

Tough Love - Ford Motor Company at 100 Years

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As one of the oldest automobile manufacturing companies in the world, Ford Motor Company has a strong brand loyalty among many U.S. consumers. At the brink of the financial crises in 2007, however, domestic automakers, including Ford, were facing serious profitability issues. Some of these were external factors beyond Ford's control. Nonetheless, the 100 year old company, still 40% owned by the Ford family and managed in part by descendants of the famed industrialist had to make some changes or face continued financial decline. After the company reported large losses for the third quarter of 2006, Boeing executive Alan Mulally was brought on board as CEO of Ford Motor Company to help the firm engineer a turnaround. This case is suitable for a course in intermediate finance. It highlights the basic factors affecting a firm's profitability and risk.

A FORD OWNERS' STORY

"Yeah, I had a good week! Yeah, everything is good at work. Scott and I went Kayaking last weekend. We had a great time. Andrea and Julie came over for dinner last night and we cooked BBQ on the new grill. Oh, mom, I forgot to tell you. I had an accident last week. Some guy ran right into the side of my car! Yeah, t-boned, in downtown Dallas! Can you believe it? He hit me hard, mom. I remember feeling the impact and then I had airbags all around me. My car won't be out of the shop for another week or so." Nancy's heart almost stopped. Her daughter Macy had just graduated from college and moved to the big city. Nancy thought back to the day she and her husband Dave had picked out that Ford Escape for Macy's graduation present. It gave the four foot eleven 21 year old a better view of the road than the low slung sedan she had been driving. It was versatile enough to haul the equipment for the outdoor sports that she loved but stylish enough to drive a client to lunch. In March of 2008, with the economy showing signs of strain, it was priced just right. For Nancy, though, the clincher had been the side air bags and the steel beam running the length of the vehicle. She wanted lots of steel around that child, lots of protection from the maniac drivers in that big city a thousand miles away. Nancy remembered the day that she and Dave had taken Macy to the car lot to look. "A Ford?," Macy had protested. All of her friends drove zippy little foreign cars. "Macy, you should be proud to drive a Ford" her dad said. "First of all, Ford is an American company. This car is manufactured here in the USA by American workers.

Did you know that Henry Ford, the founder of the company was the first person to set up an assembly line in his factory, so each worker could specialize in one or two tasks in the assembly process? His ideas revolutionized manufacturing in the U.S. I would say that there is a lot to love.” “I know, I know, Dad, and your first car was a Ford.” Dave smiled “Truck, actually. Yep, a white Ford pickup truck with 140K miles on it, and I drove it another 5 years!” Needless to say, Macy was sold after a test drive with the sunroof open and the Satellite radio blaring.

Nancy sat at her desk, daydreaming about the chilling phone conversation she had had with Macy just a year ago. Nancy knew why she liked Ford cars. Her family had always driven Ford vehicles. Ford safety features had just saved her daughter’s life. Nancy’s client Chuck Jones had just called to tell her that he was thinking of buying some Ford stock. “What can you tell me about Ford, Nancy? It is only trading at less than \$2 a share. I like that company, and that Allan Mulally has not asked for any doggone bail-outs! Do you think that they will be able to make it through this mess?” The economy was in the tank, consumers were not buying anything, let alone big ticket items, and all of the U.S. auto manufacturers were burning through cash dangerously fast. “As your financial advisor and friend,” Nancy said, “I think you had better be careful here, Chuck. Let me see what I can find out, and I will get back with you.”

A LOVE-HATE RELATIONSHIP

This is where consumers and investors stood in 2008 and 2009. It was a love-hate relationship. The company they loved, the American icon was in real trouble. American taxpayers were outraged at the audacity of what they saw as overpaid auto executives flying to Washington in their corporate jets to ask for help in surviving one of the worst financial crises in the history of the United States. The first Model T Ford had rolled off of the assembly line in 1908, but fast forward 100 years, the automobile industry which had started out with a bang and revolutionized industrial production in the United States now operated in a global environment, with competition on every front and razor thin margins, where rumblings from labor or the economy posed a threat to the very survival of the business. By the end of 2006, the stock market had made a dramatic comeback from the depths of the dot-com bubble burst, the events of 911, and the ensuing recession, but conditions at Ford had only worsened. Ford’s stock price had plummeted, declining from near \$30 per share in March of 2001 to around \$7.50 per share by the end of 2006.

