

Volkswagen AG 2009¹

Introduction

It was already 6.00am on May 7th, 2009 and Mr. Klaus Farra was already at his office working as an analyst at the Finance division of Volkswagen. On the previous day, Volkswagen and Porsche announced a preliminary agreement to merge and Mr. Farra's was part of a team in charge of establishing a fair valuation of Volkswagen.²

Mr. Farra's boss had asked him to prepare a multiples-based valuation while the rest of the team finishes preparing the full discounted cash-flow valuation. His results would be presented to the board of directors in advance such that they could have a quick idea of how much Volkswagen is worth. Klaus stares at his computer and begins to think about the necessary steps needed to complete his task.

Company Background

Volkswagen is the third largest car manufacturer in the world, with more than 6.4mi units sold in 2008, corresponding to about 10% of the global market. Relative to Volkswagen, Porsche is a much smaller firm, having sold only about 100,000 units in 2008, a figure that would not even place it among the top 40 manufacturers in the world (see Exhibit 1).

Rumors of a merger between the two companies had been going on since 2005. Unlike most deals, in this case the acquirer (Porsche) is much smaller than the target (Volkswagen). In September 2005, Porsche announced the acquisition of a 20% stake in Volkswagen and disclosed its intention of taking over the firm. This stake was slowly increased and on October 2008 Porsche surprised markets by announcing it held 74.1% of Volkswagen through direct ownership of shares and stock options.

The onset of the financial crisis in 2008 brought Porsche's strategy to a halt. The firm's acquisition strategy relied on borrowing money from capital markets to leverage the size of the stake it could buy in Volkswagen. Porsche benefited from the low interest rates and the large liquidity available in credit markets until October 2008. However, problems in renewing credit lines meant that Porsche could no longer borrow money to raise its stake. The possibility under study was to merge the two companies and use part of Volkswagen's cash balances to reduce Porsche's debt burden.

Volkswagen's share price has done pretty well since early 2006 (Exhibit 2). After trading at the €30-€60 range between 1999 and 2005, the operational improvements and rumors about a takeover by Porsche had steadily pushed up its share prices, which was around €228 in May 2009. The stock return in 2007 is 94% and 84% in 2008 notwithstanding the financial crisis (Exhibit 3). Measured by the price-earnings ratio (P/E ratio), the company had a larger P/E ratio

¹ Professors Carles Vergara-Alert and Pedro A. C. Saffi prepared this case from public sources as the basis for class discussion rather than to illustrate effective or ineffective handling of the situation by any of the parties involved. We thank the research assistance provided by Ms. Filipa Figueiredo. IESE Business School - August 2009

² <http://www.nytimes.com/2009/05/07/business/global/07porsche.html?scp=7&sq=Volkswagen%20and%20Porsche&st=cse>

(22.07) than the industry average (4.47) and this ratio has been quite volatile over the past decade (Exhibit 4).

Valuation

Klaus first task is to pick the proper set of comparable companies. It is crucial to avoid comparing “apples with oranges”, i.e., avoid choosing firms that have nothing to do with Volkswagen. He logs on his Bloomberg terminal and looks up financial information for Volkswagen itself and the following publicly traded firms: Toyota, General Motors, Ford, DaimlerChrysler, Honda, Peugeot, Fiat, Renault, BMW and Porsche.

The next step is to decide what variables should be used as comparables. He needs to be careful to ensure that no figures are affected by the different leverage ratios observed in the industry or by extraordinary charges. Porsche’s pre-tax EBITDA announced last November was still on his mind. The €9.9bi stellar performance on revenues of just €7.4bi was due to the huge financial profits Porsche made on trading options on Volkswagen shares. The company had in fact made €1bi from its operations and €8.9bi from the derivatives’ strategies.

