

St. Galler
Business School



Volkswagen and Porsche

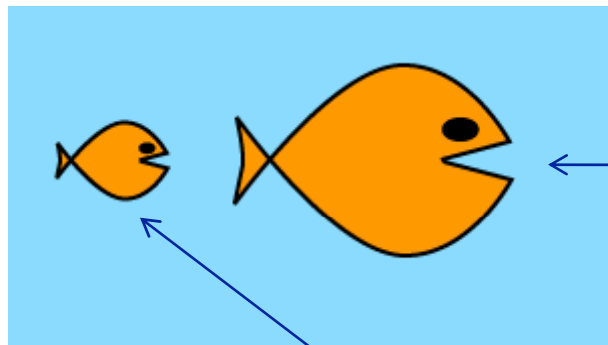
**- Corporate Finance Case study:
Mergers & Acquisitions of listed companies -**

by

Joachim Häcker

What is the macro view of this case study?

Small fish tries to eat big fish (financial figures are end of 2005 and rounded):



*VW: Market cap: €16 bn
Book value: €24 bn
Cash and cash equivalent: €8 bn
(+€4 bn marketable securities)*

*Porsche: Market cap: €11 bn
Book value: €3.4 bn
Cash and cash equivalent: €3.6 bn*

What is the macro view of the case study?

What is the agenda of this presentation?

1. Basic understanding:

How did the small fish try to eat the big fish - *the takeover process!*

2. Question 1:

What does Porsche need to clarify in order to successfully attack the big fish?

3. Question 2:

How can Porsche make sure that nobody realizes that the small fish is about to eat the big fish?

4. Question 3:

How can Porsche finance the attack?

1. Basic understanding of the takeover process: The situation of VW in 2005

P/B ratio of VW, Daimler-Chrysler and BMW, values rounded off (status: 2005 end)

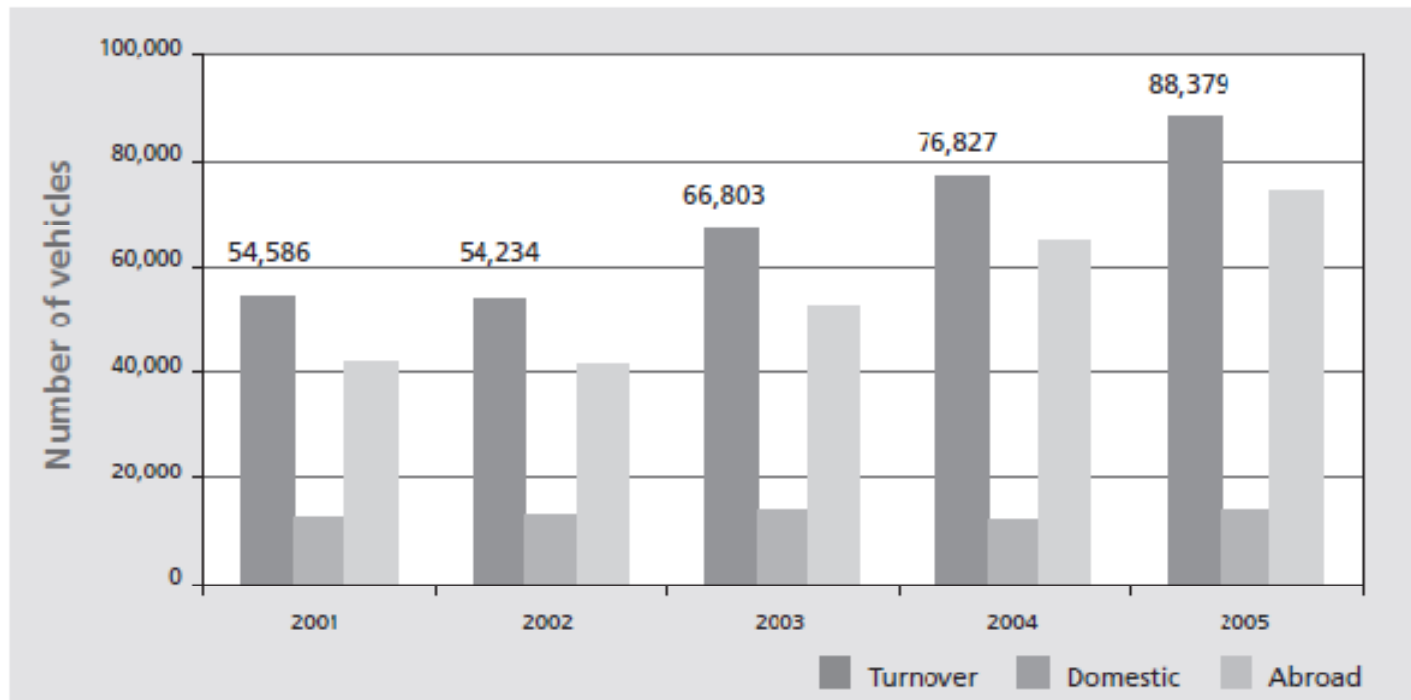
Manufacturer	Market capitalization €bn	Equity capital €bn	P/B ratio %
Volkswagen	15.9	23.6	0.7
Daimler-Chrysler	43.9	36.5	1.2
BMW	25.0	17.0	1.5



VW: Lowest P/B ratio

1. Basic understanding of the takeover process: The situation of VW in 2005

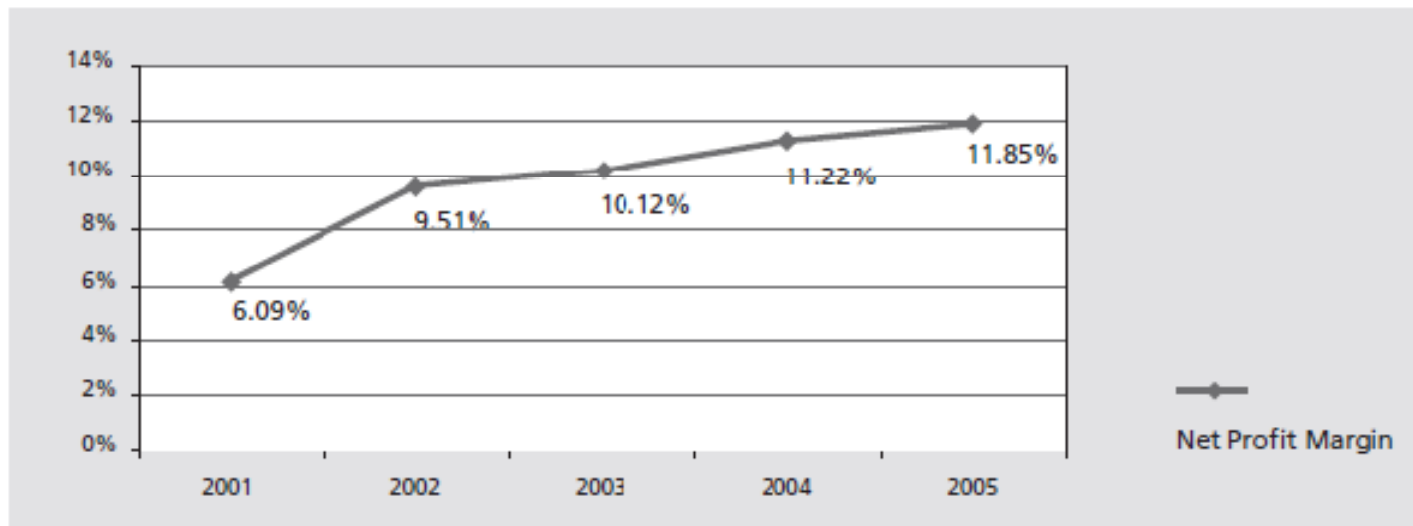
Porsche: Growth of turnover from 2000/2001 – 2004/2005



➔ *CAGR of 10,2%*

1. Basic understanding of the takeover process: The situation of VW in 2005

Porsche: Growth of net profit margin from 2000/2001 – 2004/2005



Net profit margin almost doubled from 2001 to 2005

1. Basic understanding of the takeover process: The situation of VW in 2005

Return on Equity Ratio, Porsche and the competitors (Status as of: 2004 or 2004/2005)

