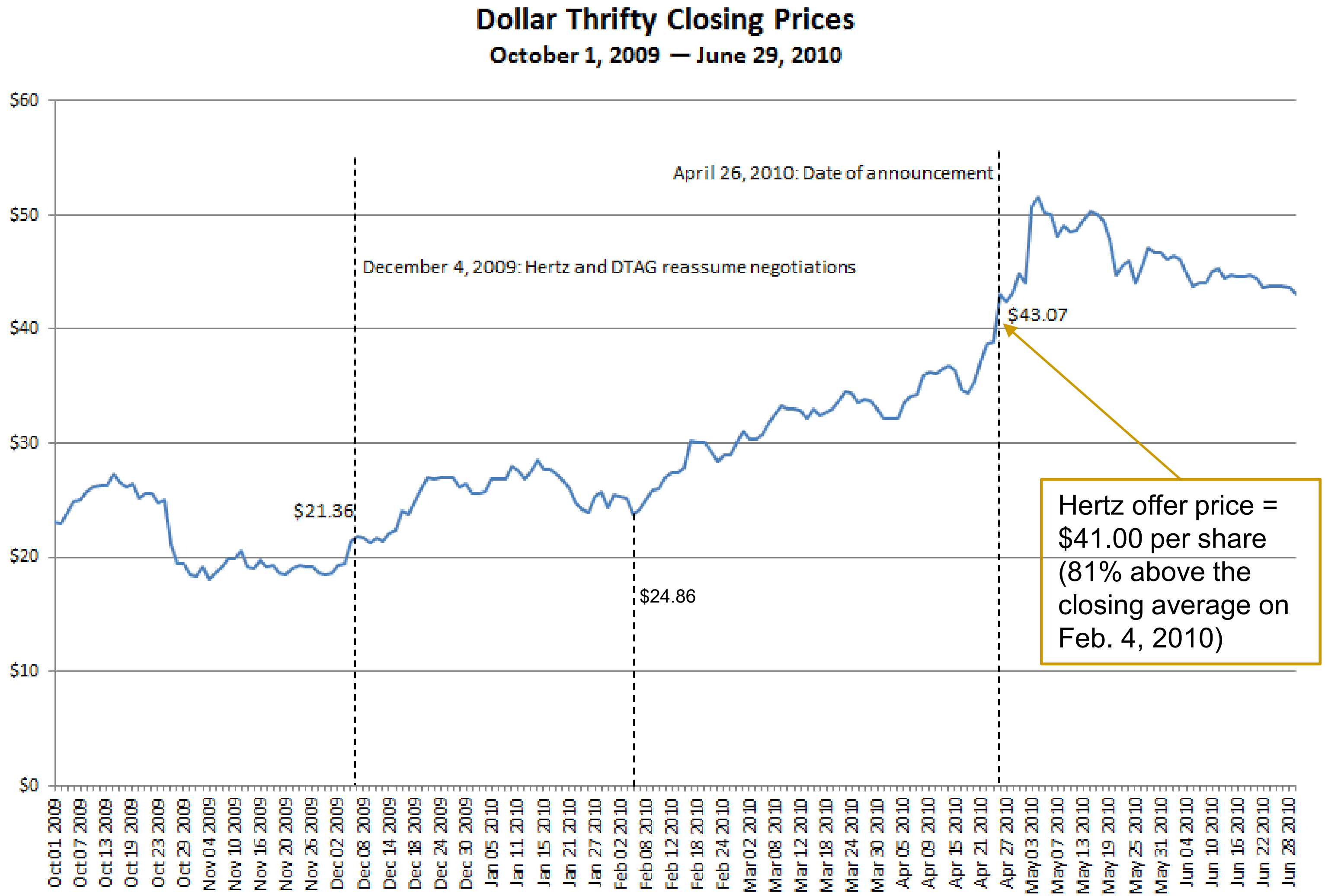
- Earnings accretive

Hertz business rationale

- Slide from Hertz investor presentation on the deal:

Hertz	Dollar Thrifty Automotive Group, Inc.	ADVANTAGE RENT A CAR
• Premium global brand competing with Avis, National • Corporate, higher-end leisure, special occasions • High service, higher-end fleet mix • Making inroads in Off-Airport segment historically dominated by Enterprise	• Middle market airport brands competing with, but differentiated from Enterprise, Budget, Alamo • Value proposition emphasizing lower price but consistently delivering essential services (speed, reliability) • Consider dual brand operationally, but keep separate for marketing, positioning, e.g., separate websites	• Flanker airport brand to compete for economy leisure business against Payless, Fox, etc. • Lower price proposition for price-focused leisure customers • Reliable, clean cars, but fewer service attributes

Dollar Thrifty business rationale



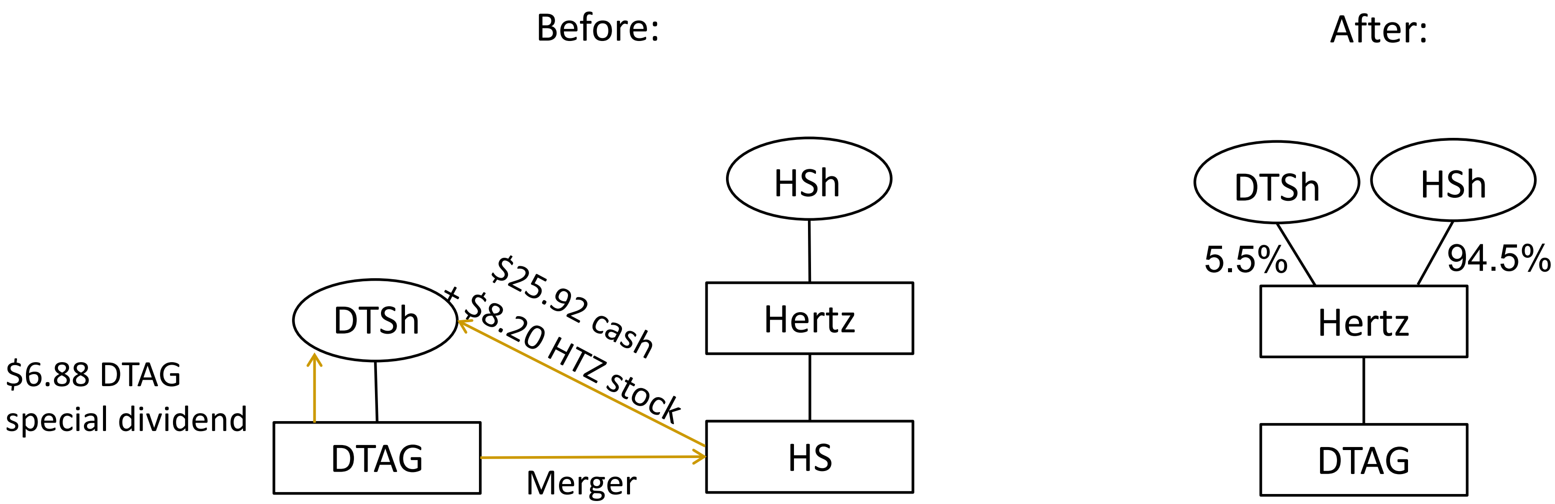
The deal price

- Payments to Dollar Thrifty shareholders (per DTAG share)

$6.88	Dollar Thrifty special cash dividend (paid by Dollar Thrifty)
$25.92	Cash (paid by Hertz)
$8.20	0.6366 Hertz shares, valued on the closing price on April 23, 2010 (the last business day before the announcement on April 26, 2010)
$41.00	Total consideration

- Some implications
  - Special DTAG cash dividend = $200 million →
    - DTAG shareholders would receive $953m in cash
    - But Hertz would only pay $753m in cash
    - For a total Hertz payment of $25.92 in cash and $8.20 in stock = $32.12 per share
      - BUT the $200 million in the DTAG special dividend is still real money to Hertz because DTAG will be worth $200 million less with the dividend payout

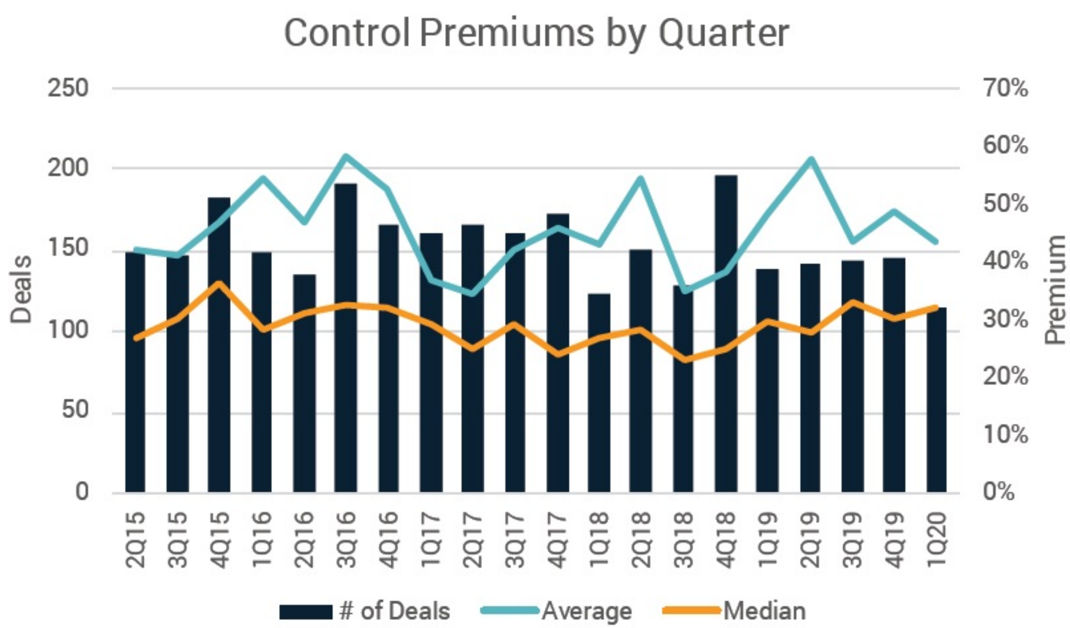
Hertz/DTAG Reverse Triangular Merger



where	DTAG	Dollar Thrifty Automotive Group (target firm)
	DTSh	DTAG's premerger shareholders
	Hertz	Acquiring firm
	HSh	Hertz premerger shareholders
	HS	Hertz acquisition subsidiary

Deal premium

- Why did Hertz pay a deal premium?
  - In almost all deals, the buyer pays a price significantly above the price of the target's stock in the period just before when the stock price is affected by the prospect of an acquisition
  - BVR/FactSet Control Premium Study updated for 2020 Q1:



Rolling 12-month historical averages

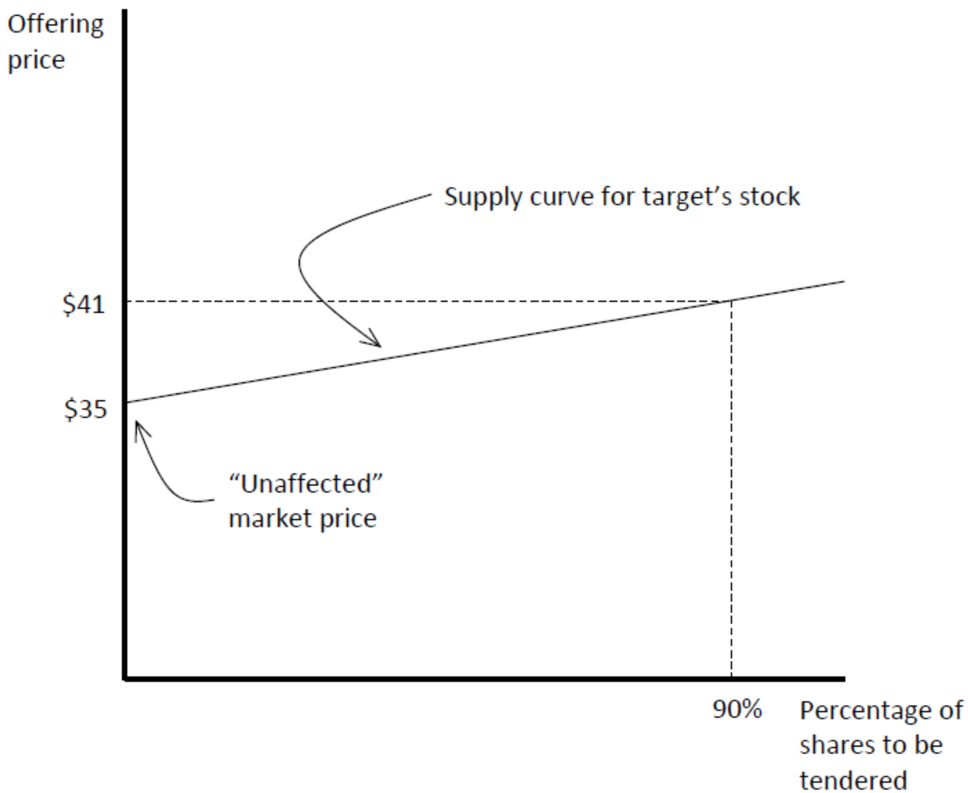
Average: 35.9%
Median: 23.5%

Deal premium

- Why did Hertz pay a deal premium?
  - Two reasons for a deal premium—
    1. Upward-sloping supply curve for DTAG stock
    2. Bargaining game over the synergies gain

