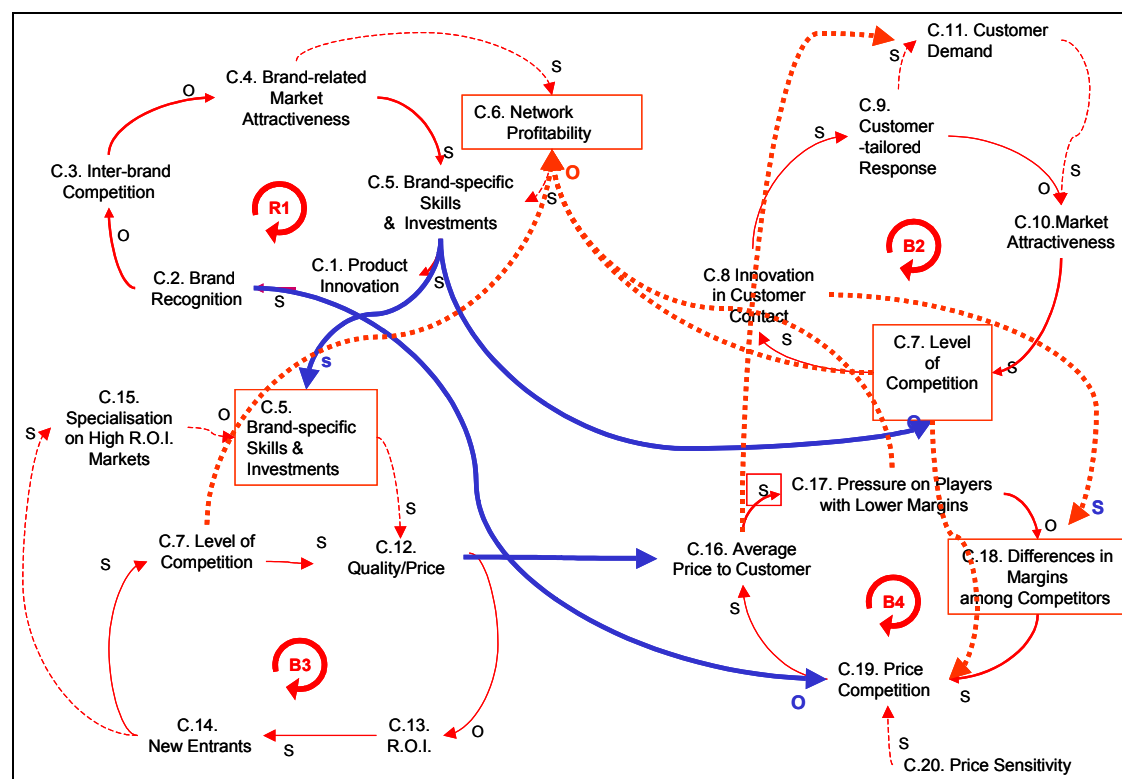


Appendices PART II – Modelling Exercises

The whole approach is built on a system-based analysis of the automobile industry. As it is not possible to quantify all the relationships of the reference model developed by Andersen, four families of quantitative indicators characterising major challenges to the industry have been identified:

1. **Profitability and size of official networks** (Modelling Exercise 1 – Appendix 10): Identification of current features and a sensitivity analysis of this important element of concentration - changes in players' product mix, loss of market share and declining prices.
2. **Margins and market share of players and channels** (Modelling Exercise 2 – Appendix 11: Estimate of their future market share in different market segments.
3. **Service coverage and specialisation** (Modelling Exercise 3 – Appendix 12)
4. **The structure of distribution costs** (Modelling Exercise 4 – Appendix 13): Identification of the existing conditions and analysis of the possible development of alternative business models allowing new entrants to offer customers lower prices

The diagram below illustrates the components of the four loops to which the indicators refer.



In Product Loop (R1): the **profitability** and size of the official networks is represented by component C6. The sensitivity analysis analyses the influence of changes in the various other components of the system on C6. The main components used in the sensitivity analysis are the:

- Attractiveness of brand-specific markets (C4), captive to the official networks;
- Level of intra-brand competition in the distribution sector (C7 in B2) and level of after-sales service competition (C7 in B3);
- Level of independent repairers' specialisation in markets with high margins (C15) and capture of market share by these players to the detriment of official networks;
- Average level of customer discount applied in new vehicle distribution (C16).

The model of the current situation of a 'typical dealer' together with the sensitivity analysis will be developed in Appendix 10 (Modelling Exercise 1).

In the Customer Loop (B2): The **margins and market shares** of the players and channels in distribution of new vehicles will be evaluated. These estimates are a good measure of the level of intra-brand competition in distribution (C7). They will be developed in Appendix 11 (Modelling Exercise 2).

In the Reliability Loop (B3): Service **coverage** and specialisation will be evaluated - particularly in terms of the level of competition in after-sales services (C7) and the type of specialisation of the players (C15) (Modelling Exercise 3 – Appendix 12). This indicator is a finite factor that allows the value for money component (C12) of the system to be evaluated.

In the Price Loop (B4): The current **structure of distribution costs** will be studied and various estimates will be made of the prospects of:

- Changes in the overall cost structure of the industry and hence in average consumer prices (C16) and the profit margins of the various participants;
- Changes in the cost structure by type of channel (C18) in the event of different distribution channels developing simultaneously and competing.

The evaluation of the current situation and the prospects for change are modelled in Appendix 13 (Modelling Exercise 4).

The following four appendices will argue in detail the main messages and conclusions set out in the body of the study in terms of these four families of indicators.

This modelling exercise is based partly on available verified data on the current situation and partly on assumptions on changes in the industry. The assumed changes in the industry are derived from observation of current trends, interviews and questionnaires presented to industry players in the course of the study together with estimates made by Andersen on the basis of systematic consideration.

The object of the sensitivity analyses is, rather than to supply precise quantitative estimates, to highlight the trends so as to give concrete expression to the three possible long-term market outcomes brought up in the body of the report (status quo, multi-channel and mass-selling).

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Appendix 10: Modelling Exercise 1 – Dealers Profitability

I. Introduction

Andersen have constructed a **Dealer Profitability Model** to quantify the impact of the legislative scenarios and variables discussed on the profitability of dealers. This Excel-based model calculates the change in turnover, operating profit and contribution to the overall margin when any element of the product mix changes volume, price or margin. It should also be noted that the model is built in such a way that a change may be made in the volume, price or margin relating to one element of the product mix without impacting on any other. This is important in separating their direct impact from crossover or knock-on effects (indirect impact on other elements).

The model is constructed using the following main components:

1. Average size of dealer:
 - Number of cars sold
 - Annual turnover
 - Operating profit
2. Product mix:
 - Turnover from the different elements of the product-mix (as % of total turnover);
 - Contribution margin of the different products.
3. Profitability:
 - Total dealer operating profit,
 - Share of product-mix elements in the total contribution margin.
4. Structure of fixed and variable costs:

The model is based on the standard cost structure of a typical dealer. The premises and overheads costs will be discussed specifically.

I.1. Parameters and Assumptions

The two most important building blocks of the model are its assumptions and parameters. The correctness of the output is largely dependent on the accuracy of both.

In this model **assumptions** have been made on the following elements:

- The growth in car sales over the next five years (period 2001-2005)²⁶⁰.
- The growth in the sales of spare parts over the next 5 years.
- The growth in repair work over the next 5 years. In the current legislative framework, the growth rate of new car sales has been used for both spare parts and repair work.
- The contribution margin from new car sales, used cars, spare parts and repair work (bodywork and mechanical services). The contribution margin is the gross margin minus direct costs (e.g. salary of salesman or mechanic).
- Variable administration costs (overheads). The overheads have been separated into variable and fixed costs. The variable costs are a percentage of turnover and thus fluctuate in proportion to it. Examples are telephone and postage costs, bank charges. The fixed costs are included in the parameters.

The following **parameters** have been used in the model:

- The price of a typical new car,
- The number of new cars sold by a typical dealer,
- The price of a typical used car,
- The number of used cars sold by a typical dealer,
- The price of spare parts,
- The volume of spare parts sold by a typical dealer,
- The price of repairs,
- Fixed administrative costs such as IT, that are constant and do not change with other factors such as the volume and price of different elements of the product mix (within limits),
- Premises and related costs.

I.2. Output of the Model

The total turnover and contribution margin of a typical dealer were calculated using a combination of the assumptions and parameters. The results have also been broken down by element (sales, repairs, spare parts), and thus both the absolute value and the contribution of each of these to the turnover and margin can be analysed.

Finally, the operating profit is calculated by deducting the overheads and premises costs from the operating contribution margin. The results are given in Euros and as percentages of total turnover so that comparisons in absolute and relative terms can easily be made between market outcomes.

²⁶⁰ Estimation of new car sales by Autopolis, www.autopolis.be

I.3. Sensitivity Analysis

The sensitivity analysis aims to study the impact on the profitability of official players of various assumed changes. These assumptions involve:

- **Current dealers' losses of market share in sales and after-sales.**
The impact of a change in the product mix (new car sales and used cars, spare parts and repair activity), on a typical dealer's operating profit are modelled.
- **Erosion of prices of and margins on the various products and services.**
Where applicable, the prices of products and services are modified in order to analyse how a price change affects the profitability of a dealer.
- **Changes in the product mix structure to a typical dealer.**
Volume and price changes to the elements of the product mix cause a change in the contribution of each element to the total turnover and contribution margin. This can be seen from the extract from the result tables.

The various growth assumptions will be determined from existing or future trends in the industry such as:

- The trend towards reorganisation and concentration of networks;
- The capture of market share by new entrants;
- The increase in competition in after-sales services affecting market share and margins;
- Changes in players' product mix;
- The liberalisation of spare parts distribution.

The various changes have been discussed in the study, expressed as three possible long-term market outcomes for the industry (status quo, multi-channel or mass-selling), and their effect on the official networks is put into concrete form here.

The effect of these assumptions is tested in both the short- and long-term including both adaptive mechanisms and indirect impacts.

I.4. Structure of Appendix 10

The document is structured as follows:

Section II, presentation of the **current situation (2001)**;

These data have also been presented in the body of the study Part II.3 (systems-based analysis).

Section III, **a detailed description of the assumptions** used in the sensitivity analysis.

Section IV, **sensitivity analysis of different short-term changes**;

Section V, **modelling of the long-term position of the three market outcomes** (mtatus quo, multi-channel and mass-selling).

Section IV, **conclusions**.

II. Current situation

II.1 Current Situation 2001

The main indicators of the profitability of dealers today (2001) as presented in the body of the study (Part II.3) are as follows:

Profitability of Official Networks		Current Situation
P R O D U C T L O O P	Average size	
	Average number of vehicle sales per dealer and per year	300
	Annual turnover	9 m. Euros
	Product mix (% of turnover)	
	New car sales	55%
	Spare parts	10 to 15%
	Repairs	7 to 10%
	Profitability	
	Global operating margin	1.05%
	Contribution margin on sales of new vehicles	2.9%
	Contribution margin on sales of parts	18%
	Contribution margin on repairs	13%
	General costs (% of turn over)	2%
	Property costs (% of turnover)	1.6%

- Table 10.1-

The following data have been used in the model:

Estimated Figures of a Typical Dealer in 2001		Changes in sales of new cars in EU				
		2001	2002	2003	2004	2005
Number of cars sold						
new cars	+/- 300					
used cars	+/-260					
Turnover (Euro)	9,294,762					
Contribution margin dealer (without overheads)						
new cars	2.9%					
used cars	0.5%					
spare parts	18.0%					
bodywork	13.0%					
Mechanical services	13.0%					
Overheads (% of turn over)	2.1%					
Premises + related costs (% of turnover)	1.6%					
Share of turnover						
new cars	58.1%					
used cars	22.9%					
spare parts	11.6%					
bodywork	4.1%					
mechanical services	3.3%					
Share of contribution margin						
new cars	32.0%					
used cars	7.4%					
spare parts	41.4%					
bodywork	10.6%					
Mechanical services	8.5%					
Estimated operating profit 2005						
Euro	97,830					
% of turnover	1.05%					

source: Andersen calculation, BOVAG, D'leteren questionnaire; European Car Distribution Handbook 2000, Appendix 2: current sales actors

- Table 10.2 -

Key findings

In 2001, the typical dealer is expected to sell about 300 new and 260 used cars.

Although more than half of turnover is generated by new car sales, this element of the product mix represents only 32% of the total contribution margin (see table 10.2 Share of Contribution Margin). This can be explained by the low margin (2.5%) on the new car sales, compared with the other elements of the product mix (bodywork, mechanical services and spare parts). Table 10.2 shows that **after-sales activities**, more specifically sales of spare parts, bodywork repairs and mechanical services are **crucial to the survival of dealers** since these three activities contribute about 60% of their total margin.

Finally, **the operating profit of a typical dealer is expected to amount to only 1.05% of turnover.**

II.2 Projection of Current Situation to 2005

The following paragraphs outline a model of the profitability of a dealer in different outcomes and with different assumptions. The outcomes include the status quo, multi-channel and mass-selling scenarios. In order to compare these different outcomes as they will be in the year 2005, with no external influences bar the natural evolution of the car industry, the current profitability structure of a dealer has been projected to 2005 (table 10.3).

Assumptions

- 1% increase in sales volume of new cars, repair activity and spare parts
- New situation: projection of current situation to 2005
- Point of reference: current situation

Model output

Estimated Figures for a Typical Dealer in 2005

Number of cars sold	New Situation	Point of reference	% Change
new cars	+/- 302	+/- 300	1.0%
used cars	+/-260	+/-260	
Turnover (Euro)	9,359,826	9,294,762	0.7%
Contribution margin dealer (without overheads)			
new cars	2.9%	2.9%	
used cars	0.5%	0.5%	
spare parts	18.0%	18.0%	
bodywork	13.0%	13.0%	
mechanical services	13.0%	13.0%	
Overheads (% of turnover)	2.1%	2.1%	
Premises + related costs (% of turnover)	1.6%	1.6%	
Share in turnover			
new cars	58.1%	58.1%	
used cars	22.9%	22.9%	
spare parts	11.6%	11.6%	
bodywork	4.1%	4.1%	
mechanical services	3.3%	3.3%	
Share of contribution margin			
new cars	32.0%	32.0%	
used cars	7.4%	7.4%	
spare parts	41.4%	41.4%	
bodywork	10.6%	10.6%	
mechanical services	8.5%	8.5%	
Estimated operation profit 2005			
Euro	100,242	97,830	2.5%
% of turnover	1.07%	1.05%	1.9%

- Table 10.3 -

Key findings

If the existing situation is projected to 2005, using the sales predicted for that year (see table 10.2), the revenue structure of a typical dealer changes only marginally compared with 2001.

Except where otherwise specifically stated, all comparisons in the rest of the analysis refer to the Table 'Estimated Figures for a Typical Dealer in 2005' (Table 10.2)

III. Overview of Short- and Long-Term Assumptions

This section models and analyses the impact of volume and margin changes in the product mix in different outcomes. The table below summarises the short- and long-term percentage changes used in the modelling exercises.

Short-term changes	Status quo outcome	Multi-channel outcome	Mass-selling outcome
Changes in spare parts by:			
Volume	+ 10%	- 35%	- 35%
Margin and price	=	- 5%	- 5%
Changes in repair activity by			
Volume	+10%	- 5%	- 5%
Margin and price	=	- 3%	- 3%
Changes in new car sales by			
Volume	+10%	-15%	- 30%
Margin	+ 4.5%	- 2%	- 5%
Price	=	- 2%	- 5%

Long-term changes ²⁶¹	Status quo outcome	Multi-channel outcome	Mass-selling outcome
Additional changes in volume			
Spare parts	As short-term situation	Size where current operating profit is attained	Size where current operating profit is attained
Repair activities			
New cars			
Additional changes in price			
Spare parts	As short-term situation	As short-term situation	As short-term situation
Repair activities		Increase to reach the break-even point	Increase to reach the break-even point
New cars		As short-term situation	As short-term situation
Additional changes in margin			
Spare parts	As short-term situation	As short-term situation	As short-term situation
Repair activities		Increase to reach the break-even point	Increase to reach the break-even point
New cars		As short-term situation	As short-term situation

- Table 10.4 -

The **Status quo outcome** uses the accelerated version of the concentration and reorganisation of the dealer network. On the one hand, this trend towards concentration and dealer reorganisation will result in distribution networks of fewer but larger dealers (increase of 10% in dealer size). On the other, it will improve the cost structure and thus the margin (+4.5%) on new cars.

In the long term, this increase in margin on new car sales will not be sustainable owing to the ongoing pressure on new car prices. In addition, it should be noted that a large part of the increased margin will be offset by lower prices in response to customer demand.

²⁶¹ It should be noted that in the modelling exercise the **short-term situation** is taken as the **starting point** for calculating the impact of **long-term assumptions** on the profitability of a typical dealer.

In the **multi-channel outcome**, the effects on dealer profitability of the following trends will be modelled:

- The liberalisation of the distribution market in original spare parts will cause a fall in both the volume sold by official dealers and overall spare parts prices;
- The entry of new players to new car distribution will result in a loss of new car sales by official dealers and a decrease in prices paid for cars by the customer;
- Increased competition in the after-sales market will cause a decrease in both repair work by the 'full facility dealer' (sales and repair outlets) and prices paid by customers.

These trends will lead to instability and the typical dealer becoming unprofitable. Therefore, in the longer term, two additional trends are anticipated:

- Refocusing on high value-added activities by the typical dealer: he will concentrate more on specialised major repairs since competition in this area is limited and margins are relatively high. To regain part of the earnings lost by the decrease in sales volume and margins from new cars, spare parts and repair work, an increase in either specialist repair prices (and margins) or volume is expected;
- An increase in typical dealer size, since small dealers will either leave the car distribution business or make alliances with other dealers. The assumption is that the typical size of a dealer will increase to the point where the current operating profit is regained. In the modelling exercise an increase in dealer size will be measured as a proportional increase in volume (and thus turnover) across all the elements of the dealer product mix (spare parts, repair activity, new and used cars). Prices and margins remain as in the short-term situation.

In the **mass-selling outcome**, assumptions are made on the magnitude of the three trends described in the multi-channel outcome. However, it is here assumed that mass-sellers will be able to gain a larger share of total new car sales than in the previous outcome. This change will result in fewer car sales by the 'official dealers' and a further decrease in customer prices of new cars.

Again, these assumptions will have a significant impact on the profitability of the typical dealer and induce a wave of reactions in the long term similar those explained in the multi-channel outcome. They include:

- Refocusing on specialised repairs: an increase in either the volume or price of specialised repairs (or the margins on them);
- Increase in typical dealer size. As in the multi-channel outcome, the assumption is that the typical dealer will try to regain his initial operating profit by increasing in size (increase in sales volume and turnover).

IV. Modelling the Short-Term Impact

IV.1 Status Quo

IV.1.A. Overview of assumptions

In this case the Status quo situation is modelled in line with the developments described in Part IV. Detailed assumptions are explained below:

Short-term changes	Status quo situation
Change in spare parts by:	
Volume	+ 10%
Margin and price	=
Change in repair work by	
Volume	+10%
Margin and price	=
Change of new car sales by	
Volume	+10%
Margin	+4.5%
Price	=

- Table 10.5 -

As lean distribution and cost rationalisation bring about a **concentration of the dealer network**, the **assumption** has been made **there will be a 10% increase in the average size of dealers**, which seems reasonable from historical data and interviews with industry players. This increase in size is reflected in the assumptions, which also entail a 10% increase in the volume of all activities²⁶³ (spare parts, repair and new car sales).

The appendix Modelling Exercise 4: Distribution Costs shows that **reorganisation of the dealer network** may result in substantial savings in distribution costs. In the short term, where car prices remain unchanged, these savings will result in an increase in the net margin on new car sales (from 1.5% to 6.2%). This means an **increase of 4.5% in the contribution margin on new car sales**.

As regards **repairs and spare parts**, the benefits to dealers of reorganising the dealer network are assumed to be marginal in terms of the distribution costs of spare parts. Therefore, the **margin and price of these elements have been left unchanged**. IV.1.B Change of volume of spare parts, repair work (bodywork and mechanical services) and new car sales.