As it is easier to err on the side of too many variables, Klaus decides to grab a long list of financial variables from the last two years and decide later which ones to use (Exhibit 6). He also produced a snapshot with the latest stock price and equity analysts’ EPS and EBITDA estimates of Volkswagen and its peers (Exhibit 6).

Having obtained all data he needed, Klaus has to decide what ratios to compute and use his results to obtain a valuation range for Volkswagen. The board would certainly ask him the reasons for picking a particular multiple and problems with each one of them.

Appendices

Exhibit 1: Car Manufacturers 2008 – Global Sales

The graph below shows the world ranking of manufacturers in 2008 according to its global sales.
Source: International Organization of Motor Vehicle Manufacturers (OICA)

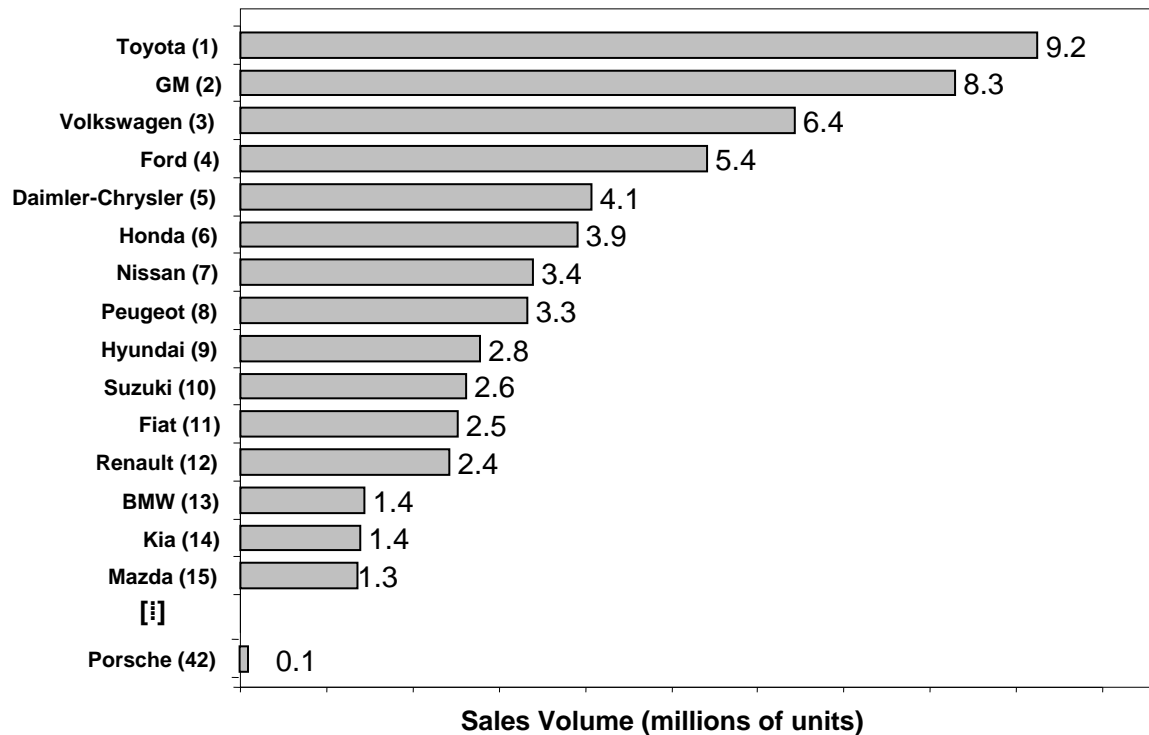


Exhibit 2: Volkswagen's Stock Price, 1999 – 2009

The graph below tracks Volkswagen's stock price performance during the last decade.