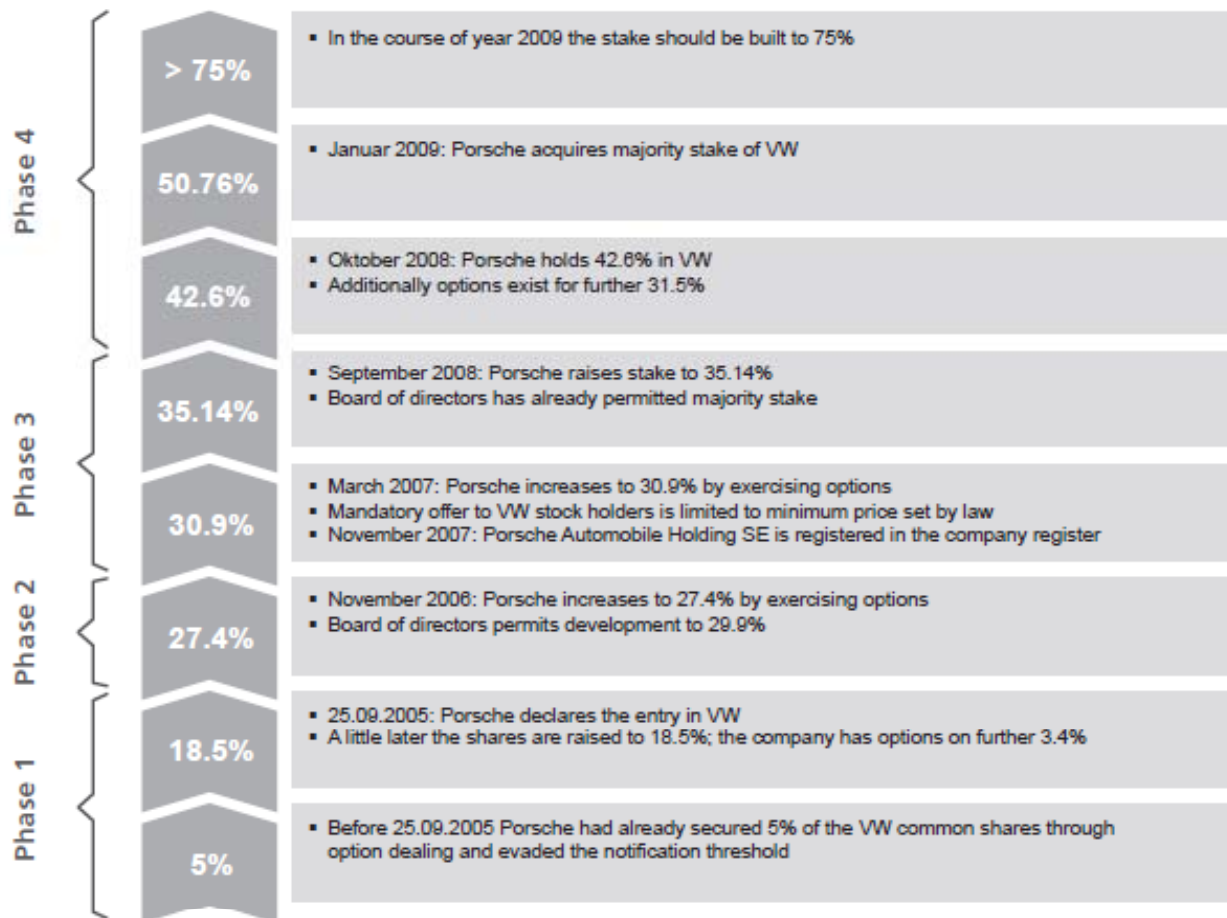
Manufacturer	Porsche	VW	Daimler	BMW
ROE	22.78%	2.99%	7.35%	12.68%



Incredible high profitability of Porsche

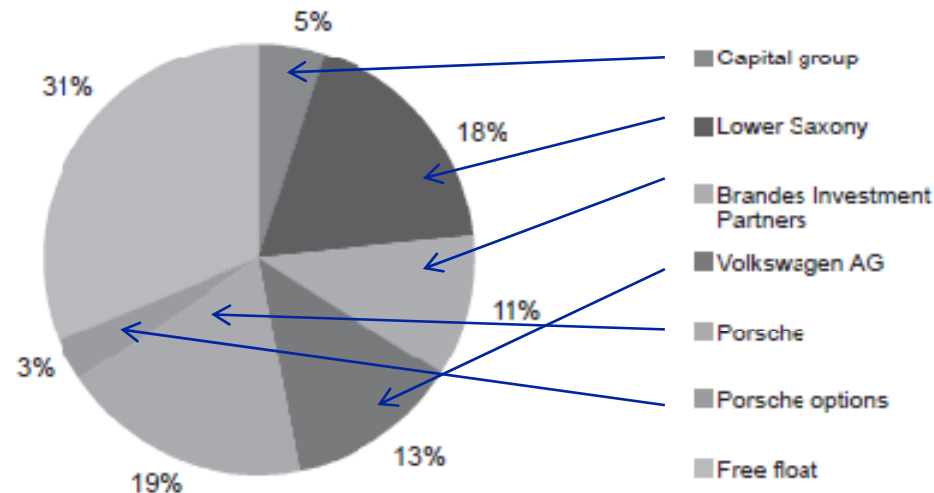
1. Basic understanding of the takeover process

Porsche tries to acquire VW in 4 phases:



Phase 1: Porsche entered in VW?

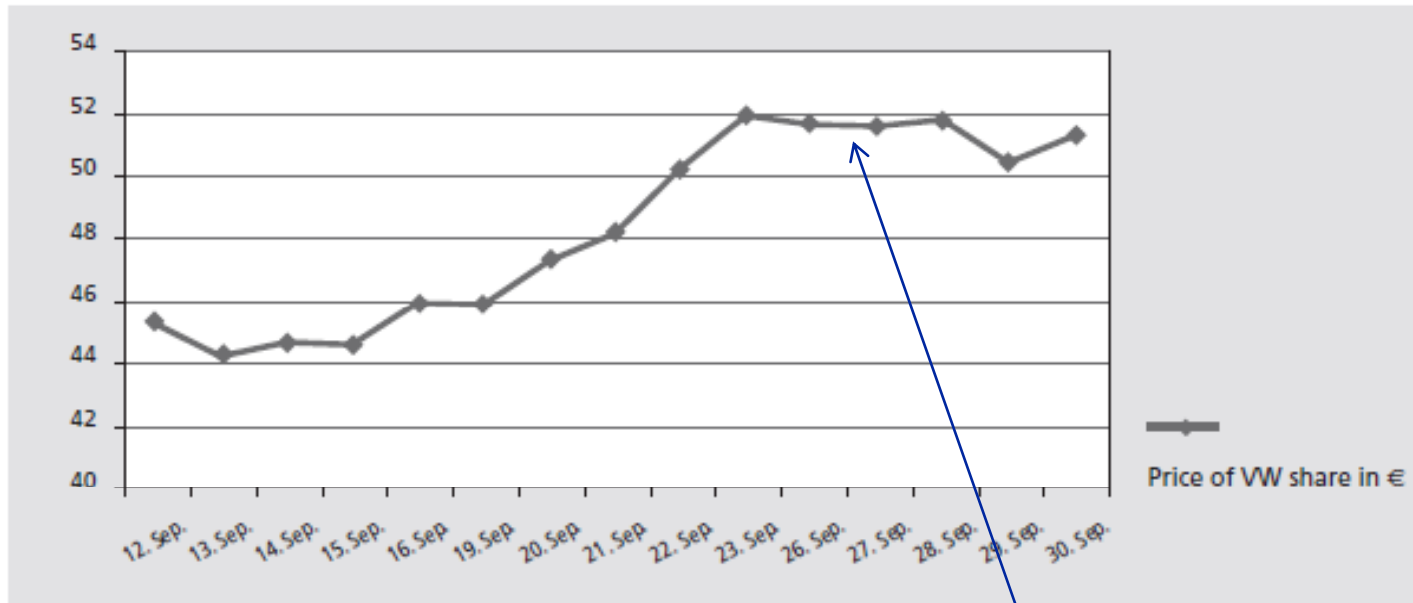
Before September 25th, 2005, Porsche held a 5% minority share in VW. Shortly thereafter, their holdings increased to ca. 19%. Additionally, Porsche had options of another 3%. VW shareholding structure after the entry of Porsche (status as of: autumn 2005):



➔ *Porsche was the biggest principal shareholder, followed by the Federal State of Lower Saxony. Through options, Porsche was able to increase its interest to more than 20%, thus obtaining a blocking minority status*

Phase 1: What was the Investor Reaction to Porsche's entry into VW?

