

# 3 Background to the industry: the international context

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## **Introduction**

3.1. There are today over 400 million cars in use throughout the world; the value of one year's global production is more than the national income of Spain; one company, Volkswagen, spent approaching £1 billion on research and development and new plant and equipment solely on the third generation of its Golf model range that was launched in 1991. These three facts illustrate the importance of the car today, the vast size of the car industry internationally and the magnitude of the resources required if a company is to play a major role in the industry.

3.2. The car industry is international, not only in respect of sales across borders, but also, though to a lesser extent, in the distribution of production. Companies based in the United States, Europe and Japan supply cars throughout the world and have set up production facilities in a number of countries. One of the main developments over the last decade or so has been the increased interest of major Japanese companies in producing abroad, first in the United States and more recently in Europe.

3.3. The international dimension of the car industry has been strengthened over the last few years by a number of joint ventures bringing together companies of different national origins. Some joint ventures have been wide-ranging. The association between Honda and Rover, which began in 1986, has entailed major technical co-operation and the development of joint model ranges. The more recent arrangement between Renault and Volvo, initiated in 1990, appears likely to have equally wide-ranging effects. At the same time Volvo has set up a joint venture with Mitsubishi. Other joint ventures are more limited in scope. The agreement between Ford and Volkswagen in 1991 is limited to the development of a particular model range that falls outside the main market segments. In the United States leading domestic suppliers have occasionally co-operated with Japanese suppliers. General Motors, for example, has arrangements with Toyota, Isuzu and Suzuki for the production in the United States, or the import from third countries, of models that were designed and originally produced in Japan.

3.4. The importance of scale for car producers has been underlined in the last few years, as a number of smaller companies have been taken over by larger ones. In 1984 Peugeot and Citroën combined into Peugeot SA (PSA). In 1986 Alfa Romeo was taken over by Fiat; also in 1986 Volkswagen acquired a controlling interest in SEAT, the Spanish producer; in 1989 Jaguar was bought by Ford; and in 1990 General Motors acquired a half share in, and management control of, Saab.

3.5. A further series of cross-border acquisitions of smaller companies is now beginning as the economies of Eastern Europe become open to foreign investors. A number of moves have already been

made. For example, Volkswagen has taken over Skoda in Czechoslovakia and expects that its investment programme there will cost some £3 billion over the next few years.

## Cars in use

3.6. Of the world's estimated car parc in 1989 (amounting to around 423 million units), 34 per cent were in the United States and around 30 per cent in the EC. Only 8 per cent were in Japan, and 5 per cent in the United Kingdom. Figure 3.1 shows a breakdown by country of the world car parc.

3.7. In 1989 the ownership of cars was highest in the United States where the ratio of cars to people was 1:1.6. In the EC this ratio varied from 1:2.0 for Germany to 1:3.4 for Spain, with the United Kingdom in an intermediate position at 1:2.5. The ratio for Japan was 1:3.7. Various reasons have been put forward to explain the differences between countries, for example income per head, the availability and quality of public transport, population dispersion, and the social status of the car. It is difficult to foresee how far the differences between countries may diminish.

## World car production

3.8. Of the 36 million cars produced in 1990, 83 per cent were made in the United States, the EC or Japan. The production figures for the main countries are set out in Table 3.1 together with their shares of world output (also shown in Figure 3.1).

TABLE 3.1 Car production by country, 1990

Country	Output m units	Share %
Japan	9.948	28
United States	6.296	18
Germany	4.661	13
France	3.295	9
Italy	1.875	5
Spain	1.679	5
United Kingdom	1.296	4
Other EC	0.432	1
Total EC	(13.238)	(37)
Other	<u>6.373</u>	<u>18</u>
Total*	35.855	100

Source: DRI World Automotive Forecast Report.

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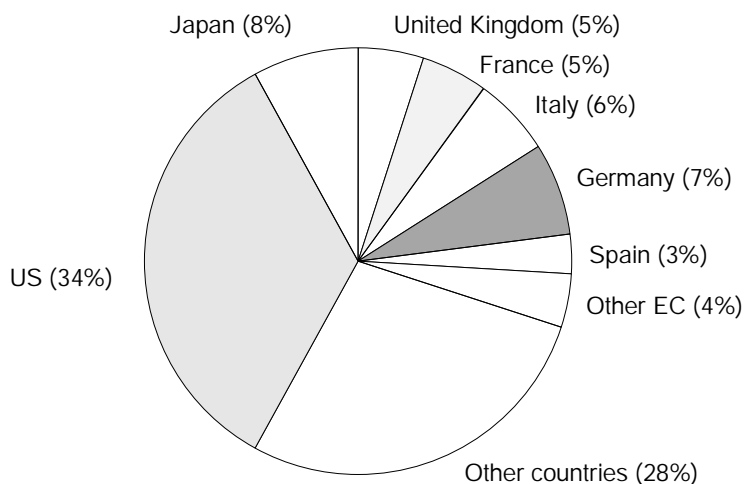
\*Shares do not sum to 100 because of rounding.