HERE HE COMES TO SAVE THE DAY?

Almost a century after the firm’s founding, Ford family members continued to have a strong influence on the company with around a 40% voting stake in the company and several family members directly involved in the business. William Clayton Ford, Jr., the great grandson of Ford Motor Company Founder Henry Ford had been named CEO in 2002. With much at stake, Bill Ford had struggled for five years to bring the firm

back up to speed. He made some important changes, but the company had continued to flounder. By the second quarter of 2006, amid massive losses, Bill Ford and the Board of Directors at Ford Motor Company must have decided that they needed some help to institute a turnaround. They turned to Alan Mulally, a 40 year veteran of Boeing Corporation, this engineer had come up through the ranks at Boeing utilizing a team approach and closely studying Toyota's efficiency processes. Mulally set off immediately on a bold and controversial course to raise funds for a complete restructuring of the company. The timing could not have been more critical for Ford given the onset of one of the greatest financial crises since the great depression, but would the changes be large enough and come soon enough to save the company?

FORD OPERATIONS

Ford Motor Company operations had evolved over the years into two distinct segments, the Automotive sector responsible for production and sales of the automobiles and Ford Financial Services, the financing arm of the company which had developed to support sales in the automotive group. (See Table 1 in the Appendix for Ford Motor Company Summary of Operations 2002 to 2006.)

Steel is a major input into the production process for auto manufacturers. During the period from 2002 to 2006, the United States had placed tariffs on imported steel to protect the U.S. steel industry from cheap Asian imports. In attempting to support one American industry from alleged dumping, policymakers had made it more difficult for others to compete. Exhibit 1 in the Appendix, constructed from steel pricing data from the U.S. Geological Service, illustrates the unit value in dollars per ton.

Amid all of these factors, the automobile market itself continued to change at home and abroad as environmental concerns, oil prices, and consumer tastes changed the demand dynamics of the car and truck markets. Increasing demand for fossil fuels from emerging markets in China and India fueled speculation that world oil demand would soon outstrip supplies. Compounding that, were political threats from Venezuela and speculation that the war in Iraq and Afghanistan could disrupt global oil imports to the U.S. The price of crude skyrocketed, pushing prices at the pump to new highs. Exhibit 2, found in the Appendix, was constructed from monthly prices on West Texas Intermediate Crude, and illustrates the monthly price per barrel from 2002 to 2006.

Tables 2 through 5 in the Appendix detail the dynamics of Ford's sales mix relative to total U.S. auto sales and relative to other automakers. Information on employees and labor costs may be found in Tables 6 through 8 of the Appendix, and information on fleet sales may be found in Table 9. Sales to daily car rental companies made up the bulk of Ford Fleet Sales, with the top selling automobile in this segment being the Ford Taurus. While no specific profitability figures for this unit are reported, the company had referred to this unit in previous 10-K filings as one of its least profitable areas.

(Ford Motor Company, (2005), Annual Report., p. x)

Ford Motor Company's annual report for 2005 boasts that it "...manufactures and distributes automobiles in 200 markets across six continents. With approximately 300,000 employees and 108 plants worldwide, the company's core and affiliated automotive brands include Ford, Lincoln, Mercury, Mazda, Volvo, Jaguar, Land Rover and Aston Martin". (Ford Motor Company. (2005). Annual Report, p. 1) Tables 10 and 11 in the Appendix illustrate the scope of their business in 2005.