Deal premium

- Why did Hertz pay a deal premium?
  - Upward-sloping supply curve for DTAG stock



Deal premium

- Why did Hertz pay a deal premium?
  - Upward-sloping supply curve for DTAG stock
    - Why is the supply curve of stock upward sloping?
      - *Ordinary course*: Different shareholders have different expectations about the value of the stock
        - Different expectations about future dividends
        - Different expectations about capital appreciation
      - *In a deal*: Different expectations of what the selling price will be

If we rank order the shareholders by their reservation sales price from lowest to highest, this traces out an upward-sloping supply curve for the target's stock

Deal premium

- Why did Hertz pay a deal premium?
  2. Bargaining game over the synergies gain—Three parts
     a. Hertz determines its reservation price (the maximum price it would be willing to pay for DTAG)
        - But does not tell DTAG
     b. DTAG determines its reservation price (the minimum price the DTAG board would recommend that the shareholders accept)
        - But does not tell Hertz

The difference is the "gain from trade"

     c. *Problem*: Parties must agree on a purchase price (which will allocate the gain from trade)
        - Think of the purchase price as the going concern value + deal premium
        - The allocation of the gains from trade will occur through the deal premium

Let's turn to the bargaining game to determine the deal premium

Deal premium

- Why did Hertz pay a deal premium?
  2. Bargaining game over the synergies gain—Hertz' reservation price
     - Total value Hertz (V_t) assigns to the DTAG merger equals the going concern value of DTAG (V_{DTAG}) plus all synergy gains (V_s) Hertz expects to result from the transaction:

$$V_t = V_{DTAG} + V_s$$

       - This is not what the Hertz shareholders necessarily receive, since—
         - Will pay a deal premium to the DTAG shareholders, and
         - Will suffer some dilution since DTAG postmerger will own a portion of Hertz
     - Hertz sets the going concern value V_{DTAG} of DTAG at $932 million (after payment of the special dividend)

What is going concern value?

Deal premium

- Why did Hertz pay a deal premium?
  2. Bargaining game over the synergies gain—Hertz' reservation price
     - *Background*: Going concern value
       - *Definition*: The economic value of an entity as an operating unit
       - *Components*:
         1. The present discounted value (PDV) of the *free cash flow* during the valuation period
            - *Free cash flow*: The cash a company generates after accounting for cash outflows to support operations and maintain its capital assets
            - Effectively, the cash generated by the company that is available for investment and to pay dividends (does not count borrowing)
         2. The present discounted value of the residual value calculated at the end of the valuation period
         3. The value of the assets considered unnecessary to operate the entity
            - *Examples*: Excess working capital, non-operating assets, assets that can be liquidated

What is discounted present value?

Deal premium

- Why did Hertz pay a deal premium?
  2. Bargaining game over the synergies gain—Hertz' reservation price
     - *Background*: Discounted present value
       - *Problem 1*: Say someone was going to give you \$1.00 a year from now. How much would you be willing to take today to sell this right to receive \$1.00 a year from now?
         - *Answer*: Your reservation price should be that price p^* at which you could invest p^* today and will have \$1.00 a year from now
         - This is equal to the amount you receive today (p^*) plus the earnings on that amount over the next year (p^*r):

$$p^* + p^* r = 1.00$$

where r is the percentage annual investment rate

Simplifying: $$p^* \bullet (1+r) = 1.00$$

Solving for p^*: $$p^* = \frac{1.00}{1+r}$$

If r = 6%, then: $$p^* = \frac{1.00}{1.06} = 0.943396 \text{ (rounded)}^1$$

So you would be willing to take a little less than \$0.95 to sell your right to receive \$1 a year from now

[1] MathPapa is a great algebraic calculator.

Deal premium

- Why did Hertz pay a deal premium?
  2. Bargaining game over the synergies gain—Hertz' reservation price
     - *Background*: Discounted present value
       - *Problem 2*: Same problem, only the $1.00 gets paid 2 years from now
         - *Answer*: *p** such that *p** invested for one year and then the resulting amount invested for another year yields $1.00:

$$\underbrace{\left(\overbrace{p^*(1+r)}^{\text{Amount at end of year 1}}\right)(1+r)}_{\text{Amount at end of year 2}} = 1.00 \quad \text{or} \quad p^* = \frac{1.00}{(1+r)^2}$$

If r = 6%, then:

$$p^* = \frac{1.00}{(1+r)^2} = \frac{1.00}{(1+0.06)^2} = 0.889996 \text{ (rounded)}$$

So you would be willing to take a little less than $0.90 to sell your right

- General formula for n periods at a constant investment rate r per period:

$$p^* = \frac{F}{(1+r)^n}$$

Where F is the future value at the end of the n^{th} period ($1.00 in Problem 2)

Deal premium

- Why did Hertz pay a deal premium?
  2. Bargaining game over the synergies gain—Hertz' reservation price
     - *Background*: Discounted present value
       - *Problem 3*: Say someone was going to give you \$1.00 a year from now and another \$1.00 two years from now. How much would you be willing to take today to sell this right to receive \$1.00 a year and another dollar two years from now?
         - *Answer*: Your reservation price *p** will be the sum of—
           - The PDV of \$1.00 one year from now
           - PLUS the PDV of \$1.00 two years from now

$$p^* = \frac{1.00}{1+r} + \frac{1.00}{(1+r)^2}$$
$$= 0.943396 + 0.889996 = 1.833392$$

       - General formula for a constant annuity *A* at a constant investment rate *r*:

$$p^* = \sum_{i=1}^{n} \frac{A}{(1+r)^i} = A\left[\frac{1-(1+r)^{-n}}{r}\right]$$

For a perpetual annuity:
$p^* = A/r$

Deal premium

- Why did Hertz pay a deal premium?
  2. Bargaining game over the synergies gain—Hertz' reservation price
     - Hertz claimed an expected annually recurring synergy gain of $180 million (*A*)
       - The present discounted value V_s of an annual recurring cash payment in perpetuity (that is, a *perpetual annuity*) discounted at rate r (say 7%) is:

$$V_s = \frac{A}{r} = \frac{\$180 \text{ million}}{0.07} = \$2.57 \text{ billion}$$

       - But say that Hertz values synergies only over a 10-year period. Then:

$$V_s^{10} = A\left[\frac{1-(1+r)^{-n}}{r}\right] = \$180 \text{ million times } \left[\frac{1-(1+0.07)^{-10}}{0.07}\right] = \$1.26 \text{ billion}$$

Deal premium

- Why did Hertz pay a deal premium?
  2. Bargaining game over the synergies gain—Hertz' reservation price
     - So Hertz expects that the total value V_t of Dollar Thrifty postmerger will be:

$$\begin{aligned} V_t &= V_c + V_s^{10} \\ &= \$932 \text{ million} + \$1.26 \text{ billion} \\ &= \$2.17 \text{ billion} \end{aligned}$$

     - But Hertz shareholders will own only 94.5% of the combined company
       - The original Hertz shareholders will not own the whole company because their interest is being diluted by the Hertz stock going to the DTAG shareholders
       - The original Hertz shareholders would hold only 94.5% of the Hertz stock postmerger, so they would get only that portion of V_t (= \$2.075 billion)

So Hertz shareholders should be willing to pay a maximum of \$2.075 billion for the deal (or about \$71 per DTAG share)

Deal premium

- Why did Hertz pay a deal premium?
  2. Bargaining game over the synergies gain—DTAG's reservation price
     - No shareholder would sell for less than the "unaffected" current stock price
       - That is, the stock price in the complete absence of merger negotiations or rumors

> To study the negotiated division of the synergies gain separate from the upward-sloping supply curve, we will (unrealistically) assume that all DTAG shareholders have a reservation price equal to the unaffected stock price[1]

       - In fact, DTAG shareholders expectations about the ultimate division of the synergies gain will be reflected in the DTAG stock supply curve

Suppose that the unaffected stock price is $32

Deal premium

- Why did Hertz pay a deal premium?
  3. Bargaining game over the synergies gain—The purchase price
     - DTAG shareholders will not accept anything lower than their reservation price
     - BUT they can also bargain for some of the gain resulting from the deal, since unless they agree to the deal Hertz shareholders will receive no gain
     - At $41 per share under Hertz's terms, DTAG shareholders receive a significant deal premium over the "unaffected" price:

	Closing price	Deal premium
Mar. 23, 2010	34.60	18.5%
Feb. 23, 2010	28.37	44.5%
Jan. 22, 2010	24.29	68.8%

- So this looks like a good deal to the DTAG shareholders
- Also looks like a good deal to the Hertz shareholders
  - Willing to pay up to $71 per share, but paid only $41 per share

Deal premium

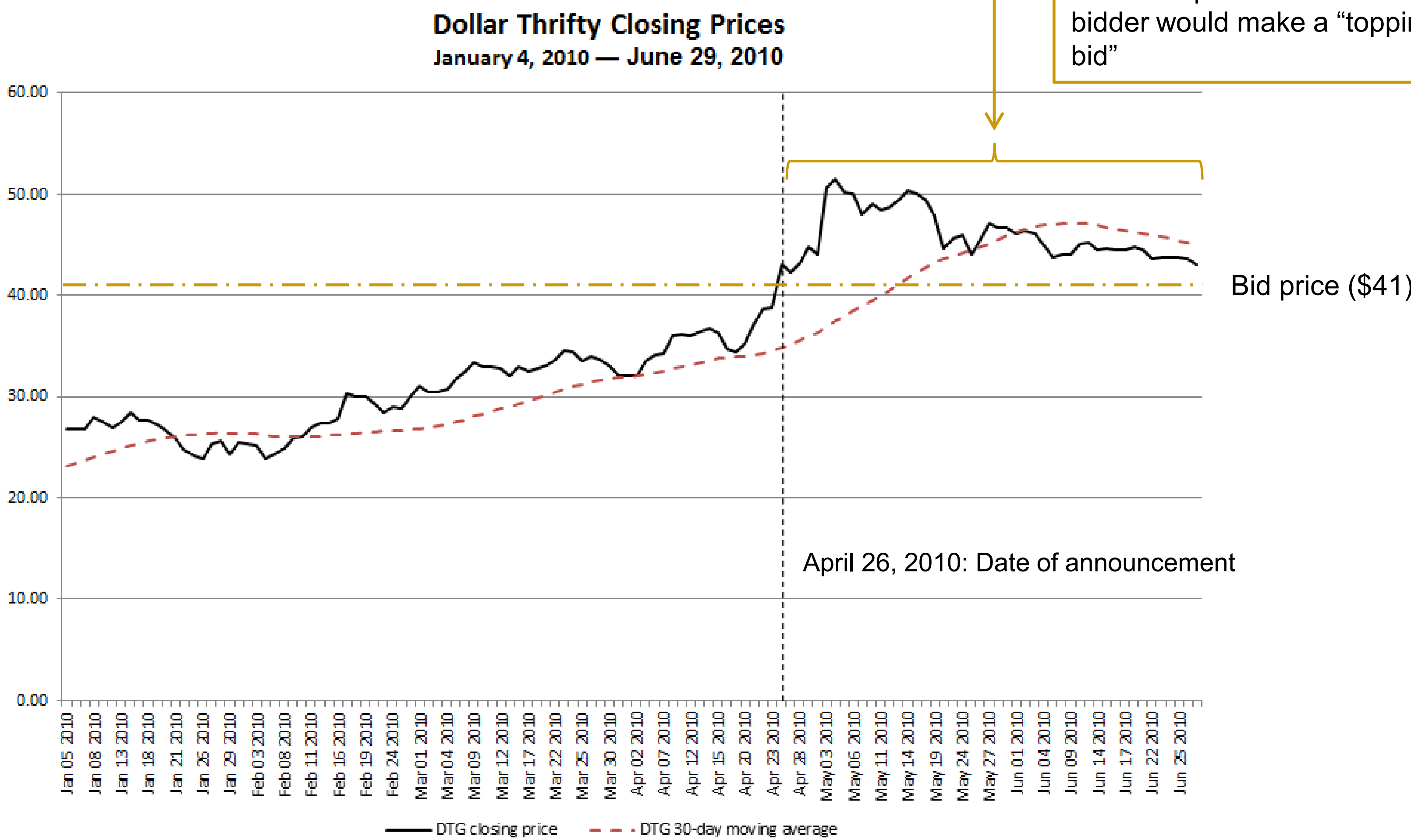
- Why did Hertz pay a deal premium?
  2. Bargaining game over the synergies gain
     - Division of the synergy gains