3.9. Japan is now clearly the leading country in terms of production, having reached a level in 1990 58 per cent higher than that of the United States, but the EC as a whole produced some 33 per cent more cars than Japan. United Kingdom production in 1990 was 10 per cent of the EC total and amounted to only 13 per cent of Japan's. The main producing countries in the 'other' category are the USSR (producing around 1.3 million units a year), Canada (at around 1 million units), and South Korea and Brazil (between 0.5 and 1 million units). There are also four countries (Australia, Poland, Sweden and Yugoslavia) which produce between 0.25 and 0.5 million units.

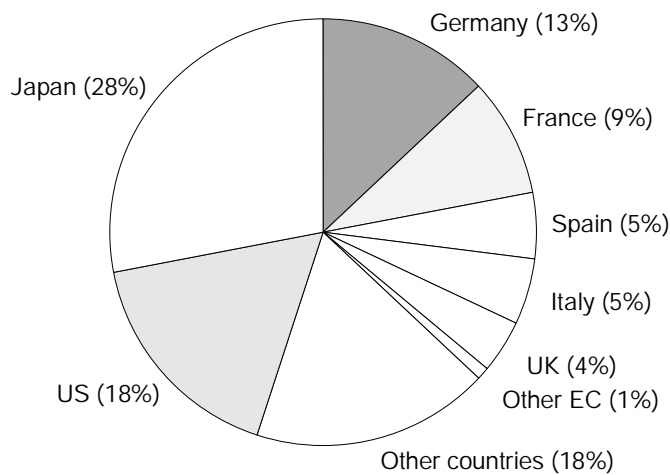
3.10. Growth in output for each country varies considerably from one year to another. Table 3.2 sets out growth rates of car output for the period 1985 to 1990 for the main producing countries.

FIGURE 3.1

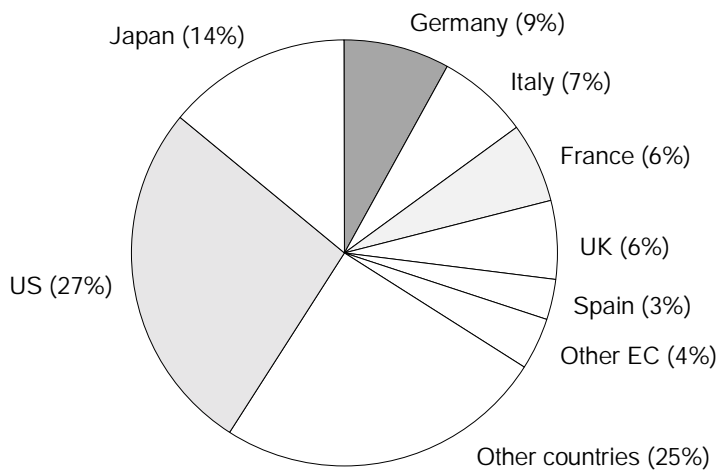
**World car parc, 1989**



**World car production, 1990**



**World car markets, 1990**



Source: MMC calculations on SMMT data and DRI World Automotive Forecast Report.

Note: Shares do not sum because of rounding.

TABLE 3.2 Annual growth (or decline) in car production by country, 1985 to 1990

Year	<i>per cent</i>						
	<i>Japan</i>	<i>United States</i>	<i>Germany</i>	<i>France</i>	<i>Italy</i>	<i>Spain</i>	<i>United Kingdom</i>
1985	8	(8)	10	(3)	(3)	5	15
1986	2	9	3	5	19	4	(3)
1987	1	(9)	1	10	4	9	12
1988	4	0	(1)	6	10	7	7
1989	10	(4)	5	6	5	9	6
1990	10	(8)	2	(3)	(5)	2	0

Source: MMC calculations on SMMT and DRI data.

The main difference in growth rates between countries is the decline of United States output over the period as a whole compared with the growth in the other countries. Large year-on-year changes, however, make estimates of period rates of growth hazardous, and the decline in United States production is exaggerated by the fact that 1984 was a peak year of production.