CASE QUESTIONS

1. Examine Table 1: Ford Motor Company Summary of Operations located in the Appendix. Add the "Sales" from the automotive sector and the "Revenues" from the financial services sector to determine the total revenues for the firm and discuss your findings.
2. Calculate the percentage of total revenues produced by the automotive sector and the finance sector of the company for 2002-2006. Graph these trends and discuss your findings.
3. Using the information in Table 1, add the Before tax Income from the two divisions to come up with an estimate of the Income Before Taxes for the entire firm. Then aggregate the "Total Assets" from each division and the "Total Liabilities" for each division and back out an estimate of the shareholder's equity for Ford for the years 2002 to 2006. Now calculate a measure of Return on Equity (before taxes) for Ford by dividing the company's before tax income by shareholders' equity each year, and discuss your findings.
4. Using the information in this same table, aggregate the before tax income of the two divisions and the revenues for the two divisions and calculate the Before Tax Profit Margin, for the company as a whole for each year. Compute the same ratio for the company's two divisions separately. Graph the profit margin over the years 2002-2006 for the company as a whole and each of the two divisions on the same graph and discuss your findings in light of the answers you gave in numbers (1-3) above.
5. Using the information from Table 1, calculate the before tax profit margin for the two divisions. This is the first of three components of the basic DuPont model which explain why the ROE for a firm appears to be improving or declining. Graph the before tax profit margin you calculated for the two divisions on the same graph and discuss your findings. Look at the formula for profit margin. Based on a careful analysis of the information given in the case and your knowl-

edge of the subject, identify the factors that were impacting the profit margins of the automotive sector.

6. Using the information from Tables 2,3,4, and 5 in the Appendix, carefully examine the mix of vehicles produced by Ford relative to all auto sales in the U.S. Explain how the trends in Ford's vehicle mix over time could have impacted the firm's profitability during the period from 2002 to 2006.
7. Use the data from the Summary of Operations in Table 1 of the Appendix to calculate the Total Asset Turnover for each of the two divisions. This is the second of three components of the basic DuPont model for calculating ROE. Graph your results for the two divisions separately, and discuss your findings. Is there a link between your answer to question number five above and your results for asset turnover in the automotive sector? Explain. What other factors might affect the efficiency with which the firm is able to generate sales with the assets they have in place?
8. Use the data from Table 1 to calculate the Total Debt/Total Assets for each of the two divisions and discuss your findings.
9. What appear to be Ford's main strengths? As of 2006, what steps are necessary to turn this company around and make it profitable again?
10. Research the company's activities during the period from November 2006 to December 2010 to identify specific activities that the company undertook to improve profitability. Discuss how these things may have helped the company survive the great financial crisis of 2008-2009. Do you see anything that the company has not followed through on that you feel could have a big impact on its profitability going forward?

TABLE 1

Summary of Operations for Years Ended 2002-2006 (in Millions)

Automotive Sector	2002	2003	2004	2005	2006
Sales	\$134,425	\$138,260	\$147,134	\$153,474	\$143,307
Before Tax Income	(\$1,156)	(\$1,908)	(\$155)	(\$3,874)	(\$17,017)
Total Assets	\$107,790	115,444	\$116,422	\$113,825	\$122,634
Total Liabilities	\$111,029	\$116,904	\$112,639	\$107,678	\$135,415

Financial Sector	2002	2003	2004	2005	2006
Sales	\$28,161	\$26,078	\$24,518	\$23,442	\$16,816
Before Tax Income	\$2,109	\$3,247	\$5,008	\$4,953	\$1,966
Total Assets	\$187,432	195,279	\$188,919	\$162,194	\$169,050
Total Liabilities	\$172,933	\$181,509	\$175,780	\$153,777	\$158,575

Per Share Common and Class B Stock	2002	2003	2004	2005	2006
EPS (Diluted)	\$.54	\$.27	\$1.73	\$.78	(\$6.72)
Cash Dividends	\$.40	\$.40	\$.40	\$.40	\$.25

(For the years 2001 and 2002; Ford Motor Company Annual Report (2002), pp. 58-60. For the years 2003 and 2004; Ford Motor Company Annual Report (2004), pp. 54-56. Data for the years 2005 and 2006; Ford Motor Company Annual Report (2006), pp. 48-51)

TABLE 2

Total U.S. Industry Sales, Years Ended December 31 (Millions of Units)

	2002	2003	2004	2005	2006
Cars	8.1	7.6	7.5	7.7	8.1
Trucks	9	9.4	9.8	9.8	9
Total	17.1	17	17.3	17.5	17.1

(Ford Motor Company.(2006).Form 10-K , p. 5.)