		Surplus gain
Hertz reservation price	$71	$30
Deal price	$41	
DTAG reservation price	$32	$9

- *Query*: Why did DTAG accept so low a share of the synergies gain?
  - Two most likely possibilities (not exclusive):
    - Hertz was better at playing the bargaining game
    - DTAG estimated the deal synergies significantly below Hertz' estimates

Market reaction

Post-announcement trading prices *above* the Hertz bid price of $41 indicates that the market expected a second bidder would make a “topping bid”



Class 8 Homework Assignment

Class 8 homework assignment

- The problem
  - Aon to acquire Willis Towers Watson Plc (WTW) for $30 billion in an all-stock deal
    - The combined company would be valued at $80 billion
    - WTW shareholders will own 37% of the combined company
  - On June 16, 2021, the DOJ has sued to block the Aon/WTW deal
  - The trial court said it would likely deliver a decision in February 2022
  - The drop date date in the merger agreement is September 9, 2021
  - If the deal does not close for antitrust reasons, Aon will pay WTW an antitrust reverse termination fee of $1 billion
  - Aon wants to litigate the merits

Should WTW terminate the agreement on the September 9 drop dead date or extend it to February and litigate?

Class 8 homework assignment

- Strategy
  1. Identify WTW's options
  2. Identify the possible outcome(s) for each option
  3. Calculate WTW's expected payoff (in PDV) for each outcome
  4. Select the option with the highest expected payoff

Class 8 homework assignment

3. Identify the expected payoffs for each outcome

Option
1. Do not extend drop dead date
2. Extend drop dead date

Class 8 homework assignment

3. Identify the expected payoffs for each outcome

Option	Outcomes	Payoff
1. Do not extend drop dead date	Terminate agreement on drop dead date (September 9, 2021)	Receive antitrust reverse termination fee (ARTF = $1B)

To be sure we are comparing apples to apples, calculate the PDVs as of the drop dead date

Class 8 homework assignment

3. Identify the expected payoffs for each outcome

Option	Outcomes	Payoff
1. Do not extend drop dead date	Terminate agreement on drop dead date (September 9, 2021)	Receive antitrust reverse termination fee (ARTF = $1B)
2. Extend drop dead date	a. Litigate and lose	i. Loss of litigation costs
		ii. PDV of ARTF received in February 2022 rather than September 2021
		iii. Further loss of going concern value

To be sure we are comparing apples to apples, calculate the PDVs as of the drop dead date

Class 8 homework assignment

3. Identify the expected payoffs for each outcome

Option	Outcomes	Payoff
1. Do not extend drop dead date	Terminate agreement on drop dead date (September 9, 2021)	Receive antitrust reverse termination fee (ARTF = $1B)
2. Extend drop dead date	a. Litigate and lose	i. Loss of litigation costs
		ii. PDV of ARTF received in February 2022 rather than September 2021
		iii. Further loss of going concern value
	b. Litigate and win	i. Loss of litigation costs
		ii. Gain of deal premium on closing of the deal
		iii. Gain of pro rata share of synergies as Aon shareholders

To be sure we are comparing apples to apples, calculate the PDVs as of the drop dead date

Class 8 homework assignment

1. Do not extend drop dead date: Terminate agreement
   - Antitrust reverse termination fee = $1 billion

Payoff for Strategy 1: $1 billion

Class 8 homework assignment

2. Extend drop dead date and litigate
   a. Litigate and lose
      i. Additional litigation costs = −$10 million
      ii. Present discounted value of ARTF received in February 2022 as opposed to September 2021

$$PV = \frac{FV}{(1+r)^n},$$

where

PV is the discounted present value
FV is the future value (here $1 billion)
r is the discount rate (here 5.16% annually or 0.43% monthly)
n is the number of periods (here 5 months)

Applied:

$$PV = \frac{FV}{(1+r)^n} = \frac{\$1000}{(1+0.0043)^5} = \$978.77 \text{ million}$$

So the delay in receiving the ARTF causes the WTW shareholders to lose $21.23 million in present value in the litigate and lose scenario

Class 8 homework assignment

2. Extend drop dead date and litigate
   a. Litigate and lose
      iii. Further loss of going concern value
         - The signing occurred on March 9, 2020, and the drop dead date was 18 months later
         - Most of the damage to WTW's going concern value probably will occur during this 18-month period, with relatively little or no additional damage expected during the additional five months between the drop dead date and the end of the litigation
         - Loss associated with additional diminution in going concern value: $0

Total expected value to WTW shareholders if they litigate and lose:

− $10 million + $978.77 million − $ 0 million = $968.77 million

For a loss of $31.23 million compared to terminating on the drop dead date

Class 8 homework assignment

2. Extend drop dead date and litigate
   b. Litigate and win
      i. Loss of litigation costs = −\$10 million
      ii. Gain of deal premium on closing of the deal
         - The parties' investor presentation states that the WTW shareholders will receive Aon stock valued at \$30 billion in exchange for their WTW shares, yielding a deal premium of 16.2%
         - Consequently, the deal premium is about \$4.182 billion[1]
            - Let x be the unaffected price. The 0.162x is the deal premium. The unaffected price plus the deal premium yields the purchase price. So—

$$x + 0.162x = 30 \rightarrow x = \frac{30}{1.162} = 25.82$$

            - The deal premium is 0.162x or \$4.182 billion
         - But the deal premium will not be received until February 2022, so it needs to be discounted to the present (i.e., September 2021):

$$PV = \frac{FV}{(1+r)^n} = \frac{\$4182}{(1+0.0043)^5} = \$4095.27 \text{ million}$$

[1] This is not quite right, but I did not give you the information necessary to do the correct calculation. See note 10 in the instructor's answer to the homework assignment for an explanation.

Class 8 homework assignment

2. Extend drop dead date and litigate
    b. Litigate and win
        iii. Gain of pro rata share of synergies as Aon shareholders
            - The parties anticipate total annual run-rate synergies of $800 million beginning in year 3
            - They also expect total gross synergies to be $267 million in the first year and $600 million in the second year
            - Attaining these synergies entail transitional costs of $1.62 billion split equally in the first two years
            - In addition, the companies expect transaction costs of approximately $200 million and retention costs of up to $400 million, all to be incurred in the first year
            - The WTW shareholders will hold 37% of the combined company and hence be entitled to 37% of the combined firm’s net deal synergies

Class 8 homework assignment

2. Extend drop dead date and litigate
   b. Litigate and win
      iii. Gain of pro rata share of synergies as Aon shareholders:

WTW pro rata 37% share of 10 years of net synergies discounted at 8%[1]

= $1072.72 million

[1] I used 8% rather than WTW's WACC of 5.16% given that interest rates could be considerably higher in the future than today and the risk that the combined company will not achieve the anticipated $800 million in run-rate synergies and the risk that the nominal value of the synergies will decline over time with changes in products or the competitive landscape.

Combined Company Synergy NPV
(discounted at 8%)

Year	Synergies	Costs	Net CF	PV	NPV	37%
1	$267.00	$1,300.00	($1,033.00)	($956.48)	($956.48)	($353.90)
2	$600.00	$700.00	($100.00)	($85.73)	($1,042.22)	($385.62)
3	$800.00	$0.00	$800.00	$635.07	($407.15)	($150.65)
4	$800.00	$0.00	$800.00	$588.02	$180.87	$66.92
5	$800.00	$0.00	$800.00	$544.47	$725.34	$268.38
6	$800.00	$0.00	$800.00	$504.14	$1,229.48	$454.91
7	$800.00	$0.00	$800.00	$466.79	$1,696.27	$627.62
8	$800.00	$0.00	$800.00	$432.22	$2,128.48	$787.54
9	$800.00	$0.00	$800.00	$400.20	$2,528.68	$935.61
10	$800.00	$0.00	$800.00	$370.55	$2,899.24	$1,072.72
11	$800.00	$0.00	$800.00	$343.11	$3,242.34	$1,199.67
12	$800.00	$0.00	$800.00	$317.69	$3,560.04	$1,317.21
13	$800.00	$0.00	$800.00	$294.16	$3,854.19	$1,426.05
14	$800.00	$0.00	$800.00	$272.37	$4,126.56	$1,526.83
15	$800.00	$0.00	$800.00	$252.19	$4,378.76	$1,620.14
16	$800.00	$0.00	$800.00	$233.51	$4,612.27	$1,706.54
17	$800.00	$0.00	$800.00	$216.22	$4,828.48	$1,786.54
18	$800.00	$0.00	$800.00	$200.20	$5,028.68	$1,860.61
19	$800.00	$0.00	$800.00	$185.37	$5,214.05	$1,929.20
20	$800.00	$0.00	$800.00	$171.64	$5,385.69	$1,992.71

Class 8 homework assignment

2. Extend drop dead date and litigate
   b. Litigate and win

Total gain to WTW shareholders if they litigate and win:

− *\$10 million + \$4085.27 million + \$1072.72 million = \$5147.99 million*

Class 8 homework assignment

4. Compare payoffs

Option	Outcomes	Payoff
1. Do not extend drop dead date	Terminate agreement on drop dead date (September 9, 2021)	+ $1000 million ARTF
2. Extend drop dead date	a. Litigate and lose	+ $969 million
	b. Litigate and win	+ $5147.99 million

- The difference in payoffs between taking the ARTF in September and losing the litigation in February is $31.32 million
- The difference in payoffs between taking the ARTF in September and wining the litigation and closing the deal in February is about $4.18 billion

So the question is whether the WTW shareholders would be willing to risk losing $31.32 million in order to gain about $4.18 billion

Class 8 homework assignment

- What is the tipping point?
  - Let *p* be WTW's (subjective) probability of winning the case and closing the deal
  - If WTW was risk neutral and maximized expected value, then the tipping probability *p** would equate the expected value of extending the drop dead date with the expected value of terminating on September 9:

E(extending)			= E(terminating)
(*p**)(extending and winning)	+	(1-*p**)(extending and losing)	= E(terminating)
(*p**)(5147.99)	+	(1-*p**)(969)	= 1000

  - Solving for *p**, the tipping point is 0.74%

Bottom line: WTW should terminate and take the $1 billion ARTF on September 9 only if it believes that the probability of winning is less than 0.74% → EXTEND THE DROP DEAD DATE

Class 8 homework assignment

- What actually happened?

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Aon and Willis Towers Watson Mutually Agree to Terminate Combination Agreement

07/26/2021

Download this Press Release (PDF)

DUBLIN, July 26, 2021 /PRNewswire/ -- Aon plc (NYSE: AON) and Willis Towers Watson (NASDAQ: WLTW) announced today that the firms have agreed to terminate their business combination agreement and end litigation with the U.S. Department of Justice (DOJ). The proposed combination was first announced on March 9, 2020.

"Despite regulatory momentum around the world, including the recent approval of our combination by the European Commission, we reached an impasse with the U.S. Department of Justice," said Aon CEO Greg Case. "The DOJ position overlooks that our complementary businesses operate across broad, competitive areas of the economy. We are confident that the combination would have accelerated our shared ability to innovate on behalf of clients, but the inability to secure an expedited resolution of the litigation brought us to this point."