3.11. Company strategies for the international location of their production facilities vary greatly. European and United States companies have a narrower range of opportunity than Japanese companies because of the low level of foreign penetration into the Japanese market, which makes it difficult to set up production facilities there. The two leading United States companies, General Motors and Ford, are well-established in Europe. For example, in 1990 General Motors accounted for 22 per cent of production in Germany, 22 per cent in Spain and 20 per cent in the United Kingdom. The figures for Ford for the same countries were 13, 19 and 25 per cent respectively. General Motors is the largest car producer in the world and makes around 5 million cars a year. In 1990 Ford and Toyota both produced over 3 million cars, while Volkswagen and Nissan produced over 2 million. The sizes of the world's seven largest manufacturers, in the years 1988 to 1990, expressed in terms of annual volume of production, are shown in Table 3.3.

TABLE 3.3 Car production by the seven largest manufacturers, 1988 to 1990

	<i>'000 units sold</i>		
	<i>1988</i>	<i>1989</i>	<i>1990</i>
General Motors	8,108	7,905	7,451
Ford	6,517	6,408	5,872
Toyota	3,872	4,113	4,429
Volkswagen	2,854	2,941	3,030
Nissan	2,536	2,789	2,937
PSA	2,103	2,201	2,194
Fiat	<u>2,141</u>	<u>2,246</u>	<u>2,132</u>
	28,131	28,603	28,045

Source: Company accounts.

3.12. Volkswagen is the most international of the European companies in terms of production location. Not only does it produce cars outside Europe (for example, Mexico, China and South Africa); it also accounts for a major share (19 per cent) of production in Spain and is establishing plants in countries of Eastern Europe. For many years Fiat has followed a similar strategy, establishing joint ventures with Third World and Eastern European countries, though it has not set up any major production facilities in the main producing countries other than Italy. The French producers have confined themselves mainly to domestic production—at least in respect of assembly—though Peugeot also produces in Spain and in the United Kingdom (following its acquisition of Talbot) where it now has a current share of production of 9 per cent.

3.13. The leading Japanese producers established car production capabilities in the United States in the 1980s and are beginning to do the same in Europe in the early 1990s. In the United States the major Japanese producers are Honda and Toyota which account for 7 and 5 per cent respectively of United States production; total Japanese production in the United States accounts for 15 per cent. In the United Kingdom

Toyota and Honda are setting up plants and Nissan is expanding, and Mitsubishi is setting up a plant in the Netherlands (in a joint venture with Volvo). The plans of the Japanese suppliers are described further in paragraphs 4.69 and 9.53 to 9.55.

3.14. One effect of these differing company strategies is the variation in the proportion of a country's production facilities that are owned by domestic companies. In Japan, as mentioned earlier, all production is carried out by Japanese companies. In the United States, in spite of the competitive threat from Japan and the establishment of Japanese-owned plants, 85 per cent of production is still wholly in the hands of United States companies. In the EC there are wide differences between countries. At one extreme Spain has no domestically-owned industry; at the other France has no foreign-owned industry. In the United Kingdom the only major manufacturer that is largely domestically-owned is Rover (though Honda has a significant minority shareholding), which accounted in 1990 for 36 per cent of United Kingdom production.

## World markets

3.15. Given the international nature of car production and the variety of company strategies it would not be expected that the volume of domestic production in one country would be the same as its domestic demand. Table 3.4 sets out market sizes in volume terms for the same countries as those in Table 3.1, together with their shares of world sales (also shown in Figure 3.1).

TABLE 3.4 **World new car markets by volume, 1990**

<i>Country</i>	<i>Volume m</i>	<i>Share %</i>
United States	9.483	27
Japan	5.103	14
Germany	3.041	9
Italy	2.348	7
France	2.309	6
United Kingdom	2.009	6
Spain	0.982	3
Other EC	<u>1.465</u>	<u>4</u>
Total EC	(12.154)	(34)
Other	<u>8.875</u>	<u>25</u>
Total	35.615	100

*Source:* DRI World Automotive Forecast Report.

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*Note:* Shares do not sum to 100 because of rounding.

The only markets of more than 0.5 million units per year not individually shown are Australia, Brazil, Canada, South Korea, and the EFTA countries collectively.

3.16. There is a significant difference between shares of world production and shares of world sales for most of the countries named. With the exception of Italy domestic sales are in each case at least one-third higher or lower than production. The countries where sales are higher than production are the United States, the United Kingdom and Italy. For Japan, Germany, France and Spain production is greater than sales-in Japan, almost double.