Assumptions

- Spare parts: increase in volume of 10%
- Repair (bodywork and mechanical services): increase in volume of 10%
- New car sales: increase in volume of 10%
- New situation: status quo situation
- Point of reference: projection of the current situation to 2005

²⁶³ Except the sales of used cars.

Model output

Estimated Figures for a Typical Dealer in 2005: Increase in spare parts volume of 10%

Number of cars sold	New Situation	Point of reference	% Change
new cars	+/- 302	+/- 302	
used cars	+/-260	+/-260	
Turnover (Euro)	9,468,443	9,359,826	1.2%
Contribution margin dealer (without overheads)			
new cars	2.9%	2.9%	
used cars	0.5%	0.5%	
spare parts	18.0%	18.0%	
bodywork	13.0%	13.0%	
mechanical services	13.0%	13.0%	
Overheads (% of turnover)	2.0%	2.1%	-2.9%
Premises + related costs (% of turnover)	1.6%	1.6%	
Share of turnover			
new cars	57.4%	58.1%	-1.1%
used cars	22.7%	22.9%	-1.1%
spare parts	12.6%	11.6%	8.7%
bodywork	4.0%	4.1%	-1.1%
mechanical services	3.2%	3.3%	-1.1%
Share of contribution margin			
new cars	30.8%	32.0%	-4.0%
used cars	7.1%	7.4%	-4.0%
spare parts	43.8%	41.4%	5.6%
bodywork	10.2%	10.6%	-4.0%
mechanical services	8.2%	8.5%	-4.0%
Estimated operating profit 2005			
Euro	118,185	100,242	17.9%
% of turnover	1.25%	1.07%	16.8%

- Table 10.6 -

Estimated Figures for a Typical Dealer in 2005: Increase in repair activity of 10%

Number of cars sold	New Situation	Point of reference	% Change
new cars	+/- 300	+/- 302	
used cars	+/-260	+/-260	
Turnover (Euro)	9,428,648	9,359,826	0.7%
Contribution margin dealer (without overheads)			
new cars	2.9%	2.9%	
used cars	0.5%	0.5%	
spare parts	18.0%	18.0%	
bodywork	13.0%	13.0%	
mechanical services	13.0%	13.0%	
Overheads (% of turnover)	2.0%	2.1%	-2.9%
Premises + related costs (% of turnover)	1.6%	1.6%	
Share of turnover			
new cars	57.7%	58.1%	-0.7%
used cars	22.8%	22.9%	-0.7%
spare parts	11.5%	11.6%	-0.7%
bodywork	4.5%	4.1%	9.2%
mechanical services	3.6%	3.3%	9.3%
Share of contribution margin			
new cars	31.4%	32.0%	-1.9%
used cars	7.2%	7.4%	-1.9%
spare parts	40.6%	41.4%	-1.9%
bodywork	11.5%	10.6%	7.9%
mechanical services	9.2%	8.5%	8.0%
Estimated operating profit 2005			
Euro	108,308	100,242	8.0%
% of turnover	1.15%	1.07%	7.5%

- Table 10.7 -

Estimated Figures for a Typical Dealer in 2005: Increase in sales new cars by 10%

Number of cars sold	New Situation	Point of reference	% Change
new cars	+/- 330	+/- 302	
used cars	+/-260	+/-260	
Turnover (Euro)	9,903,606	9,359,826	5.8%
Contribution margin dealer (without overheads)			
new cars	2.9%	2.9%	
used cars	0.5%	0.5%	
spare parts	18.0%	18.0%	
bodywork	13.0%	13.0%	
mechanical services	13.0%	13.0%	
Overhead (% of turnover)	2.0%	2.1%	-2.9%
Premises + related costs (% of turnover)	1.5%	1.6%	
Share in turnover			
new cars	60.4%	58.1%	4.0%
used cars	21.7%	22.9%	-5.5%
spare parts	11.0%	11.6%	-5.5%
bodywork	3.9%	4.1%	-5.5%
mechanical services	3.1%	3.3%	-5.4%
Share of contribution margin			
new cars	34.1%	32.0%	6.6%
used cars	7.1%	7.4%	-3.1%
spare parts	40.1%	41.4%	-3.1%
bodywork	10.3%	10.6%	-3.1%
mechanical services	8.3%	8.5%	-3.0%
Estimated operating profit 2005			
Euro	108,236	100,242	8.0%
% of turnover	1.09%	1.07%	1.9%

- Table 10.8 -

Estimated Figures for a Typical Dealer in 2005: Combination of 10% increase in volume of sales of spare parts, repair work and sales of new cars

Number of cars sold	New Situation	Point of reference	% Change
new cars	+/- 330	+/- 302	10%
used cars	+/-260	+/-260	
Turnover (Euro)	10,081,045	9,359,826	7.7%
Contribution margin dealer (without overheads)			
new cars	2.9%	2.9%	
used cars	0.5%	0.5%	
spare parts	18.0%	18.0%	
bodywork	13.0%	13.0%	
mechanical services	13.0%	13.0%	
Overheads (% of turnover)	2.0%	2.1%	-2.9%
Premises + related costs (% of turnover)	1.5%	1.6%	-8.0%
Share of turnover			
new cars	59.3%	58.1%	2.1%
used cars	21.3%	22.9%	-7.2%
spare parts	11.9%	11.6%	2.1%
bodywork	4.2%	4.1%	2.1%
mechanical services	3.3%	3.3%	2.2%
Share of contribution margin			
new cars	32.3%	32.0%	0.7%
used cars	6.7%	7.4%	-8.5%
spare parts	41.7%	41.4%	0.7%
bodywork	10.7%	10.6%	0.7%
mechanical services	8.6%	8.5%	0.7%
Estimated operating profit 2005			
Euro	134,245	100,242	33.9%
% of turnover	1.33%	1.07%	24.3%

- Table 10.9 -

Key findings

An **increase of 10% in the volume of spare parts** sold raises the overall operating profit by 18% compared with the current situation projected to 2005 (see table 10.6).

A **10% increase in repair work and volume of new car sales** raises the overall operating profit by 8% compared with the projected current situation. However, the ratio of operating profit / turnover improves further when there is an increase in the volume of repair work (bodywork and mechanical services) compared with an increase in the volume of new car sales (see tables 10.7 and 10.8).

Finally, table 10.9 shows the **combined effect** of the three tables above: a rise in the volume of spare parts, repair activity and new car sales. In this case the overall operating profit of a typical dealer will increase by almost 34% compared with the projected current situation, to amount to 1.33% of turnover.

IV.1.C Change in the margin on new car sales

Assumptions

- New car sales: increase in volume of 10% and increase in margin of 4.5%
- New situation: status quo situation
- Point of reference: projection of the current situation to 2005

Model output

Estimated Figures for a Typical Dealer in 2005: Increase of new car margin by 4.5%

Number of cars sold	New Situation	Point of reference	% Change
new cars	+/- 302	+/- 302	
used cars	+/-260	+/-260	
Turnover (Euro)	9,359,826	9,359,826	
Contribution margin dealer (% of overheads)			
new cars	7.4%	2.9%	159.6%
used cars	0.5%	0.5%	
spare parts	18.0%	18.0%	
bodywork	13.0%	13.0%	
mechanical services	13.0%	13.0%	
Overheads (% of turnover)	2.1%	2.1%	
Premises + related costs (% of turnover)	1.6%	1.6%	
Share of turnover			
new cars	58.1%	58.1%	
used cars	22.9%	22.9%	
spare parts	11.6%	11.6%	
bodywork	4.1%	4.1%	
mechanical services	3.3%	3.3%	
Share of contribution margin			
new cars	55.4%	32.0%	72.9%
used cars	4.8%	7.4%	-34.4%
spare parts	27.2%	41.4%	-34.4%
bodywork	7.0%	10.6%	-34.4%
mechanical services	5.6%	8.5%	-34.3%
Estimated operating profit 2005			
Euro	344,943	100,242	244.1%
% of turnover	3.69%	1.07%	244.9%

- Table 10.10 -

Estimated Figures for a Typical Dealer in 2005: Increase in sales new cars of 10% and margin of 4.5%

Number of cars sold	New Situation	Point of reference	% Change
new cars	+/- 330	+/- 302	10.0%
used cars	+/-260	+/-260	
Turnover (Euro)	9,903,606	9,359,826	5.8%
Contribution margin dealer (without overheads)			
new cars	7.4%	2.9%	159.6%
used cars	0.5%	0.5%	
spare parts	18.0%	18.0%	
bodywork	13.0%	13.0%	
mechanical services	13.0%	13.0%	
Overheads (% of turnover)	2.0%	2.1%	-2.9%
Premises + related costs (% of turnover)	1.5%	1.6%	-8.0%
Share of turnover			
new cars	60.4%	58.1%	4.0%
used cars	21.7%	22.9%	-5.5%
spare parts	11.0%	11.6%	-5.5%
bodywork	3.9%	4.1%	-5.5%
mechanical services	3.1%	3.3%	-5.4%
Share of contribution margin			
new cars	57.8%	32.0%	80.3%
used cars	4.6%	7.4%	-37.8%
spare parts	25.7%	41.4%	-37.8%
bodywork	6.6%	10.6%	-37.8%
mechanical services	5.3%	8.5%	-37.8%
Estimated operating profit 2005			
Euro	377,407	100,242	276.5%
% of turnover	3.81%	1.07%	256.1%

- Table 10.11 -

Key findings

Although an **increase** in both **volume** of and **margin on new car sales** raises the turnover by only 6%, the impact on the operating profit is remarkable: 377,407 Euros compared with 100,242 Euros in the projected current situation (see Table 10.11). This improvement in operating profit is mainly caused by the higher margins on new car sales as opposed to an increase in their volume (see Tables 10.8 and 10.10).

IV.1.D Combination of all effects: change in volume of spare parts, repair work and new car sales and change in the margin on new car sales (prices constant)

Assumptions

- Spare parts: increase in volume of 10%
- Repairs (bodywork and mechanical services): increase in volume of 10%
- New car sales: increase in volume of 10% and margin of 4.5%
- New situation: status quo situation
- Point of reference: projection of the current situation to 2005

Model output

Estimated Figures for a Typical Dealer in 2005: Increase in volume of spare parts, repair work and sales of new cars by 10% and margin on new cars by 4.5%

Number of cars sold	New Situation	Point of reference	% Change
new cars	+/- 330	+/- 302	10.0%
used cars	+/-260	+/-260	
Turnover (Euro)	10,081,045	9,359,826	7.7%
Contribution margin dealer (without overheads)			
new cars	7.4%	2.9%	159.6%
used cars	0.5%	0.5%	
spare parts	18.0%	18.0%	
bodywork	13.0%	13.0%	
mechanical services	13.0%	13.0%	
Overheads (% of turnover)	2.0%	2.1%	-2.9%
Premises + related costs (% of turnover)	1.5%	1.6%	-8.0%
Share of turnover			
new cars	59.3%	58.1%	2.1%
used cars	21.3%	22.9%	-7.2%
spare parts	11.9%	11.6%	2.1%
bodywork	4.2%	4.1%	2.1%
mechanical services	3.3%	3.3%	2.2%
Share of contribution margin			
new cars	55.7%	32.0%	73.7%
used cars	4.4%	7.4%	-40.1%
spare parts	27.3%	41.4%	-34.1%
bodywork	7.0%	10.6%	-34.1%
mechanical services	5.6%	8.5%	-34.1%
Estimated operating profit 2005			
Euro	403,416	100,242	302.4%
% of turnover	4.00%	1.07%	273.8%

- Table 10.12 -

Key findings

If all impacts are combined, the operating profit rises to 4% of turnover, an improvement of almost 275% compared with the projected current situation (see Table 10.12).

IV.2 Multi-Channel

IV.2.A Overview of assumptions

Short-term changes	Multi-channel outcome
Change in spare parts by:	
Volume	- 35%
Margin and price	- 5%
Change in repair activity by	
Volume	- 5%
Margin and price	- 3%
Change in new car sales by	
Volume	-15%
Margin	- 2%
Price	- 2%

- Table 10.13 -

In the multi-channel outcome it is assumed that independent repairers can buy **original spare parts** through channels other than the official dealer network. This will have a significant impact on the volume of spare parts sold by a dealer. The worst case has been modelled: **35% decrease in sales of spare parts** (this corresponds to sales to independent repairers²⁶⁴). Because of the liberalisation of this market, **a 5% erosion²⁶⁵ in the margin on and price of spare parts** has also been factored in.

The increased competition in the after-sales market will impact on both the volume of repair work performed by “official dealers” and the price of minor repairs. On the assumption that the total number of repair outlets including official full facility outlets, official repair only outlets, independent generalist repairers and independent specialised repairers remains unchanged, the official full facility outlets (sales and after-sales) will mainly lose smaller repair jobs to independent specialist outlets, such as fast fit repair chains. A **5%²⁶⁶ decrease in repair work (bodywork and mechanical services) volume** will be modelled. The increased competition will also drive the price of such minor repair work down. From estimates by industry experts, **a price reduction of 3%** can be expected in this situation.

Finally, new entrants will have a direct impact on the volume of new cars sold by the current dealers. In the multi-channel outcome, it is assumed that this trend will, on average, cause **a decrease of 15%²⁶⁷ in the volume of cars sold** by current official dealers²⁶⁸. Because of the increased competition in the distribution market and the fact that some types of new entrants (e.g. mass-sellers) will be able to offer lower prices to customers²⁶⁹, dealers will, in order to remain competitive, be forced to offer higher customer discounts (resulting in a reduced dealer margin and customer price). According to industry specialists, **a 2% decrease in end-user car prices** can be expected of this outcome.

²⁶⁴ La tribune du concessionnaire –January 2000 – p 38.

²⁶⁵ Andersen estimate based on interviews with industry experts.

²⁶⁶ Andersen estimate based on interviews with industry experts.

²⁶⁷ Andersen estimate based on interviews with industry experts.

²⁶⁸ In this assumption, fixed costs are taken as invariant.

²⁶⁹ Since mass-sellers are expected to have lower distribution costs, they will be able to offer their customers a bigger discount (Cf. Appendix 13 (Modelling Exercise 4 - Distribution Costs) for more detail).

IV.2.B Change in volume and price of spare parts

Assumptions

- 35% decrease in volume of sales of spare parts
- 5% decrease in margin on and price of spare parts
- New situation: multi-channel outcome
- Point of reference: projection of the current situation to 2005

Model output

Estimated Figures for a Typical Dealer in 2005 : loss of 35% of spare parts sales volume *Estimated Figures for a Typical Dealer in 2005 : loss of 5% margin on spare parts sales* *Estimated Figures for a Typical Dealer in 2005 : loss of 35 sales volume and 5% margin on spare parts*

Number of cars sold	New Situation	Point of reference	% Change	Number of cars sold	New Situation	Point of reference	% Change	Number of cars sold	New Situation	Point of reference	% Change
new cars	+/- 302	+/- 302		new cars	+/- 302	+/- 302		new cars	+/- 302	+/- 302	
used cars	+/-260	+/-260		used cars	+/-260	+/-260		used cars	+/-260	+/-260	
Turnover (Euro)	8,979,664	9,359,826	-4.1%	Turnover (Euro)	9,305,426	9,359,826	-0.6%	Turnover (Euro)	8,944,274	9,359,826	-4.4%
Contribution margin dealer (without overheads)				Contribution margin dealer (without overheads)				Contribution margin dealer (without overheads)			
new cars	2.9%	2.9%		new cars	2.9%	2.9%		new cars	2.9%	2.9%	
used cars	0.5%	0.5%		used cars	0.5%	0.5%		used cars	0.5%	0.5%	
spare parts	18.0%	18.0%		spare parts	13.0%	18.0%		spare parts	18.0%	18.0%	
bodywork	13.0%	13.0%		bodywork	13.0%	13.0%		bodywork	13.0%	13.0%	
mechanical services	13.0%	13.0%		mechanical services	13.0%	13.0%		mechanical services	13.0%	13.0%	
Overheads (% of turnover)	2.1%	2.1%		Overheads (% of turnover)	2.1%	2.1%		Overheads (% of turnover)	2.1%	2.1%	
Premises + related costs (% of turnover)	1.7%	1.6%		Premises + related costs (% of turnover)	1.7%	1.6%		Premises + related costs (% of turnover)	1.6%	1.6%	
Share of turnover				Share of turnover				Share of turnover			
new cars	60.6%	58.1%	4.2%	new cars	58.4%	58.1%	0.6%	new cars	60.8%	58.1%	4.6%
used cars	23.9%	22.9%	4.2%	used cars	23.1%	22.9%	0.6%	used cars	24.0%	22.9%	4.6%
spare parts	7.9%	11.6%	-32.2%	spare parts	11.1%	11.6%	-4.5%	spare parts	7.5%	11.6%	-35.4%
bodywork	4.3%	4.1%	4.3%	bodywork	4.1%	4.1%	0.6%	bodywork	4.3%	4.1%	4.7%
mechanical services	3.4%	3.3%	4.2%	mechanical services	3.3%	3.3%	0.6%	mechanical services	3.4%	3.3%	4.6%
Share of contribution margin				Share of contribution margin				Share of contribution margin			
new cars	37.5%	32.0%	16.9%	new cars	36.9%	32.0%	15.1%	new cars	41.6%	32.0%	29.9%
used cars	8.6%	7.4%	16.9%	used cars	8.5%	7.4%	15.1%	used cars	9.6%	7.4%	29.9%
spare parts	31.5%	41.4%	-24.0%	spare parts	32.6%	41.4%	-21.4%	spare parts	23.9%	41.4%	-42.3%
bodywork	12.5%	10.6%	17.0%	bodywork	12.3%	10.6%	15.1%	bodywork	13.8%	10.6%	30.0%
mechanical services	10.0%	8.5%	16.9%	mechanical services	9.8%	8.5%	15.1%	mechanical services	11.1%	8.5%	29.9%
Estimated operating profit 2005				Estimated operating profit 2005				Estimated operating profit 2005			
Euro	37,444	100,242	-62.6%	Euro	40,126	100,242	-60.0%	Euro	-1,479	100,242	-101.5%
% of turnover	0.42%	1.07%	-60.7%	% of turnover	0.43%	1.07%	-59.8%	% of turnover	-0.02%	1.07%	-101.9%

Table 10.14 -

- Table 10.15 -

- Table 10.16 -

Key findings

The **loss of 35% of spare parts sales** results in roughly the same outcome as the **reduction in spare part prices and margins by 5%**: turnover is hardly affected (-4% in the case of a volume decrease and 0.6% in the case of a price and margin cut). However, operating profit decreases by more than 60% compared with the situation in 2005 with no new entrants. If **the two impacts are combined** (loss of spare parts market and decrease of price), the typical dealer is reduced to the **break-even point**.