VW ordinary share, price movement from 12th Sep. 2005 – 30th Sep. 2005



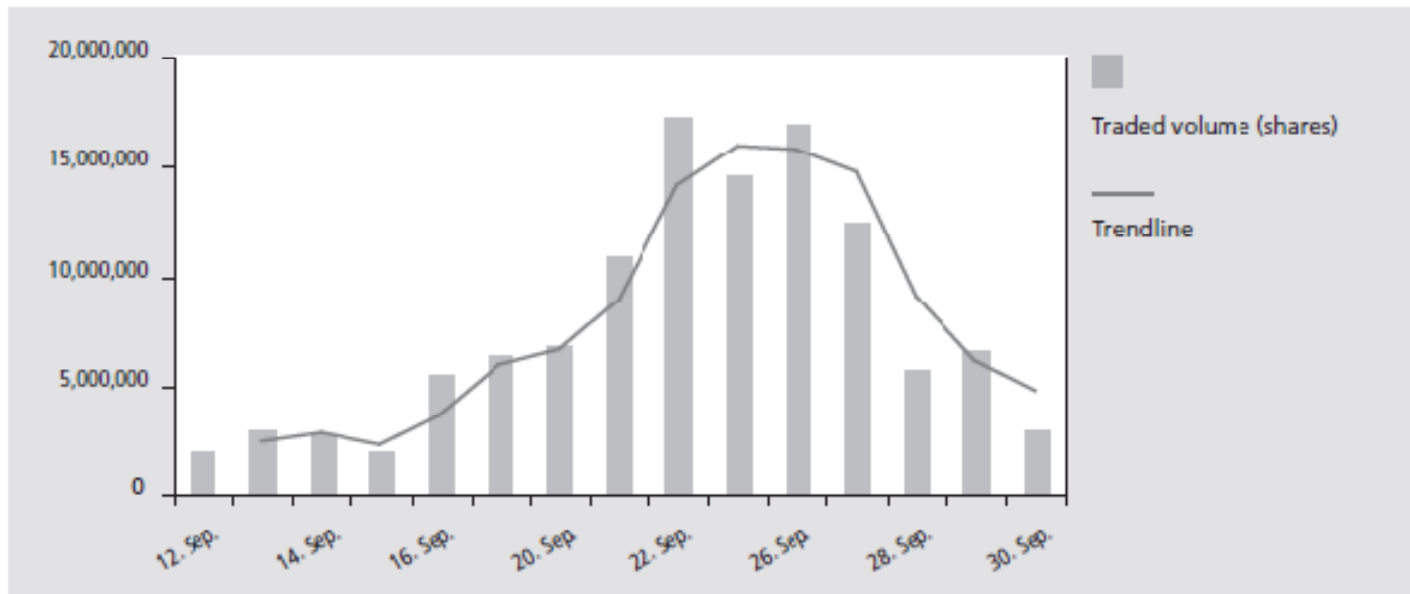
Porsche announced having a blocking minority



Basically no effect on VW share price

Phase 1: What was the Investor Reaction to Porsche's entry into VW?

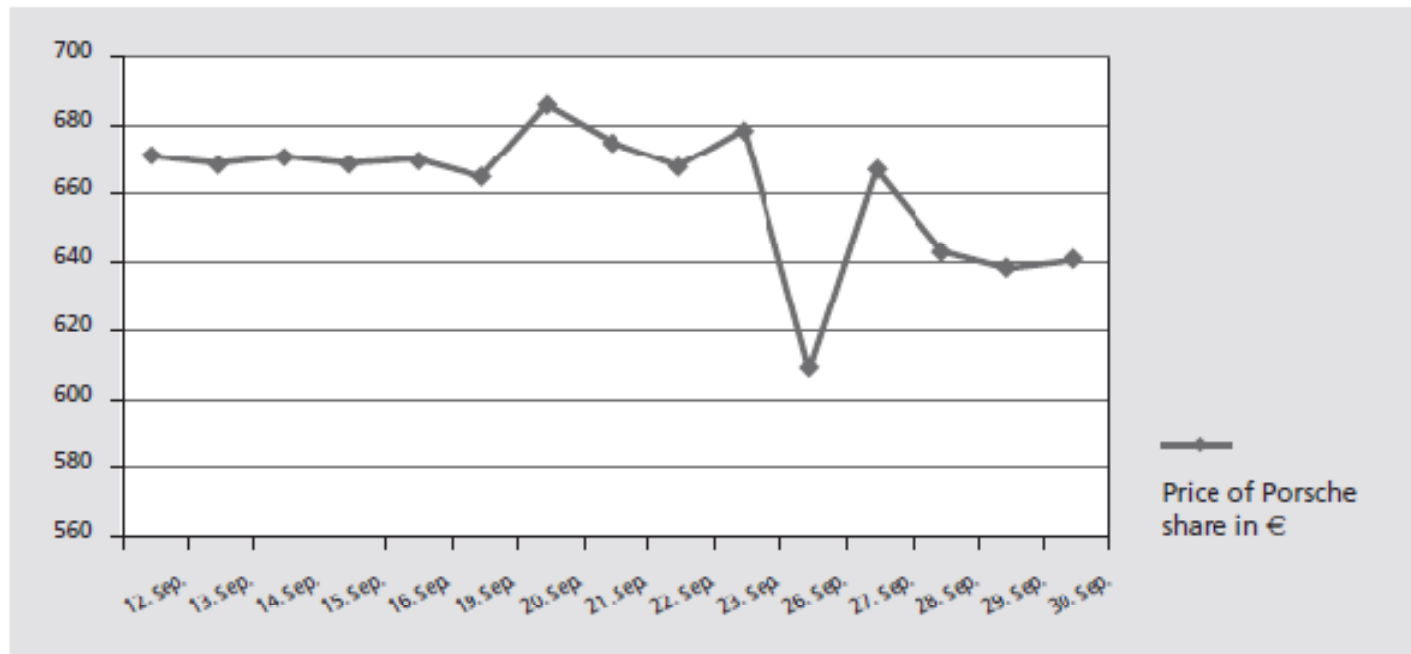
Trading volume of ordinary VW shares, 12th Sep. 2005 – 30th Sep. 2005



➔ *The trend line shows above average trading in VW securities from September 21st through 27th. During this period, Porsche seemed to have acquired VW ordinary shares, thus increasing demand.*

Phase 1: What was the Investor Reaction to Porsche's entry into VW?

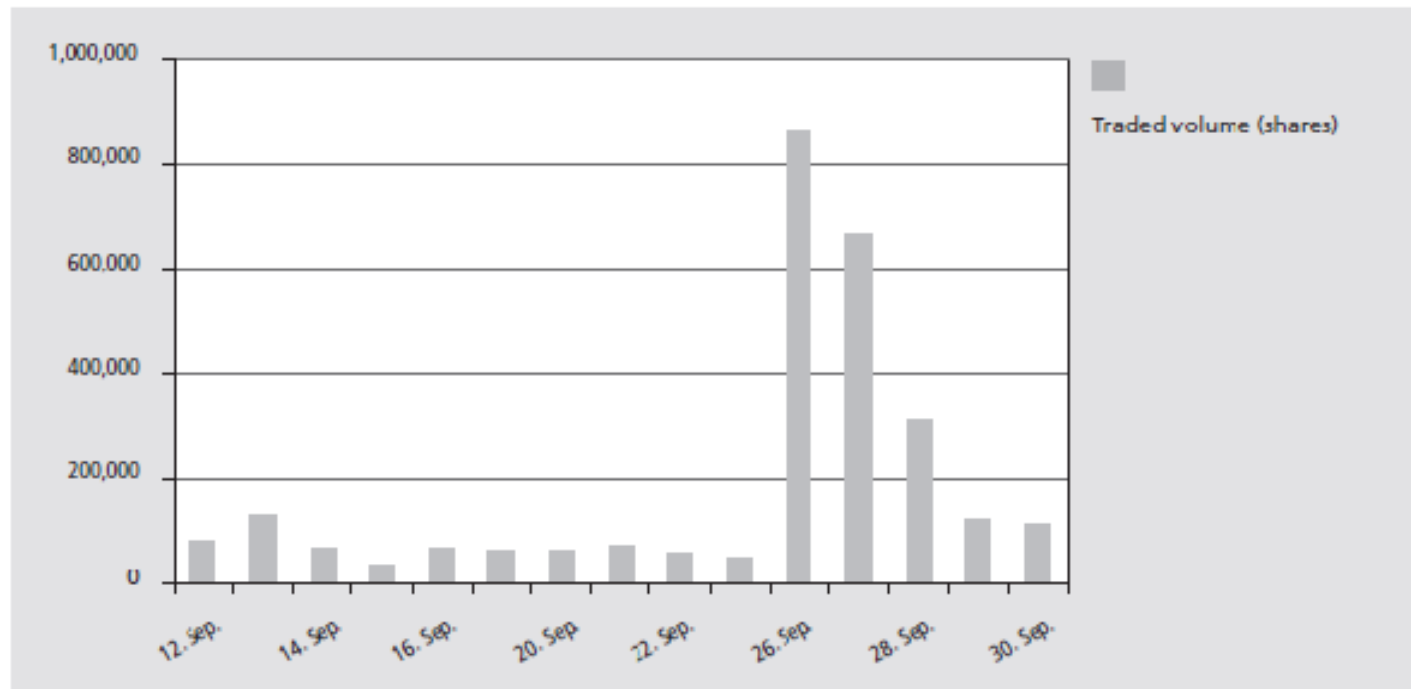
Price movement of Porsche from 12th Sep. 2005 – 30th Sep. 2005