. . .

Class 8 homework assignment

- How did the market react?
  - WTW stock dropped 9.0% the day of the announcement

Percentage Change in WTW Closing Prices
July 1, 2021 – September 10, 2021

Arbs with WTW shares were betting on an extension to litigate!

Class 8 homework assignment: Bonus question

Should Aon agree to extend the drop dead date in order to litigate, or should it terminate the deal on September 9 and pay WTW the $1 billion breakup fee?

- Assume:
  - Aon will pay $15 million in out-of-pocket expenses for its part in the litigation
  - On July 15, 2021, Aon's weighted average cost of capital (WACC) was 5.8% and its return on invested capital (ROIC) was 8.47%
- Analysis
  - Options
    - Terminate and pay WTW $1 billion ARTF
    - Extend and litigate
      - Litigate and lose
      - Litigate and win

Class 8 homework assignment: Bonus question

1. Do not extend drop dead date: Terminate agreement
   - Pay antitrust reverse termination fee = −$1 billion

Aon payoff for Strategy 1: −$1 billion

Class 8 homework assignment: Bonus question

2. Extend drop dead date and litigate
   a. Litigate and lose
      i. Loss of litigation costs = −$15 million
      ii. Present discounted value of ARTF paid in February 2022 as opposed to September 2021

$$PV = \frac{FV}{(1+r)^n} = \frac{-\$1000}{(1+0.0048)^5} = -\$976.34 \text{ million}$$

where

PV is the discounted present value
FV is the future value (here, $1 billion)
r is the discount rate (here, 5.8% annually or 0.48% monthly)
n is the number of periods (here, 5 months)

So the present value of the *gain* to Aon on the value of the ARTF for delay is:

FV – PV = $1000 million − $976.34 = $23.66 million

Total loss to Aon shareholders if they litigate and lose:

−$15 million − $976.34 million = −$991.34 million

For a *gain* of $8.66 million compared to terminating on the drop dead date

If the ARTF is big enough, it can pay for the buyer to litigate and lose!

Class 8 homework assignment: Bonus question

2. Extend drop dead date and litigate
   b. Litigate and win
      i. Loss of litigation costs = −$15 million
      ii. Value of the deal premium: $ 4182 million delayed for five months at Aon’s 5.8% WACC:

$$PV = \frac{FV}{(1+r)^n} = \frac{\$4182}{(1+0.0048)^5} = \$4083.1 \text{ million}$$

Class 8 homework assignment: Bonus question

2. Extend drop dead date and litigate
   b. Litigate and win
      iii. Gain of pro rata share of synergies as Aon shareholders:

Aon pro rata 63% share of 10 years of net synergies discounted at 8%[1]

= $1826.52 million

Combined Company Synergy NPV
(discounted at 8%)

Year	Synergies	Costs	Net CF	PV	NPV	63%
1	$267.00	$1,300.00	($1,033.00)	($956.48)	($956.48)	($602.58)
2	$600.00	$700.00	($100.00)	($85.73)	($1,042.22)	($656.60)
3	$800.00	$0.00	$800.00	$635.07	($407.15)	($256.50)
4	$800.00	$0.00	$800.00	$588.02	$180.87	$113.95
5	$800.00	$0.00	$800.00	$544.47	$725.34	$456.96
6	$800.00	$0.00	$800.00	$504.14	$1,229.48	$774.57
7	$800.00	$0.00	$800.00	$466.79	$1,696.27	$1,068.65
8	$800.00	$0.00	$800.00	$432.22	$2,128.48	$1,340.94
9	$800.00	$0.00	$800.00	$400.20	$2,528.68	$1,593.07
10	$800.00	$0.00	$800.00	$370.55	$2,899.24	$1,826.52
11	$800.00	$0.00	$800.00	$343.11	$3,242.34	$2,042.68
12	$800.00	$0.00	$800.00	$317.69	$3,560.04	$2,242.82
13	$800.00	$0.00	$800.00	$294.16	$3,854.19	$2,428.14
14	$800.00	$0.00	$800.00	$272.37	$4,126.56	$2,599.73
15	$800.00	$0.00	$800.00	$252.19	$4,378.76	$2,758.62
16	$800.00	$0.00	$800.00	$233.51	$4,612.27	$2,905.73
17	$800.00	$0.00	$800.00	$216.22	$4,828.48	$3,041.94
18	$800.00	$0.00	$800.00	$200.20	$5,028.68	$3,168.07
19	$800.00	$0.00	$800.00	$185.37	$5,214.05	$3,284.85
20	$800.00	$0.00	$800.00	$171.64	$5,385.69	$3,392.99

[1] I used 8% rather than Aon's WACC of 5.8% for the same reason I used 8% in calculating the PDV for WTW's share of synergies.

Class 8 homework assignment: Bonus question

2. Extend drop dead date and litigate
   b. Litigate and win

Total gain to Aon shareholders if they litigate and win:

− \$15 million − \$4083.1 million + \$1826.52 million = −\$2271.58 million

Class 8 homework assignment: Bonus question

- Compare payoffs

Option	Outcomes	Payoff
1. Do not extend drop dead date	Terminate agreement on drop dead date (September 9, 2021)	− $1000 million ARTF
2. Extend drop dead date	a. Litigate and lose	− $991.34 million
	b. Litigate and win	− $2271.58 million

- The difference in payoffs between paying ARTF in September and losing the litigation in February is $8.66 million
- The difference in payoffs between taking the ARTF in September and wining the litigation and closing the deal in February is -$1.271.58 billion

So unless Aon is essentially certain it will lose the litigation, it should terminate the deal and pay the $1 billion ARTF to WTW

Class 8 homework assignment: Bonus question

- What is the tipping point?
  - Let p be Aon's (subjective) probability of winning the case and closing the deal
  - If Aon was risk neutral and maximized expected value, then the tipping probability p^* would equate the expected value of extending the drop dead date with the expected value of terminating on September 9:

$$\text{E(extending)} = \text{E(terminating)}$$

$$(p^*)(\text{extending and winning}) + (1-p^*)(\text{extending and losing}) = \text{E(terminating)}$$

$$(p^*)(-2271.58) + (1-p^*)(-991.34) = -1000$$

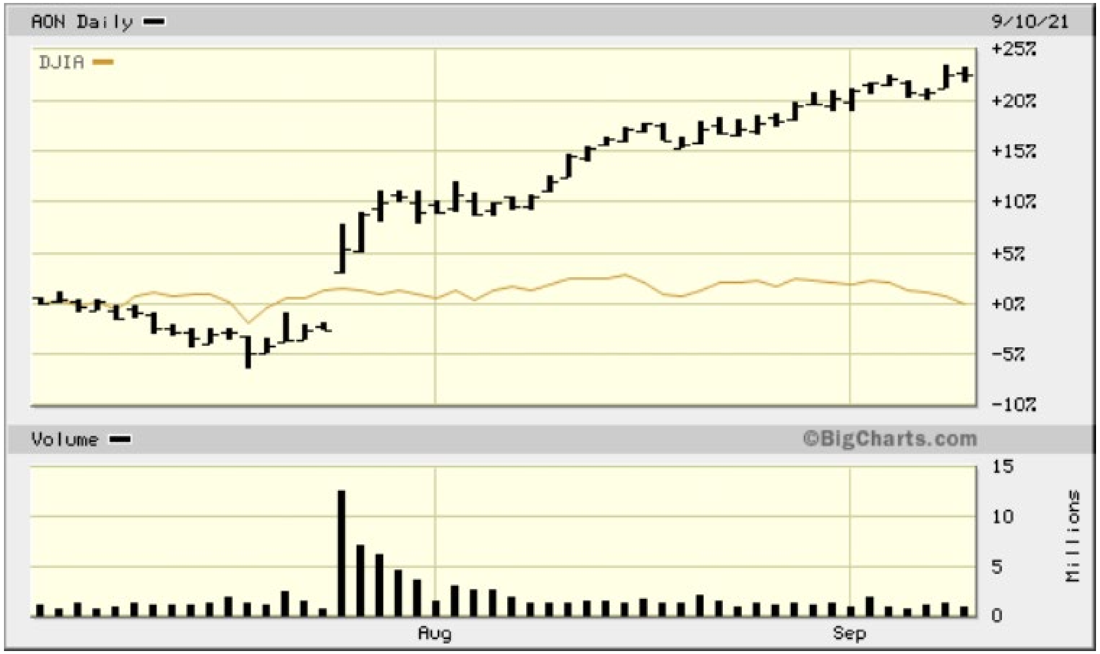
  - Solving for p^*, the tipping point is 0.68%

Bottom line: Aon should terminate and pay the $1 billion ARTF on September 9 if it believes that the probability of winning is greater than 0.68%

Class 8 homework assignment: Bonus question

- How did the market react to the deal termination?
  - Aon stock increased 8.2% the day of the announcement and continued to increase in the following days

Percentage Change in Aon Closing Prices
July 1, 2021 – September 10, 2021



Arbs with Aon stock expected an extension for litigation but were delighted that the deal terminated

Class 8 homework assignment: Bonus question

- What is going on here? Why did Aon do the deal at all?
  - The Aon investor presentation anticipates—

> "**over $10 billion** of expected shareholder value, from the capitalized value of expected pre-tax synergies and net of expected one time transaction, retention and integration costs."

  - A NPV of $10 billion for the combined company yields a NPV benefit to the Aon shareholders of $6.3 billion *at the time of announcement* given Aon's 63% ownership of the combined company
  - The net present value of the deal to the Aon shareholders is then:

$$\underbrace{\$6{,}300 \text{ million}}_{\text{PDV synergies}} - \underbrace{\$4{,}182 \text{ million}}_{\text{PDV deal premium}} - \underbrace{\$15 \text{ million}}_{\text{Litigation costs}} = +\$1{,}485 \text{ million}$$

Net expected PDV gain to Aon shareholders from litigating and winning

Class 8 homework assignment: Bonus question

- What is going on here? Why did Aon do the deal at all?
  - *Query*: Does the $10 billion in the present value of synergy gains net of costs make sense?
    - implies a PDV synergies gross gain of $12 billion before $2 billion in transition costs
    - At $800 million/year
      - At a 0% discount rate, would take 15 years to earn $12 billion
      - At an 8% discount rate, would take over 100 years to cover the deal premium
  - How did Aon get $10 billion in net PDV?
    - Consider a perpetual annuity of $800 million/year. What discount rate would produce a PDF of $12 billion (before costs)?

$$PV = \frac{A}{r}$$

$$12000 = \frac{800}{r} \rightarrow r = 6.7\%$$

    - A discount rate of 6.7% is—
      - 87 basis points greater than Aon’s WACC of 5.8%
      - 1800 basis points lower than Aon’s ROIC of 8.47%
    - Suggests that a NPV synergy gain of $10 billion for the combined company is unrealistically high and that, when properly evaluated, the deal did not make sense from the beginning for Aon

Class 8 homework assignment: Bonus question

- The market agreed the deal was a loser from the beginning:

Aon stock dropped 16.7% on the day of announcement

Class 8 homework assignment: Bonus question

- Moreover, Aon stock did not recover over time when compared to the Dow Jones Industrial Average:

  - Between of the announcement (March 9, 2020) and the date before termination (July 24, 2021)—
    - Aon stock rose 17.1%
    - The DJIA rose 35.9%

Hertz/Avis Budget/Dollar Thrifty

Thrifty Car Rental

DOLLAR RENT A CAR

Antitrust Risk

What was the antitrust risk in this deal?

1. How serious is the inquiry risk?
   - Deal was HSR reportable
   - Highly visible companies—Likely to receive considerable press
   - *Query*: Any likely interest from state AGs?
   - *Query*: Would any customers likely complain to the DOJ/FTC?
   - *Query*: Would any competitors likely complain to the DOJ/FTC?