IV.2.C Change in volume and price of repair work (bodywork and mechanical services)

Assumptions

- 5% decrease in volume of repair work
- 3% decrease in margin and price of repair work
- New situation: multi-channel outcome
- Point of reference: projection of the current situation to 2005

Model output

Estimated Figures for a Typical Dealer in 2005 : loss of 5% repair work volume				Estimated Figures for a Typical Dealer in 2005 : loss of 3% margin on repair work				Estimated Figures for a Typical Dealer in 2005 : loss of : repair activity volume and 3% margin on repair			
Number of cars sold	New Situation	Point of reference	% Change	Number of cars sold	New Situation	Point of reference	% Change	Number of cars sold	New Situation	Point of reference	% Change
new cars	+/- 302	+/- 302		new cars	+/- 302	+/- 302		new cars	+/- 302	+/- 302	
used cars	+/-260	+/-260		used cars	+/-260	+/-260		used cars	+/-260	+/-260	
Turnover (Euro)	9,325,414	9,359,826	-0.4%	Turnover (Euro)	9,339,179	9,359,826	-0.2%	Turnover (Euro)	9,305,800	9,359,826	-0.6%
Contribution margin dealer (without overheads)				Contribution margin dealer (without overheads)				Contribution margin dealer (without overheads)			
new cars	2.9%	2.9%		new cars	2.9%	2.9%		new cars	2.9%	2.9%	
used cars	0.5%	0.5%		used cars	0.5%	0.5%		used cars	0.5%	0.5%	
spare parts	18.0%	18.0%		spare parts	18.0%	18.0%		spare parts	18.0%	18.0%	
bodywork	13.0%	13.0%		bodywork	10.0%	13.0%	-23.1%	bodywork	10.0%	13.0%	-23.1%
mechanical services	13.0%	13.0%		mechanical services	10.0%	13.0%	-23.1%	mechanical services	10.0%	13.0%	-23.1%
Overheads (% of turnover)	2.1%	2.1%		Overheads (% of turnover)	2.1%	2.1%		Overheads (% of turnover)	2.1%	2.1%	
Premises + related costs (% of turnover)	1.6%	1.6%		Premises + related costs (% of turnover)	1.6%	1.6%		Premises + related costs (% of turnover)	1.6%	1.6%	
Share of turnover				Share of turnover				Share of turnover			
new cars	58.3%	58.1%	0.4%	new cars	58.2%	58.1%	0.2%	new cars	58.4%	58.1%	0.6%
used cars	23.0%	22.9%	0.4%	used cars	23.0%	22.9%	0.2%	used cars	23.1%	22.9%	0.6%
spare parts	11.6%	11.6%	0.4%	spare parts	11.6%	11.6%	0.2%	spare parts	11.7%	11.6%	0.6%
bodywork	3.9%	4.1%	-4.6%	bodywork	4.0%	4.1%	-2.8%	bodywork	3.8%	4.1%	-7.3%
mechanical services	3.1%	3.3%	-4.7%	mechanical services	3.2%	3.3%	-2.8%	mechanical services	3.0%	3.3%	-7.3%
Share of contribution margin				Share of contribution margin				Share of contribution margin			
new cars	32.3%	32.0%	1.0%	new cars	33.7%	32.0%	5.1%	new cars	33.9%	32.0%	5.9%
used cars	7.4%	7.4%	1.0%	used cars	7.7%	7.4%	5.1%	used cars	7.8%	7.4%	5.9%
spare parts	41.8%	41.4%	1.0%	spare parts	43.5%	41.4%	5.1%	spare parts	43.9%	41.4%	5.9%
bodywork	10.2%	10.6%	-4.0%	bodywork	8.4%	10.6%	-21.5%	bodywork	8.0%	10.6%	-24.9%
mechanical services	8.2%	8.5%	-4.1%	mechanical services	6.7%	8.5%	-21.6%	mechanical services	6.4%	8.5%	-24.9%
Estimated operating profit 2005				Estimated operating profit 2005				Estimated operating profit 2005			
Euro	96,200	100,242	-4.0%	Euro	77,795	100,242	-22.4%	Euro	74,884	100,242	-25.3%
% of turnover	1.03%	1.07%	-3.7%	% of turnover	0.83%	1.07%	-22.4%	% of turnover	0.81%	1.07%	-24.3%

- Table 10.17 -

- Table 10.18 -

- Table 10.19 -

Key findings

In the case of **new entrants gaining 5% of repair work** (all other variables remaining unchanged), operating profit falls to 1.03% of turnover - 96,200 Euros, compared with 100,242 Euros in the projected current situation (see table 10.17). This loss of market share in repair activities has hardly any impact on turnover.

Assuming that **prices of and margins on repair work will fall** by 3% owing to increased competition (growing presence of fast fits repair chains, car centres...), a typical dealer's operating profit will fall by more than 22% or 0.83% of turnover (see table 10.18).

A decrease in price **combined** with a loss of market share (volume) in the repair sector will further reduce the operating profit to 0.81% of turnover. The share of the contribution margin from repair activities also drops 20.3% in the projected current situation to 14.4% (8% + 6.4%) here (see table 10.19).

IV.2.D Change in volume and price of new cars

Assumptions

- 15% decrease in volume of new car sales
- 2% decrease in margin and price of new cars
- New situation: multi-channel outcome
- Point of reference: projection of the current situation to 2005

Model output

Estimated Figures for a Typical Dealer in 2005: loss of 15% sales volume of new cars *Estimated Figures for a Typical Dealer in 2005: loss of 2% margin on new car sales* *Estimated Figures for a Typical Dealer in 2005: loss of 1% of sales of new cars and 2% margin on new ones*

Number of cars sold	New Situation	Point of reference	% Change	Number of cars sold	New Situation	Point of reference	% Change	Number of cars sold	New Situation	Point of reference	% Change
new cars	+/- 255	+/- 302	-15.0%	new cars	+/- 302	+/- 302		new cars	+/- 255	+/- 302	-15.0%
used cars	+/-260	+/-260		used cars	+/-260	+/-260		used cars	+/-260	+/-260	
Turnover (Euro)	8,544,156	9,359,826	-8.7%	Turnover (Euro)	9,251,070	9,359,826	-1.2%	Turnover (Euro)	8,451,713	9,359,826	-9.7%
Contribution margin dealer (without overheads)				Contribution margin dealer (without overheads)				Contribution margin dealer (without overheads)			
new cars	2.9%	2.9%		new cars	0.9%	2.9%	-68.4%	new cars	0.9%	2.9%	-68.4%
used cars	0.5%	0.5%		used cars	0.5%	0.5%		used cars	0.5%	0.5%	
spare parts	18.0%	18.0%		spare parts	18.0%	18.0%		spare parts	18.0%	18.0%	
bodywork	13.0%	13.0%		bodywork	13.0%	13.0%		bodywork	13.0%	13.0%	
mechanical services	13.0%	13.0%		mechanical services	13.0%	13.0%		mechanical services	13.0%	13.0%	
Overheads (% of turnover)	2.1%	2.1%		Overheads (% of turnover)	2.1%	2.1%		Overheads (% of turnover)	2.1%	2.1%	
Building + related costs (% of turnover)	1.8%	1.6%	10.4%	Premises + related costs (% of turnover)	1.7%	1.6%	4.3%	Premises + related costs (% of turnover)	1.8%	1.6%	10.4%
Share in turnover				Share of turnover				Share of turnover			
new cars	54.1%	58.1%	-6.9%	new cars	57.6%	58.1%	-0.9%	new cars	53.6%	58.1%	-7.8%
used cars	25.1%	22.9%	9.5%	used cars	23.2%	22.9%	1.2%	used cars	25.4%	22.9%	10.7%
spare parts	12.7%	11.6%	9.6%	spare parts	11.7%	11.6%	1.2%	spare parts	12.9%	11.6%	10.7%
bodywork	4.5%	4.1%	9.6%	bodywork	4.1%	4.1%	1.2%	bodywork	4.5%	4.1%	10.7%
mechanical services	3.6%	3.3%	9.5%	mechanical services	3.3%	3.3%	1.2%	mechanical services	3.6%	3.3%	10.8%
Share of contribution margin				Share of contribution margin				Share of contribution margin			
new cars	28.6%	32.0%	-10.7%	new cars	11.2%	32.0%	-65.1%	new cars	9.7%	32.0%	-69.8%
used cars	7.7%	7.4%	5.0%	used cars	9.6%	7.4%	30.7%	used cars	9.8%	7.4%	32.9%
spare parts	43.5%	41.4%	5.1%	spare parts	54.1%	41.4%	30.7%	spare parts	55.1%	41.4%	32.9%
bodywork	11.2%	10.6%	5.1%	bodywork	13.9%	10.6%	30.7%	bodywork	14.1%	10.6%	32.9%
mechanical services	8.9%	8.5%	5.0%	mechanical services	11.1%	8.5%	30.7%	mechanical services	11.3%	8.5%	33.0%
Estimated exploitation result 2005				Estimated operating profit 2005				Estimated operating profit 2005			
Euro	88,252	100,242	-12.0%	Euro	-7,938	10,242	-107.9%	Euro	-3,701	100,242	-103.7%
% of turnover	1.03%	1.07%	-3.7%	% of turnover	-0.09%	1.07%	-108.4%	% of turnover	-0.04%	1.07%	-103.7%

- Table 10.20 -

- Table 10.21 -

- Table 10.22 -

Key findings

New players entering the car distribution market cause a fall of 8.7% in the turnover of a typical existing dealer and a drop of 12% in his operating profit because of a **decrease in volume of new cars sales** (see table 10.20). This means that the operating profit in the multi-channel outcome represents only 1.03% of the turnover.

Under the current cost structure, a fall in new car prices has a significant impact on the profitability of the typical dealer. A **decrease of only 2% in margin (and price)** results in an operating loss (-7,926 Euros) (see table 10.21).

A **decrease in both volume and price (and margin)** still results in a small operating loss (see table 10.22). The rise of 0.05% compared with the previous outcome (table 10.21) can be explained by the fact that the volume of the unprofitable activity (new car sales) is reduced.

IV.2.E Combination of all effects: change of volume of spare parts, repair activity and new car sales and change of the price and margin of new car sales

Assumptions

- 35% decrease in volume of sales of spare parts
- 5% decrease in margin and price of spare parts
- 5% decrease in volume of repair activity
- 3% decrease in margin and price of repair activity
- 15% decrease in volume of new car sales
- 2% decrease in margin and price of new cars
- New situation: multi-channel outcome
- Point of reference: projection of the current situation to 2005

Model output

Number of cars sold	New Situation	Point of reference	% Change
new cars	+/- 255	+/- 302	15.0%
used cars	+/-260	+/-260	
Turnover (Euro)	7,982,227	9,359,826	-14.7%
Contribution margin dealer (without overheads)			
new cars	0.9%	2.9%	-68.4%
used cars	0.5%	0.5%	
spare parts	13.0%	18.0%	
bodywork	10.0%	13.0%	
mechanical services	10.0%	13.0%	
Overheads (% of turnover)	2.2%	2.1%	6.8%
Premises + related costs (% of turnover)	1.9%	1.6%	16.6%
Share of turnover			
new cars	56.7%	58.1%	-2.3%
used cars	26.9%	22.9%	17.3%
spare parts	8.4%	11.6%	-27.6%
bodywork	4.4%	4.1%	8.1%
mechanical services	3.5%	3.3%	8.1%
Share of contribution margin			
new cars	15.6%	32.0%	-51.3%
used cars	15.8%	7.4%	114.4%
spare parts	39.4%	41.4%	-4.8%
bodywork	16.2%	10.6%	52.0%
mechanical services	13.0%	8.5%	52.1%
Estimated operating profit 2005			
Euro	-131,229	100,242	-230.9%
% of turnover	-1.64%	1.07%	-253.3%

- Table 10.23 -

Key findings

When **all the assumptions** made above are **combined** (decrease in volume, price and margins of spare parts, repair activity and new car sales), **the typical dealer will not be able to survive**: Table 10.23 shows that the dealer's operating profit become highly negative. This situation may be seen as unstable and will induce a change in the car distribution market structure in the long term (see below).

IV.3 Mass-Selling

IV.3. A Overview of assumptions

Short term changes	Mass-selling outcome
Change in spare parts by:	
Volume	- 35%
Margin and price	- 5%
Change in repair activity by	
Volume	- 5%
Margin and price	- 3%
Change in new car sales by	
Volume	- 30%
Margin	- 5%
Price	- 5%

- Table 10.24 -

The assumptions made in the multi-channel outcome on the liberalisation of original spare parts distribution and the increased competition in the after-sales market are also applicable to the mass-selling outcome.

More specifically, the maximum impact of liberalising spare part distribution will be modelled: **a 35% decrease in the volume of spare parts** combined with a **decrease of 5% in their price**.

Secondly, the assumption is made that the level of competition in the repair market will reach the same level as in the multi-channel scenario, causing the **volume of repairs** (bodywork and mechanical services) performed by an official dealer to **decrease by 5% and the price of repair work by 3%**.

In this case, high entry of the car distribution market by mass-sellers is assumed. Because of the low prices the mass-sellers will be able to offer their customers, dealers will lose a significant part of their **new car sales** (estimated to be a decrease of **30%**^{270 271}) and, moreover, will be forced to reduce their prices even more than in the multi-channel outcome. This is because in the mass-selling outcome mass-sellers capture a larger market share than in the multi-channel outcome and thus represent a substantial threat to the current dealers. A **5%**²⁷² **decrease in new car margins and prices** will be modelled.

²⁷⁰ Andersen estimation: Cf. Appendix 11 (Modelling Exercise 2 - Market Share).

²⁷¹ As with the other parameters, the structure of fixed costs is unchanged although the purchasers of the dealerships are vastly different.

²⁷² Andersen estimation based on interviews with industry experts.

IV.3.B Change in volume and price of spare parts and repair activity (bodywork and mechanical services)

The assumption is made that the changes in the volumes and prices of both spare parts and repair activity are identical in the multi-channel and the mass-selling outcomes. Therefore, we refer to point IV.2.B and IV.2.C. for the analysis of the impact on spare parts and repair work.

IV.3.C Change in new cars prices and sales volume

Assumptions

- 30% decrease in the volume of new car sales
- 5% decrease in margin on and price of new car sales
- New situation: mass-selling outcome
- Point of reference: projection of the current situation to 2005

Model output

Estimated Figures for a Typical Dealer in 2005: loss of 30% sales volume new cars				Estimated Figures for a Typical Dealer in 2005: loss of 5% on margin on new car sales				Estimated Figures for a Typical Dealer in 2005: loss of 3 of sales volume and 5% on margin on new car sales			
Number of cars sold	New Situation	Point of reference	% Change	Number of cars sold	New Situation	Point of reference	% Change	Number of cars sold	New Situation	Point of reference	% Change
new cars	+/- 211	+/- 302	-30.0%	new cars	+/- 302	+/- 302		new cars	+/- 211	+/- 302	-30.0%
used cars	+/-260	+/-260		used cars	+/-260	+/-260		used cars	+/-260	+/-260	
Turnover (Euro)	7,728,486	9,359,826	-17.4%	Turnover (Euro)	9,087,706	9,359,826	-2.9%	Turnover (Euro)	7,538,163	9,359,826	-19.5%
Contribution margin dealer (without overheads)				Contribution margin dealer (without overheads)				Contribution margin dealer (without overheads)			
new cars	2.9%	2.9%		new cars	-3.1%	2.9%	-208.8%	new cars	-3.1%	2.9%	-208.8%
used cars	0.5%	0.5%		used cars	0.5%	0.5%		used cars	0.5%	0.5%	
spare parts	18.0%	18.0%		spare parts	18.0%	18.0%		spare parts	18.0%	18.0%	
bodywork	13.0%	13.0%		bodywork	13.0%	13.0%		bodywork	13.0%	13.0%	
mechanical services	13.0%	13.0%		mechanical services	13.0%	13.0%		mechanical services	13.0%	13.0%	
Overheads (% of turnover)	2.3%	2.1%	11.7%	Overheads (% of turnover)	2.1%	2.1%		Overheads (% of turnover)	2.3%	2.1%	11.7%
Premises + related costs (% of turnover)	2.0%	1.6%	22.7%	Premises + related costs (% of turnover)	1.7%	1.6%		Premises + related costs (% of turnover)	2.0%	1.6%	22.7%
Share of turnover				Share of turnover				Share of turnover			
new cars	49.3%	58.1%	-15.2%	new cars	56.8%	58.1%	-2.2%	new cars	48.0%	58.1%	-17.4%
used cars	27.8%	22.9%	21.1%	used cars	23.6%	22.9%	3.0%	used cars	28.5%	22.9%	24.2%
spare parts	14.1%	11.6%	21.1%	spare parts	12.0%	11.6%	3.0%	spare parts	14.4%	11.6%	24.2%
bodywork	4.9%	4.1%	21.1%	bodywork	4.2%	4.1%	3.0%	bodywork	5.1%	4.1%	24.2%
mechanical services	4.0%	3.3%	21.2%	mechanical services	3.4%	3.3%	3.0%	mechanical services	4.1%	3.3%	24.3%
Share of contribution margin				Share of contribution margin				Share of contribution margin			
new cars	24.8%	32.0%	-22.6%	new cars	-57.8%	32.0%	-280.5%	new cars	-34.5%	32.0%	-207.7%
used cars	8.2%	7.4%	10.6%	used cars	17.1%	7.4%	132.3%	used cars	14.6%	7.4%	97.9%
spare parts	45.8%	41.4%	10.6%	spare parts	96.2%	41.4%	132.3%	spare parts	82.0%	41.4%	97.9%
bodywork	11.8%	10.6%	10.6%	bodywork	24.7%	10.6%	132.3%	bodywork	21.1%	10.6%	97.9%
mechanical services	9.4%	8.5%	10.7%	mechanical services	19.8%	8.5%	132.3%	mechanical services	16.9%	8.5%	98.0%
Estimated operating profit 2005				Estimated operating profit 2005				Estimated operating profit 2005			
Euro	76,261	100,242	-23.9%	Euro	-162,077	100,242	-261.7%	Euro	-107,343	100,242	-207.1%
% of turnover	0.99%	1.07%	-7.5%	% of turnover	-1.78%	1.07%	-266.4%	% of turnover	-1.42%	1.07%	-232.7%

- Table 10.25 -

- Table 10.26 -

- Table 10.27 -

Key findings

Because of an anticipated increase in mass-selling, it may be assumed that this will impact on the sales volume of the typical dealer. The case where the typical dealer will only retain 70% of current new car sales has been analysed. This **drastic decrease in sales volume** is accompanied by a significant decrease in turnover (- 17.4%) and operating profit (-23.9%) (see table 10.25). The fixed and premises costs have not been reduced in order to allow a better comparison. If prices and margins remain unchanged, the dealer continues to be profitable.

In both cases where **car prices and margins diminish by 5%** (pure price effect and a combination of price and volume decreases, see tables 10.26 and 10.27), the typical dealer will become highly unprofitable.

IV.3.D Combination of all effects: change in volume of spare parts, repair work and new car sales and change in the price of and margin on new car sales.

Assumptions

- 35% decrease in volume of spare parts sales
- 5% decrease in margin on and price of spare parts
- 5% decrease in volume of repair activity
- 3% decrease in margin on and price of repair work
- 30% decrease in volume of new car sales
- 5% decrease in margin on and price of new car sales
- New situation: mass-selling outcome
- Point of reference: projection of the current situation to 2005

Model output

Estimated Figures for a Typical Dealer in 2005:
Volume: Loss of 30% of sales volume new cars, 35% of sale volume spare parts and 5% of volume of repair work
Price and margin: Decrease of 5% new cars, 5% spare parts, repair

Number of cars sold	New Situation	Point of reference	% Change
new cars	+/-211	+/- 302	-30%
used cars	+/-260	+/-260	
Turnover (Euro)	7,068,677	9,359,826	-24.5%
Contribution margin dealer (without overheads)			
new cars	-2.1%	2.9%	-173.7%
used cars	0.5%	0.5%	
spare parts	13.0%	18.0%	-27.8%
bodywork	10.0%	13.0%	-23.1%
mechanical services	10.0%	13.0%	-23.1%
Overheads (% of turnover)	2.4%	2.1%	16.5%
Premises + related costs (% of turnover)	2.2%	1.6%	35.0%
Share of turnover			
new cars	51.2%	58.1%	-11.9%
used cars	30.4%	22.9%	32.4%
spare parts	9.5%	11.6%	-18.2%
bodywork	5.0%	4.1%	22.0%
mechanical services	4.0%	3.3%	22.1%
Share of contribution margin			
new cars	-79.5%	32.0%	-348.2%
used cars	33.6%	7.4%	356.2%
spare parts	83.9%	41.4%	102.6%
bodywork	34.4%	10.6%	223.4%
mechanical services	27.6%	8.5%	223.6%
Estimated operating profit 2005			
Euro	-234,871	100,242	-334.3%
% of turnover	-3.32%	1.07%	-410.3%

- Table 10.28 -

Key findings

The **combination of all assumptions on the volume, price and margin** changes results in a situation where the **typical dealer is driven out of the market**. Although the total turnover 'only' decreases by 23.1% compared with the projected current situation, the operating profit becomes highly negative (see table 10.28). This result shows vividly that a reduction in margin on the different elements in the product mix (new cars, repair activity and spare parts) impacts on the profitability of a dealer far more than a decrease in the sales volume of those elements.

IV.4 Summary Table

In this chapter, three market outcomes of the study are analysed: the status quo outcome, the multi-channel outcome and the mass-selling outcome. Each is characterised by one or more future trends that will impact the profitability of a typical dealer. In order to quantify the **short-term impact of these trends**, several assumptions are made and modelled.