➔ *Porsche shareholders were sceptical about the company's press release. In fact, after the ad hoc announcement, Porsche's share price dropped 10.4%.*

Phase 1: What was the Investor Reaction to Porsche's entry into VW?

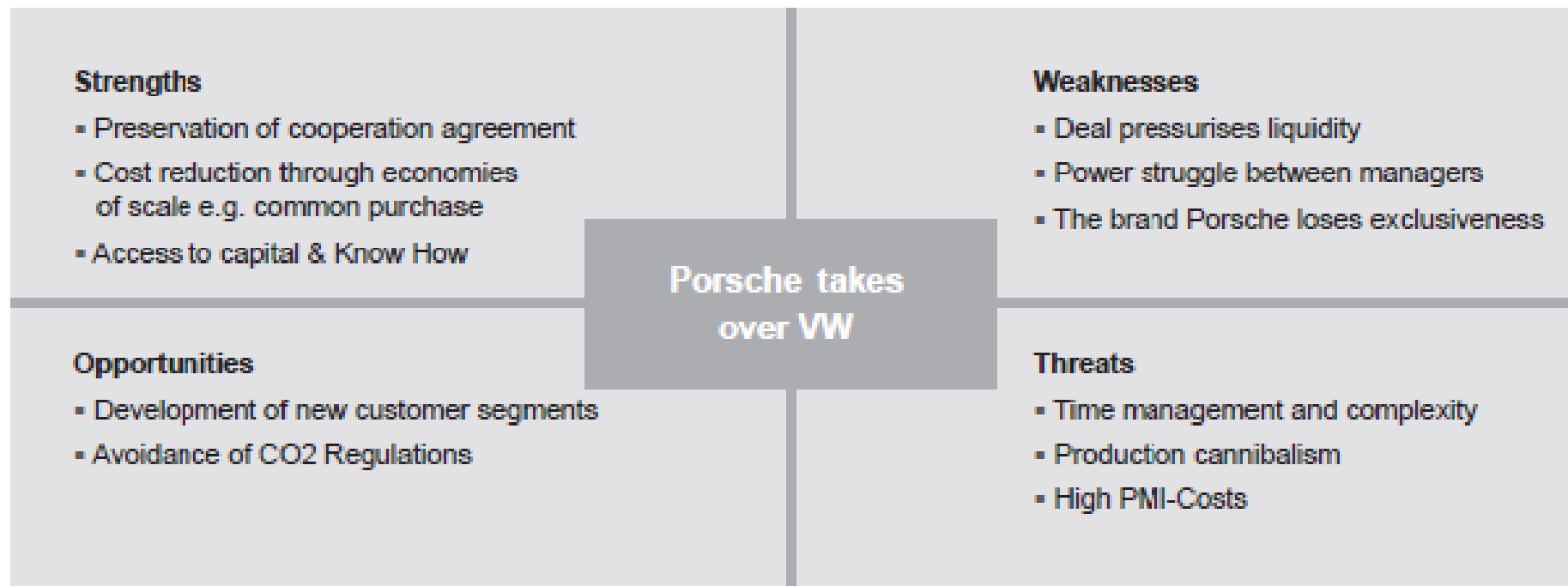
Traded volume of Porsche share from 12th Sep. 2005 – 30th Sep. 2005



➔ *The first trading day after Porsche's announcement of its minority interest in VW, trade volume rose. Accordingly, the falling price of the shares indicate that many investors sold their Porsche stock soon after the company's announcement.*

Phase 1: Porsche might acquire VW: What are the threats and caveats

SWOT analysis, Porsche takes over VW



Phase 2: Edging towards the 30% mark (November 2006)

Coinciding with the announcement of its 18.5% minority share (September 2005), Porsche announced that the scope of its engagement with VW would not, in any case, come to require issuance of a mandatory offer to the other shareholders:

Fifteen months, that very thing happened!

To accomplish this, Porsche did not buy VW shares directly: Instead, it (again) acted through options. This way, Porsche effectively “sneaked” its way to the 30% mark within one year.

The initial 8.5% share was increased to 21% plus, and in November 2006, the company exercised VW common stock options at around 4%, with holdings totaling more than 25%.

Two days later Porsche’s share increased to 27.4%.

Phase 3: Crossing the 30% hurdle

According to the German Stock Corporation Act, when Porsche crossed the 30%-threshold, Porsche was bound by contract to submit a bid to the other shareholders for the remaining ordinary and preference shares.

Porsche publically announced that it did not intend to acquire VW.

Porsche limited bidding to the legally prescribed minimum price of **100.92** euro per ordinary share, and 65.54 euro per preferred share.

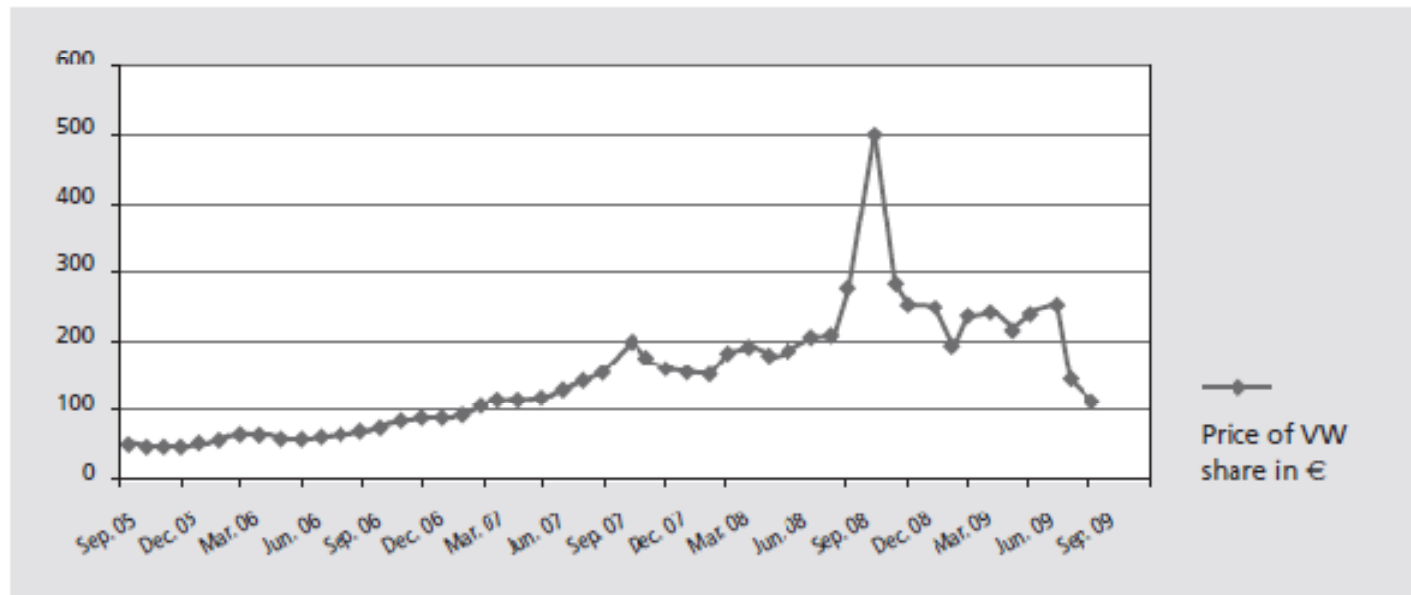
The acceptance period extended from April 30th to May 29th 2007. At the end of this period, an ordinary share listed at **111.39** euro and a preferred share at 74.54 euro.