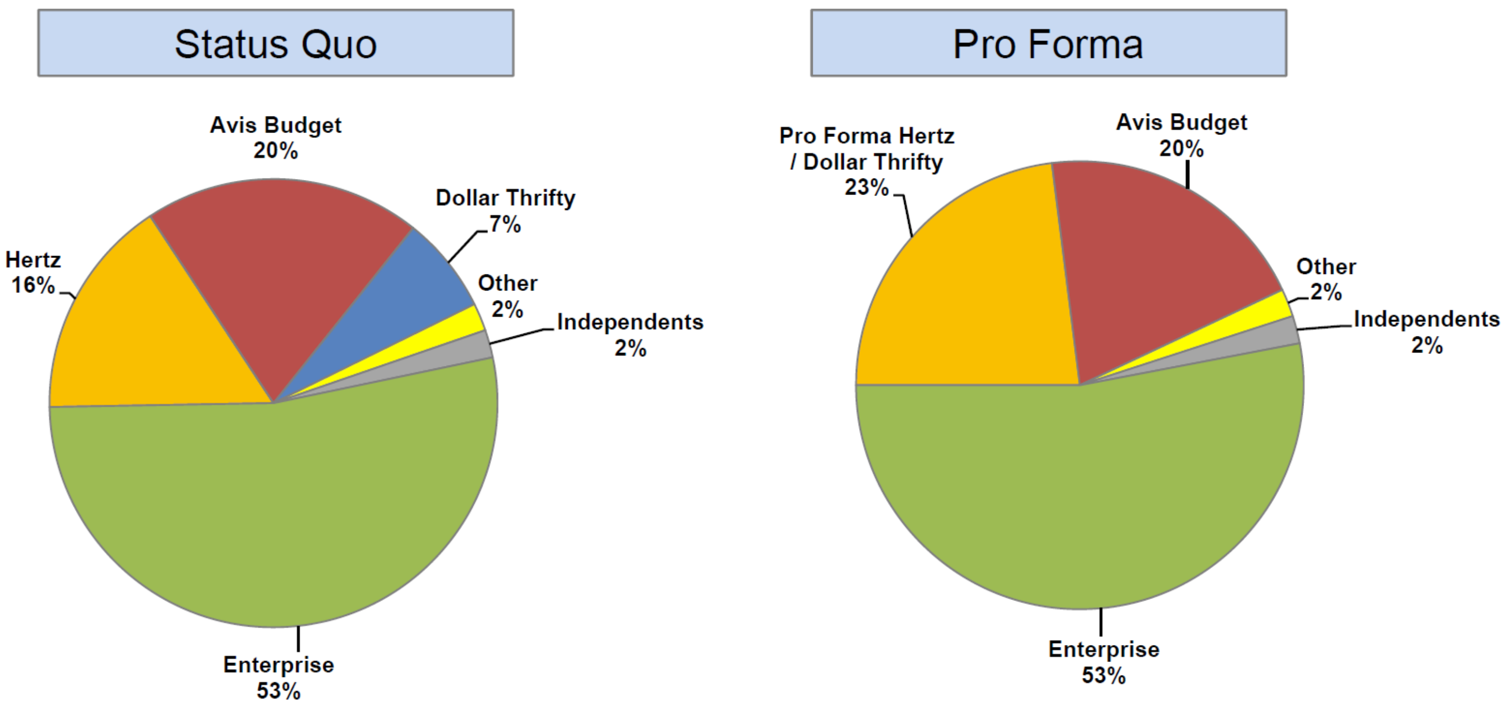
Bottom line:

- *The DOJ/FTC is almost certain to investigate the transaction*
- *Other significant challengers are unlikely and, in any event, insignificant compared to the DOJ/FTC*

What was the antitrust risk in this deal?

2. How serious is the substantive risk?

Total U.S. Rental Car Market Revenue Share 2009

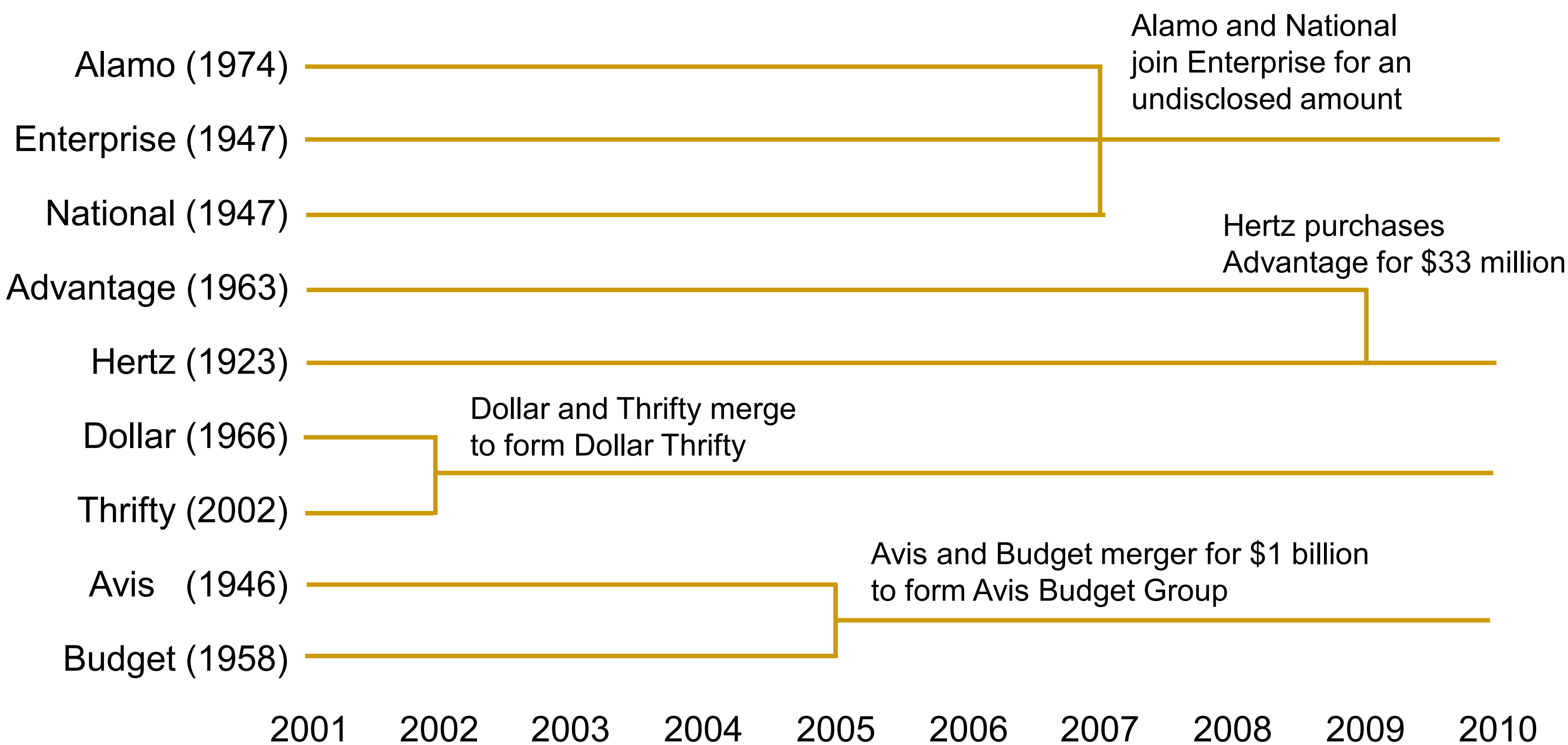


Source: Auto Rental News, 2010 Fact Book

Does not look like much changes with the acquisition

What was the antitrust risk in this deal?

2. How serious is the substantive risk?
   - But extensive consolidation in the rental car industry



What was the antitrust risk in this deal?

2. How serious is the substantive risk?
   - And the market could be further segmented by location
     - Individual airport markets
     - Some in-town markets
     - National accounts

What was the antitrust risk in this deal?

2. How serious is the substantive risk?

U.S. Rental Car Market 2011

Company	Cars	Locations	%Cars
Enterprise Holdings (Alamo, Enterprise, National)	920,861	6,187	52.3%
Hertz (includes Advantage)	320,000	2,500	18.2%
Avis Budget Group	285,000	2,300	16.2%
Dollar Thrifty Automotive Group	118,000	445	6.7%
U-Save Auto Rental System	11,500	325	0.7%
Fox Rent A Car	11,000	13	0.6%
Payless Car Rental System	10,000	32	0.6%
ACE Rent A Car	9,000	90	0.5%
Zipcar	7,400	128	0.4%
Rent-A-Wreck of America	5,500	181	0.3%
Triangle Rent-A-Car	4,200	28	0.2%
Affordable/Sensible	3,300	179	0.2%
Independents	55,000	5,350	3.1%
	1,760,761		100.0%

Combined national share = 24.9%

What was the antitrust risk in this deal?

2. How serious is the substantive risk?

Combined national airport share = 37.0%

U.S. Rental Car Market 2011

				Overall
Company	Cars	Locations	%Cars	Airport
Enterprise Holdings (Alamo, Enterprise, National)	920,861	6,187	52.3%	34.0%
Hertz (includes Advantage)	320,000	2,500	18.2%	25.0%
Avis Budget Group	285,000	2,300	16.2%	26.0%
Dollar Thrifty Automotive Group	118,000	445	6.7%	12.0%
U-Save Auto Rental System	11,500	325	0.7%	
Fox Rent A Car	11,000	13	0.6%	
Payless Car Rental System	10,000	32	0.6%	
ACE Rent A Car	9,000	90	0.5%	
Zipcar	7,400	128	0.4%	
Rent-A-Wreck of America	5,500	181	0.3%	
Triangle Rent-A-Car	4,200	28	0.2%	
Affordable/Sensible	3,300	179	0.2%	
Independents	55,000	5,350	3.1%	
	1,760,761		100.0%	

What was the antitrust risk in this deal?

2. How serious is the substantive risk?
   - Overlaps at some individual airports have even higher combined market shares

Significant Individual Airport Market Overlaps

1	Albuquerque, New Mexico (Albuquerque International Sunport Airport)
2	Atlanta, Georgia (Hartsfield-Jackson International Airport)
3	Austin, Texas (Austin-Bergstrom International Airport)
4	Baltimore, Maryland (Baltimore/Washington International Thurgood Marshall Airport)
5	Boston, Massachusetts (Logan International Airport)
6	Burbank, California (Burbank Bob Hope Airport)
7	Burlington, Vermont (Burlington International Airport)
8	Charleston, South Carolina (Charleston International Airport)
9	Charlotte, North Carolina (Charlotte Douglas International Airport)
10	Chicago, Illinois (Chicago Midway International Airport)
11	Chicago, Illinois (Chicago O'Hare International Airport)
12	Cincinnati, Ohio (Cincinnati/Northern Kentucky International Airport)
13	Cleveland, Ohio (Cleveland Hopkins International Airport)
14	Colorado Springs, Colorado (Colorado Springs Airport)
15	Dallas, Texas (Dallas Love Field Airport)
16	Dallas, Texas (Dallas/Fort Worth International Airport)
17	Detroit, Michigan (Detroit Metro Airport)
18	Denver, Colorado (Denver International Airport)

What was the antitrust risk in this deal?

2. How serious is the substantive risk?

Significant Individual Airport Market Overlaps

19 Des Moines, Iowa (Des Moines Airport)
20 El Paso, Texas (El Paso Airport)
21 Fort Lauderdale, Florida (Fort Lauderdale-Hollywood Airport)
22 Fort Myers, Florida (Southwest Florida International Airport)
23 Fort Walton Beach, Florida (Fort Walton Beach Regional Airport)
24 Harlingen, Texas (Valley International Airport)
25 Hartford, Connecticut (Bradley International Airport)
26 Hilo, Hawaii (Hilo International Airport)
27 Honolulu, Hawaii (Honolulu International Airport)
28 Houston, Texas (George Bush Intercontinental Airport)
29 Houston, Texas (William P. Hobby Airport)
30 Jacksonville, Florida (Jacksonville International Airport)
31 Kahului, Hawaii (Kahului Airport)
32 Las Vegas, Nevada (McCarran International Airport)
33 Lihue, Hawaii (Lihue Airport)
34 Los Angeles, California (Los Angeles International Airport)
35 Louisville, Kentucky (Louisville International Airport)
36 Manchester, New Hampshire (Manchester-Boston Regional Airport)
37 Miami, Florida (Miami International Airport)
38 Milwaukee, Wisconsin (Milwaukee International Airport)
39 Minneapolis-St. Paul, Minnesota (Minneapolis-St. Paul International Airport)

What was the antitrust risk in this deal?