In the **status quo outcome**, the impact of **concentration and reorganisation of the dealer network** has been modelled on the following assumptions:

- Increase of 10% in sales volume of spare parts;
- Increase of 10% in sales volume of repair work;
- Increase of 10% in sales volume of new cars;
- Increase of 4.5% in dealer margins on new cars;

The assumptions are tested both separately and in combination.

The **multi-channel outcome** simulates the possible future situation where **new players enter both the sales and after-sales markets** and thereby increase the level of competition, and where **the original spare part market is liberalised**. The model of this outcome is based on the following assumptions:

- Decrease of 35% in sales volume of spare parts;
- Decrease 5 % in margin on and prices of spare parts;
- Decrease of 5% in volume of repair work;
- Decrease 3 % in margin on and prices of repair work;
- Decrease of 15% in sales volume of new cars;
- Decrease of 2% in margin on and prices of new cars.

The assumptions are tested both separately and in combination.

The **mass-selling outcome** uses the **same trends as the multi-channel outcome**. However, in the mass-selling outcome, the presence of mass-sellers in the car distribution market is taken to be greater. The following assumptions are made:

- Decrease of 35% in sales volume of spare parts;
- Decrease 5 % in margin on and prices of spare parts;
- Decrease of 5% in volume of repair work;
- Decrease 3 % in margin on and prices of repair work;
- Decrease of 30% in sales volume new cars;
- Decrease of 5% in margin on and prices of new cars.

Table 10.29 summarises the results of the assumptions tested in Chapter IV.

Description	Assumptions			Model output			
	Margin effect	Price effect	Volume effect	Turnover index=100	Operating profit as % of turnover	Share of new cars in turnover	Share of new cars in oprtng prft
Current situation				100.0	1.05%	58.1%	32.0%
Current sit. extrapolated to 2005				100.7	1.07%	58.1%	32.0%
Status quo situation							
spare parts							
table 10.6			+ 10%	101.2	1.25%	57.4%	30.8%
repair work							
table 10.7			+ 10%	100.7	1.15%	57.7%	31.4%
new cars							
table 10.8			+ 10%	105.8	1.09%	60.4%	34.1%
table 10.10	+ 4.5%			100.0	3.69%	58.1%	55.4%
table 10.11	+ 4.5%		+ 10%	105.8	3.81%	60.4%	57.8%
Combination spare parts. repair activity and new cars							
table 10.9			+ 10%	107.7	1.33%	59.3%	1.3%
table 10.12	+ 4.5%(new cars)		+ 10%	107.7	4.00%	59.3%	55.7%
Multi-channel situation							
spare parts							
table 10.14			-35%	95.9	0.42%	60.6%	37.5%
table 10.15	-5%	-5%		99.4	0.43%	58.4%	36.9%
table 10.16	-5%	-5%	-35%	95.6	-0.02%	60.8%	41.6%
repair activity							
table 10.17			-5%	99.6	1.03%	58.3%	32.3%
table 10.18	-3%	-3%		99.8	0.83%	58.2%	33.7%
table 10.19	-3%	-3%	-5%	99.4	0.81%	58.4%	33.9%
new cars							
table 10.20			-15%	91.3	1.03%	54.1%	28.6%
table 10.21	-2%	-2%		98.8	-0.09%	57.6%	11.2%
table 10.22	-2%	-2%	-15%	90.3	-0.04%	53.6%	9.7%
Combination spare parts. repair activity and new cars							
table 10.23	-5 %/ -3% / -2%	-5 %/ -3% / -2%	-35% / -5% / -15%	85.3	-1.64%	56.7%	15.6%
Mass-selling situation							
spare parts							
table 10.14	-5%	-5%		99.4	0.43%	58.4%	36.9%
table 10.15	-5%	-5%	-35%	95.6	-0.02%	60.8%	41.6%
table 10.16							
repair activity							
table 10.17	-3%	-3%		99.6	1.03%	58.3%	32.3%
table 10.18	-3%	-3%		99.8	0.83%	58.2%	33.7%
table 10.19			-5%	99.4	0.81%	58.4%	33.9%
new cars							
table 10.25			-30%	82.6	0.99%	49.3%	24.8%
table 10.26	-5%	-5%		97.1	-1.78%	56.8%	-57.8%
table 10.27	-5%	-5%	-30%	80.5	-1.42%	48.0%	-34.5%
Combination spare parts. repair activity and new cars							
table 10.28	-5 %/ -3% / -5%	-5 %/ -3% / -5%	-35% / -5% / -30%	0.8	-3.32%	51.20%	-79.5%

- Table 10.29 -

Key messages

Overall, the conclusion is that **a change in dealer margins impacts the profitability of a dealer more than a change in volume.**

Moreover, the combined volume and price (and margin) effects in each of the three new outcomes significantly alter the profitability of the typical dealer, either favourably or unfavourably. **In the status quo outcome, the typical dealer becomes far more profitable** compared with the projected current situation. On the other hand, **in the multi-channel and mass-selling outcomes, the typical dealer suffers a loss.**

It is believed that these changes will, in the long term, bring about a market reaction (in the status quo situation) or (in the multi-channel and mass-selling outcomes) will cause dealers to approach the profitability level of the projected current situation once again.

V. Modelling the Long-Term Impact of the Three Market Outcomes

The high margins in the status quo situation and the low profitability in the other two outcomes will bring about a second series of changes in prices, product-mix or size of dealers. These impacts are modelled and discussed below.

The changes used in the model of the different outcomes are summarised in the table below:

Long term changes	Status quo situation	Multi-channel situation	Mass-selling situation
Additional changes in volume			
Spare parts	As short-term situation	Size at which current operating profit is attained	Size at which current operating profit is attained
Repair activities			
New cars			
Additional changes in price			
Spare parts	As short-term situation	As short-term situation	As short-term situation
Repair activities		Increase to reach the break-even point	Increase to reach the break-even point
New cars	- 5% ²⁷³	As short-term situation	As short-term situation
Additional changes in margin			
Spare parts	As short-term situation	As short-term situation	As short-term situation
Repair activities		Increase to reach the break-even point	Increase to reach the break-even point
New cars	- 3.9%	As short-term situation	As short-term situation

- Table 10.30 -

V.1 Status Quo

V.1.A Overview of assumptions

Long-term changes	Status quo situation
Additional changes in volume	
Spare parts	As short-term situation
Repair activities	
New cars	
Additional changes in price	
Spare parts	As short-term situation
Repair activities	
New cars	- 5% ²⁷⁴
Additional changes in margin	
Spare parts	As short-term situation
Repair activities	
New cars	- 3.9%

- Table 10.31 -

The relatively high network margin will not be sustainable because of the pressure on new car prices; therefore the assumption is made that part of the increase in dealer margin on new car sales will be used to **offer customers a higher discount**. Based on the appendix Modelling Exercise 4: Distribution Costs, car distribution networks that are able to exploit lean distribution fully may reduce their new car prices by 5% and still earn a higher margin. The assumption is made that 3.9%²⁷⁵ of the contribution margin on new cars will serve to reduce new car prices. According to industry experts, a **decrease of 5% in final new car prices** may be expected in this situation. In this case, the manufacturer and the importer share the cost of part of the customer discount.

²⁷⁵ Andersen estimate based on interviews with industry experts.

V.1.B Change in new car prices

Assumptions

- New car sales : decrease of 3.9% in dealer margin and decrease of 5% in new car prices
- New situation: long-term situation
- Point of reference: projection of the current situation to 2005

Model output

Estimated Figures for a Typical Dealer in 2005: Increase in volume of spare parts, repair work and sales of new cars of 10% and margin on new cars of 4.5%

Number of cars sold	New Situation	Point of reference	% Change
new cars	+/- 330	+/- 302	10.0%
used cars	+/-260	+/-260	
Turnover (Euro)	10,081,045	9,359,826	7.7%
Contribution margin dealer (without overheads)			
new cars	7.4%	2.9%	159.6%
used cars	0.5%	0.5%	
spare parts	18.0%	18.0%	
bodywork	13.0%	13.0%	
mechanical services	13.0%	13.0%	
Overheads (% of turnover)	2.0%	2.1%	-2.9%
Premises + related costs (% of turnover)	1.5%	1.6%	-8.0%
Share of turnover			
new cars	59.3%	58.1%	2.1%
used cars	21.3%	22.9%	-7.2%
spare parts	11.9%	11.6%	2.1%
bodywork	4.2%	4.1%	2.1%
mechanical services	3.3%	3.3%	2.2%
Share of contribution margin			
new cars	55.7%	32.0%	73.7%
used cars	4.4%	7.4%	-40.1%
spare parts	27.3%	41.4%	-34.1%
bodywork	7.0%	10.6%	-34.1%
mechanical services	5.6%	8.5%	-34.1%
Estimated operating profit 2005			
Euro	403,416	100,242	302.4%
% of turnover	4.00%	1.07%	273.8%

- Table 10.32 -

Estimated Figures for a Typical Dealer in 2005: Decrease in price of new car of 5% and margin of 3.9%

Number of cars sold	New Situation	Point of reference	% Change
new cars	+/- 330	+/- 302	10.0%
used cars	+/-260	+/-260	
Turnover (Euro)	9,781,966	9,359,826	4.5%
Contribution margin dealer (without overheads)			
new cars	3.5%	2.9%	22.8%
used cars	0.5%	0.5%	
spare parts	18.0%	18.0%	
bodywork	13.0%	13.0%	
mechanical services	13.0%	13.0%	
Overheads (% of turnover)	2.0%	2.1%	-2.9%
Premises + related costs (% of turnover)	1.6%	1.6%	
Share of turnover			
new cars	58.1%	58.1%	0.0%
used cars	22.0%	22.9%	-4.3%
spare parts	12.2%	11.6%	5.3%
bodywork	4.3%	4.1%	5.3%
mechanical services	3.4%	3.3%	5.3%
Share of contribution			
new cars	35.5%	32.0%	10.9%
used cars	6.4%	7.4%	-12.9%
spare parts	39.7%	41.4%	-4.2%
bodywork	10.2%	10.6%	-4.2%
mechanical services	8.2%	8.5%	-4.1%
Estimated operating profit 2005			
Euro	163,944	100,242	63.5%
% of turnover	1.68%	1.07%	57.0%

- Table 10.33 -

Key findings

Compared with table 10.32, the **short-term** effect discussed in point IV.1.D, the **reduction in car prices and margins**, impacts substantially on the operating profit expressed both in Euros and as a percentage of turnover (-70% and -57% respectively). However, both the overall operating profit and the operating profit / turnover ratio remain higher than in the initial situation (see table 10.33).

V.2 Multi-channel

V.2.A Overview of assumptions

Long term changes	Multi-channel situation
Additional changes in volume	
Spare parts	Size at which current operating profit is reached
Repair activities	
New cars	
Additional changes in price	
Spare parts	As short-term situation
Repair activities	Increase to reach the break-even point
New cars	As short-term situation
Additional changes in margin	
Spare parts	As short-term situation
Repair activities	Increase to reach the break-even point
New cars	As short-term situation

- Table 10.34-

The modelling exercise in point IV.2 showed that the new entrants to the car distribution market and the increased competition in both the sales and after-sales markets would substantially affect the profitability of current dealers. On the assumptions made in point IV.2, the typical dealer may even go bankrupt. To save their businesses, official dealers may be expected to react. Two types of **long-term reaction** are identified and modelled:

- **A change in the product mix:** refocusing on high value-added activities.
This hypothesis is equivalent to the indirect effect of a considerable reduction in the volume of activity (sale of new vehicles, parts distribution, service) resulting in an increase in certain margins (in sub-markets such as specialised repairs in which the competition is less severe). It is assumed that the proportion of complex repairs carried out by a typical dealer will increase so that he may become profitable again. This can be achieved either by an increase in the volume of specialised repair done by the official dealer or by a rise in specialised repair prices. The amount by which a typical dealer must increase the price and volume of specialised repairs to reach the break-even point will be calculated in the following paragraphs.
- **Increase in average dealer size.** Because of new players entering a saturated market and the ongoing consolidation trend (in the dealer network) by the car manufacturers, it may be assumed that small dealers will be forced out of the market. This will result in a market with fewer, but larger players. The assumption has been made that the size (volume and turnover) of a typical dealer will grow to the point that the operating profit of the projected current situation is regained.

V.2.B Change in the product mix: repositioning on high value added activities

Assumptions

- Increase in volume of repair activity (bodywork and mechanical services)
- Increase in price of repair activity (bodywork and mechanical services)
- New situation: long term multi-channel outcome
- Point of reference: projection of the current situation to 2005

Model output

Estimated Figures for a Typical Dealer in 2005:
Volume: Loss of 15% of sales new cars, 35% of sales spare parts and 5% of repair activity
Price: Decrease of 2% in price new cars, 5% spare parts, 3% repair

Estimated Figures for a Typical Dealer in 2005:
Increase in repair activity of 230%

Estimated Figures for a Typical Dealer in 2005:
Increase in repair prices and margins of 13.5%

Number of cars sold	New Situation	Point of reference	% Change	Number of cars sold	New Situation	Point of reference	% Change	Number of cars sold	New Situation	Point of reference	% Change
new cars	+/- 255	+/- 302	-15.0%	new cars	+/- 255	+/- 302	-15.0%	new cars	+/- 255	+/- 302	-15.0%
used cars	+/-260	+/-260		used cars	+/-260	+/-260		used cars	+/-260	+/-260	
Turnover (Euro)	7,982,227	9,359,826	-14.7%	Turnover (Euro)	9,505,617	9,359,826	1.6%	Turnover (Euro)	8,090,107	9,359,826	-13.6%
Contribution margin dealer (without overheads)				Contribution margin dealer (without overheads)				Contribution margin dealer (without overheads)			
new cars	0.9%	2.9%	-68.4%	new cars	0.9%	2.9%	-68.4%	new cars	0.9%	2.9%	-68.4%
used cars	0.5%	0.5%	0.0%	used cars	0.5%	0.5%	0.0%	used cars	0.5%	0.5%	0.0%
spare parts	13.0%	18.0%	-27.8%	spare parts	13.0%	18.0%	-27.8%	spare parts	13.0%	18.0%	-27.8%
bodywork	10.0%	13.0%	-23.1%	bodywork	10.0%	13.0%	-23.1%	bodywork	26.5%	13.0%	103.8%
mechanical services	10.0%	13.0%	-23.1%	mechanical services	10.0%	13.0%	-23.1%	mechanical services	26.5%	13.0%	103.8%
Overheads (% of turnover)	2.2%	2.1%	6.8%	Overheads (% of turnover)	2.0%	2.1%	-2.9%	Overheads (% of turnover)	2.2%	2.1%	6.8%
Premises + related costs (% of turnover)	1.9%	1.6%	16.6%	Premises + related costs (% of turnover)	1.6%	1.6%	-1.8%	Premises + related costs (% of turnover)	1.9%	1.6%	16.6%
Share of turnover				Share of turnover				Share of turnover			
new cars	56.7%	58.1%	-2.3%	new cars	47.7%	58.1%	-18.0%	new cars	56.0%	58.1%	-3.6%
used cars	26.9%	22.9%	17.3%	used cars	22.6%	22.9%	-1.5%	used cars	26.5%	22.9%	15.7%
spare parts	8.4%	11.6%	-27.6%	spare parts	7.1%	11.6%	-39.2%	spare parts	8.3%	11.6%	-28.6%
bodywork	4.4%	4.1%	8.1%	bodywork	12.6%	4.1%	208.7%	bodywork	5.1%	4.1%	24.7%
mechanical services	3.5%	3.3%	8.1%	mechanical services	10.1%	3.3%	208.9%	mechanical services	4.1%	3.3%	24.8%
Share of contribution margin				Share of contribution margin				Share of contribution margin			
new cars	15.6%	32.0%	-51.3%	new cars	9.2%	32.0%	-71.3%	new cars	9.7%	32.0%	-69.8%
used cars	15.8%	7.4%	114.4%	used cars	9.3%	7.4%	26.1%	used cars	9.8%	7.4%	33.0%
spare parts	39.4%	41.4%	-4.8%	spare parts	23.2%	41.4%	-44.0%	spare parts	24.5%	41.4%	-40.9%
bodywork	16.2%	10.6%	52.0%	bodywork	32.4%	10.6%	204.2%	bodywork	31.1%	10.6%	192.4%
mechanical services	13.0%	8.5%	52.1%	mechanical services	25.9%	8.5%	204.4%	mechanical services	24.9%	8.5%	192.6%
Estimated operating profit 2005				Estimated operating profit 2005				Estimated operating profit 2005			
Euro	-131,229	100,242	-230.9%	Euro	1,611	100,242	-98.4%	Euro	622	100,242	-99.4%
% of turnover	-1.64%	1.07%	-253.3%	% of turnover	0.02%	1.07%	-98.1%	% of turnover	0.01%	1.07%	-99.1%

- Table 10.35-

-Table 10.36 -

-Table 10.37 -

Key findings

Table 10.35 summarises the **short-term** multi-channel outcome (with all volume and price effects combined). In this outcome, the **volume of specialised repairs** needs to **increase by at least 230%** for a typical dealer to become profitable again (repair prices kept unchanged as against the short-term multi-channel outcome) (see table 10.36). Table 10.36 also shows that in this outcome, repair work represents 23% of total turnover, compared with 7.3% in the projected current situation.

In table 10.37 the **increase in repair prices and margins** necessary for a dealer to become profitable has been calculated. The model shows that, in order to show an operating profit, both margin and repair prices need to increase by at least **13.5%** compared with the short-term multi-channel outcome.

V.2.C Increase in dealer size

V.2.C.1 Change in dealer size if only impacts on volume are considered

Assumptions

- **Only the impacts on volume** are considered (no price or margin changes)
- Increase in dealer size to reach the operating profit of the projected current situation
- New situation: long-term multi-channel outcome
- Point of reference: projection of the current situation in 2005

Model output

Estimated Figures for a Typical Dealer in 2005: Loss of 15% of sales new cars, 35% of sales spare parts and 5% of repair activity

Number of cars sold	New Situation	Point of reference	% Change
new cars	+/- 255	+/- 302	-15.0%
used cars	+/-260	+/-260	
Turnover (Euro)	8,129,538	9,359,826	-13.1%
Contribution margin dealer (without overheads)			
new cars	2.9%	2.9%	
used cars	0.5%	0.5%	
spare parts	18.0%	18.0%	
bodywork	13.0%	13.0%	
mechanical services	13.0%	13.0%	
Overheads (% of turnover)	2.2%	2.1%	6.8%
Premises + related costs (% of turnover)	1.9%	1.6%	16.6%
Share of turnover			
new cars	56.9%	58.1%	-2.1%
used cars	26.4%	22.9%	15.1%
spare parts	8.7%	11.6%	-25.2%
bodywork	4.5%	4.1%	9.4%
mechanical services	3.6%	3.3%	9.5%
Share of contribution margin			
new cars	34.2%	32.0%	6.6%
used cars	9.2%	7.4%	25.4%
spare parts	33.8%	41.4%	-18.5%
bodywork	12.7%	10.6%	19.1%
mechanical services	10.2%	8.5%	19.2%
Estimated operating profit 2005			
Euro	21,415	100,242	-78.6%
% of turnover	0.26%	1.07%	-75.7%

- Table 10.38 -

Estimated Figures for a Typical Dealer in 2005: Increase in dealer size of 30%

Number of cars sold	New Situation	Point of reference	% Change
new cars	+/- 334	+/- 302	10.6%
used cars	+/-340	+/-260	
Turnover (Euro)	10,518,835	9,359,826	12.4%
Contribution margin dealer (without overheads)			
new cars	2.9%	2.9%	
used cars	0.5%	0.5%	
spare parts	18.0%	18.0%	
bodywork	13.0%	13.0%	
mechanical services	13.0%	13.0%	
Overheads (% of turnover)	2.0%	2.1%	-5.3%
Premises + related costs (% of turnover)	1.5%	1.6%	-8.0%
Share of turnover			
new cars	56.9%	58.1%	-2.1%
used cars	26.4%	22.9%	15.1%
spare parts	8.7%	11.6%	-25.2%
bodywork	4.5%	4.1%	9.4%
mechanical services	3.6%	3.3%	9.5%
Share of contribution margin			
new cars	34.2%	32.0%	6.6%
used cars	9.2%	7.4%	25.4%
spare parts	33.8%	41.4%	-18.5%
bodywork	12.7%	10.6%	19.1%
mechanical services	10.2%	8.5%	19.2%
Estimated operating profit 2005			
Euro	100,242	100,242	
% of turnover	1.01%	1.07%	-5.6%

-Table 10.39 -

Key findings

In order to achieve same operating profit as in the projected current situation, in this situation a typical dealer needs to **increase in size by 30%** (see table 10.39) as against the short-term multi-channel outcome (table 10.38) and by 12.4% as against the projected current situation (see table 10.39).