The pronounced discrepancy between the going rate and the actual market value (offer below market value) resulted in a 0.06% acceptance rate.

Phase 4: Approaching the 75% hurdle

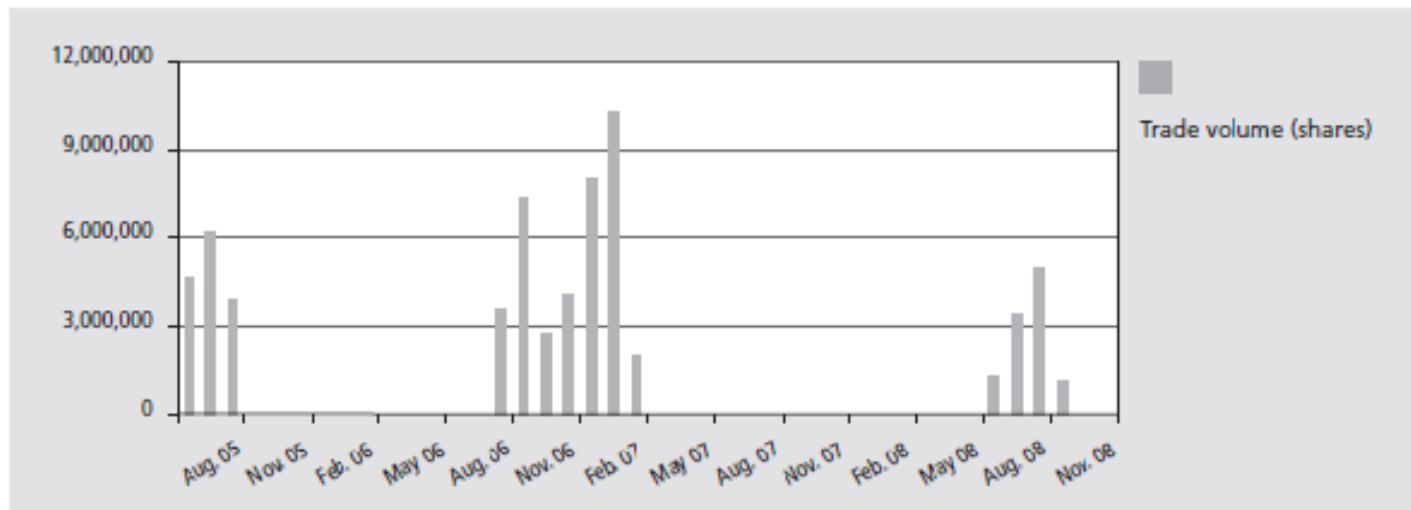
Development of VW common stock (monthly key rates)



On October 28th 2008 short sellers reacted with panic buys when Porsche's stated that it held 42.6% VW common stock plus 31.5% cash-settled call options in bonds; and as a result, drove prices up (taking into account Lower Saxony's major share, the free float diminished to 5.9%).

Phase 4: Approaching the 75% hurdle

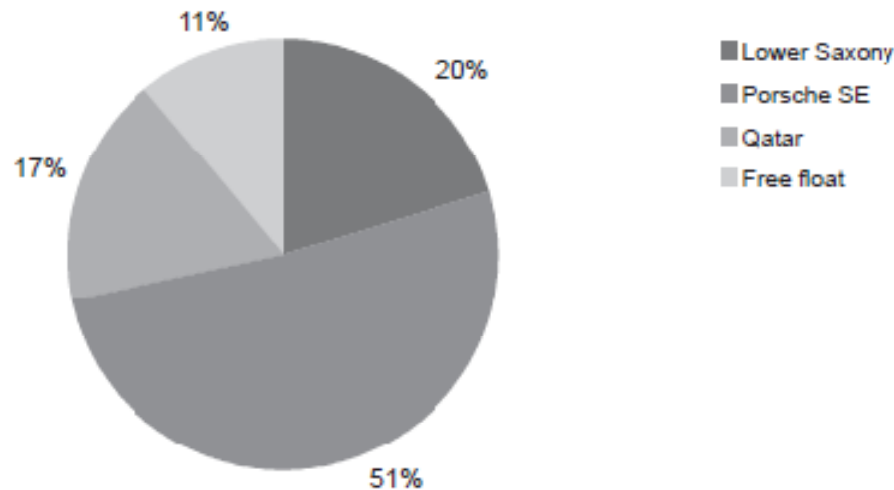
Trading volumes of VW common stock, monthly key rates



➔ *Shortly before Porsche's entry, the trading volume of VW common stock rose sharply. Likely, in addition to investors, banks that had concluded option contracts with Porsche purchased VW securities in order to reduce risk, further driving up demand.*

Phase 4: Approaching the 75% hurdle

VW share structure as in 2009 (provided that Qatar Holding LLC would exercise all options held)



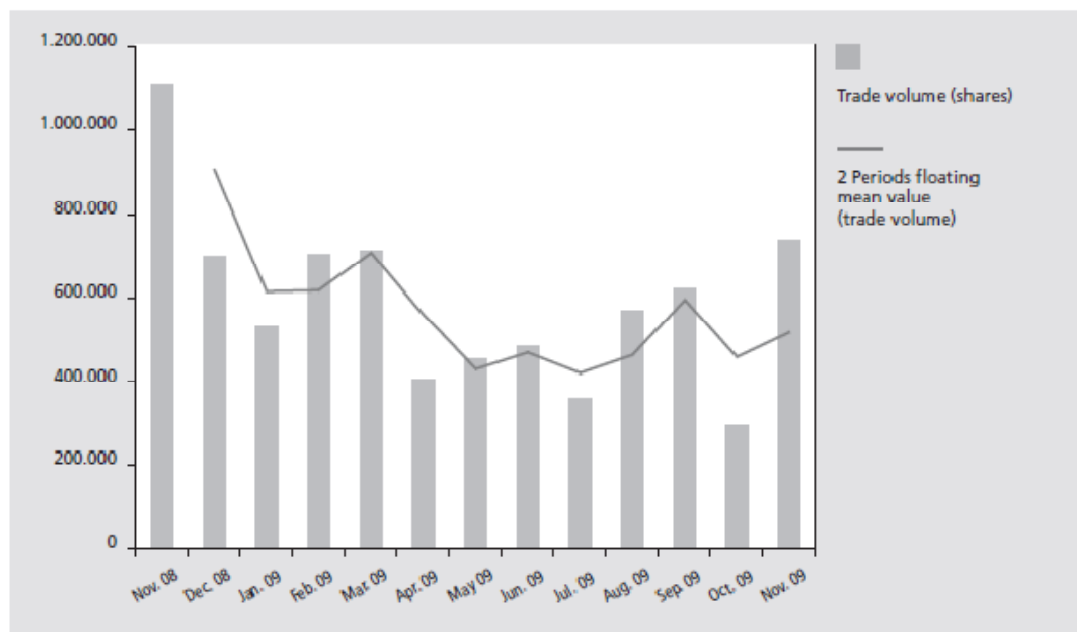
The VW stock - intrinsic lack of diversification because the majority of the stock is in the hands of three major shareholders.



Moreover, the stock is “market-dependent,” because the three major shareholders don’t actively trade in the market; and have instead made long-term investments.

Phase 4: Approaching the 75% hurdle

Trading volume of VW common stock, monthly key rates, Nov. 08 – Nov. 09



Decline in trade volume, ongoing since November 2008 of VW shares. The tradability of the stock has decreased. This puts the stock at risk of private shareholders, who favour short-term investments. The risk remains that the stock will not immediately re-sell. The decreasing demand will lower the price further.

Phase 1–4 Summary: How and why did the VW share price increase?

November 2006 Porsche raised its VW share to 27.4%. The price of VW common stock was at 82.25 euro, and had nearly doubled in a year. From October to November 2006, the trade volume increased by 206%.