2. How serious is the substantive risk?

Significant Individual Airport Market Overlaps

40	Nashville, Tennessee (Nashville International Airport)
41	New York, New York (LaGuardia Airport)
42	New York, New York (John F. Kennedy International Airport)
43	Newark, New Jersey (Newark Liberty International Airport)
44	Norfolk, Virginia (Norfolk International Airport)
45	Oakland, California (Oakland International Airport)
46	Oklahoma City, Oklahoma (Will Rogers World Airport)
47	Omaha, Nebraska (Omaha Airport)
48	Los Angeles, California (Ontario International Airport)
49	Orange County, California (John Wayne Airport)
50	Orlando, Florida (Orlando International Airport)
51	Pensacola, Florida (Pensacola International Airport)
52	Phoenix, Arizona (Sky Harbor Airport)
53	Pittsburgh, Pennsylvania (Pittsburgh International Airport)
54	Portland, Oregon (Portland International Airport)
55	Providence, Rhode Island (T.F. Green Airport)
56	Raleigh-Durham, North Carolina (Raleigh-Durham International Airport)
57	Reno, Nevada (Reno-Tahoe International Airport)
58	Richmond, Virginia (Richmond International Airport)
59	Sacramento, California (Sacramento International Airport)

What was the antitrust risk in this deal?

2. How serious is the substantive risk?

Significant Individual Airport Market Overlaps

60	Salt Lake City, Utah (Salt Lake City International Airport)
61	San Antonio, Texas (San Antonio International Airport)
62	San Diego, California (San Diego International Airport)
63	Sanford, Florida (Orlando-Sanford International Airport)
64	San Francisco, California (San Francisco International Airport)
65	San Jose, California (Norman Y. Mineta San Jose International Airport)
66	Sarasota, Florida (Sarasota Bradenton International Airport)
67	Seattle, Washington (Seattle-Tacoma International Airport)
68	Tampa, Florida (Tampa International Airport)
69	Tulsa, Oklahoma (Tulsa International Airport)
70	Washington, District of Columbia (Ronald Reagan National Airport)
71	Washington, District of Columbia (Washington Dulles International Airport)
72	West Palm Beach, Florida (Palm Beach International Airport)

Source: Complaint ¶ 5, FTC v. Hertz Global Holdings, Inc., No. C-4376 (F.T.C. Nov. 15, 2012)

What was the antitrust risk in this deal?

2. How serious is the substantive risk?
   - *Query*: Who are the customers who might be adversely affected in each market?
     - All customers?
     - Only business customers?
     - Only “value” customers?

What was the antitrust risk in this deal?

3. How serious is the remedies risk?
   - Possibilities
     1. Entire deal is blocked
        - Likely relief the FTC will seek in a fully litigated proceeding
        - Merging parties could “litigate the fix,” BUT—
          1. What would be the scope of an acceptable fix to the court in the face of DOJ opposition?
          2. Can the merging parties find and sign a buyer in time?
          3. Would the buyer be acceptable to the court in the face of DOJ opposition?
     2. In each problematic market, either entire Hertz or entire DTAG business must be divested
        - Likely FTC demand unless FTC segments customers into business/value
        - Probably would eliminate most if not all value from the deal
        - Likely would create negative value in the absence of a purchase price adjustment
     3. In each problematic market, either entire Hertz “value” or entire DTAG “value” business must be divested
        - Hertz could divest Advantage (the Hertz value business)

Advice to Hertz

1. Inquiry risk
   - Almost certain second request investigation by the FTC
2. Substantive risk
   - Almost certain antitrust violations in some airport markets
     - Especially in “value” business overlap
   - Possible violations in other airport markets
   - And perhaps non-airport markets as well
3. Remedies risk
   - Deal could be blocked in litigation
     - Litigating the fix is risky since the scope of a fix acceptable to the court is uncertain
   - If the deal is to close, must settle with a consent decree

     Critical business considerations
     - Consent decree must be limited to preserve deal value
     - Preferably to the Hertz Advantage business
     - + Maybe a limited number of DTAG airport locations that the FTC may conclude overlap with Hertz-branded location

Advice to Hertz

- Bottom line

Hertz should sign a purchase agreement only if—

Advice to Hertz

- Bottom line

Hertz should sign a purchase agreement only if—

1. *The deal provides Hertz with significant expected value at the time of signing*

Advice to Hertz

- Bottom line

Hertz should sign a purchase agreement only if—

1. *The deal provides Hertz with significant expected value at the time of signing*
2. *Any divestitures Hertz might have to make in order to overcome any antitrust objections would still preserve significant expected value, and*

Advice to Hertz

- Bottom line

Hertz should sign a purchase agreement only if—

1. *The deal provides Hertz with significant expected value at the time of signing*
2. *Any divestitures Hertz might have to make in order to overcome any antitrust objections would still preserve significant expected value, and*
3. *Hertz has the right to terminate the merger agreement and walk away from the deal in the event it cannot settle for the divestiture of not much more than the Advantage business*

Advice to DTAG

1. Inquiry risk
   - Almost certain second request investigation by the FTC
2. Substantive risk
   - Almost certain antitrust violations in some airport markets
   - Possible violations in other airport markets
   - And perhaps non-airport markets as well
3. Remedies risk
   - Deal could be blocked in litigation
     - Litigating the fix is very risky given the number of potentially problematic markets
   - If the deal is to close, must settle with a consent decree
     - Hertz is likely to want to limit any consent decree to the Hertz Advantage business in order to preserve value
     - BUT is this enough for DTAG to go forward or can it negotiate to require hertz to make additional divestitures if necessary to secure a consent decree?

Advice to DTAG

- Bottom line:

  This deal has significant antitrust risk. DTAG needs to negotiate not only a good price but also provisions that maximize certainty of closing recognizing:

Advice to DTAG

- Bottom line:

This deal has significant antitrust risk. DTAG needs to negotiate not only a good price but also provisions that maximize certainty of closing recognizing:

1. *Hertz will require a deal that provides it with significant expected value at the time of signing,*

Advice to DTAG

- Bottom line:

  This deal has significant antitrust risk. DTAG needs to negotiate not only a good price but also provisions that maximize certainty of closing recognizing:

  1. *Hertz will require a deal that provides it with significant expected value at the time of signing,*
  2. *Hertz's expected value will be a function of the gains from trade it expects and the level of divestitures to which it will be exposed as a result of the antitrust risk, and*

Advice to DTAG

- Bottom line:

This deal has significant antitrust risk. DTAG needs to negotiate not only a good price but also provisions that maximize certainty of closing recognizing:

1. *Hertz will require a deal that provides it with significant expected value at the time of signing,*
2. *Hertz's expected value will be a function of the gains from trade it expects and the level of divestitures to which it will be exposed as a result of the antitrust risk, and*
3. *Hertz will want to be able to terminate the merger agreement if the divestitures required to close the deal will not provide it with an adequate return given the purchase price*

Contractual Risk Allocation

Party objectives in M&A agreements

- Sellers
  - Three goals
    1. Obtain the highest purchase price possible
       - Ideally, extract in the purchase price all the gains from trade that the buyer expects to obtain from the deal
    2. Close the transaction prior to the *termination date*
       - The termination date is the date on which either party can terminate the merger agreement without cause—usually one year from signing
       - Called *certainty of closing*—Sellers do deals in order to get paid
       - Sellers tend to lose value during pendency of the transaction
         - The "damaged goods" problem
           - Target often lacks strategic direction and focus during pendency of transaction
           - Key employees often leave company for jobs in other companies
           - Customers may leave given uncertainty of what will happen with the target
         - Purchase price in a second auction after a failed transaction is typically much less even after accounting for damaged goods problem
    3. Minimize the delay between signing and closing
       - Usually a minor concern compared to the purchase price and certainty of closing

Party objectives in M&A agreements

- Buyers
  - Three goals
    1. Obtain the lowest purchase price possible
       - Ideally, retain in the purchase price all of the gains from trade that the buyer expects to obtain from the deal
    2. Close the transaction provided the deal generates sufficient value; otherwise, walk away from transaction without loss of value
       a. The DOJ/FTC might require divestitures that would reduce the benefits of the deal and perhaps even make them negative
       b. The market/regulatory environment might change in ways that make the deal a bad deal
       c. The target might suffer a material adverse change in its business
       d. The buyer might suffer a material adverse change in its business
    3. Minimize the delay between signing and closing
       - Usually a much more important consideration to buyers than to sellers

Negotiating the contract

1. Need an “out” if the deal is illegal
   - Neither party wants to be contractually obligated to close a deal that would be illegal and subject the party to sanctions
2. Need an “out” if the deal no longer provides positive value
   - Each party wants a right to terminate the purchase agreement if the party no longer finds the deal in its interest
3. Each party wants to maximize the probability that the deal *will* close IF AND ONLY IF the party *wants* the deal to close
   - Objectives for each party:
     a. Include provisions in the contract that will obligate the counterparty to—
        i. Take all necessary steps to proceed to the closing before the *termination date*, and
        ii. Minimize its ability to terminate the contract before the termination date
     b. Maximize the ability of the party to terminate the contract if and when it concludes that the deal is no longer in its interests

Negotiating the contract

- Valuing the deal/weighing the trade-offs
  - The buyer and the seller are likely to view the deal as a *gamble with risk*
  - If so, each party will value the deal on its own (risk-adjusted) *expected value* of signing the contract
    - That is, each party will consider:

1. The net benefits of closing the deal (which will be positive) :

Respective gains from trade before deal costs

$$B_{Buyer} = V_c + V_s - P - D_{Buyer}$$

$$B_{Seller} = P - V_c - D_{Seller}$$

where V_c is the target's going concern value, V_s is the expected total synergies, D is the deal costs, and P is the purchase price

2. The net benefits of not closing the deal (which may be negative):

$$B_{Buyer} = P - D_{Buyer}$$

$$B_{Seller} = (V_c - L_c) - D_{Seller}$$

where L_c is the loss of going concern value

3. The subjective probability that the deal will close to discount these benefits
   - The buyer and the seller may be significantly different probabilities

Negotiating the contract

- Valuing the deal/weighing the trade-offs
  - The probability of the deal closing (or not closing) will be a function of the risk-shifting provisions in the contract
    - The stronger the provisions forcing the buyer to take steps to eliminate the antitrust concerns, the higher the probability of closing
  - BUT the net benefits of the deal closing to the buyer also will be a function of the risk-shifting provisions in the contract
    - Typically, the stronger the provisions forcing the buyer to accept a consent decree and close, the less the synergy gain for the buyer
      - In many deals, the bulk of the synergies gain will come in the overlap areas
    - If stronger provisions are likely to reduce deal synergies, the buyer will reduce the maximum purchase price it is willing to pay
  - Similarly, the net benefits of the deal closing to the seller also will be a function of the risk-shifting provisions in the contract
    - The stronger the provisions, the greater the probability of closing
    - BUT stronger provisions are likely to reduce deal synergies, which will lower the maximum purchase price the buyer is willing to pay

The structure of a merger agreement

- The antitrust-related provisions:
  1. Closing conditions (conditions precedent)
     - Protect a party from the obligation to close unless and until the closing conditions are satisfied
  2. Termination provisions
     - Especially the *"drop-dead" date*: The date on which either party is free to unilaterally terminate the merger agreement without cause
     - Merger agreement can provide for early termination or extensions in specified contingencies
  3. Affirmative covenants
     - Negotiated to increase the probability that the conditions precedent will be satisfied for the drop-dead date
     - NB: The obligations under affirmative covenants usually expire upon the termination of the agreement

The structure of a merger agreement

- Three questions
  1. What does each party want in these provisions to best achieve its objectives?
  2. Where will the parties agree or disagree on the content of a provision?
  3. How will the disagreements be resolved?