3.17. Market growth has varied considerably over the last few years both between countries and year by year. Table 3.5 sets out growth rates of the major car markets for the period 1985 to 1990.

TABLE 3.5 Annual growth (or decline) of major car markets, 1985 to 1990

Year	per cent						
	Japan	United States	Germany	France	Italy	Spain	United Kingdom
1985	0	8	(1)	7	0	10	5
1986	1	2	19	5	8	20	3
1987	4	(9)	3	8	10	35	7
1988	13	3	(4)	10	5	15	10
1989	18	(6)	1	8	3	7	4
1990	16	(6)	7	(1)	2	(13)	(13)

Source: MMC calculation from SMMT and DRI data.

At different times markets have expanded or contracted rapidly, for example Japan in 1988 to 1990, Spain in 1985 to 1988, and the United States (a decline) in 1987 to 1990.

3.18. Similar differences in growth rates exist over longer periods. The Japanese new car market grew by 78 per cent over the decade to 1990, the United Kingdom by 33 per cent, Germany by 31 per cent, Italy by 30 per cent, France by 25 per cent, and the United States by 10 per cent. It should, however, be borne in mind that the large size of some annual changes may mean that even over ten years the period rate of growth may vary significantly with the period chosen.

3.19. In most countries in 1990 there were companies with a large market share. In Japan Toyota had a share of 37 per cent, and in the United States General Motors had 36 per cent. In Europe, except for Italy where Fiat had 53 per cent, the shares of the market leaders were somewhat smaller. In Germany Volkswagen had 25 per cent, in France Renault had 28 per cent, and in the United Kingdom Ford had 26 per cent. Spain is an exception: there were five suppliers in 1990 with between 10 and 20 per cent each.

3.20. Markets vary too in terms of the market shares won by 'foreign' cars. This is, however, an ambiguous concept, as exemplified by the United Kingdom case. Although Rover is the only supplier that is domestically-owned, Ford and General Motors too are often seen as domestic rather than foreign suppliers. The share of 'foreign' cars in the United Kingdom market varies between 43 and 86 per cent depending on the way Ford and Vauxhall cars are classified. In Japan on the other hand there is no such ambiguity: all but the 4 per cent of imports are produced by Japanese companies. In the United States around 70 per cent of cars are supplied by United States-owned companies. The other 30 per cent may be classed as 'foreign', although the dividing line is now being blurred by cars that are marketed by United States-owned companies but were in origin Japanese (as mentioned in paragraph 3.3).

3.21. As mentioned earlier in the chapter, Japanese suppliers have limited their exports to the United States and to some EC markets but have established production facilities both in the United States and more recently in the EC. The Japanese suppliers have now attained an overall share of 28 per cent of the United States market and in the EC national markets range from 42 per cent in Ireland down to 2 per cent in Italy and in Spain. The prospects for Japanese production and sales in the EC in the 1990s are discussed in Chapter 9.

3.22. A detailed account of the Japanese market is set out in a report by Touche Ross & Co (at Appendix 3.1) commissioned by the MMC and carried out in April 1991.

## The financial background

3.23. Set out in Table 3.6 is a summary of the financial results for the three years 1988, 1989 and 1990 of the world-wide automotive operations of the world's seven largest car manufacturers which are also major suppliers to the European market. The results presented have been extracted from the published accounts of the companies concerned and they have been converted into sterling at the exchange rates ruling on 31 December of each year. It should be noted that:

- (a) the results include sales of commercial vehicles and components (it not having been possible to separate them);

- (b) the results for Toyota, Volkswagen and Nissan are not exclusively for automotive operations, but include all activities, as a separate analysis is not available in the published accounts; and
- (c) it is not feasible to make direct comparisons of the profitability of these companies because of differences in the accounting policies and conventions adopted by the companies and the volatility of exchange rates.

TABLE 3.6 **Summary of the financial results of the world-wide automotive operations of the world's seven largest car manufacturers which are also major suppliers in the European market\***