TABLE 3

U.S. Auto Industry Vehicle Sales Mix (U.S. Sales), Years Ended December 31

CARS	2002	2003	2004	2005	2006
Small	18.3%	17.3%	16.9%	17.9%	19.8%
Medium	15.2%	14.4%	13.1%	12.3%	12.4%
Large	7.2%	6.6%	6.8%	7.4%	7.4%
Premium	7.4%	7.7%	7.7%	7.8%	7.5%
Total U.S. Car Sales	48.1%	46.0%	44.5%	45.4%	47.1%

TRUCKS	2002	2003	2004	2005	2006
Compact Pickup	4.6%	4.4%	4.0%	3.9%	3.5%
Bus/Van	8.5%	8.2%	8.5%	8.1%	7.8%
Full Size Pickup	13.1%	14.0%	14.7%	14.6%	13.3%
Sport Utility Vehicle	24.3%	25.7%	26.1%	25.6%	25.2%
Medium/Heavy	1.4%	1.7%	2.2%	2.4%	3.1%
Total U.S. Truck Sales	51.9%	54.0%	55.5%	54.6%	52.9%
Total U.S. Vehicle Sales	100%	100%	100%	100%	100%

(Ford Motor Company.(2006).Form 10-K , p. 6.)

TABLE 4

Ford Vehicle Sales Mix (U.S. Sales), Years Ended December 31

CARS	2002	2003	2004	2005	2006
Small	12.5%	11.4%	10.2%	10.9%	11.8%
Medium	11.9%	10.4%	8.7%	7.7%	12.1%
Large	4.4%	4.8%	5.0%	8.3%	7.7%
Premium	8.3%	7.5%	7.1%	6.3%	6.4%
Total U.S. Car Sales	37.1%	34.1%	31.0%	33.2%	38.0%

TRUCKS	2002	2003	2004	2005	2006
Compact Pickup	6.3%	6.0%	4.7%	3.8%	3.2%
Bus/Van	9.1%	8.4%	8.8%	8.4%	8.0%
Full Size Pickup	22.5%	24.3%	28.2%	28.8%	27.7%
Sport Utility Vehicle	24.8%	27.0%	26.9%	25.3%	22.5%
Medium/ Heavy	0.2%	0.2%	0.4%	0.5%	0.6%
Total U.S. Truck Sales	62.9%	65.9%	69.0%	66.8%	62.0%
Total U.S. Vehicle Sales	100%	100%	100%	100%	100%

Ford Motor Company.(2006).Form 10-K , p. 6.)

TABLE 5

Market Shares, Years Ended December 31

U.S. Combined Car & Truck	2002	2003	2004	2005	2006
Ford	21.1%	20.5%	19.3%	18.2%	17.1%
General Motors	28.3%	28.0%	27.1%	25.8%	24.1%
DaimlerChrysler	14.1%	13.8%	14.0%	14.5%	14.0%
Toyota	10.2%	11.0%	11.9%	13.0%	14.9%
Honda	7.3%	8.0%	8.1%	8.4%	8.8%
Nissan	4.3%	4.7%	5.7%	6.2%	6.0%
All Other	14.7%	14.0%	13.9%	13.9%	15.1%
Total U.S. Deliveries	100%	100%	100%	100%	100%
Market Shares, Years Ended December 31,					
U.S. Car Market Shares	2002	2003	2004	2005	2006
Ford	7.8%	6.9%	6.1%	6.1%	6.4%
General Motors	12.1%	11.6%	10.7%	10.2%	10.0%
DaimlerChrysler	4.8%	4.5%	4.8%	5.1%	5.2%
Toyota	5.6%	6.0%	6.3%	7.4%	8.6%
Honda	4.9%	4.9%	4.9%	4.8%	4.9%
Nissan	2.9%	3.0%	3.0%	3.3%	3.2%
All Other	10.0%	9.1%	8.7%	8.5%	8.8%
Total U.S. Car Deliveries	48.1%	46.0%	44.5%	45.4%	47.1%

Market Shares, Years Ended December 31,

U.S. Truck Market Shares	2002	2003	2004	2005	2006
Ford	13.3%	13.6%	13.2%	12.1%	10.7%
General Motors	16.2%	16.4%	16.4%	15.6%	14.1%
DaimlerChrysler	9.3%	9.3%	9.2%	9.4%	8.8%
Toyota	4.6%	5.0%	5.6%	5.6%	6.3%
Honda	2.4%	3.1%	3.2%	3.6%	3.9%
Nissan	1.4%	1.7%	2.7%	2.9%	2.8%
All Other	4.7%	4.9%	5.2%	5.4%	6.3%
Total U.S. Truck Deliveries	51.9%	54.0%	55.5%	54.6%	52.9%

(Ford Motor Company.(2006).Form 10-K , p. 7.)