January – March 2007 The trading volume showed another enormous increase (251%) from January to March. By March, VW stock was at 112.50 euro. After Porsche increased its share to above 30%, media reports that indicated an imminent acquisition of VW were published. Accordingly, over the next months, share prices were driven even higher.

October 2007 VW stock held at 197.90 euro, corresponding with a 387% increase in three years. In the following months, the rate slipped to 150 euro; possibly because of the ECJ's dismissal of VW law.

March 2008 Porsche published a press release, according to which the supervisory board agreed to a majority share in VW. Then, VW common stock increased again, this time exceeding the 200 euro mark in the months that followed.

Phase 1–4 Summary: How and why did the VW share price increase?

October 2008 The financial crisis reached the German market, VW stock was resistant, initially, and on October 28th 2008, worth more than 1,000 Euro. Short sellers reacted with panic buys when Porsche's stated that it held 42.6% VW common stock plus 31.5% cash-settled call options in bonds; and as a result, drove prices up. And taking into account Lower Saxony's major share, diversified holdings diminished to 5.9%.

November 2008 Porsche triggered 5% of its call options based on cash settlement. The VW rate normalized, but the stock was still overvalued.

January 2009 Porsche attained a 50.76% majority share, and the rate of VW's shares levelled off above 200 Euro. By May 2009, it was finally clear that Porsche could not stem the takeover.

August 2009 Qatar entered into VW, as its third major shareholder.

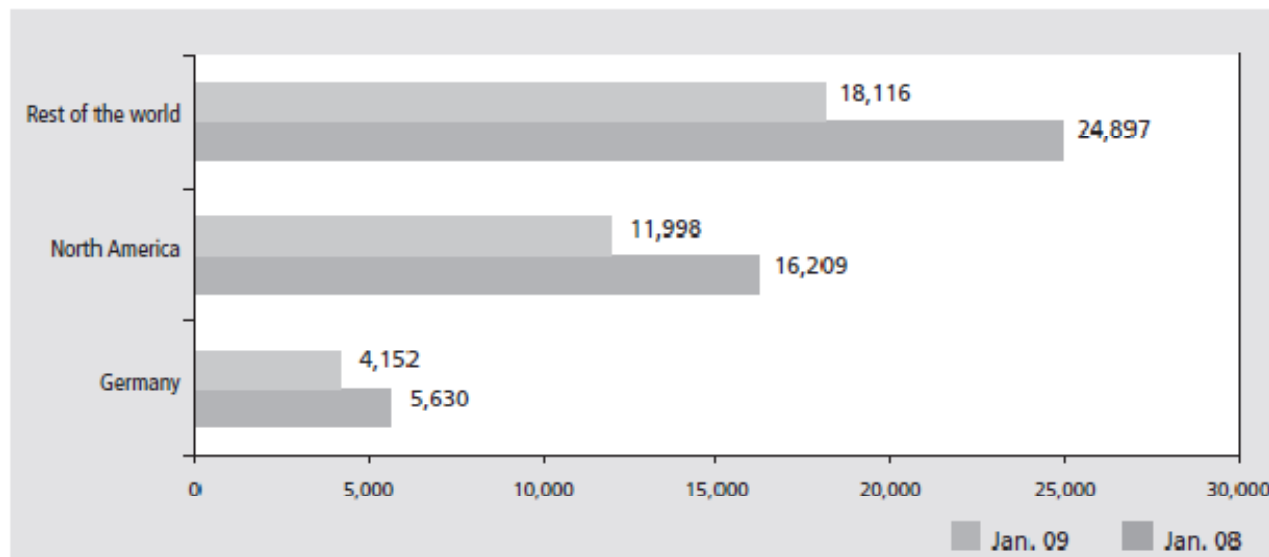
2. **Question 1:** What does Porsche need to clarify in order to successfully attack the big fish?

Answers to Question 1:

- 1: Constant improvement in terms of profitability and liquidity of business operations
- 2: The complete abolition of VW law
- 3: Financial assistance from the banks in the form of credits

2. Answer 1: Constant improvement in terms of profitability and liquidity of business operations?

Porsche's car sales decline
(comparing the first half of 2007/2008 with the first half of 2008/2009)



The economic crisis hit all global automotive companies. Also Porsche could sell less cars. In response to dwindling sales figures, Porsche had to curb its production.

2. Answer 1: Constant improvement in terms of profitability and liquidity of business operations?

Porsches proceeds from share stock option 1st half-year 2008/2009

Earnings from share options in mn. €	45,718
Expenses from share options in mn. €	38,878
Balance in mn. €	6,840



Porsche succeeded in quadrupling its profit, due to the 6.8 billion euro profit generated through VW option sharing

2. Answer 1: Constant improvement in terms of profitability and liquidity of business operations?

Despite the sales decline Porsche could increase its profitability. However:

- 1) **Profitability:** Profits from the cash-settled options depended upon an increasing VW share price.
- 2) **Liquidity:** Further, in addition to the sales slump, net liquidity decreased by nine billion euro, when Porsche rushed to purchase enough VW stock to increase its holding from 30% to 50%. As it turned out, Porsche was unable to fund the acquisition through its own means.



The operating profitability and liquidity was not constant but declining

2. Answer 2: Complete abolition of VW law?

Once the ECJ issued complaint regarding the alleged illegality of certain sections of VW law, Parliament, in November 2008, approved a new version thereof.

Accordingly, special delegation rights in the VW Supervisory Board once reserved for representatives from Central and Lower Saxony (§ 4 paragraph 1 VW law) were removed.

Further, each shareholder was immediately entitled to exercise his full voting rights, which were no longer restricted to 20%, as was stipulated by § 2 paragraph 1 of VW law.

However, certain decisions made during general meetings still required approval by an 80% majority.



*The controlling stake remained at 20%, and Lower Saxony retained its right to veto.
Porsche was prevented from signing a domination agreement and a profit transfer agreement.*

2. Answer 3: Financial assistance from the banks in the form of credits

1) Economic crisis changed lending: Under normal circumstances, the banks would have supplied Porsche with the necessary capital. But the new credit climate following the global economic crisis necessitated new lending standards, which Porsche certainly felt during its 10 billion euro (originally 30bn euro) refinance in spring, 2009.

2) Mr. Härter tried to “outsmart” the banks: Porsche’s behaviour during the reorganization of its credit terms factored in to the banks’ decision making. Porsche failed to utilize the credit extended to it in March 2008, to expand its stake in VW, as was originally proposed. Instead, Porsche invested the loan, for a high return; effectively generating capital that Porsche would apply to its interest payments.



The relationship “Porsche and banks” was cooling down

3. Question 2: How can Porsche make sure that nobody realizes that the small fish is about to eat the big fish

Answers to Question 2:

1: Edging towards the 30% mark

2: Submitting a low tender offer

3: Using options (does not need to be reported to the BaFin)

3. Answer 1: Edging towards the 30% mark

What are the thresholds and the rights of the shareholders?

100%	<ul style="list-style-type: none">▪ Delisting
95%	<ul style="list-style-type: none">▪ Possibility to integrate the stock corporation into a stock corporation▪ Possibility for Squeeze-Out
> 75%	<ul style="list-style-type: none">▪ Shareholding disclosure threshold▪ Special shareholder resolution threshold (required for the implementation of integration and merger proposals, entry into domination agreement, other major restructuring proposals, changes to articles including capital increase)▪ Abolition of director's seat
> 50%	<ul style="list-style-type: none">▪ Shareholding disclosure threshold▪ Reservation of shareholders in the board of directors▪ There is a possibility to block or allow regular decisions (e.g. profit split, no confidence vote against the management)
30%	<ul style="list-style-type: none">▪ Mandatory contribution of a company offer of the share to the shareholder
> 25%	<ul style="list-style-type: none">▪ Shareholding disclosure threshold▪ There is a possibility to block committee decisions
10%	<ul style="list-style-type: none">▪ Shareholding disclosure threshold
5%	<ul style="list-style-type: none">▪ Shareholding disclosure threshold▪ Right insists to convene the general assembly, to set points on the agenda of the assembly, to raise claims against the management as well as initiate special investigations

3. Answer 1: Edging towards the 30% mark

Coinciding with the announcement of its 18.5% minority share (September 2005), Porsche announced that the scope of its engagement with VW would not, in any case, come to require issuance of a mandatory offer to the other shareholders:

Fifteen months, that very thing happened!