1. Protection against an unlawful closing

- Conditions precedent

	Conditions Precedent	Affirmative Covenant
Waiting period	HSR waiting period has expired or been terminated	Efforts to satisfy condition precedent

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1. Protection against an unlawful closing

- Conditions precedent

	Conditions Precedent	Affirmative Covenant
Waiting period	HSR waiting period has expired or been terminated	Efforts to satisfy condition precedent
Injunctions and other legal restraints	No injunction or legal restraint making the closing unlawful	Efforts to avoid entry of injunction or other legal obstacle to closing
Litigation	No obligation -or- [Sometimes] No threatened or pending litigation that seeks to enjoin the transaction	— Efforts to defend litigation to remove legal obstacles to closing

2. Protection against unwanted closing

- Termination

Event	Termination right
By mutual agreement	At any time by mutual consent

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- Termination

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Extensions to finish antitrust investigation and, if desirable, litigate	Usually 6 months
Unlawful transaction	By either party if a law or court order (having exhausted all appeals) makes the closing unlawful

3. Getting the deal to closing

- Other affirmative covenants

Stage	Objective	Affirmative Covenants
Prefiling period	Finalize defense Customer roll-out Prepare DOJ/FTC presentation	General “efforts” covenant Share information Cooperate in defense (may provide that Buyer takes lead)

3. Getting the deal to closing

- Other affirmative covenants

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Initial waiting period	Make initial presentation Answer staff questions Follow-up with customers	
Second request period	Comply with second request Defend depositions Answer staff questions Respond to staff theories	
Final waiting period	Make final arguments	

3. Getting the deal to closing

- Other affirmative covenants

<table>
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Obligations to respond to government requests
Obligations to consult in prosecuting defense
Right to attend each other’s meetings</td></tr>
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3. Getting the deal to closing

- Investigation outcome affirmative covenants

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Close investigation	Proceed to closing if all conditions precedent satisfied

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3. Getting the deal to closing

- Investigation outcome affirmative covenants

Investigation outcome	Covenant
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Litigate	No obligation -or- Obligation to litigate (will be subject to termination provisions)

3. Getting the deal to closing

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Litigate	No obligation -or- Obligation to litigate (will be subject to termination provisions)
Voluntarily terminate agreement	Usually not covered in merger agreement

Risk-shifting summary

	Buyer-friendly	⟷	Seller-friendly
Level of efforts	Commercially reasonable efforts	Reasonable best efforts	Best efforts
Obligation to make divestitures	Silent/expressly excluded	Divestitures up to cap – measured in asset or revenue terms or MAC applying to part or all of acquired or merged business	Obligation to make any and all divestitures necessary to gain clearance no matter how much or what impact is (HOHW)
Timing for other aspects of regulatory review	Silent/may be deadline for submission of HSR filing	Silent/may be deadline for submission of HSR filing	Express timing for submission of filing, Second Request compliance and other milestones
Timing for offering divestitures	Silent	Silent	Express timing for offering remedies to obtain clearance
Control of regulatory process	Buyer controls; require cooperation from Seller and may give access and information	Buyer leads; Seller entitled to be present at meetings, calls; obligation on Buyer to communicate certain matters to Seller	Full involvement of Buyer in negotiations with regulators; Seller prohibited from communicating without Buyer (except as required by law)
Obligation to litigate	Silent/expressly exclude/litigate at buyer's option	Silent/expressly exclude	Obligation to litigate if regulators block exercisable at seller's option; does not relieve buyer of obligations to make divestitures
Termination provisions	Open-ended, extendable at buyer's option	Tolling at either party's option	Tolling at seller's option
Reverse break-up fee	None	Possible	Substantial fee; provision for interim payments and interest
Time to termination date	As long as buyer anticipates needing to fully defend transaction on merits, plus ability to extend at buyer's option	Tolling at either party's option	Tolling at seller's option at specified inflection points (e.g., second request compliance, commencement of litigation)
"Take or pay" provision	None	None	Requires payment of full purchase price by termination date even if transaction cannot close

Avis Budget Enters the Bidding

2012 Hertz/Dollar Thrifty deal

Contested Takeover Dance

April 26, 2010	Hertz to buy at $1.2 billion
May 3, 2010	Avis sends letter to DT saying it will make a "superior offer"
May 13, 2010	Avis files HSR form for an open market purchase
May 14, 2010	Hertz files HSR form for April 26 deal
June 15, 2010	Avis receives a second request
June 16, 2010	Hertz receives a second request
July 28, 2010	Avis offers $1.33 billion ($46.50 per share 80/20 cash/stock)
Aug. 3, 2010	DT rejects offer as "superior" because of —Lack of deal certainty (no JDA → no exchange of AT analysis) —No antitrust reverse breakup fee
Aug. 31, 2010	Hertz releases comparative AT analysis —Avis is 3 → 2 in mid-tier value brands —Avis closer in average rental price than Hertz to DT —Avis would require a much larger brand divestiture —Avis deal provides less contractual protection on AT risk ($250m v. $335m in U.S. HOHW revenue cap; no ARTF v. $44.6m)

2012 Hertz/Dollar Thrifty deal

Contested Takeover Dance

Sept. 2, 2010	Avis raises bid to $1.36 billion —Rejects significance of ARTF —Hertz has higher leisure revenue than Avis Budget (AAA)
Sept. 12, 2010	Hertz to $1.43 billion ($50/share)
Sept. 23, 2010	Avis raises bid to $1.5 billion ($52.71/share v. $50.25/share)
Sept. 24, 2010	Hertz affirms bid is "best and final"
Sept. 27, 2010	DT rejects Avis bid and affirms recommendation for Hertz merger
Sept. 27, 2010	Avis announces it will launch a (hostile) exchange offer for DT —Asks that DT shareholder vote be delayed from 9/30 until 12/30
Sept. 29, 2010	Hertz announces it will terminate merger agreement if DT shareholders reject merger agreement
Sept. 30, 2010	DT shareholders rejects Hertz merger agreement
Sept. 30, 2010	Hertz announces it will terminate 2010 merger agreement
Sept. 30, 2010	Avis reaffirms commitment to acquire DT and pursue exchange offer

2012 Hertz/Dollar Thrifty deal

Contested Takeover Dance

Oct. 5, 2010	Avis and DT agree to cooperate in seeking regulatory approval
Jan. 11, 2011	FTC update—review continuing
May 9, 2011	Hertz offers $2.1 billion ($72/share 80/20) [ARTF ?]
May 12, 2011	Hertz and DT to cooperate in seeking regulatory approval
May 24, 2011	Hertz commences exchange offer for DT
June 6, 2011	DT recommends that shareholders take no action on either deal
July 14, 2011	Hertz files HSR form for exchange offer
Aug. 15, 2011	Hertz receives second request
Aug. 21, 2011	DT wants best and final offers by Oct. 10
Sept. 14, 2011	Avis pulls out of bidding
Oct. 10, 2011	No new proposals submitted by Hertz or Avis
	DT formally terminates solicitation process
Oct. 27, 2011	Hertz withdraws bid
Aug. 23, 2012	DT major shareholders say they would accept a $2.4 billion bid
Aug. 27, 2012	Sign deal at $2.3 billion

2012 Hertz/Dollar Thrifty deal

- Comparison with 2010 deal

	2010 Deal	2012 Deal
Total price	$1.3 billion	$2.3 billion
Price per share	$41.00 (80/20)	$87.50 cash
Deal structure	Rev. triangular	Tender offer*
Annual synergies	$180 million	$160 million
Termination date	12 months	4 months
HOHW cap	Advantage + ≤ $175 m rev.	Advantage presold + undisclosed "Proposed Consent Agreement"
ARTF	$44.6 million	None
Reimbursement of expenses	Up to $5 million	Up to $5 million

* Pursuant to Agreement and Plan of Merger between Hertz and Dollar Thrifty.

2012 deal premium

- Analysis
  - Hertz' estimate of the going concern value V_c of DTAG appears to be \$1.64 billion
    - Hertz set the corporate enterprise of DTAG postmerger at \$2.3 billion, which equals 7.8x the midpoint of DTAG's EBITDA guidance for 2012 (\$298 million)
    - Hertz said the DTAG enterprise value represented a 40% premium over DTAG's premerger multiple
    - Discounting for the 40% premium gives a V_c of \$1.64 billion
    - Compare to \$932 million (after dividend) in 2010
  - Hertz claimed an expected annually recurring synergy gain of \$160 million
    - Value as a 10-year annuity:

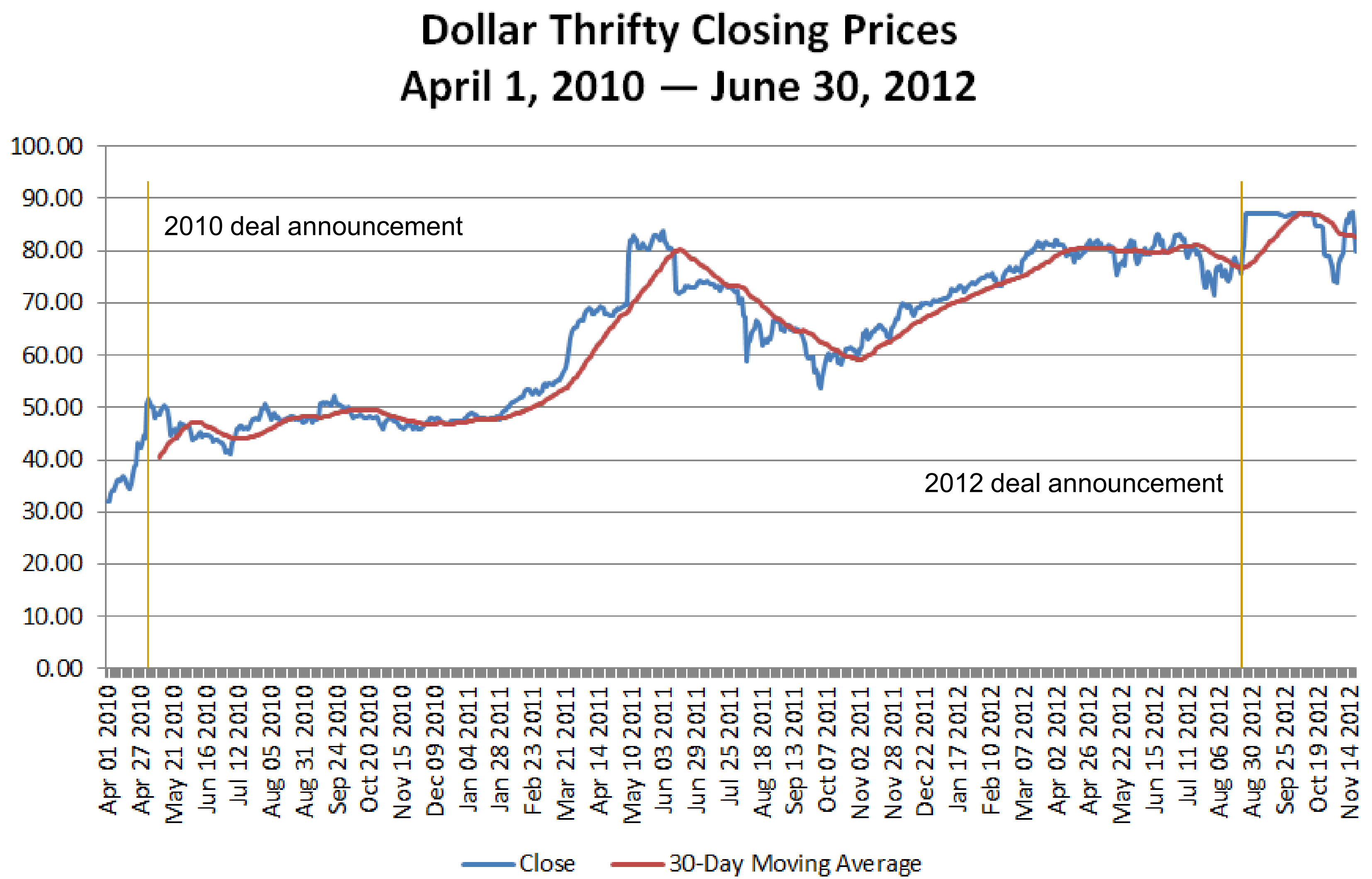
$$V_g = A\left[\frac{1-(1+r)^{-n}}{r}\right] = \$160 \text{ million}\left[\frac{1-(1+0.07)^{-10}}{0.07}\right] = \$1.12 \text{ billion}$$

  - So Hertz expects that the total value V_t of Dollar Thrifty postmerger will be:

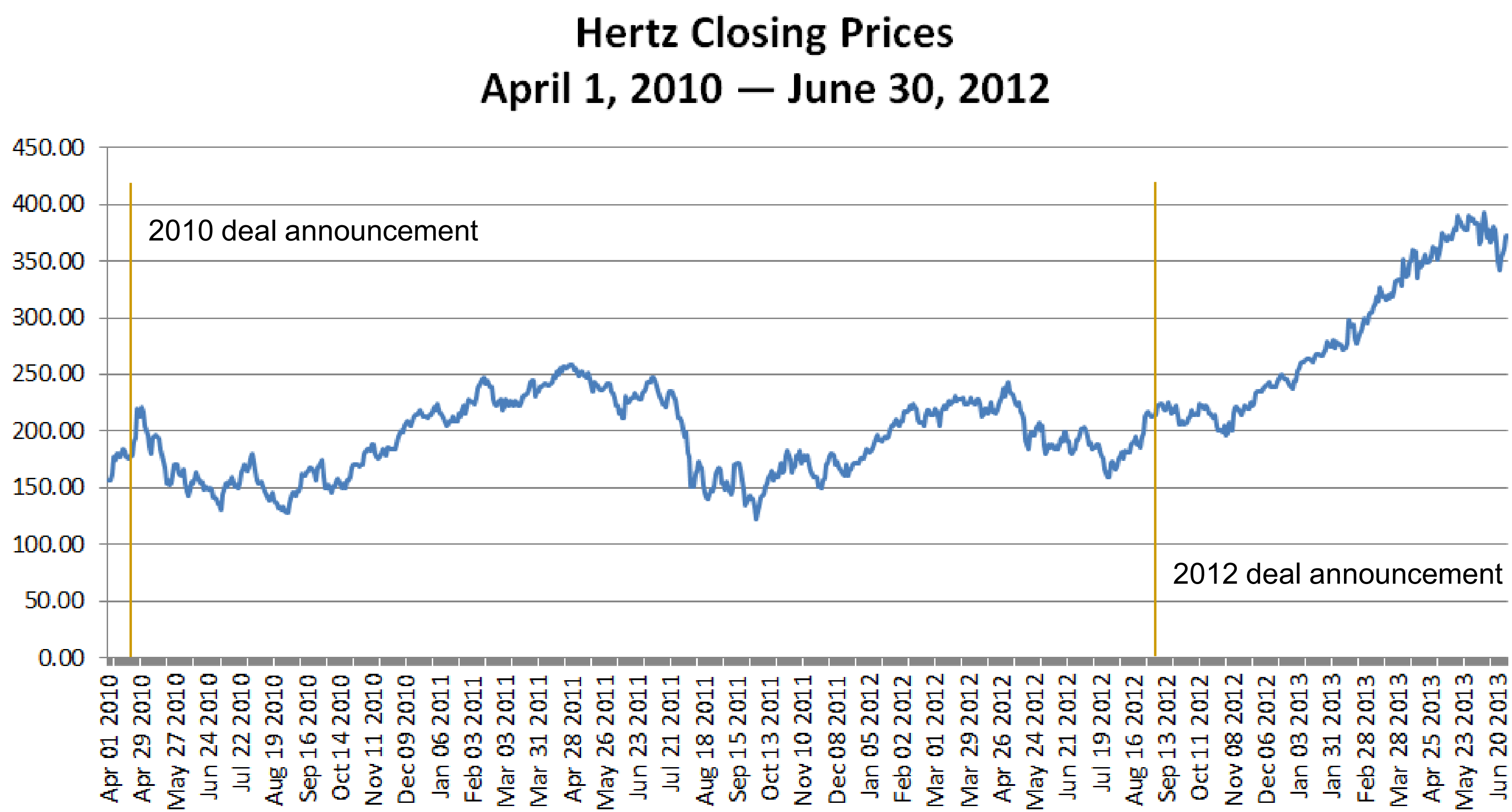
$$\begin{aligned} V_t = V_c + V_g &= \$1.64 \text{ billion} + \$1.12 \text{ billion} \\ &= \$2.76 \text{ billion} \end{aligned}$$

The purchase price of \$2.3 billion implies that Hertz gave up most of the synergies to DTAG shareholders *under our assumptions*

Dollar Thrifty stock prices

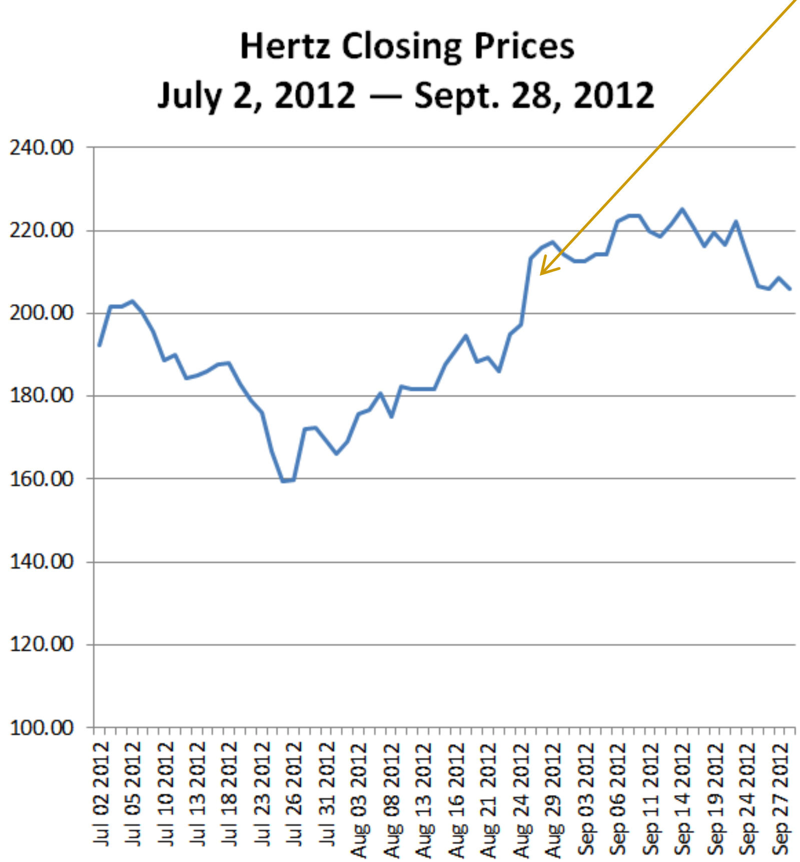


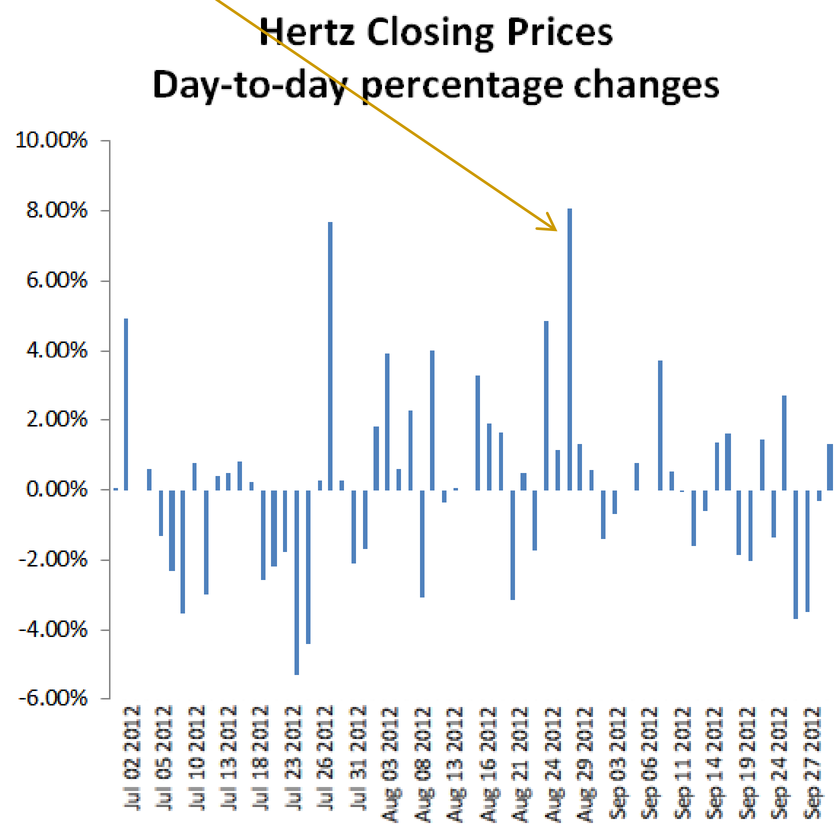
Hertz stock prices



Hertz stock prices

Announcement: + 8.06%





The FTC Consent Order

FTC Complaint

- Issued November 15, 2012
  - Eight-month investigation
- Relevant markets
  - Product market: Airport car rentals
    - Alternative: Non-contracted airport car rentals (excludes rentals made at prenegotiated rates and terms)
  - Geographic markets: 72 individual airport locations
- Competitive effects
  - Eliminates direct competition between parties (all markets)
  - Eliminates future competition between parties (several markets)
  - Increases likelihood of unilateral exercise of market power by Hertz
  - Increases likelihood of coordinated interaction
  - Increases likelihood that customers will pay higher prices

FTC Complaint

- Violations
  - Acquisition, if consummated, would violate Clayton Act § 7 and FTC Act § 5
  - Acquisition agreement violates FTC Act § 5
- Allegations regarding barriers to entry:
  - On-airport concession locations
  - Recognized brand
  - Relationships with online travel agencies and other distribution channels
  - Sufficient size to achieve economies of scale

FTC Consent Order

- Agreement containing consent order(s)
  - Negotiated and signed by parties prior to Commission vote
  - Parties to the FTC agreement
    - Hertz Global Holdings, Inc.—merging party
    - Franchise Services of North America Inc. (FSNA) (operates U-Save rental business)—divestiture buyer
    - Macquarie—providing financing for divestiture buyer

FTC Consent Order

- Proposed consent order: Hertz to divest—
  1. Its Advantage Rent-a-Car business (consisting of 62 locations, including 35 on-airport locations)[1] + 16 Dollar Thrifty on-airport locations where Advantage does not yet operate to FNSA/Macquarie jv
     - Advantage: 15 days after the Effective Date or December 12, 2012, whichever is later
     - DT assets: 90 days after the Effective Date
     - Purchase price: $16 million—1/2 of what Hertz paid to acquire Advantage out of bankruptcy in 2009[2]
  2. 13 Dollar Thrifty on-airport locations to FNSA/Macquarie jv or another Commission-approved buyer (post-acquisition)
     - 60 days after signing of Agreement to submit signed divestiture agreement
     - 6 months after the Effective Date to divest
- Maintain assets order
  - Contrast with Hold Separate Order

[1] Hertz Global Holdings, Inc., Form 10-K for the fiscal year ended December 31, 2012, at 6.
[2] Hertz reported a loss of $31.4 million on the Advantage divestiture. *See id.* at 54. This implies that Hertz received on 33.8% of the value of Advantage as carried on Hertz' books.

FTC Consent Order

- Commission vote to provisionally accept consent order
  - 4-1, with Rosch dissenting from acceptance of consent order (insufficient as relief at several dozen airports)
- Subsequent events
  - November 26, 2012: Federal Register notice published to begin comment period
    - 30 days for the FTC under Commission rules
    - 60 days for the DOJ under the Tunney Act
  - December 17, 2012: Comment period ends
    - Six comments received
  - July 11, 2013: Commission final acceptance of consent order
    - 3-0-1, with Rosch dissenting and Wright not participating

Aftermath

- Divestiture arrangement and leasing risk
  - JV buyer to lease 24,000 vehicles from Hertz and bear the residual value risk
  - When JV began to turn over fleet, experienced significant losses
  - October 25, 2013: JV had lost $8.6 million
- Divestiture solution falls apart
  - October 2, 2013: JV missed scheduled payment to Hertz
  - November 2, 2013
    - Refinancing negotiations fail
    - Hertz terminates Master Lease Agreement and seeks return of all leased vehicles
  - November 5, 2013: JV seeks bankruptcy protection

Aftermath

- Subsequent transactions
  - January 30, 2014: FTC grants FSNA's petition FTC to sell Advantage to Catalyst Capital Group (winning bidder in bankruptcy auction—40 locations, excluded 28)
  - May 29, 2014: FTC grants FNSA's petition to sell 22 former Advantage locations to Hertz (10) and Avis (12)
  - September 5, 2014: FTC grants FNSA's petition to sell Portland location to Avis and San Jose locations to Sixt Rent-A-Car