TABLE 6
Ford Motor Company Employee Data

	2002	2003	2004	2005	2006
Total Employees(Thousands)	324	328	325	300	283
Labor Costs Per Hour					
Earnings	\$29.34	\$30.27	\$30.93	\$31.64	\$32.38
Benefits	\$23.31	\$31.15	\$32.00	\$33.26	\$38.13
Total Per Hour Labor Cost	\$52.65	\$61.42	\$62.93	\$64.90	\$70.51

(Ford Motor Company.(2003, 2004, 2006).Form 10-K , p. 18.)

TABLE 7
2006 Labor Cost Comparison

Labor Costs Per Hour	2006
Ford ¹	\$70.51
GM ²	\$73.26
Daimler Chrysler ³	\$75.86
U.S. Manufacturing ⁴	\$30.77

1 (Ford Motor Company. (2006).Form 10-K, p.18.)

2 (General Motors Company. (2006). Form 10-K, p.19)

3 (DaimlerChrysler Corporation, (2007), p. 38.)

4 (Bureau of Labor statistics, (2006), p. 250.)

TABLE 8
2005 Labor Cost Estimates

Foreign Manufacturers (U.S. Plants)	2006
Toyota	\$47.60
Honda	\$42.95
Nissan	\$41.97

(DaimlerChrysler Corporation, (2007), p. 37.)

TABLE 9

Ford Fleet Sales, Years Ended December 31

(units in thousands)	2002	2003	2004	2005	2006
Daily Rental Units	459	444	429	450	453
Commercial and Other Units	252	227	248	263	287
Government Units	123	124	133	141	162
Total Fleet Units	834	795	810	854	902
Percent of Ford's Total U.S. Sales	23.0%	23.0%	24.0%	27.0%	31.0%

(Ford Motor Company.(2006).Form 10-K , p. 7)

TABLE 10

Automotive Core and Affiliate Brands

Brand	Ford	Lincoln	Mercury	Mazda	Aston Martin	Jaguar	Volvo	Land Rover
Markets	105	32	26	141	29	68	100	100
Dealers	10134	1422	1971	5594	125	880	2400	1400
Sales (Th)	5572	133	204	1225	4	90	444	185
N. America	55%	99%	97%	27%	35%	36%	31%	26%
Europe	27%	0%	0%	23%	60%	53%	57%	60%
Asia Pacific	7%	0%	0%	45%	0%	7%	7%	7%
S. America	6%	0%	0%	2%	0%	0%	0%	2%
Rest of World	5%	1%	3%	3%	5%	4%	5%	5%

(Ford Motor Company. (2005). Annual Report, p. 105)