To accomplish this, Porsche did not buy VW shares directly: Instead, it (again) acted through its options. This way, Porsche effectively “sneaked” its way to the 30% mark within one year.

The initial 8.5% share was increased to 21% plus, and in November 2006, the company exercised VW common stock options at around 4%, with holdings totaling more than 25%.

Two days later Porsche’s share increased to 27.4%.



Porsche tried to play the “good guy” as long as they were below the threshold of 30%

3. Answer 2: Submitting a very low tender offer

According to the German Stock Corporation Act, when Porsche crossed the 30%-threshold, Porsche was bound by contract to submit a bid to the other shareholders for the remaining ordinary and preference shares.

Porsche publically announced that it did not intend to acquire VW.

Porsche limited bidding to the legally prescribed minimum price of **100.92** euro per ordinary share, and 65.54 euro per preferred share.

The acceptance period extended from April 30th to May 29th 2007. At the end of this period, an ordinary share listed at **111.39** euro and a preferred share at 74.54 euro.



The pronounced discrepancy between the going rate and the actual market value (offer below market value) resulted in a 0.06% acceptance rate.

3. Answer 3: Using options

Until the beginning of 2007, it was not necessary to report call options with redemptive rights to the German Federal Financial Supervisory Authority (BaFin) even if the investor's holdings met or exceeded the registration threshold.



Porsche found a legal loophole!

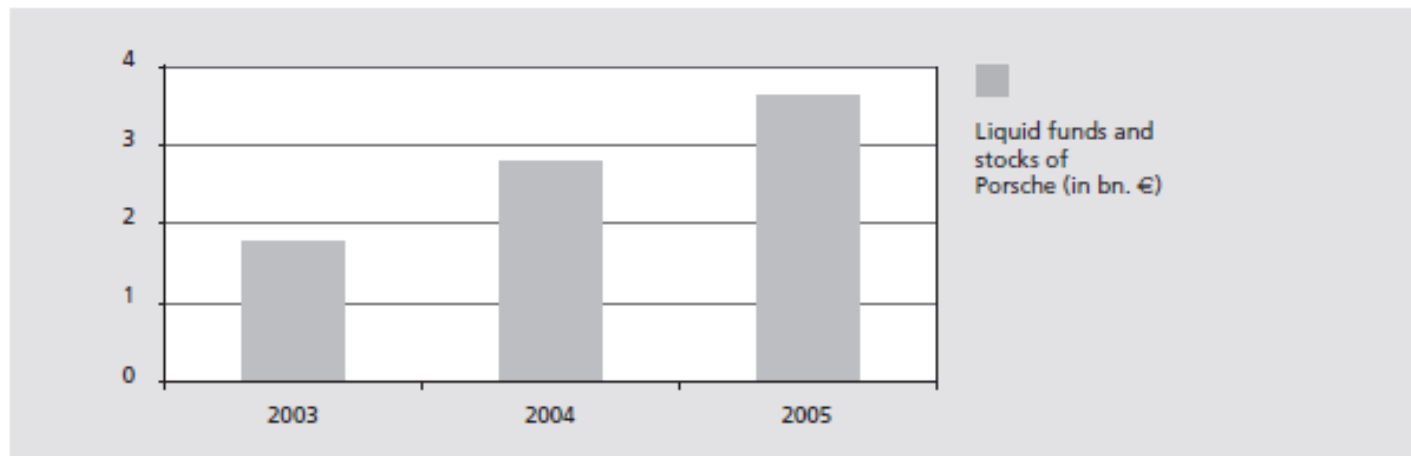
4. Question 3: How can Porsche finance the attack?

Answers to Question 3:

- 1 Liquidity from operating business
- 2 Instating Eurobonds and Hybrid Bonds
- 3 Borrowing from a syndicate of international banks
- 4 Profits from a smart options strategy

4. Answer 1: Liquidity from operating business

“Cash and cash equivalent” as well as “marketable securities” of Porsche 2003 – 2005 (in bn Euro)




➔ *In 2003, 2004 and 2005 Porsche's liquidity was excellent*

4. Answer 1: Liquidity from operating business

“Porsche’s liquidity based on the financial year 2004/2005

Liquidity 1st Grade	Quick Ratio	Current Ratio
0.98	3.65	3.97

 *The current ratio shows that one quarter of Porsche’s then-current assets was enough to cover its short-term obligations. Moreover, its 3.77 billion euro debt load was sufficiently covered by the positions “cash”, “marketable securities”, and “trade receivables”, which added up to 3.87 billion euro: Porsche was de facto completely debt-free.*

4. Answer 1: Liquidity from operating business

Ratio comparison, Porsche 2004/2005 and VW 2004

Ratio	Porsche 2004/2005	VW 2004
OIROI (1)	18.55%	1.82%
Net Profit Margin	11.85%	0.80%
Return on Equity	22.78%	2.99%
Equity Ratio	35.22%	18.87%

Profitability: Porsche's Net Profit Margin was above-average with an outstanding cost structure. Here again, Porsche outperformed the other manufacturers. While BMW booked a 5 cent per euro profit margin and Daimler-Chrysler, 1.74%, VW's performance lagged at 0.8%.



Liquidity: Acquiring 18.5% of VW shares, plus 3.4% of its call options cost Porsche approximately 3.3 billion euro - the shares were basically financed with operating liquidity.

4. Answer 2: Instating one Eurobond and two hybrid bonds

Porsche' debt financing was done via Eurobonds and hybrid bonds

Porsche's Eurobond was split into the following two tranches:

Tranche	Volume in € mn.	Period	Due date	Nominal interest
1	1,000	5 years	Jan. 2011	3.5% p.a.
2	900	10 years	Jan. 2016	3.875% p.a.



Porsche issued a Eurobond of €1.9 bn at the beginning of 2006

4. Answer 2: Instating one Eurobond and two hybrid bonds

Porsche's issued the following two hybrid bonds:


Hybrid bond	Volume in mn.	Nominal interest	Issued
1	1,000 \$	7.2%	January 2006
2	1,000 €	6.25%	December 2007

 *Porsche issued two hybrid bonds totaling €1 bn as well as \$ 1 bn.*

4. Answer 3: Borrowing from a syndicate of international banks

Increase in Porsche's liabilities to banks:

Year	2007	2008	Difference
Short-term obligations 000's €	2,195,604	12,116,257	9,920,653
Long-term obligations 000's €	42,790	59,214	16,424

 *In February 2008, Porsche completely exhausted its ten billion euro loan, taken out in early 2007. The syndicate included 15 banks (earlier: 30 banks) and was headed by the financial institution Barclays. The credit line, granted with very favorable terms, was originally earmarked to cover the payment from the original mandatory offer for the remaining VW shares.*

4. Answer 4: Profits from a smart options strategy

Porsche's earnings from options:

Financial year	Earnings from share options in 000's €
2005/2006	767,169
2006/2007	6,926,751
2007/2008	19,256,284



Porsche's earnings from options: ca. €19bn in 2007/2008

4. Answer 4: Profits from a smart options strategy

Porsche's profits from options:

Earnings from share options in 000's €	19,256,284
Expenses from share options in 000's €	12,422,487
Accounting balance in 000's €	6,833,797

 *Porsche's profit from options: ca. €7bn in 2007/2008*

4. Answer 4: Profits from a smart options strategy

Basic option terms of technique

Call Option	gives its owner the right, but not the obligation, to buy a stock at a defined time for a defined price
Put Option	gives its owner the right, but not the obligation, to sell a stock at a defined time for a defined price
Strike price	Defined price for which the stock can be bought or sold
Go long	Buy Call or Put
Go short	Sell Call or Put
Cash-settled	Payment of the difference between the Strike and the market rate
Delivery	Stock is handed over against money

4. Answer 4: Profits from a smart options strategy

Porsche held various options on VW shares (underlying) with a contractually determined strike price, divided into three types:

Type 1 - Long Call 1

Porsche bought call options, which were designed for the delivery of **shares**, with a strike price that was in line with the share's current market price.

Type 2 - Long Call 2

Porsche bought highly speculative call options, which were designed for **cash** compensation, with a strike price that significantly exceeded the share's current market price.

Type 3 - Short Put

Porsche sold put options on VW shares to the banks. For the banks, these were protective put options used to safeguard against the effects of any decrease in VW share price.