V.2.C.2 Change in dealer size if volume and price impacts are taken into account

Assumptions

- All impacts discussed in point III.3 are taken into account
- Increase in dealer size to reach the operating profit of the projected current situation
- New situation: long-term multi-channel outcome
- Point of reference: projection of the current situation in 2005

Model output

Estimated Figures for a Typical Dealer in 2005:
Volume: Loss of 15% of new car sales, 35% of spare parts sales and 5% of repair work
Price: Decrease of 2% in price new cars, 5% spare parts, 3% repair

Number of cars sold	New Situation	Point of reference	% Change
new cars	+/- 255	+/- 302	-15.0%
used cars	+/-260	+/-260	
Turnover (Euro)	7,982,227	9,359,826	-14.7%
Contribution margin dealer (without overheads)			
new cars	0.9%	2.9%	-68.4%
used cars	0.5%	0.5%	
spare parts	13.0%	18.0%	-27.8%
bodywork	10.0%	13.0%	-23.1%
mechanical services	10.0%	13.0%	-23.1%
Overheads (% of turnover)	2.2%	2.1%	6.8%
Premises + related costs (% of turnover)	1.9%	1.6%	16.6%
Share of turnover			
new cars	56.7%	58.1%	-2.3%
used cars	26.9%	22.9%	17.3%
spare parts	8.4%	11.6%	-27.6%
bodywork	4.4%	4.1%	8.1%
mechanical services	3.5%	3.3%	8.1%
Share of contribution margin			
new cars	15.6%	32.0%	-51.3%
used cars	15.8%	7.4%	114.4%
spare parts	39.4%	41.4%	-4.8%
bodywork	16.2%	10.6%	52.0%
mechanical services	13.0%	8.5%	52.1%
Estimated operating profit 2005			
Euro	-131,229	100,242	-230.9%
% of turnover	-1.64%	1.07%	-253.3%

- Table 10.40 -

Estimated Figures for a Typical Dealer in 2005: Increase in dealer size of 213%

Number of cars sold	New Situation	Point of reference	% Change
new cars	+/- 765	+/- 302	153.3%
used cars	+/-260	+/-260	
Turnover (Euro)	23,983,234	9,359,826	156.2%
Contribution margin dealer (without overheads)			
new cars	0.9%	2.9%	-68.4%
used cars	0.5%	0.5%	
spare parts	13.0%	18.0%	-27.8%
bodywork	10.0%	13.0%	-23.1%
mechanical services	10.0%	13.0%	-23.1%
Overheads (% of turnover)	1.4%	2.1%	-32.0%
Premises + related costs (% of turnover)	0.6%	1.6%	-63.2%
Share of turnover			
new cars	56.7%	58.1%	-2.3%
used cars	26.9%	22.9%	17.3%
spare parts	8.4%	11.6%	-27.6%
bodywork	4.4%	4.1%	8.1%
mechanical services	3.5%	3.3%	8.1%
Share of contribution margin			
new cars	15.6%	32.0%	-51.3%
used cars	15.8%	7.4%	114.4%
spare parts	39.4%	41.4%	-4.8%
bodywork	16.2%	10.6%	52.0%
mechanical services	13.0%	8.5%	52.1%
Estimated operating profit 2005			
Euro	100,242	100,242	
% of turnover	0.42%	1.07%	-60.7%

- Table 10.41 -

Key findings

Table 10.40 summarises the short-term multi-channel outcome when all volume and price effects are combined.

In order to make an operating profit of 100,242 Euros, **while the volume and price of all elements of the product mix decrease**, the typical dealer needs to **triple in size** compared with the short-term multi-channel outcome.

Compared with the projected current situation, the size of a dealer must increase by 156% in order to obtain the same operating profit (see table 10.41). Note, however, that in both the short-term (table 10.40) and long-term situations (table 10.41), the contribution of the elements of the product-mix has changed significantly compared with the projected current situation (to the disadvantage of both new cars and spare parts).

V.3 Mass-Selling

V.3.A Overview of assumptions

Long-term changes	Mass-selling outcome
Additional changes in volume	
Spare parts	Size at which current operating profit is reached
Repair activities	
New cars	
Additional changes in price	
Spare parts	As short-term situation
Repair work	Increase to reach the break-even point
New cars	As short-term situation
Additional changes in margin	
Spare parts	As short-term situation
Repair work	Increase to reach the break-even point
New cars	As short-term situation

- Table 10.42 -

The assumptions made in the long-term multi-channel outcome are also applicable to the long-term mass-selling outcome:

- One result of a loss of market share in both sales and after-sales to new entrants may be a greater **focus on activities that contribute high added value and those in which competition is limited**. Highly **specialised repair** meets both requirements. The assumption is that, in the long term, either the volume or the price of (and margin on) this kind of repair will increase to outweigh the loss of profitability discussed in point IV.3 (mass-selling short-term effects).
- Again the assumption is made that the **size of a typical dealer will increase** to the point where it reaches its initial operating profit (projection of the situation in 2001). More specifically, the volumes of the product-mix elements will increase proportionally until an operating profit of 100,242 Euros is attained.

V.3.B Change of the product mix: refocusing on high value-added activities

Assumptions

- Increase in volume of repair activity (bodywork and mechanical services)
- Increase in price of and margins on repair activity (bodywork and mechanical services)
- New situation: long-term mass-selling outcome
- Point of reference: projection of current situation to 2005

Model output

<i>Estimated Figures for a Typical Dealer in 2005:</i> Volume: Loss of 30% of sales volume new cars, 35% of spare parts sales volume and 5% of repair work volume Price and margin: Decrease of 5% new cars, 5% spare parts, 3% repair				<i>Estimated Figures for a Typical Dealer in 2005:</i> Increase in repair activity volumes of 279%				<i>Estimated Figures for a Typical Dealer in 2005:</i> Increase in repair prices and margins of 27%			
Number of cars sold	New Situation	Point of reference	% Change	Number of cars sold	New Situation	Point of reference	% Change	Number of cars sold	New Situation	Point of reference	% Change
new cars	+/-211	+/- 302	-30%	new cars	+/-211	+/- 302	-30%	new cars	+/-211	+/- 302	-30%
used cars	+/-260	+/-260		used cars	+/-260	+/-260		used cars	+/-260	+/-260	
Turnover (Euro)	7,068,677	9,359,826	-24.5%	Turnover (Euro)	9,102,354	9,359,826	-2.8%	Turnover (Euro)	7,245,207	9,359,826	-22.6%
Contribution margin dealer (without overheads)				Contribution margin dealer (without overheads)				Contribution margin dealer (without overheads)			
new cars	-2.1%	2.9%	-173.7%	new cars	-2.1%	2.9%	-173.7%	new cars	-2.1%	2.9%	-173.7%
used cars	0.5%	0.5%		used cars	0.5%	0.5%		used cars	0.5%	0.5%	
spare parts	13%	18.0%	-27.8%	spare parts	13%	18.0%	-27.8%	spare parts	13%	18.0%	-27.8%
bodywork	10%	13.0%	-23.1%	bodywork	10%	13.0%	-23.1%	bodywork	37%	13.0%	184.6%
mechanical services	10%	13.0%	-23.1%	mechanical services	10%	13.0%	-23.1%	mechanical services	37%	13.0%	184.6%
Overheads (% of turnover)	2.4%	2.1%	16.5%	Overheads (% of turnover)	2.1%	2.1%	1.9%	Overheads (% of turnover)	2.4%	2.1%	16.5%
Premises + related costs (% of turnover)	2.2%	1.6%	35.0%	Premises + related costs (% of turnover)	1.7%	1.6%	4.3%	Premises + related costs (% of turnover)	2.1%	1.6%	28.8%
Share of turnover				Share of turnover				Share of turnover			
new cars	51.2%	58.1%	-11.9%	new cars	40.6%	58.1%	-30.1%	new cars	49.9%	58.1%	-14.1%
used cars	30.4%	22.9%	32.4%	used cars	24.1%	22.9%	5.0%	used cars	29.6%	22.9%	29.2%
spare parts	9.5%	11.6%	-18.2%	spare parts	7.5%	11.6%	-35.1%	spare parts	9.3%	11.6%	-20.2%
bodywork	5.0%	4.1%	22.0%	bodywork	15.4%	4.1%	277.9%	bodywork	6.2%	4.1%	52.2%
mechanical services	4.0%	3.3%	22.1%	mechanical services	12.4%	3.3%	278.2%	mechanical services	5.0%	3.3%	52.3%
Share of contribution margin				Share of contribution margin				Share of contribution margin			
new cars	-79.5%	32.0%	-348.2%	new cars	-22.6%	32.0%	-170.4%	new cars	-24.0%	32.0%	-174.9%
used cars	33.6%	7.4%	356.2%	used cars	9.5%	7.4%	29.4%	used cars	10.2%	7.4%	37.7%
spare parts	83.9%	41.4%	102.6%	spare parts	23.8%	41.4%	-42.6%	spare parts	25.3%	41.4%	-38.8%
bodywork	34.4%	10.6%	223.4%	bodywork	49.5%	10.6%	365.4%	bodywork	49.2%	10.6%	361.8%
mechanical services	27.6%	8.5%	223.6%	mechanical services	39.7%	8.5%	365.8%	mechanical services	39.4%	8.5%	362.1%
Estimated operating profit 2005				Estimated operating profit 2005				Estimated operating profit 2005			
Euro	-234,871	100,242	-334.3%	Euro	0	100,242	-100.0%	Euro	-580	100,242	-100.6%
% of turnover	-3.32%	1.07%	-410.3%	% of turnover	0%	1.07%	-100.0%	% of turnover	-0.01%	1.07%	-100.9%

- Table 10.43 -

- Table 10.44 -

- Table 10.45 -

Key findings

Table 10.43 summarises the combined volume and price effects discussed in point IV.3 (short-term mass-selling outcome) which will serve as input data for modelling the long-term mass-selling outcome.

If specialised repair margins remain at 10%, **the volume of repair work needs to increase by 279%** for a typical dealer to reach break-even point (see table 10.44). On the other hand, if such a dealer is unable to increase his volume of repair work, he will need to **increase repair prices and margins by 27%** compared with the short-term mass-selling outcome and by 24% compared with the projected current situation in order to reach the break even point.

V.3.C Change in dealer size

V.3.C.1 Change in dealer size if only volume impacts are taken into account

Assumptions

- Only the volume impacts are taken into account (no price or margin changes)
- Increase in dealer size to reach the operating profit in the projected current situation
- New situation: long-term mass-selling outcome
- Point of reference: projection of the current situation to 2005

Model output

*Estimated Figures of a Typical Dealer in 2005:
Volume: Loss of 30% of new car sales volume. 35% of
spare parts sales volume and 5% of repair work
volume*

Number of cars sold	New Situation	Point of reference	% Change
new cars	+/-211	+/- 302	-30%
used cars	+/-260	+/-260	
Turnover (Euro)	7,313,915	9,359,826	-21.9%
Contribution margin dealer (without overheads)			
new cars	2.9%	2.9%	
used cars	0.5%	0.5%	
spare parts	18%	18.0%	
bodywork	13%	13.0%	
mechanical services	13%	13.0%	
Overheads (% of turnover)	2.3%	2.1%	11.7%
Premises + related costs (% of turnover)	2.1%	1.6%	28.8%
Share of turnover			
new cars	52.0%	58.1%	-10.4%
used cars	29.4%	22.9%	28.0%
spare parts	9.7%	11.6%	-16.8%
bodywork	5.0%	4.1%	21.6%
mechanical services	4.0%	3.3%	21.7%
Share of contribution margin			
new cars	29.9%	32.0%	-6.6%
used cars	9.8%	7.4%	33.4%
spare parts	35.9%	41.4%	-13.3%
bodywork	13.5%	10.6%	26.8%
mechanical services	10.8%	8.5%	26.9%
Estimated operating profit 2005			
Euro	9,426	100,242	-90.6%
% of turnover	0.13%	1.07%	-87.9%

- Table 10.46 -

*Estimated Figures for a Typical Dealer in 2005: Increase
in size of 35.5%*

Number of cars sold	New Situation	Point of reference	% Change
new cars	+/-286	+/- 302	-5%
used cars	+/-354	+/-260	36.2%
Turnover (Euro)	9,907,235	9,359,826	5.8%
Contribution margin dealer (without overheads)			
new cars	2.9%	2.9%	
used cars	0.5%	0.5%	
spare parts	18%	18.0%	
bodywork	13%	13.0%	
mechanical services	13%	13.0%	
Overheads (% of turnover)	2.0%	2.1%	-2.9%
Premises + related costs (% of turnover)	1.5%	1.6%	-8.0%
Share of turnover			
new cars	52.0%	58.1%	-10.4%
used cars	29.4%	22.9%	28.0%
spare parts	9.7%	11.6%	-16.8%
bodywork	5.0%	4.1%	21.6%
mechanical services	4.0%	3.3%	21.7%
Share of contribution margin			
new cars	29.9%	32.0%	-6.6%
used cars	9.8%	7.4%	33.4%
spare parts	35.9%	41.4%	-13.3%
bodywork	13.5%	10.6%	26.8%
mechanical services	10.8%	8.5%	26.9%
Estimated operating profit 2005			
Euro	100,242	100,242	
% of turnover	1.01%	1.07%	-5.6%

- Table 10.47 -

Key findings

Table 10.46 summarises the impact on the profitability of a typical dealer if only the sales volumes of the different product-mix elements are affected by the increased competition.

If **current prices and margins are maintained**, a typical dealer must in the mass-selling outcome **increase in size by 35.5%**, compared with the outcome shown in table 10.46, or by 5.8%, compared with the projected current situation, in order to attain an operating profit of 100,242 Euros (see table 10.47). In this long-term mass-selling outcome, the **operating profit** of a typical dealer amounts to **1.01% of turnover** (see table 10.47).

V.3.C.2 Change in dealer size, volume and price impacts taken into account

Assumptions

- All impacts discussed in point III.4 are taken into account
- Increase in dealer size to reach the operating profit in the projected current situation
- New situation: long-term mass-selling outcome
- Point of reference: projection of the current situation to 2005

Model output

*Estimated Figures for a Typical Dealer in 2005:
Volume: Loss of 30% of new car sales volume, 35% of
spare parts sales volume and 5% of repair work volume
Price and margin: Decrease of 5% new cars*

Number of cars sold	New Situation	Point of reference	% Change
new cars	+/-211	+/- 302	-30%
used cars	+/-260	+/-260	
Turnover (Euro)	7,123,545	9,359,826	-23.9%
Contribution margin dealer (without overheads)			
new cars	-2.1%	2.9%	-173.7%
used cars	0.5%	0.5%	
spare parts	18%	18%	
bodywork	13%	13%	
mechanical services	13%	13%	
Overheads (% of turnover)	2.4%	2.1%	16.5%
Premises + related costs (% of turnover)	2.2%	1.6%	35.0%
Share of turnover			
new cars	50.8%	58.1%	-12.6%
used cars	30.1%	22.9%	31.4%
spare parts	9.9%	11.6%	-14.6%
bodywork	5.1%	4.1%	24.8%
mechanical services	4.1%	3.3%	24.9%
Share of contribution margin			
new cars	-49.7%	32.0%	-255.1%
used cars	21.0%	7.4%	185.1%
spare parts	76.8%	41.4%	85.3%
bodywork	28.8%	10.6%	170.8%
mechanical services	23.1%	8.5%	171.1%
Estimated operating profit 2005			
Euro	-174,180	100,242	-273.8%
% of turnover	-2.45%	1.07%	-329.0%

- Table 10.48 -

*Estimated Figures for a Typical Dealer in 2005: Increase
in size of 378%*

Number of cars sold	New Situation	Point of reference	% Change
new cars	+/-1010	+/- 302	234%
used cars	+/-1250	+/-260	380.8%
Turnover (Euro)	34,079,641	9,359,826	264.1%
Contribution margin dealer (without overheads)			
new cars	-2.1%	2.9%	-173.7%
used cars	0.5%	0.5%	
spare parts	18%	18%	
bodywork	13%	13%	
mechanical services	13%	13%	
Overheads (% of turnover)	1.3%	2.1%	-36.9%
Premises + related costs (% of turnover)	0.4%	1.6%	-75.5%
Share of turnover			
new cars	50.8%	58.1%	-12.6%
used cars	30.1%	22.9%	31.4%
spare parts	9.9%	11.6%	-14.6%
bodywork	5.1%	4.1%	24.8%
mechanical services	4.1%	3.3%	24.9%
Share of contribution margin			
new cars	-49.7%	32.0%	-255.1%
used cars	21.0%	7.4%	185.1%
spare parts	76.8%	41.4%	85.3%
bodywork	28.8%	10.6%	170.8%
mechanical services	23.1%	8.5%	171.1%
Estimated operating profit 2005			
Euro	100,242	100,242	
% of turnover	0.29%	1.07%	-72.9%

- Table 10.49 -

Key findings

A decrease in volume of all elements of the product mix and a price decrease on new cars (see table 10.48) causes a typical dealer to become unprofitable. In this situation, an **increase in size of 378%** (compared with the short-term mass-selling outcome) is necessary in order to attain the operating profit in the projected current situation (see table 10.49). Compared with the projected current situation, this means an increase in size of 264.1% (see table 10.49).

The 100,242 Euros is **only 0.29% of turnover**, which is considerably less than the 1.07% of the projected situation (see table 10.49).

The results of the model in which the prices of spare parts and repair activity are also reduced have not been presented since the size of a dealer must increase unrealistically to attain an operating profit of 100,242 Euro - or to reach break-even point.

V.4 Summary Table

As discussed, the impact of the changes in section IV on profitability will bring about a second set of changes in the long term in order to arrive at a long-term equilibrium. Therefore, the following additional assumptions are made:

In the **status quo outcome** car prices, and consequently dealer margins, will fall by 5% and 3.9% respectively.

In the **multi-channel outcome**, the operating loss of the typical dealer will cause:

- **Increased concentration on high value-added activities.** In the model two cases were analysed: an increase in the volume of specialised repair work of 230% (break-even point) and an increase in specialised repair work prices and margins of 13.5% (break-even point). Both increases are relative to the volume, prices and margins for multi-channel short-term repair work;
- The combined effects of volume, price and margin discussed in the short-term Multi-channel outcome will drive small dealers out of the market (operating loss); consequently **the average size of a dealer will increase.** The model shows that an increase of 30% (if only the short-term volume effects are considered) or 213% (if both short-term volume and price effects are considered) is necessary to re-attain an operating profit of 100,242 Euros.

The short-term **mass-selling outcome** will cause the same sort of additional changes. However, the increases necessary for a typical dealer to become profitable (or even reach break-even point) will be larger:

- An increase in specialised repair volume of 279% to break even;
- An increase in specialised repair prices and margins of 27% to break even;
- In the case in which only short-term volume effects are taken into account, an increase in dealer size (volume and turnover) of 35.5%, to attain the projected current operating profit (100,242 Euros);
- In the case of increased competition impacting both volumes and prices, an increase in dealer size of 378% to attain the projected current operating profit (100,242 Euros).

The percentage increases are relative to the short-term mass-selling outcome.