	<i>£ million†</i>		
	1988	1989	1990
<i>Turnover</i>			
General Motors	53,833	61,557	50,210
Ford	45,410	51,478	42,406
Toyota‡	31,942	34,588	35,101
Volkswagen‡	18,507	23,938	23,632
Nissan	18,786	20,749	21,555
Peugeot-Citroën	12,059	15,697	15,549
Fiat	<u>15,401</u>	<u>19,768</u>	<u>18,024</u>
	195,938	227,775	206,477
<i>Operating profit</i>			
General Motors	3,102	3,187	68
Ford	3,653	2,641	164
Toyota‡	2,071	2,018	2,455
Volkswagen‡	475	728	427
Nissan‡	281	371	1,446
Peugeot-Citroën	1,135	1,502	1,177
Fiat	<u>1,243</u>	<u>1,577</u>	<u>480</u>
	11,960	12,024	6,217
<i>Total assets employed</i>			
General Motors	33,381	40,123	35,888
Ford	23,828	28,459	26,333
Toyota‡	24,127	30,845	32,192
Volkswagen‡	15,716	20,831	21,775
Nissan‡	18,476	20,469	21,936
Peugeot-Citroën	7,083	9,220	9,550
Fiat	<u>14,270</u>	<u>18,815</u>	<u>17,696</u>
	136,881	168,762	165,370
<i>per cent</i>			
<i>Operating margin</i>			
General Motors	5.8	5.2	0.1
Ford	8.0	5.1	0.4
Toyota‡	6.5	5.8	7.0
Volkswagen‡	2.6	3.0	1.8
Nissan‡	1.5	1.8	6.7
Peugeot-Citroën	9.4	9.6	7.6
Fiat	8.1	8.0	2.7
<i>Return on assets</i>			
General Motors	9.3	7.9	0.2
Ford	15.3	9.3	0.6
Toyota‡	8.6	6.5	7.6
Volkswagen‡	3.0	3.5	2.0
Nissan‡	1.5	1.8	6.6
Peugeot-Citroën	16.0	16.3	12.3
Fiat	8.7	8.4	2.7

Source: Company accounts.

\*The unit sales figures and the financial results include commercial vehicle sales.

†Foreign currencies have been converted into sterling at the exchange rates ruling on 31 December in each relevant year.

‡The financial results for these companies include all operations, as a separate analysis of their automotive operations is not provided in their accounts.

3.24. There are certain trends which appear from Table 3.5. The two United States-owned companies (General Motors and Ford) have suffered from declining sales volume over the three years. This decline accelerated in 1990 when turnover and profits also fell sharply. In contrast the sales volumes and turnover of the two Japanese-based companies (Toyota and Nissan) increased over the three-year period. In 1990 there was a 20 per cent increase in profitability at Toyota, whilst profits at Nissan increased almost fourfold.

3.25. The results of the three European companies have been mixed, although, with the exception of Volkswagen, 1990 has seen a decline in sales volumes and turnover. Profitability has also worsened in 1990 with the sharpest fall in profits at Fiat.

3.26. Set out in Table 3.7 is a summary of the available published financial information on the European operations of four of the seven companies. Although the European operations of the United States companies represent only some 20 to 30 per cent of their world-wide automotive divisions' turnover, they contributed between 30 and 40 per cent of operating profits in 1988 and 1989. In 1990 these companies' European operations remained profitable, although at a reduced level, while their North American operations suffered heavy losses. The Japanese-based companies and the three European companies do not provide the same level of financial information on their European operations alone. The information that is readily available has been included in Table 3.7.

**TABLE 3.7 Summary of the financial results of the European automotive operations only of the companies shown**

in Table 3.6*		<i>£ million†</i>		
	1988	1989	1990	
<i>Turnover</i>				
General Motors	8,997	11,087	11,475	
Ford	11,840	13,188	13,334	
Volkswagen	14,155	18,590	18,615	
PSA	<u>11,916</u>	<u>15,507</u>	<u>15,467</u>	
	46,908	58,372	58,891	
<i>Operating profit</i>				
General Motors	984	1,137	992	
Ford	1,207	1,090	238	
PSA	<u>1,155</u>	<u>1,533</u>	<u>1,156</u>	
	3,346	3,760	2,386	
<i>Assets employed</i>				
General Motors	8,673	13,530	16,076	
Ford	<u>7,662</u>	<u>10,619</u>	<u>10,697</u>	
	16,335	24,149	26,773	
<i>per cent</i>				
<i>Operating margin</i>				
General Motors	10.9	10.3	8.6	
Ford	10.2	8.3	1.8	
PSA	<u>9.7</u>	<u>9.9</u>	<u>7.5</u>	
	10.2	9.5	5.9	
<i>Return on assets</i>				
General Motors	11.3	8.4	6.2	
Ford	<u>15.8</u>	<u>10.3</u>	<u>2.2</u>	
	13.4	9.2	4.6	

Source: Company accounts.

\*An analysis of European activities only is not provided by all the companies. Therefore this table includes the information that is available from published sources.

†Foreign currencies have been converted into sterling at the exchange rates ruling on 31 December in each relevant year.