4. Answer 4: Profits from a smart options strategy

FICTIONAL EXAMPLE

1. Porsche buys a call option with a strike price of 70 euro, and a premium of 15 euro. The option can be executed immediately.
2. Porsche buys an additional call option with later exercise date and a strike price of 130 euro. The premium costs 10 euro, and the option is cash-settled.
3. The VW share price listed at 85 euro.
4. Scenario 1: On the exercise date of the second call, the VW share listed at 100 euro.
5. Scenario 2: On the exercise date of the second call, the VW share listed at 130 euro.
6. Scenario 3: On the exercise date of the second call, the VW share listed at 250 euro.

4. Answer 4: Profits from a smart options strategy

How does the Porsche position on Long Call 1 look like?

Position	Share Price	Long Call 1	Premium	Profit/Loss
3	85 €	15 €	-15 €	0 €

 *Porsche's profit per Long Call 1 = €0*

4. Answer 4: Profits from a smart options strategy

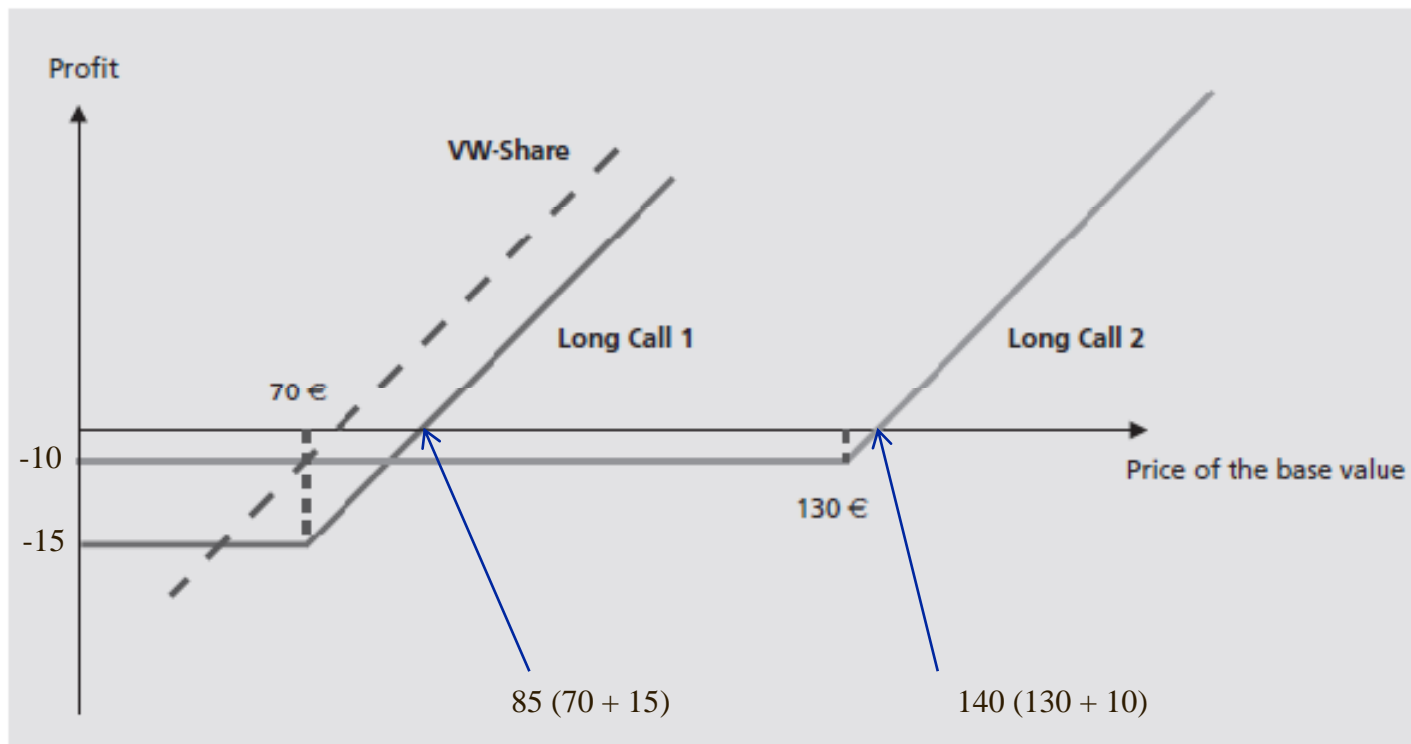
How does the Porsche position on Long Call 2 look like (Scenario 1-3)?

Position	Share Price	Long Call 2	Premium	Profit/Loss
4	100 €	0 €	-10 €	-10 €
5	130 €	0 €	-10 €	-10 €
6	250 €	120 €	-10 €	110 €

 *Porsche starts making profit when the VW shares exceed €140.
Especially, if the shares are listed at €1,000 level!*

4. Answer 4: Profits from a smart options strategy

Porsche's long call strategy (Long call 1 and 2) in a nutshell:



4. Answer 4: Profits from a smart options strategy

How does Porsche's cash-settled strategy (Long call 2 and short put) look like?

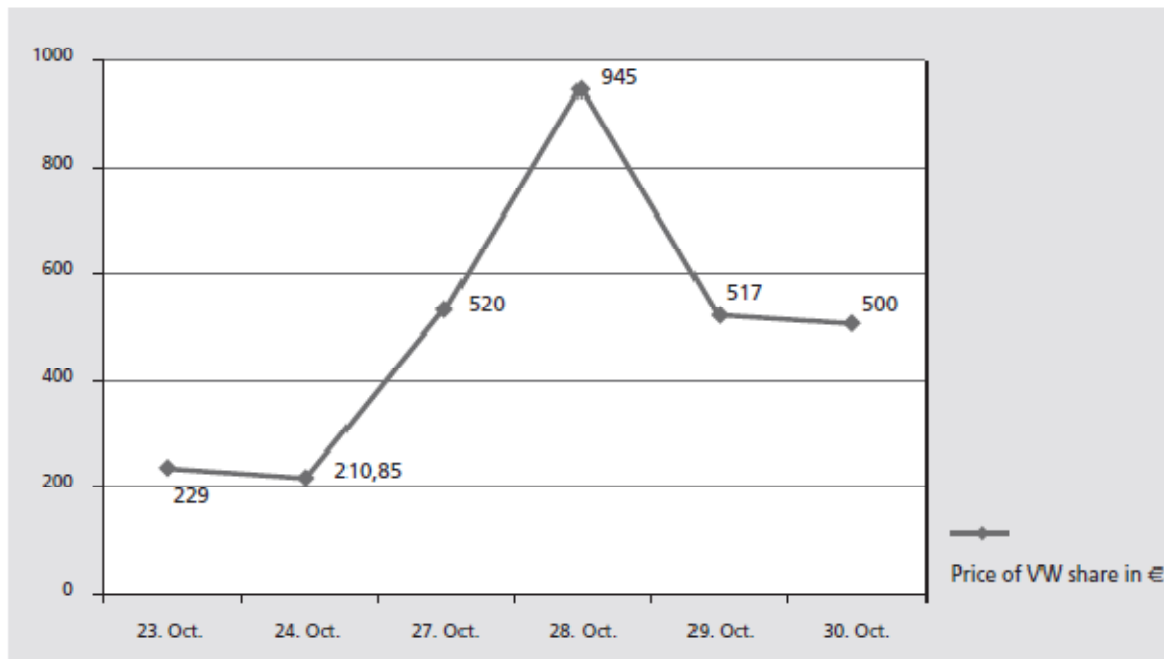
Porsche goes short on a put-contract with the banks. The strike price of the put option is €200 and the option is cash-settled. The received premium is 15 euro per Put. The Put and the 130-Call have the same exercise date.

Position	Share Price	Long Call 2 130	Short Put 200	Cum. Premium	Profit/ Loss
3	100 €	0 €	-100 €	5 €	-95 €
4	130 €	0 €	-70 €	5 €	-65 €
5	250 €	120 €	0 €	5 €	125 €

 *Porsche starts making profit when the VW shares exceed €162,5 (+32,5- 37,5 + 5). Especially, if the shares are listed at €1,000 level!*

4. Answer 4: Profits from a smart options strategy

VW common stock price (closing prices) when Porsche announced to have access to 74.1% .



For a moment, VW's market capitalization reached 295 billion euro.

VW was the world's most valuable company even outperforming Exxon Mobil.