TABLE 11

Ford Market Share – Combined Car and Truck Sales

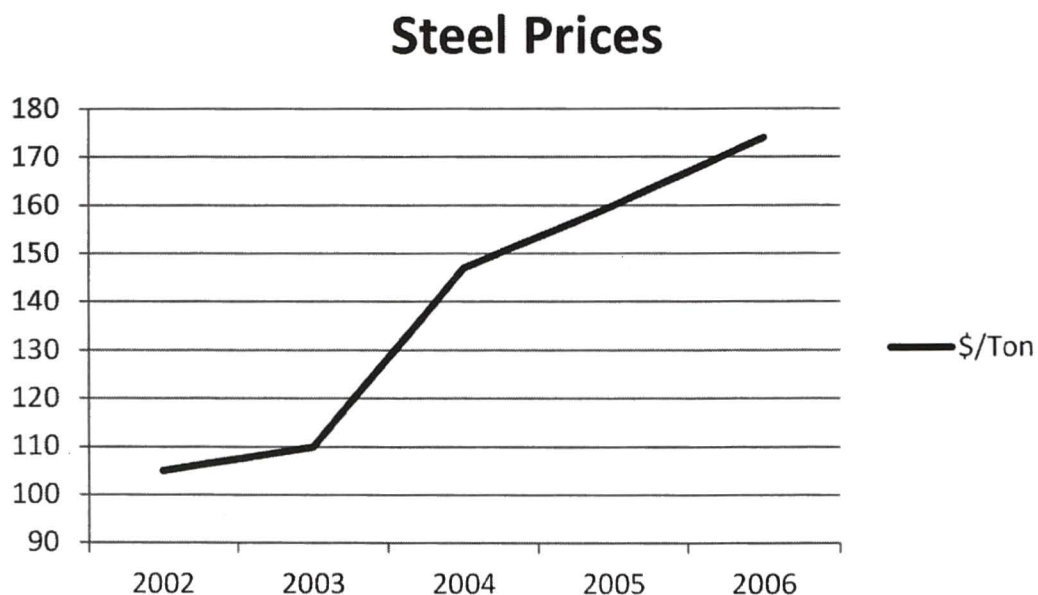
Outside of the U.S. – Key Markets **2006**

Europe	10.6%
Turkey	17.1%
Canada	16.6%
Mexico	15.5%
Brazil	11.5%
Argentina	14.6%
Venezuela	18.4%
Australia	11.9%
South Africa	10.8%
Taiwan	14.8%
Thailand	2.9%

(Ford Motor Company.(2006).Form 10-K , pp. 8-9.)

EXHIBIT 1

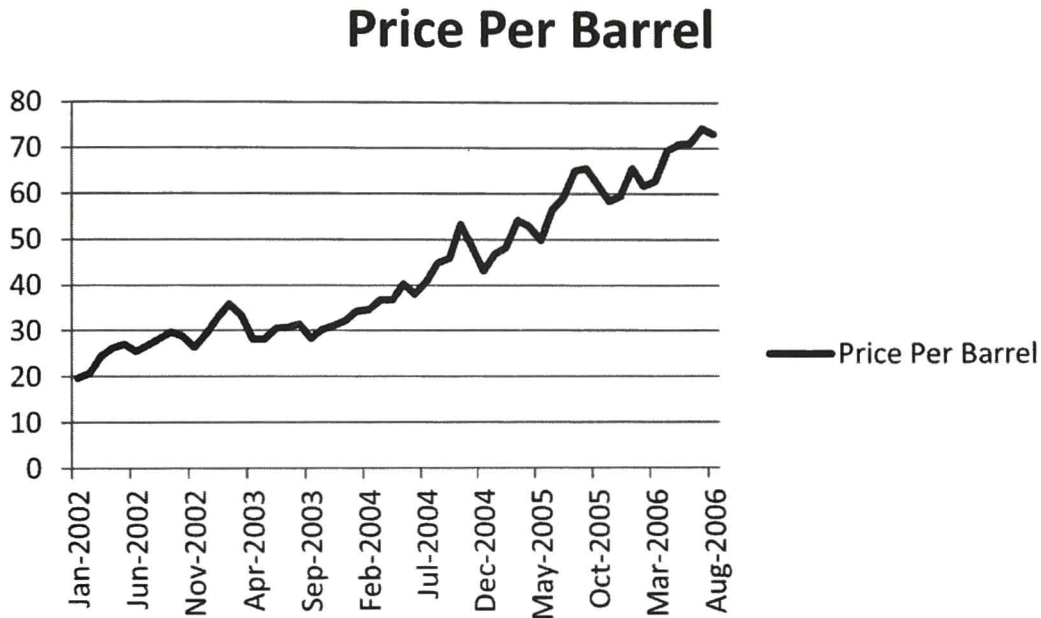
Steel Prices (Dollars Per Ton)



(U.S. Geological Survey, (2005).)

EXHIBIT 2

Monthly Price Per Barrel, West Texas Intermediate Crude



(U.S. Energy Information Administration (Oct 2008).)

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