Description	Assumptions				Model output			
	Short-term changes	Additional long-term changes			Turnover index=100	Operating profit as % of turnover	Share of new cars in turnover	Share of new cars in operating profit
Current situation 2001					100.0	1.05%	58.1%	32.0%
Current situation extrapolated to 2005					100.7	1.07%	58.1%	32.0%
Status quo situation								
new cars								
table 10.33	+ 10% sales volume of spare parts Repairs and new + 4.5% margin on new cars	-3.9%	-5%		104.5	1.68%	58.1%	35.5%
Multi-channel situation								
specialised repairs								
table 10.36	-35% volume spare parts -5% volume repair -15% volume new cars			+230%	101.6	0.02%	47.7%	9.2%
table 10.37	-5% margin and price spare parts -3% margin & price repairs -2% margin and price new cars	+ 13.5%	+13.5%		86.4	0.01%	56.0%	9.7%
spare parts, repairs, new cars combined								
table 10.39	-35% volume spare parts -5% volume repair -15% volume new cars			+30%	112.4	1.01%	60.6%	34.9%
table 10.41	-35% volume spare parts -5% volume repair -15% volume new cars -5% margin and price spare parts -3% margin and price repair -2% margin and price new cars			+213%	256.2	0.42%	56.7%	15.6%
Mass-selling situation								
specialised repairs								
table 10.44	-35% volume spare parts -5% volume repair -30% volume new cars			+279%	97.2	0.00%	40.6%	-22.6%
table 10.45	-5% margin and price spare parts -3% margin and price repair -5% margin and price new cars	+ 27%	+27%		77.4	-0.01%	49.9%	-24%
spare parts, repairs, new cars combined								
table 10.47	-35% volume spare parts -5% volume repair -30% volume new cars			+35.5%	105.8	1.01%	52.0%	29.9%
table 10.49	-35% volume spare parts -5% volume repair -30% volume new cars -5% margin and price new cars			+378%	364.1	0.29%	50.8%	-49.7%

- Table 10.50 -

Key messages

Even when prices and margins are reduced in the long term, **the operating profit / turnover ratio of a typical dealer in the status quo situation remains higher than in the projected current situation.**

In order to reach the break-even point in the **multi-channel and mass-selling outcomes** either the **volume of specialised repairs must more than triple** or their **prices and margins must increase significantly**. In both cases, these effects reduce the contribution of new car sales to the total margin. In the **mass-selling outcome, the total operating profit would actually increase if the typical dealer reduced new car sales.**

Finally, **the average dealer size in the multi-channel or mass-selling outcomes has to increase by 213% and 378% respectively** (leaving the proportions of the product mix unchanged) to attain the operating profit of a typical dealer in the projected current situation.

VI. Conclusion

In this appendix, the impact of volume and price changes in the elements of the product mix on the profitability of the typical dealer has been modelled. In this context four different market outcomes have been analysed: **projection of the current situation to 2005, the status quo outcome, the multi-channel outcome and the mass-selling outcome.**

Projection of the current situation to 2005

The projected current outcome **differs marginally from the current outcome** since the product mix, margins and volumes stay roughly the same (new car sales are expected to be only 1% higher than in 2001).

For the following market outcomes the distinction is made between **short** and **long-term impacts** since the initial changes (see section IV) alter the profitability of a typical dealer. Dealers' profitability is affected to such an extent that there will need to be a second set of reactions by both market and dealers in order to reach long-term equilibrium.

Status quo outcome

In this situation, the **impact of intensified concentration and reorganisation of the dealer network** has been modelled. The assumption is that the size of the typical dealer will increase (the case of a 10% increase has been modelled) in order to maximise the benefits of lean distribution. Moreover, it is assumed that cost rationalisation while maintaining new car prices, increases dealer margins significantly.

Although the **increase in volume (dealer size) contributes to the operating profit, it is mainly because of the higher margin on new car sales that operating profit amounts to 4% of turnover** (compared with 1.07% in the projected current situation).

The high margins on new cars will not be sustainable and will result, **in the long term**, in higher customer discounts. Even with an **extra discount of 5% on new car prices**, the **profitability** of a typical dealer **remains higher** compared with the projected current situation.

Multi-channel outcome

In this outcome the **impact of new players** (e.g. banks, insurance, ...) entering the distribution market, combined with an **increased level of competition in the after-sales market and liberalisation of the spare parts market**, is calculated. A case involving 35% of the sales of spare parts, 5% of the volume of repair work and 15% of that of new car sales being lost to new entrants has been modelled.

In this case, the operating profit is almost 80% less than in the projected situation (see table 10.38).

If the increased competition in the sales and after-sales markets also causes prices to fall, the operating profit of a typical dealer becomes negative (- 131,229 Euros). More specifically, in this outcome **the typical dealer will be forced out of the market.**

Two types of **long-term reactions** are anticipated:

- **A change in the proportion of product-mix elements** (new and used cars, repair work and spare parts): more specifically increased concentration on specialised repair (relatively low competition and high margins). The model shows that, in the multi-channel outcome, for a typical dealer to reach break-even, the volume of specialised repairs must more than triple (see table 10.36). Otherwise, the prices and margins on specialised repairs need to increase by 13.5% compared with the short-term multi-channel outcome.
- Since small dealers will leave the market, the **average size of a dealer will increase** in the multi-channel outcome. Calculations indicate that the average dealer size needs to **grow by 213%** (compared with the short-term multi-channel outcome) **to regain the operating profit** of a typical dealer in the projected current situation (table 10.41).

Mass-selling

The **trends discussed in the multi-channel outcome are applicable** to the mass-selling outcome. However, it is assumed in this outcome that **mass-selling players** (e.g. car supermarkets) are **highly represented** in the market, as opposed to a moderate presence in the previous outcome. It is assumed that the main effects will be that dealers lose volume and margins in new car sales:

A 30% decrease in the volume and price of new cars together with a 5% decrease in margin has been analysed. The change in volume of the other elements is assumed to be identical to the multi-channel outcome.

When only **volume effects** are taken into account, the typical dealer remains marginally profitable (operating profit = 9426 Euros, see table 10.46). **Combined with a reduction in new car prices and margins of 5%, the operating profit becomes highly negative** (table 10.48).

Again, it is believed that this outcome is not the long-term equilibrium and that both the product mix and the size of dealers will change so that a typical dealer becomes profitable again.

As in the multi-channel outcome, **increased specialisation is expected**. The model shows that in the mass-selling outcome the **volume of specialised repairs must almost quadruple** for a typical dealer to become profitable again. A **rise in specialised repair prices and margins of at least 27%** leads to the same result.

Moreover, in the volume and price structure of the short-term mass-selling outcome, the **typical dealer size needs to increase by 378%** to attain an operating profit of 100,242 Euros.

Appendix 11: Modelling Exercise 2 – Market Share

I. Introduction

Modelling Exercise 2 compares the distribution of market share in sales and after-sales among the various players.

I.1. Types of Segmentation Used

The different types of segmentation used in this analysis are as follows:

A. Segmentation by **consumer type** :

- Fleet : through fleet players²⁷⁶;
- End consumers: direct purchase by the consumer from a distribution player.

B. Segmentation by **type of distribution player**:

- Sales by official network
- Direct sales by manufacturers
- Sales via integrated multi-brand distributors (sales/after-sales service)
- Sales via multi-brand players specialising in high-volume models (mass-seller)
- Others (niche player)

C. **'Product'** segmentation:

- Segments A/B;
- Segments M1/M2;
- Other segments.

For reference, the different car segments are as follows (see Appendix 5):

Car segmentation data (2000)

(Passenger) Car segments	Number of cars sold world-wide	Number of cars sold world-wide in %	Number of cars sold in Europe in %	Average number of competitors in EU countries	Average retail price per vehicle (in Euro)	Average Margin
A	2,801,000	6%	7.0%	20	7,000	Low
B	7,110,000	15%	16.0%	19	10,000	Low
M1	13,065,000	27%	27.0%	27	13,000	Medium
M2	9,792,000	20%	20.0%	31	20,000	Medium
M3	3,669,000	8%	7.0%	18	33,000	High
H				9	45,000	High
Others	11,937,000	25%	23.0%	>35	25,000	High
Total	48,374,000	100.0%	100.0%			
Average 'weighted', all inclusive retail price, all segments:					+/- 18,000 Euro	

Sources: Distribution Automobile, Eurostat, 1999; Andersen calculations

D. **'Model'** segmentation:

- Standard models and special editions

E. In **after-sales services**, the different channels considered are

- Independent network;
- Independent repairers;
- Fast fit;
- Other specialised independent repairers.

²⁷⁶ Estimated as 50% of sales by 2005 – Appendix 4 (Fleet Market).

I.2. Structure of Appendix 11

Section II provides an overview of the current situation.

Section III addresses the assumptions made in the status quo, multi-channel and mass-selling models.

Section IV summarises key findings.

II. Current situation (2001)

Market Share		Current Situation
C U S T O M E R L O O P	Fleet / final consumer (sales)	
	Fleet	40%
	Sales by type of channel	
	Official networks	90 to 98%
	Direct sales	2 to 10%
	Multi-brand dealers (% of network players)	24% on average
	Car sales by segment	
	Segment A/B (smallest economy and sub-compacts models)	23%
	Segment M1/M2 (compacts and medium models)	47%
	Other segments	30%
	Sales by model	
	Standard models and special line	35%
	After-sales service by type of channel	
	Official networks (% of overall market value)	53%
	Independent repairers (% of overall market value)	34%
	Fast fit chains (% of overall market value)	7%
	Other new channels (% of overall market value)	6%
	Official spare parts sold by official networks	63%

Source: Appendix 4: Fleet Market, Appendix 5: Products, Appendix 8: After-sales players²⁷⁷

- Table 11.1 -

²⁷⁷ The estimate that 35% of car sales will be of standard models and special editions comes from interviews with industry experts conducted by Andersen.

III. Assumptions and Modelling Exercise

III.1 Status Quo Outcome

In the **sales** market:

- The market share of fleet sales compared with total sales is currently around 40% (see Appendix 5: Fleet Market) and is expected to grow to 50% of total car sales in 2005;
- Since part of fleet sales is directly from the manufacturer constructor, direct sales are also expected to rise in this outcome;
- To enhance distribution cost efficiency, small distribution networks (e.g. those of Asian brands²⁷⁸) will increasingly become multi-brand;
- The growth of both direct sales and multi-brand dealers will have a negative impact on the market share of traditional single brand dealers.
- The share of the total version-mix of standard cars and special editions is kept unchanged in this outcome.

In the **after-sales** market:

- A shift in market share (expressed as return) toward fast fit repair chains is assumed;
- Official repairers will maintain their market share;
- Independent repairers (generalists) are expected to lose market share because of the increased complexity of cars and the high investments needed to perform major multi-brand repairs.

III.2 Multi-Channel Situation

The assumptions of a rise in fleet sales and its impact on direct sales as a share of the total also apply to this outcome.

Compared with the status quo outcome, the entrance of new multi-brand players will increase the number of multi-brand car distributors (by 12-20%)²⁷⁹, reducing the number of traditional dealers.

In this outcome, it is assumed that the share of M1/M2 category cars stays unchanged, the category 'other segments' on the other hand is expected to rise since it is assumed that a small percentage of the multi-brand distributors will focus on this segment. Consequently, the share of the A/B segment is expected to fall slightly. This can be explained by the fact that it is less attractive to new entrants because of the low margins, low volumes sold and (already) relatively stiff competition in this segment.

Again the change in standard and special series cars is expected to be proportional to that in other models.

For the same reasons as in the status quo outcome, the share of independent repairers in the total after-sales market will decrease, but to a lesser extent because improved access to information is assumed (-5%)²⁸⁰. The official repair network (the major repair division) will absorb part of this loss. Fast fit repair chains and other specialised multi-brand repairers will take the share of minor repairs performed by independent repairers leaving the market.

²⁷⁸ Cf. Appendix 13 (Modelling Exercise 4 - Distribution Costs).

²⁷⁹ Based on interviews conducted by Andersen.

²⁸⁰ Based on interviews conducted by Andersen.

III.3 Mass-Selling Outcome

Mass-sellers representing 30% of the car distribution market will be modelled. Here, an increased presence of mass-sellers is assumed. Mass-sellers are expected to target mainly high-volume segments such as the M1/M2 car segment. Since the volume of car sales is expected to stabilise in the near future, the increase in sales in the M1/M2 segment (by 5-10%)²⁸¹ will cause one or more other segments to suffer. In this outcome the assumption is that it will be the 'other types' segment that will decrease. This can be explained by the fact that mass-selling may induce a higher level of standardisation and damage the sales of low-volume segments.

Consequently, mass-sellers will boost standard models and special editions, causing the share of 'other types' to reduce. The increase in the share of this segment is estimated to be 5-10%²⁸², representing more than 50% of total cars sold.

Ultimately, this trend will have an impact on the number of models (and low volume brands) available.

The fact that mass-sellers will prefer to make alliances with large official repairers and large specialised repair chains as opposed to small independents will have an impact on the independent repair channel, causing the market share of the latter to decrease significantly.

The results of the assumptions can be summarised as follows:

Market share		Current situation	Status quo	Multi-channel	Mass-selling
C U S T O M E R L O O P	Fleet / final consumer (sales)				
	Fleet	40%	+ (50%)	+ (50%)	+ (50%)
	Sales by type of channel				
	Official networks	90 to 98%	-	-	-
	Direct sales	2 to 10%	+ (5 to 15%)	+ (5 to 20%)	+ (5 to 20%)
	Multi-brand dealers (% of network players)	24% on average	+ +	+ 50% on average	+ 50% on average
	Mass-sellers	0%	=	+ (10 to 15%)	+ (30%)
	Others (niche)	0%	=	+ (2 to 5%)	=
	Sales by car segments				
	Segment A/B	23%	=	-	=
	Segment M1/M2	47%	=	=	+ (5 to 10%)
	Other segments	30%	=	+ (+2 to 5%)	-
	Sales by type of model				
	Standard models and special lines	35%	=	=	+ (50%)
	After-sales service by type of channel				
	Official network (% of overall market value)	52%	=	+	+
	Independent repairers (% of overall market value)	34%	- (-5 to 15%)	- (-5%)	- (-30%)
	Fast fit chains (% of overall market value)	7%	+	+	+ Up to 15%
	Other new channels (% of overall market value)	6%	=	+	+

- Table 11.2 -

²⁸¹ Based on interviews with industry experts conducted by Andersen.

²⁸² Based on interviews with industry experts conducted by Andersen.

IV. Conclusion

The modelling exercise assumes 15-30% **market penetration** of distribution by new entrants depending on the state of the market. This will be concentrated on particular car segments (segments M1/M2, the most competitive, corresponding to moderately priced categories).

On the other hand, because of the capture of a large market share by fleet players, **direct sales** will be on the rise. These are, furthermore, a way for the manufacturers and their networks to combat the price competition fielded by the multi-brand players.

The third impact that may be anticipated is **capture of a minor market share in particular segments by specialist multi-brand new entrants**. These players might chiefly target low-market penetration brands that do not have an extensive distribution network.

These three effects would have an **unfavourable impact on the market share of the traditional networks**. One must, however, note that the segments on which the new entrants would concentrate are those with modest margins. The networks would retain **a dominant market position in the segments with higher margins**.

The new entrants to the car distribution sector have an indirect impact on the market position of the different players in the after-sales market.

The market share (in value) of both the official repairers and multi-brand specialists is expected to improve at the expense of the independent repairers (generalists). On the one hand, this can be explained by the increasing complexity of cars and the investments necessary to perform complex repairs. On the other hand, mass-sellers are expected to collaborate with large expert repairers and large repair chains as opposed to small independents.

Appendix 12: Modelling Exercise 3: Geographic Coverage

I. Introduction

The aim of this third appendix is better to understand the issues involved in coverage of sales and service outlets.

The coverage of service outlets has been highlighted in the body of the report as a critical indicator of the system (and in particular of the Reliability Loop B3). It involves both evaluation of the density and degree of specialisation of service outlets and the differences liable to arise between types of brand or manufacturer.

I.1. Indicators Analysed

More specifically, the following indicators are analysed in the current situation (2001):

For sales, by constructor group and brand:

- Market share
- Units sold
- Number of outlets
- Number of cars per outlet

For official repairers, by constructor group and brand:

- Potential client base in units
- Estimated market share of channel
- Number of outlets
- Number of cars per outlet

For independent repairers and new channels:

- Potential client base in units
- Estimated market share of channel
- Number of outlets
- Number of cars per outlet

For the car distribution market, a distinction is made between

- Official (current) dealers
- New players.

In the repair market, 4 types of players have been identified:

- Official full-facility repairers (players providing both sales and after-sales services)
- Official 'repair only'
- Independent 'general' repairers (independent repairers providing the full range of services)
- Multi-brand specialised repairers (repairers specialising in specific activities)

The figures used in this appendix are based on the data set out in the Appendices 'Fact Sheets 1, 2, 3, 6 and 8'. Where other sources are used, they are explicitly identified.

I.2. The Structure of the Appendix

In section II, an overview of the current sales and repair picture in the EU will be presented and analysed.

In section III, assumptions are made on how the sales and repair markets may evolve in the future and what the impact will be on the number of outlets and the market share of the different players.

In section IV, evolution of geographic coverage is modelled and compared with the current outcome using the three market outcomes:

- the status quo outcome;
- the multi-channel outcome;
- the mass-selling outcome.

Finally, results are summarised in section V.

II. Current situation: Car Sales and After-sales Picture in the EU

The following figures have been used in the body of the report as the current situation:

Density of Service Network		Current Situation
R E L I A B I L I T Y L O O P	Sales service	
	Number of outlets in the official network	106,000
	Total number of outlets	106,000
	After-sales service	
	Number of "full facility" outlets (sales+after-sales)	106,000
	Number of "repair only" outlets	11,000
	Number of "(generalist) independant repairer" outlets	118,000
	Number of "multi-brand specialist" outlets	100,000
	Total number of outlets	335,000

- Table 12.1 -

<i>Potential sales network and density</i>	
	2000
Dealer Outlets	106,126
Outlets per 1000km ²	+/- 32
Supermarkets	130,000
Outlets per 1000km ²	+/- 40
Banks	190,000
Outlets per 1000km ²	+/- 57
Insurance Companies	250,000
Outlets per 1000km ²	+/- 75

Table 12.2

The distribution of outlets is shown in more detail in the table below:

Overview of current sales and after-sales network										
	Sales				Repair					
	Market share (%)	Units	Outlets	Cars/outlet	Market share (%)	Potential client base in units(1)	Estimated market share of channel (2)	Outlets	Cars/outlet (1)	Cars/outlet (2)
TOTAL		14,308,485	106,126		100.0	178,000,000		117,678		
Single brand										
Dealers							45%			
VW Group	18.7	2,675,687	15,569	172	17.6	31,328,000	14,097,600	17,408	1,800	810
VOLKSWAGEN	11.0	1,573,933	6,447	244	11.0	19,580,000	8,811,000	7,289	2,686	1,209
AUDI	3.3	472,180	4,530	104	2.7	4,806,000	2,162,700	5,406	889	400
SEAT	2.9	414,946	2,783	149	2.6	4,628,000	2,082,600	2,920	1,585	713
SKODA	1.5	214,627	1,809	119	1.3	2,314,000	1,041,300	1,793	1,291	581
PSA Group	13.1	1,874,412	16,016	117	12.1	21,538,000	9,692,100	17,389	1,239	557
PEUGEOT	7.9	1,130,370	8,599	131	7.7	13,706,000	6,167,700	8,805	1,557	700
CITROEN	5.2	744,041	7,417	100	4.4	7,832,000	3,524,400	8,584	912	411
GM Group	10.8	1,545,316	7,873	196	11.8	20,915,000	9,411,750	8,147	2,567	1,155
OPEL/VAUXHALL	10.2	1,459,465	6,898	212	11.4	20,292,000	9,131,400	6,898	2,942	1,324
SAAB	0.5	71,542	825	87	0.3	534,000	240,300	1,049	509	229
OTHERS*	0.1	14,308	150	95	0.1	89,000	40,050	200	445	200
FORD Group	10.3	1,473,774	10,473	141	12.6	22,428,000	10,092,600	10,592	2,117	953
FORD	8.5	1,216,221	8,665	140	11.4	20,292,000	9,131,400	8,665	2,342	1,054
VOLVO	1.6	228,936	1,483	154	1.0	1,780,000	801,000	1,591	1,119	503
JAGUAR	0.2	28,617	325	88	0.2	356,000	160,200	336	1,060	477
RENAULT	10.6	1,516,699	13,029	116	11.2	19,936,000	8,971,200	13,134	1,518	683
FIAT Group	10.0	1,430,849	9,113	157	13.1	23,371,400	10,517,130	14,672	1,593	717
FIAT	7.6	1,087,445	5,463	199	10.1	17,978,000	8,090,100	8,635	2,082	937
LANCIA	1.2	171,702	1,706	101	1.8	3,204,000	1,441,800	2,875	1,114	501
ALFA ROMEO	1.2	173,601	1,724	101	1.2	2,136,000	961,200	2,936	728	327
OTHERS	0.0	3,706	220	17	0.0	53,400	24,030	226	236	106
DaimlerChrysler	6.2	887,126	3,257	272	4.9	8,723,780	3,925,701	4,454	1,959	881
MERCEDES	4.8	686,807	1,976	348	3.9	6,942,000	3,123,900	3,241	2,142	964
SMART	0.7	100,159	249	402	0.0	1,780	801	174	10	5
CHRYSLER	0.7	100,159	1,032	97	1.0	1,780,000	801,000	1,039	1,713	771
BMW Group	5.2	744,041	5,174	144	6.8	12,104,000	5,446,800	5,128	2,360	1,062
BMW	3.4	486,488	1,976	246	3.4	6,052,000	2,723,400	1,919	3,154	1,419
ROVER	1.3	186,010	1,720	108	3.0	5,340,000	2,403,000	1,726	3,094	1,392
LAND ROVER	0.5	71,542	1,478	48	0.4	712,000	320,400	1,483	480	216
JAPANESE	11.4	1,631,167	17,122	95	8.2	14,596,000	6,568,200	18,116	806	363
TOYOTA	3.7	529,414	3,333	159	1.8	3,204,000	1,441,800	3,333	961	433
NISSAN	2.7	386,329	3,186	121	2.6	4,628,000	2,082,600	4,002	1,156	520
HONDA	1.2	171,702	1,799	95	1.2	2,136,000	961,200	1,796	1,189	535
MAZDA	1.2	171,702	2,652	65	1.2	2,136,000	961,200	2,837	753	339
MITSUBISHI	1.1	157,393	2,462	64	0.9	1,602,000	720,900	2,458	652	293
OTHERS	1.5	214,627	3,690	58	0.5	890,000	400,500	3,690	109	
KOREAN	3.4	486,488	5,705	85	1.8	3,204,000	1,441,800	5,836	549	247
HYUNDAI	1.5	214,627	1,871	115	1.0	1,780,000	801,000	1,883	945	425
DAEWOO	1.4	200,319	1,444	139	0.5	890,000	400,500	1,493	596	268
OTHERS	0.4	57,234	2,390	24	0.3	534,000	240,300	2,460	217	98
OTHER	0.3	42,925	2,795	15	0.1	89,000	40,050	2,802	14	14
Multi-brand										
Independent repair*						178000000	38%	118,000	1,508	573
New channels						178000000	17%	100,000	1,780	285

sources: www.acea.be, European Car distribution Handbook 2000, Eurostaff Distribution Automobile 1999, Les Echos Distribution Automobile 1999

- Table 12.3 -

The six large car manufacturers accounted for more than 70% of new car sales in 2000, and almost 15% of sales are of Japanese and Korean brands.

In general, those six manufacturing groups have a more extensive dealer network in proportion to their sales compared with speciality manufacturers such as BMW and Daimler Chrysler.

In the after-sales market, official repairers and independent repairers are estimated to cover 45% and 38% of the total car fleet respectively, the remaining 17% being shared between new channels (e.g. fast fit chains)²⁸³.

The number of outlets is almost evenly divided between the different repair channels: 35% for both official and independent repairers and 30% for new channels.

Both the potential and current number of cars per outlet has been calculated for all three repair channels.

²⁸³ This calculation is based on the market share as turnover adjusted for differences in prices between the different repair players.

III. Assumptions

Generally speaking, all the estimates made are based on interviews conducted by Andersen in the course of the study and the trends highlighted by the systems-based analysis.

The basic assumptions made are summarised in the table below:

Evolution in	Status quo Situation	Multi-channel Situation	Mass-selling Situation
# of sales outlets	-10%	-15%	-30%
# of independent repair outlets	-20%	-10%	-30%
Total repair outlets	=	=	=

- Table 12.4 -

From the trends considered in the body of the study, the assumption has been made that the number of traditional independent repairers will tend to fall in all the long-term market outcomes. The differences between market outcomes are clarified below.

In terms of the total number of service outlets, it is assumed that the concept of geographical coverage is important and that the total number of service outlets will remain stable.

The assumptions are structured in the context of the following outcomes:

III.1 Status Quo Outcome

Concentration of the dealers network and specialisation of outlets

In order to benefit from the advantages of lean distribution, it has been assumed that 10%²⁸⁴ of outlets will close and thus the concentration trend among the dealer network will continue. This will bring about a similar decrease in 'full facility' (sales + service) outlets: this will be compensated by an increase in official 'repair only' and specialised multi-brand outlets.

It is assumed that not all official distribution and repair networks will undergo the same level of consolidation - it will be higher in general brands' networks (approximately 13% concentration has been assumed).

The reasoning behind this assumption is that the networks of the first two sub-segments are less extensive compared with those of general brands and a further decrease in outlets would worsen geographical coverage and reduce sales.

Decrease of independent repairers' market shares

The number of independent generalist repairers is expected to decrease to the benefit of official 'repair only' and specialised multi-brand outlets. The decline in the number of independent repairers can be explained by the increasing complexity of cars and the high investments necessary to acquire specialised equipment.

A decrease of 20% in independent repair outlets is assumed.

²⁸⁴ Cf. Appendix 10 (Modelling Exercise 1 - Dealers Profitability).

III.2 Multi-Channel Outcome

Market share captured by new entrants

In this outcome, new players are expected to attain a 15% market share. It is assumed that this will cause a decrease of 15% in the current total number of official sales outlets.

Impact varies according to type of brand

However the impact on the sub-segments will vary because the cost structure of some brands²⁸⁵ will not allow existing dealers to compete with new entrants and also because new entrants will position themselves mainly in the M1/M2 segments²⁸⁶. Analysis of the current situation shows that the dealer networks of Asian brands will be most vulnerable to the opening of the market to new players. The dealer networks of speciality brands will experience the least impact, with general brand dealers in between.

Specialisation of official outlets in sales or after-sales service

Again the assumption is made that the decline in the number of official 'full facility' outlets will be offset by a rise in official 'repair only' and 'multi-brand specialist' outlets.

Independent repairers less vulnerable

The reasoning behind the decrease in independent repairers holds good in this outcome, but to a lesser extent. Here it is assumed that access to information will improve for independent repairers and that this will enhance their level of expertise and partly counterbalance the number of repairers forced out of the market because of increasing complexity. Further, it is assumed that independent repairers will have access to information. Thus the level of the repairer's expertise will improve which will partly offset the number of them forced out of the market owing to the high level of complexity in car repairs.

A decrease of 10% in the number of independent repairers is modelled.

²⁸⁵ Cf. Appendix 13 (Modelling Exercise 4 - Distribution Costs) for more detail.

²⁸⁶ Cf. Appendix 11 (Modelling Exercise 2 - Market Share).

III.3 Mass-Selling Outcome

'Mass-sellers' capture the biggest market share

Car supermarkets and other mass-sellers are expected to take 30%²⁸⁷ of new car sales. Again, it is assumed that this will cause the number of current sales outlets to shrink by an equal percentage.

Impact varies according to brand

It is assumed is made that, because of the positioning of mass-sellers, only Asian brand outlets and general brands will be impacted, leaving the number of dealers selling specialist brands unchanged. Once again this causes a decrease in 'full facility' outlets and an increase in official 'repair only' and 'multi-brand' specialist outlets.

Sharper decrease in traditional independent repairers

The decrease in number of independent repairers (generalists) due to the high complexity of cars and the high investments required to repair multiple brands, will be even more pronounced in this outcome. This is because mass-selling outlets will tie up with the large and reliable official repair networks and with large specialist chains (e.g. fast fit repair chains). This will harm small independent repairers significantly.

²⁸⁷ Andersen estimate based on interviews.

IV. Modelling Exercise

	Sales					After-sales								
	Official dealers			New entrants	TOTAL	Official repairers full facility		Official repairers repair only		Independent repairers (multi-brand generalists)		New channels (multi-brand specialists)*		TOTAL
	# dealers	% of total dealers	% of total players	% of total sales	% of total players	# of outlets	% of overall network	# of outlets	% of overall network	# of outlets	% of overall network	# of outlets	% of overall network	# of outlets
						AS-IS								
TOTAL	106,126		100%	0%	106,126	106126	31.6%	11,552	3,4%	118000	35%	100000	30%	335,678
Type of brand														
General brands	68,838	64.9%				68,838		6,500						
VW Group	15,569	14.7%				17,408								
PSA Group	16,016	15.1%				17,389								
GM Group	6,898	6.5%				6,898								
Ford Group	8,665	8.2%				8,665								
Renault	13,029	12.3%				13,134								
Fiat Group	5,463	5.1%				8,635								
BMW Group	3,198	3.0%				3,209								
Asian brands	22,827	21.5%				22,827		1,125						
Japanese	17,122	16.1%				18,116								
Korean	5,705	5.4%				5,836								
Specialist brands	11,666	11.0%				11,666		3,920						
General Motors (Saab)	975	0.9%				1,249								
Fiat Group (Alfa Romeo, Lancia)	3,650	3.4%				6,037								
Ford Group (Jaguar, Volvo)	1,808	1.7%				1,927								
BMW group (BMW)	1,976	1.9%				1919								
Daimler Chrysler group	3,257	3.1%				4,454								
Other	2,795	2.6%				2,795		7						
						Status quo Scenario								
TOTAL	95.313	100%		0%	95.200	95.313	28,4%	33.281	9,9%	94.400	28,1%	112.684	33,6%	335.678
evolution in %	-10,2%					-10,2%		+188,1%		-20%		+12,6%		
General brand	59.889	62,83%	62,8%			59.889		16.304						
evolution in %	-13%					-13%		+151						
Asian brand	21.686	22,75%	22,8%			21.686		5.464						
evolution in %	-5%					-5%		+386%						
Specialist band	11.083	11,63%	11,6%			11.083		9.992						
evolution in %	-5%					-5%		+155%						
Other	2.655	3%	2,8%			2.655		1.521						
evolution in %	-5%					-5%		+21626%						
						Multi-channel scenario								
TOTAL	90.222		85%	15%		90.222	26,9%	25.656	7,6%	106.200	31,6%	109.491	32,6%	335.678
evolution in %	-15,0%					-15,0%	15.904	+122%		-10%		+9,5%		
General brand	62.298	69,05%				62.298		12.848						
evolution in %	-9,5%					-9,5%		+98%						
Asian brand	13.696	15,18%				13.696		5.178						
evolution in %	-40%					-40%		+360%						
Specialist band	11.433	12,67%				11.433		6.915						
evolution in %	-2%					-2%		+76%						
Other	2.795	3,10%				2.795		715						
evolution in %	=					=		+10114%						
						Mass-selling scenario								
TOTAL	74.532		70%	30%		74.532	22,2%	54.908	16,4%	82600	24,6%	123638,224	37%	335.678
evolution in %	-29,8%					-30%		+375%		-30%		+23,6%		
General brand	50.940	68,35%				50.940		24.339						
evolution in %	-26%					-26%		+274,4%						
Asian brand	9.131	12,25%				9.131		16.022						
evolution in %	-60%					-60%		+1324,2%						
Specialist band	11.666	15,65%				11.666		12.416						
evolution in %	=					=		+216%						
Other	2.795	3,75%				2.795		2.131						
evolution in %	=					=		+303423%						

Status quo

The status quo outcome shows the impact on the number of outlets, which will decrease owing to the trend toward concentration: **cost rationalisation will reduce the number of sales outlets by 10%**, meaning that their total number will be reduced to 95,200. **This is caused mainly by the shrinkage of 13% in the networks of general brands.**

The **decrease in 'full facility' and independent repair outlets** will be offset by an **increase in 'official repair only'**²⁸⁸ and 'new channel'²⁸⁹ outlets.

This alters the shares of total repair outlets between the different players mainly to the advantage of 'official repair only' outlets.

Multi-channel

In the multi-channel outcome, **the total number of official sales outlets will fall to 85%** (or 90,222 outlets) of the original number. **It is mainly Asian brand outlets that will suffer the greatest losses.**

A decrease of 40% in the number of outlets will cause the share of the official networks to fall from 21.5% in the current situation to 15.18% in the multi-channel outcome.

The general brands and specialised outlets are less affected (-9.5% and -2% respectively).

Again, 70% of the loss in 'full facility outlets' and 60% of the loss in 'independent repairer outlets' is made up for by 'official repair only' outlets which represents an increase of 188% in the latter. The remaining 30% and 40% are absorbed by the multi-brand specialists (+12.6%).

Mass-selling

In mass-selling, **60% of Asian brand sales outlets and 26% of general brand outlets will be forced out of the market. The number of specialised brand outlets remains unchanged since mass-sellers are not targeting this segment.** The overall impact on the official dealer network is a decrease of 30% in outlets compared with the existing situation.

In this outcome too, the total number of repair outlets is held constant and loss of 'official full facility outlets' and 'independent repairers' will lead to an increase in the number of the other two types of repair player. However, this shift in the number of outlets between the different players has a significant impact on each of the players' share of the total number of outlets:

- full facility outlets: 22.2% compared with 31.6% in the current situation
- official repair only outlets: 16.4% compared with 3.4% in the current situation
- independent multi-brand repairers: 24.6 compared with 35% in the current situation
- multi-brand specialists: 37% compared with 30% in the current situation

²⁸⁸ 70% of the 15% decrease in full facility outlets and 60% of the 10% decrease in independent repairers outlets will be absorbed by 'official repair-only' outlets.

²⁸⁹ The remaining 30% of the 15% decrease in full facility outlets and 40% of the 10% decrease in independent repairers outlets will be absorbed by 'new channel' outlets.

V. Conclusion

The table below summarises the changes:

Density of service network		Current situation	Status quo	Multi-channel	Mass-selling
R E L I A B I L I T Y L O O P	Sales service				
	Number of outlets in the official network	106,000	-	--	---
	Total number of sales outlets	106,000	-	+ Due to new entrants	- Because average outlet size is increasing
	After-sales service		Due to network rationalisation of "general brands"		
	Number of "full facility" outlets (sales and repair)	106,000	--	-	---
	Number of official "repair only" outlets	11,000	+	+	++
	Number of (generalist) independent repairers	118,000	-	-	---
	Number of multi-brand specialist outlets	100,000	+	+	+
	Total number of after-sales outlets	335,000	=	=	=

- Table 12.5 -

Current outcome

There are **on average 32 sales outlets per 1000 km² in the EU**. However, a closer look at the networks of different players reveals a **significant variation between brands**. On average, the networks of specialised brands sell the highest volume per outlet and those of Asian brands the lowest, with the general brands in between. New channels such as supermarkets, banks and insurance companies may increase the points of sales to a large extent but it should be noted that this will only be so for specific models and/or brands.

The number of after-sales outlets is equally divided between the three main after-sales channels: 35% for both traditional official and independent repairers and 30% for 'new channels' (e.g. fast fit repair chains).

In this market the difference in the number of cars repaired (client base) per outlet between networks of general, specialised and Asian brands is less apparent.

Status quo outcome

The assumption has been made **that the trend toward network consolidation will continue in the near future**. This will decrease the number of both sales and official repair outlets. It is likely that the **consolidation be less pronounced in the networks of Asian and specialised brands compared with general brand networks**.

This concentration of the sales network **will also impact on the structure of the repair market; more specifically concentration will cause a decrease in the number of 'full facility outlets'**.

Because of the increased complexity of cars and the high level of investment needed to perform complex repairs on multiple brands, **small traditional independent repairers will be forced out of the market**. The assumption is that the overall number of repairers will remain unchanged. This means that the loss of outlets among the two types of players mentioned above will be offset by the **official repair only outlets and the multi-brand specialists**.

Multi-channel outcome

The market is open to new players. **New entrants are expected to capture 15% of total sales.** Again **new players will not impact each type of brand in the same way.** It is assumed that the specialised brands will not be impacted since they concentrate on a different sub-segment. The official networks of Asian brands will once again experience the greatest impact because of their cost structure and the fact they target the same sub-segment (M1/M2) as the potential new entrants. Both general and specialised brand networks will also be affected but to a lesser extent.

Again, the changes in the sales distribution network are reflected in the repair picture as a decrease in the number of full facility outlets. For the same reasons as in the previous outcome, a decrease in independent repairer outlets is expected, but to a lesser degree. **More specifically, because of the improved access to information, independent repairers will be better able to handle the increased complexity of cars.**

Again, the 'official repairers only' and 'multi-brand specialists' will benefit from the losses in the other two channels.

Mass-selling outcome

A significant number of "mass-sellers" is entering the car distribution market. The impact of this change on both sales and repair coverage has been modelled. The impact on overall sales is immediate while that on repair coverage is delayed. The mass-sellers are expected to capture a 30% market share.

Mass-sellers will impact only Asian and general brand outlets, leaving the number of specialised brand outlets unchanged. In this case, the official sales network is reduced from 106,126 outlets in the current situation to 74,532 outlets. In this case too, the Asian brand outlets will suffer the greatest loss.

Because **mass-selling outlets are expected to collaborate with large official repairers and large multi-brand specialists**, the assumption is that independent repairers (generalists) will decrease significantly in number. Combined with the 30% decrease in the number of full facility outlets, the proportion of total outlets per type of repairer changes dramatically in this outcome.

Appendix 13: Modelling Exercise 4 – Distribution Costs

I. Introduction

In this appendix the structure of distribution costs in the sale of new vehicles and the distribution of spare parts is considered both overall and by type of player.

The prospects for changes in this cost structure are taken in terms of the opportunities for cost rationalisation on the one hand and entry of the distribution market by new players developing alternative cost structures on the other.

The change in the cost structure is modelled on two levels:
On a microeconomic level (cost structure of one type of player);
On a macroeconomic level (overall cost structure).

In particular, the impact of these new cost structures on consumer prices and the margins of the players is analysed.

I.1. Indicators Studied

The indicators studied are as follows (as a percentage of the consumer price):

Production costs per vehicle;

- Components
- Personnel
- Warranty
- Other costs

Distribution costs per vehicle (broken down by category of player);

- Logistics
- Premises and related
- Advertising
- Warranty
- Personnel
- Financing
- IT and others

Net margins of the different players;

- Manufacturer;
- Importer
- Dealer
- Customer discount.

I.2. Structure of the Appendix

In Section II, the **current cost structure of a new car** is presented.

In Section III, **new types of car distributors (players)** are identified and their liability to affect the cost structure of a car has been discussed. This discussion leads to four different types of cost structure, characterising four types of player. In this paragraph, the modelling exercise also deals with the indirect impacts of a possible change in the cost structure.

In Section IV, the anticipated trends in the **average cost structure of a car at industry level** as well as the **anticipated trends in the average margin on spare parts** are modelled in the three main market outcomes discussed in the study:

- the status quo outcome;
- the multi-channel outcome;
- The mass-selling outcome.

In Section V, key findings are summarised.