Source: Datastream

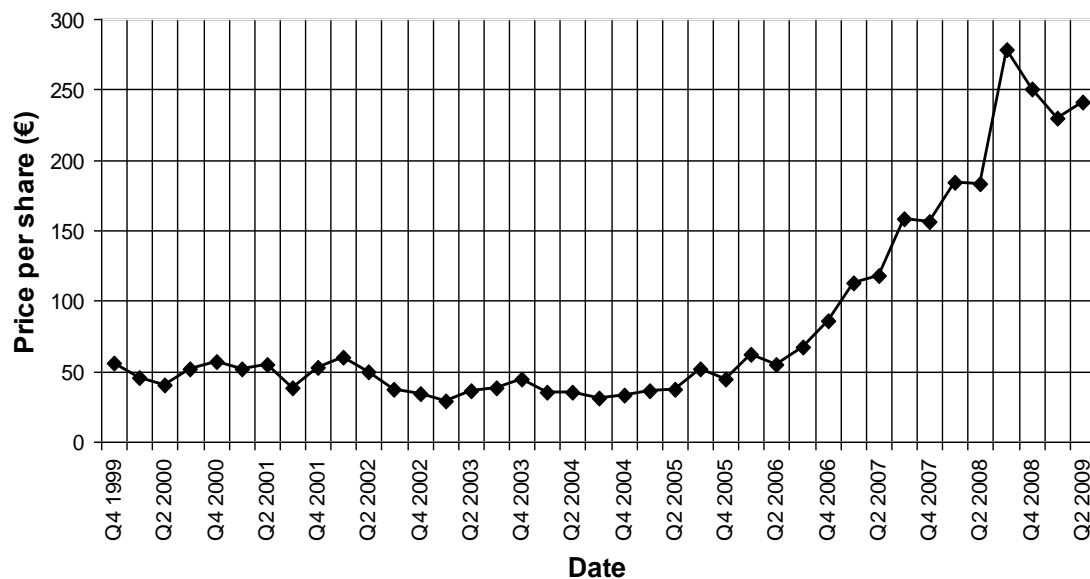


Exhibit 3: Volkswagen's Stock Returns, 1999 – 2009

The graph below shows Volkswagen's annual stock returns during the last decade, in terms of percentage of stock returns. The figure for 2009 is computed until May 7th, 2009.

Source: Datastream

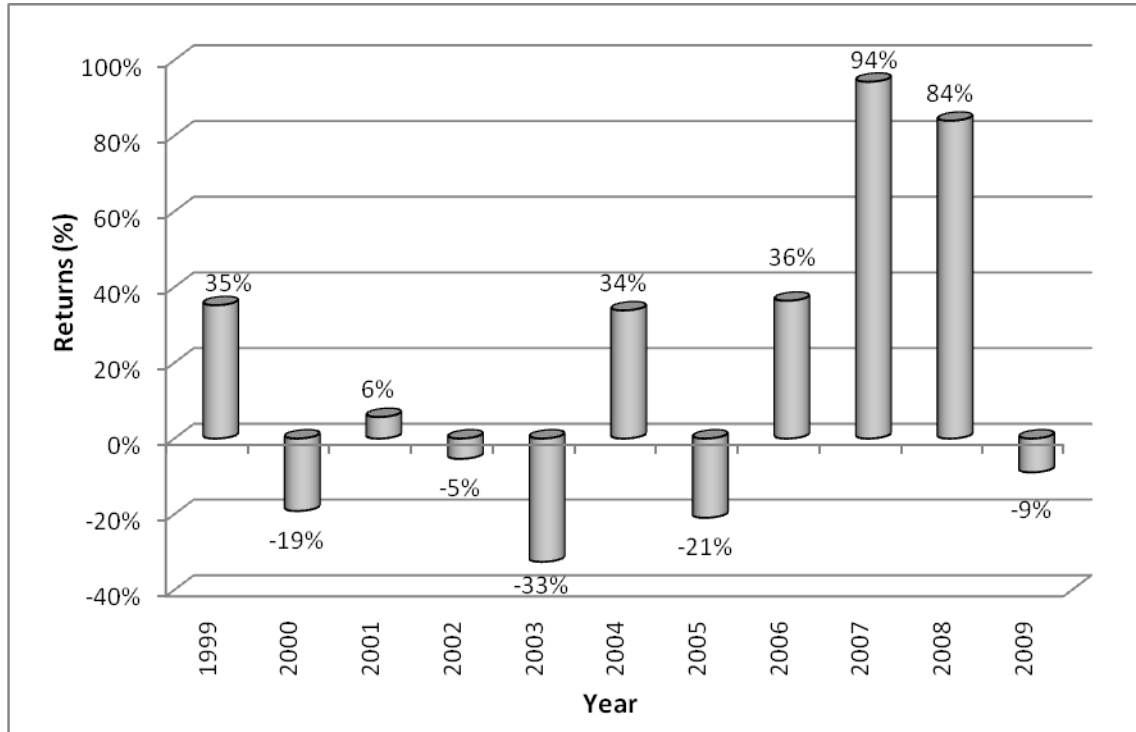
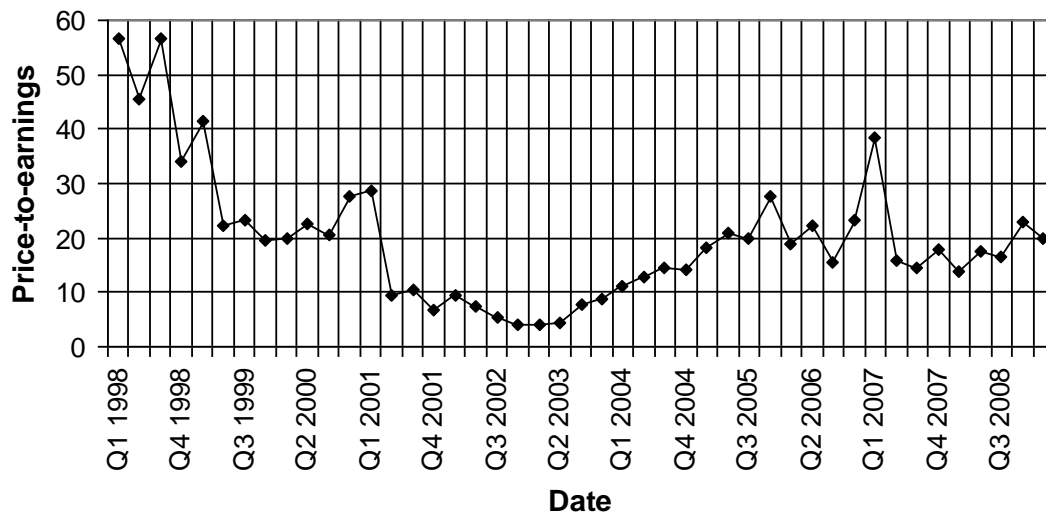


Exhibit 4: Volkswagen's Price-to-earnings, 1999 – 2009

The graph below displays quarterly price-earnings ratio (P/E) over the last decade.

Source: Datastream



Exhibits 5: Financial Data – December 2008

This table shows a list of financial variables of Volkswagen and its competitors in 2008 based on financial statements released by each company.