II. Current Situation: Cost Structure of a New Car

Cost Structure of Car: Contribution of the Different Network Players to the Final Price of a Car

Car Manufacturer		Importer		Dealer		Total Network	
Gross margin	46.8%	Gross margin	8.06%	Gross margin	15.21%	Customer discount	8.00%
Production cost per car	61.0%	Cost per car	5.34%	Customer discount	8.00%	Production cost per car	61.0%
Components	30.0%	Building+related costs	0.08%	Cost per car	5.71%	Components	30.0%
Personnel	19.0%	Advertising	1.27%	Premises+related	1.90%	Personnel	19.0%
Warranty	3.0%	Warranty+ free service	0.17%	Advertising	1.83%	Warranty	3.0%
Other costs	9.0%	Personnel	0.51%	Warranty+ free service	0.28%	Other costs	9.0%
Distribution cost	13.3%	Financing**	0.34%	Personnel	1.20%	Distribution Cost per car	24.39%
Advertising	9.0%	IT+other*	2.97%	Financing*	0.10%	Logistics	1.50%
Logistics	1.5%	Net Margin	2.71%	IT+other*	0.40%	Premises+related	1.98%
Other network costs*	2.8%			Net Margin	1.51%	Advertising	12.10%
Net Margin	2.5%					Warranty+ free service	0.45%
						Personnel	1.71%
						Financing*	0.44%
						IT+other*	6.21%
						Net Margin	6.72%

* contribution to brand-specific investment by dealer, other fixed costs
source: Questionnaire Renault - Distribution Automobile '99

Source: Questionnaire D'leteren - Andersen calculation

* admin(2.5%)+IT(0.7%)+contribution to distributors' investment(0.3%)

** e.g. Cost of keeping stock

Source: BOVAG De NDA Branche Barometer - Andersen calculation

* Estimation Andersen: e.g. cost of holding stock

- Table 13.1 -

III. New Cost Structure (micro-level)

III.1 Assumptions

III.1.A Cost rationalisation

Even without the pressure of new entrants, there are reasons to believe that the **cost rationalisation efforts manifested by some traditional distribution networks (mainly 'general brand dealer networks') will result in reduced distribution costs**. These will be realised by more efficient close working relationships of the car manufacturer with the importers and dealers (lean distribution) as well as the concentration of the dealer network.

These efficiencies may result in either a higher margin for all players in the network (final price to the consumer remaining constant) or a reduction in customer price. In the table the first possibility has been chosen.

Cost Structure of Car: Contribution of the Different Network Players to the Final Price of a Car

Car Manufacturer		Importer		Dealer		Total Network		
Gross margin	56.3%	Gross margin	8.23%	Gross margin	23.62%	Customer discount	8.00%	=
Production cost per car	58%	Cost per car	4.83%	Customer discount	8.00%	Production cost per car	58.0%	-4.9%
Components	28%	Premises+related costs	0.08%	Cost per car	4.71%	Components	28%	-6.7%
Personnel	19.0%	Advertising	1.27%	Premises+related costs	1.20%	Personnel	19.0%	=
Warranty	3.0%	Warranty+ free service	0.17%	Advertising	1.83%	Warranty	3.0%	=
Other costs	8.0%	Personnel	0.51%	Warranty+ free service	0.28%	Other costs	8.0%	=
Distribution cost	11.4%	Financing	0.30%	Personnel	1.00%	Distribution cost	21.2%	-16.8%
Advertising	9.0%	IT+other	2.50%	Financing	0.10%	Advertising	12.1%	=
Logistics	1.0%	Net Margin	3.40%	IT+other	0.30%	Logistics	1.3%	-21%
Other network costs	1.4%			Net Margin	6.20%	Premises+related costs	1.28%	-35%
Net Margin	3.5%					Warranty+ free service	0.5%	=
						Personnel	1.51%	-12%
						Financing	0.40%	-33%
						IT+other	4.20%	-33%
						Net Margin	13.1%	+ 95%

Source: Andersen calculations

- Table 13.2 -

It is assumed that the greatest network rationalisation will be made through efficiencies in distribution, such as reduced financing costs (due to less stock), reduced IT costs (fewer dealers and an integrated network), reduced logistics costs (introduction of platforms) and reduced cost of premises (concentration of network and less stock). Some lesser gains in components and personnel costs may be attained. Following Andersen's calculation, the combined decrease in cost amounts to **7% of the final price of a car**, compared with the current situation.

The assumptions on cost rationalisation put forward above are valid only for high market penetration brands able to make advantage of the size of their networks.

It is also believed that, due to the pressure of new entrants, the increased network margins will not be sustainable and will be used to offer customers a bigger discount.

III.1.B New entrants

The following potential categories of player have been identified (besides the traditional single brand dealer):

Internet players

It is assumed that the Internet will be mainly:

- An additional information channel;
- A transaction tool complementing the existing physical channels and hence having only a **marginal impact on the overall cost structure**.

Banking/Insurance and other specialised business models

It is assumed that these players will base their competitive advantage not on percentage customer discount on the new purchase price of the vehicle but rather on their level of service or the concept of 'total cost of ownership'. It is therefore considered that these business models will have **no impact on the general price structure**.

Multi-brand distributors

All other things being equal, i.e., the compulsion to repair and promote all the models in the range as well as meeting pre-set sales targets, it is considered that the impact of multi-brand distributors on the general cost structure is limited.

This is because multi-branding has no effect on upstream costs (manufacturers and importers) but impinges solely on those of dealers.

The only elements on which economies of scale can be realised are the **cost of premises** and **personnel** costs.

Assuming economies of scale of 40%²⁹⁰ on these two cost heads, a gain of 1.5% per car on the general cost structure is obtained.

It is supposed that this 1.5% will be reflected partly in:

Customer discounts,
Distributors' net margins,
Marketing costs.

We therefore consider that this business model can be assimilated to the conventional distribution model bringing with it **no significant difference**.

²⁹⁰ Based on interviews conducted by Andersen.

Mass-selling players

For the following reasons a mass-selling model would render substantial changes in the cost structure possible:

- Lower production costs because of the large volumes of standard models;
- Lower distribution costs through elimination of intermediaries;
- Lower distribution costs through simplification and standardisation of the sales procedure.

These cost efficiencies are converted into:

- Higher customer discounts, reaching the level of direct sales discounts²⁹¹
- Higher margins for both manufacturers and mass-sellers²⁹²

Direct sales

Since the fleet consumer market may in time make up upto 50% of the market, it is assumed that **direct sales could grow the better to serve fleet players and generate a different cost structure** (economies in network costs).

Fleet

The cost structure of 'fleet' players has not been studied since they are considered as a customer segment.

²⁹¹ Source: presentation Cardoen, February 2001.

²⁹² Source: presentation Cardoen, February 2001.

III.2 Modelling Exercise

III.2.A Estimated cost structures by type of player

On the basis of the above assumptions, four distinct cost structures emerge, viz.:

- A **standard** cost structure(i.e. without cost rationalisation) for the sale of vehicles (all categories taken together) to the final customer through single or multi-brand dealers;
- A **cost rationalisation** cost structure for high market penetration brands that continue to use the network as their main channel;
- A **mass-selling** cost structure for players concentrating on a limited number of high volume base models in a multi-brand system;
- A **direct sales** cost structure between manufacturers and fleet companies.

On the basis of the assumptions explained in previous sections, the following four cost structures have been identified:

Cost structure of a car: comparison of four different structures

	Standard	Cost rationalisation	Mass-selling	Direct sales
Customer Discount	8%	13%	17%	18%
Production Cost	61%	58%	55%	61%
Distribution Cost	24.40%	21.20%	17%	13.09%
Marketing and Promotion	12.10%	12.10%	11%	9%
Premises + related costs	1.98%	1.28%	1%	0.70%
Personnel	1.71%	1.51%	1%	0.51%
Other	8.61%	6.31%	4%	2.50%
Network margin	6.72%	8.10%	11.00%	7.9%
Manufacturer	2.50%	2.80%	6.00%	5%
Importer	2.71%	3.00%	n/a	2.90%
Dealer	1.51%	2.30%	n/a	n/a
New entrant	n/a	n/a	5%	n/a

Sources: Questionnaire D'iteteren. Andersen Calculations. Distribution Automobile 1999

- Table 13.3 -

III.2.B Indirect impact of new entrants

Differences between strong and weak brands

It can be argued that brands with a strong market presence will be able to benefit from the advantages of both lean production and distribution to a larger extent than low volume ones. First of all they have more bargaining power with parts manufacturers. Additionally, they own a more highly developed importer / dealer network which they can rationalise.

Consequently the cost rationalisation structure showed in the above table will apply mainly to high volume brands, whereas low volume brands will lean towards the standard cost structure.

Because the cost structure and customer discounts given by 'cost rationalisation' brands tend more towards the cost structure and customer discounts of the new entrants to mass-selling, it may be assumed **that general brands will be less affected by the presence of new entrants.**

Further, **high volume brands generally have an extensive dealer network and do not need the multi-brand outlets (e.g. supermarkets) to increase their points of sale.**

The impact of new entrants (mass-sellers) on lower volume brands is twofold. On the one hand, they represent a threat to the existing network because of the high customer discounts. On the other hand, the new entrants such as supermarkets serve as extra points of sale and increase the overall sales of the brand.

Impact on consumer prices

Car prices have been falling over the past decade and, due to the entrance of new players, this trend will accelerate. However, as the table above shows, **the size of the expected fall in customer prices will vary between brands.** As 'Modelling Exercise 1: Dealer profitability' shows, brands using the 'standard' or current cost structure sold through official networks will be able to offer their customers only a minor price reduction (less than 2%). In other words, decreases in customer prices will vary between 1% and 10%, depending on the brand (low v. high volume) and the distribution channel (official dealer v. mass-selling).

Changes in marketing costs within the cost structure

As a reduction to the price competition indulged in by new entrants, manufacturers and their official partners may step up their investments in marketing in order to defend the brand image.

Furthermore, it is probable that the proportion of marketing investment in distributors' costs will increase since they will operate more independently of the manufacturers.

It is assumed that the marketing and promotion costs supported by the car manufacturers will increase by 5% and both the importers' and dealers' marketing and promotion costs will increase by 10%. Mass-selling outlets are presumed to increase their marketing and promotional costs by 15%.

Estimated Evolution in Marketing Costs

	Standard/Current	Cost rationalisation	Mass-selling	Direct sales	Evolution
Current Situation					
Car Manufacturer	9%	9%	9%	9%	
Importer	1.27%	1.27%	n/a	n/a	
Dealer/New entrant	1.83%	1.83%	2%	n/a	
To be					
Car Manufacturer	9.5%	9.5%	9.5%	9.5%	+ 5%
Importer	1.40%	1.40%	n/a	n/a	+10%
Dealer/New entrant	2.0%	2.0%	2.3%	n/a	+10% / +15%

Source: Andersen calculations

- Table 13.4 -

In the current situation, marketing costs of mass-selling outlets and direct sales are lower than those of the official dealer networks (see table above²⁹³). This is because there are fewer intermediaries (mass-selling) or none (direct sales) and marketing costs for repairs (e.g. free service) are eliminated.

The assumption is that the overall marketing and promotion costs of the first two structures (standard/current and cost rationalisation) will still be higher than those of the last two, but the gap between mass-selling distribution channels and the official dealer networks will begin to close. Although the increase in marketing and promotion costs is proportionately higher for all point of sales than for the car manufacturer, the table above also shows a difference between the rise in costs for official dealers and for mass-selling distributors. This can be explained by the fact that, in the first two cases, importers take on a part of the distribution costs of dealers, whereas in the case of mass-sellers, the entire cost is borne by the end distributor.

²⁹³ Total current marketing costs:

- 'standard cost structure' and 'cost rationalisation': 12.1%;
- 'Mass-selling': 11%;
- 'Direct sales': 9 % .

IV. New Cost Structures (macro-level)

IV.1 Assumptions

Depending on whether or not the market place is open to new entrants and whether cost rationalisation will be effectively implemented, the average cost structure will change to a greater or lesser degree compared with the current average cost structure. Four different outcomes for the car distribution marketplace are identified:

Status quo

There are no new entrants to the car distribution market and cost rationalisation players dominate the sector. In this outcome, it is assumed that the average cost structure of a car will tend towards that of cost rationalisation players.

Multi-channel

New entrants (e.g. banks, insurers, multi-brand outlets, ...) are allowed to distribute new cars. This will affect the average cost structure of a car since the assumption is that marketing costs and customer discounts will increase.

Mass-selling

Mass-selling outlets take over a significant part of car distribution and thereby change the average cost structure of a car towards the mass-selling model. This includes reduced production costs (standardisation of process because of the increase in special editions), and distribution costs (high stock turn, less building space, reduced personnel costs) together with higher price discounts and marketing costs (increased competition).

IV.2 Modelling Exercise

Structure of distribution costs		Current situation	Status quo	Multi-channel	Mass-selling
P R I C E L O O P	New vehicles (% of end consumer price)				
	Production costs	61%	=	=	=/-
	Marketing costs	12%	=	+	+
	Customer discounts	8%	+ (+2 to 5%)	=	+ (+5 to 10%)
	Buildings and related costs	2%	-	= /-	-
	Other distribution costs	10.50%	-	=	-
	Manufacturers' margins	2.50%	+	=/-	=/-
	Intermediaries' margins	4%	+	+/-	=/+
	Spare parts (% of end consumer price)				
	Suppliers' margins	5%	=	+	=
	Others' margins	30 to 32%	=	-	-

- Table 13.5 -

IV.2.A Estimate of trends in the average cost structure of a new car

Depending on which outcome is chosen, the average cost structure of a car changes compared with the existing situation.

Status quo

The status quo outcome, in which cost-rationalising networks dominate the market, will reduce average distribution costs and consequently raise the margins of both the manufacturer and intermediaries (importers and dealers). Part of this gain will be translated into higher customer discounts. The marketing and promotion costs remain unchanged since there are no new entrants.

Multi-channel

In the multi-channel outcome it is assumed that new entrants will take a significant market share. Their presence will increase the pressure on car prices. However, it should be noted that new entrants are expected to have more impact on some car segments than on others because of their market positioning²⁹⁴.

A second result of increased competition will be a rise in expenditure on marketing.

Whether the average margins on new cars will remain unchanged or fall depends on two things: the extent to which customer discounts increase and the level of arrival of new players. The question is whether or not their market share will be large enough to have an impact on the average margins of the car distribution sector as a whole.

Mass-selling

In the mass-selling outcome where mass-sellers obtain a large share of the market, average production and distribution costs will fall because of, among other things, greater standardisation of the production process, high stock turn and reduced brand-specific investment. Customer discounts and marketing expenditure are expected to rise even more than in the previous outcome because of the intensified competition. Once again, the impact on average margins depends on whether or not the market share the mass-sellers are able to obtain is sufficient to increase the average margins of both car manufacturers and the average intermediary.

²⁹⁴ New entrants are assumed to be mainly in the M1/M2 segment.

IV.2.B Estimation of trends in the average margin on spare parts

The assumption is that the different market outcomes will have an impact only on the margins on original spare parts, since it is only over them that the official network has a distribution monopoly.

Currently, suppliers of original spare parts have more than 5%²⁹⁵ net margin on sales of spare parts. Importers' and dealers' margins combined amount to 30% - 32%²⁹⁶ of the final price of original spare parts.

Since cost rationalisation will mainly affect the manufacturing and distribution of new cars, the assumption is that, in the status quo outcome, margins on and prices of spare parts will remain unchanged.

The **multi-channel outcome** and the **mass-selling outcome** can be discussed together because the impact of both is believed to be identical. It is assumed that because original spare parts are available through channels other than the official network, prices of and margins on spare parts will fall since the price can not be kept artificially high once the monopoly of the network is broken. Consequently, the bargaining power of large official networks vis-à-vis parts manufacturers will decrease allowing the latter to obtain a higher margin.

²⁹⁵ Cf. Appendix 8 (After-Sales Players).

²⁹⁶ Source: Interviews conducted by Andersen.

V. Conclusion

Cost **rationalisation** and **new distribution channels** in new car sales are both factors that **impact both the cost structure of new cars and players' margins**.

At the microeconomic level, four different cost structures, linked to four different types of player, have been modelled. The impact on different types of brands, profitability of the existing network, consumer price and marketing costs is discussed.

At the **macroeconomic level**, depending on the type of player that dominates the future market place, **the change in the average cost structure** of a car is estimated for the status quo, multi-channel and 'mass-selling' outcomes.

Micro-level impact

The table below summarises the estimated evolution of the cost structure for different players in the car distribution market:

Cost Structure of a car: comparison of four different structures				
	Standard	Cost rationalisation	Mass-selling	Direct Sales
Customer Discount	8%	13%	17%	18%
Production Cost	61%	58%	55%	61%
Distribution Cost	24.40%	21.20%	17%	13.09%
Marketing and Promotion	12.10%	12.10%	11%	9%
Premises + related costs	1.98%	1.28%	1%	0.70%
Personnel	1.71%	1.51%	1%	0.51%
Other	8.61%	6.31%	4%	2.50%
Network margin	6.72%	8.10%	11.00%	7.9%
Manufacturer	2.50%	2.80%	6.00%	5%
Importer	2.71%	3.00%	n/a	2.90%
Dealer	1.51%	2.30%	n/a	n/a
New entrant	n/a	n/a	5%	n/a

Sources: Questionnaire D'Ieteren, Andersen Calculations, Distribution Automobile 1999

- Table 13.6 -

The '**standard**' structure of a new car is typically linked to current networks.

Moreover, a second structure has been proposed. This takes into account the recent trend toward **cost rationalisation**. Because of the bargaining power of some (large) car manufacturers with parts producers and the aim of becoming more integrated with the latter, production costs can be reduced. Greater cost reduction can be attained by the concept of lean distribution. However, it has been argued that this cost structure will primarily apply to well-developed networks offering 'strong brands'.

Mass-selling players (e.g. supermarkets) have the ability to develop a cost structure that differs from the two discussed above. Both manufacturing and distribution costs will decrease because of a standard production process and lower intermediary costs. This results in both a higher customer discount (reaching the level of direct sales discounts) and a network margin.

Finally a '**direct sales**' cost structure has been identified (characterised by sales without intermediaries). This structure is distinguished by the offer of high customer discounts (to fleet companies, governments and employees) and by its low distribution costs (due to the elimination of intermediaries).

As mentioned above, new cost structures will have **an impact on customer prices**. The ongoing trend of falling car prices will be accelerated primarily in the case of brands and models using the 'cost rationalisation' and 'mass-selling' structure. In general, a **price cut of between 1% (for the 'standard' structure) and 10% (for the 'mass-selling' structure) may be expected**.

The increase in competition in the distribution market will also result in a **higher proportion of marketing costs in the cost price of a car** (...result in higher marketing expenditure, which may be then passed on to the customer in the price of a new car.) This will be shared among the various parts of the network, with the largest increase for the dealer.

Macro-level impact

Finally, an estimate is made of how the average cost structures of a car and original spare parts may evolve in different market outcomes:

Structure of distribution costs		Current situation	Status quo	Multi-channel	Mass-selling
P R I C E L O O P	New vehicles (% of end consumer price)				
	Production costs	61%	=	=	=/-
	Marketing costs	12%	=	+	+
	Customer discounts	8%	+ (+2 to 5%)	=	+ (+5 to 10%)
	Buildings and related costs	2%	-	= /-	-
	Other distribution costs	10.50%	-	=	-
	Manufacturers' margins	2.50%	+	=/-	=/-
	Intermediaries' margins	4%	+	+/-	=/+
	Spare parts (% of end consumer price)				
	Suppliers' margins	5%	=	+	=
	Others' margins	30 to 32%	=	-	-

- Table 13.7 -

Each of the four market outcomes is influenced by the strong presence of a different type of player in the market. This induces a more or less pronounced change in the current average cost of a car and original spare parts (for the distribution industry as a whole).

In the **status quo outcome** there are no new entrants and cost rationalisation becomes effective for a significant proportion of car distributors. In this outcome, the average cost structure of a car tends more towards that of 'cost rationalisation' players.

Margins on spare parts remain unchanged since the monopoly of the official network still applies.

In the **multi-channel outcome** marketing costs and customer discounts are expected to rise in response to increased competition. Whether or not the average margins of manufacturers and intermediaries (total of importers, dealers and new entrants) changes depends on the market share new entrants are able to capture.

Assuming that new entrants are allowed to buy original spare parts through channels other than the official networks, a decrease in prices and in the margins of intermediary players is expected. Since official networks lose part of their bargaining power with parts manufacturers, the latter will be able to increase their margins.

In the **mass-selling outcome** it is assumed that mass-sellers will be able to change the average cost structure of a car to an even greater extent than in the previous one. Again, marketing costs and customer discounts (on particular models) are expected to increase and average total costs will decrease. These changes in costs will be reflected in the margins of both manufacturers and intermediaries.

The reasoning in the multi-channel model is also applicable to original spare parts in this outcome.