Source: Datastream

Variable	Volkswagen	Toyota	General Motors	Ford	Daimler	Honda	Peugeot	Fiat	Renault	BMW	Porsche
Enterprise Value (€ billions)	133.76	151.84	24.60	86.28	73.96	54.00	26.01	22.42	30.24	63.12	17.56
BV(Debt) (€ billions)	69.38	96.90	33.48	111.28	58.64	34.88	27.93	21.38	29.14	59.53	18.17
BV(Equity) (€ billions)	35.01	94.19	-61.98	-12.45	31.22	36.06	13.14	10.35	18.96	20.27	15.07
MV(Equity) (€ billions)	77.62	73.24	1.33	3.74	25.28	27.47	2.77	5.69	4.76	14.35	9.76
Cash (€ billions)	9.47	12.92	10.11	15.86	6.91	8.34	2.10	3.46	2.05	7.45	6.99
Net Debt (€ billions)	56.14	78.60	23.27	82.54	48.68	26.54	23.25	16.73	25.48	48.77	7.79
Net Sales (€ billions)	113.81	208.63	107.17	105.23	95.87	95.25	54.36	59.38	37.79	53.20	7.47
EBITDA (€ billions)	15.71	31.54	-7.80	5.78	10.05	11.36	2.85	6.41	4.08	8.15	9.93
Net Income (€ billions)	4.75	13.63	-22.20	-10.56	1.64	4.76	-0.34	1.61	0.57	0.32	6.29
Share Price (€)	194.19	23.05	2.30	1.65	26.40	15.13	12.15	4.59	18.55	21.97	55.79
Earnings per share (EPS) (€)	11.94	4.29	-38.34	-4.65	1.71	2.62	-1.51	1.30	2.23	0.50	35.95
Dividends per share (€)	1.93	1.11	0.36	0.00	0.60	0.68	0.00	0.00	0.00	0.30	2.70
Price/Earnings	16.3x	5.4x	-0.1x	-0.4x	15.4x	5.8x	-8.1x	3.5x	8.3x	44.3x	1.6x
Enterprise Value/EBITDA	8.5x	4.8x	-3.2x	14.9x	7.4x	4.8x	9.1x	3.5x	7.4x	7.7x	1.8x
EBITDA/employees	43.97	99.77	-32.11	27.15	36.79	63.45	13.71	32.31	31.13	81.51	813.46
ROIC (%)	5.56%	7.08%	N/A	-5.33%	1.91%	6.91%	-0.08%	8.23%	1.75%	0.65%	28.21%
Market Beta	0.65	0.87	0.82	0.99	1.59	NA	1.20	1.56	2.32	1.07	1.71
Number of Employees	357,207	316,121	243,000	213,000	273,216	178,960	207,800	198,348	130,985	100,041	12,202
Shares Outstanding (thousands)	398,091	3,177,445	579,000	2,272,000	957,700	1,815,356	227,614	1,239,880	256,552	653,291	175,000

Exhibits 6: Financial Snapshot – May 7th, 2009

This table shows a list of financial variables of Volkswagen and its competitors in May 7th, 2009 based on financial statements and financial analysts' forecasts. Source: Thomson Banker

Variables	Volkswagen	Toyota	General Motors	Ford Motor	Daimler	Honda	Peugeot	Fiat	Renault	BMW	Porsche
Share Price (€)	227.80	30.45	1.19	4.52	27.57	23.36	17.88	7.47	26.72	27.91	46.99
EPS - Actual - Dec 2008	11.94	4.29	-38.34	-4.65	1.71	2.62	-1.51	1.30	2.23	0.50	35.95
EPS - Analyst Forecast - Dec 2009	3.99	0.79	-19.99	-1.49	-1.34	0.87	-5.94	-0.31	-9.93	0.07	7.48
EPS - Analyst Forecast - Dec 2010	5.54	1.37	-6.15	-0.24	1.37	1.29	-1.54	0.28	-1.23	1.62	5.28
EPS - Analyst Forecast - Dec 2011	7.85	NA	-1.19	0.40	2.67	NA	2.57	0.65	2.87	3.24	8.16
EBITDA - Actual - Dec 2008	15.71	31.54	-7.80	5.78	10.05	11.36	2.85	6.41	4.08	8.15	9.93
EBITDA - Analyst Forecast - Dec 2009	9.57	5.26	N/A	N/A	2.81	3.46	1.98	3.72	1.72	5.55	-0.24
EBITDA - Analyst Forecast - Dec 2010	10.33	10.15	N/A	N/A	7.04	5.00	3.09	4.36	2.79	6.65	1.63