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**Commission statement on the
European automobile industry**

**Structure and prospects of the
European automobile industry — 1981**

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**Commission statement on the
European automobile industry**

Background and objectives

1. In October 1980 the Commission sent to the European Parliament, the Offices of the Permanent Representatives, the Economic and Social Committee, the trade associations and the trade unions an information paper on the situation in the automobile industry.¹

Parliament has held a wide-ranging debate on this industry, resulting in the adoption of a resolution on 13 January 1981.²

The trade associations and the trade unions have expressed their opinions in detailed position papers.

The Economic and Social Committee has decided to set up a working party on the automobile industry.

Lastly, the Commission has repeatedly brought to the attention of the Council the need for a common commercial policy towards Japan, the importance of which was recently highlighted by the voluntary restraint agreement concerning Japanese automobile exports to the United States.

All the economic and social parties involved now broadly agree in their analysis of the situation and on the extent of the changes which must be made by the European automobile industry. It must continue to play the leading role which it enjoys in the Community by maintaining its international competitiveness. Faced with Japanese competition, the aims of the American industry and the emergence of new producers, the European industry must continue to adapt its industrial and commercial base which is vulnerable because automobile construction is so heterogeneous and manufacture of components so dispersed. This calls for increased efforts to rationalize the apparatus of production, to exploit and develop existing technological knowhow and to improve the efficiency of the distribution systems.

Naturally, it is the companies themselves that are the most directly concerned, and the main responsibility for taking action lies with them. Nevertheless, all economic operators which have an interest in, or have some measure of responsibility for ensuring that this industry

runs smoothly should do all in their power to encourage its development.

The European automobile industry needs an economic environment in which it can continue with and step up the adjustments it has embarked on in order to improve its competitiveness, adjustments which entail a considerable amount of investment.

2. Against this background and in view of the difficult situation on the world and European markets, the Commission considers it necessary to examine this sector in order to express in detail its opinion on the problems facing the automobile industry.

The study 'Structure and prospects of the European automobile industry—1981' has three main objectives:

- to give a reply to all the economic operators involved in the smooth functioning of the automobile industry in response to the positions they have expressed, and call upon them to shoulder their responsibilities along the lines proposed. The document is in this respect a starting point; it will be expanded as regards matters relating to components and distribution and will be regularly updated;
- to serve as a reference in the context of the discussions with the other industrialized countries (USA, Japan, Sweden, etc.) on the prospects of the automobile industry; it specifies the points on which it is necessary to adopt a position in order to begin a dialogue of this kind. Such exchanges of views should not be restricted to a discussion of short-term problems and the examination of economic questions. In view of the international character of the automobile industry, and the growing interpenetration of production and trading structures, the assessments made of the long-term prospects of this branch of industry should be compared;
- to reply to the resolution on the automobile industry adopted by Parliament on 13 January 1981. In this respect, this document will also be of interest to all the other Community institutions and bodies. The Community institutions have no mandate to determine and implement the requisite changes in this sector. The main responsibility for taking action lies with the firms concerned. However, the Commission is anxious to ensure that the best possible use is

¹ Fourteenth General Report, point 156.

² OJ C 28, 9. 2. 1981; Bull. EC 1-1981, point 2.3.7.

made of the instruments at its disposal in the current situation.

Community action

3. The Commission proposes to carry out a series of coordinated measures aimed at supporting the efforts of the European automobile industry to improve its competitiveness, at facilitating the adjustments required and at creating an appropriate economic environment.

This action, which must be carried out in close cooperation with the Member States, will focus on four aspects:

The internal market

4. It is imperative to strengthen the internal market and to derive maximum benefit from its inherent dynamics, i.e. from the combination of the various advantages arising from its size. Efforts will be made to create a more propitious climate for the Community's automobile industry by:

- *Striving for greater harmonization* of those aspects which have not yet been brought into line, in particular where taxations and energy are concerned. The Commission would emphasize in this respect the drawbacks of the continuing differences between the national taxation systems which have caused a fragmentation of the Community market. It would like its endeavours as regards the harmonization of tax structures to be accompanied by action by the Member States to approximate the rates and levels of motor vehicle taxation, and in particular VAT on vehicles and motor fuel taxation. The measures in question should be designed not to discourage automobile purchases in the Community and to encourage energy savings. They might, for instance, result in the approximation of purchase taxes at a level significantly lower than that of certain Member States, with excise duties on motor fuel being kept at a high level.

- *Adapting legislation* to developments in the economic, technological and energy fields. Often in the past, matters relating to legislation have been discussed with too little concern for the general context. An approach must be found which covers the safety, environmental

and energy-saving aspects all at the same time. It must be devised collectively and must aim at setting medium- and long-term objectives designed to provide companies in the automobile industry, where lead times are major constraints,¹ with the information that they need in order to shape their development. A method such as this, and the adoption of Community type-approval for motor vehicles, would also encourage our car makers to be more dynamic, particularly in their relations with their partners in other parts of the world, and would set the scene for a constructive dialogue with non-Community countries.

- *Promoting innovation* through a set of one-off or ongoing operations, the main aim of which would be to help the Community industry gain a better awareness of requirements and possibilities, and which could consist in:

taking stock of research, development and innovation work under way or planned in the Community, so as to have a clearer idea of what has been achieved and clarify the options;

making a contribution to the pursuit of studies or pilot projects recognized as being very important (gas turbines, multi-fuel engines, etc.);

setting up observation and joint consultation machinery the purpose of which would be to provide all the parties concerned with information and constitute a forum for exchanges of views on developments abroad, and the long-term requirements on the various markets throughout the world etc.;

encouraging the setting up of or involvement with technical centres for research and innovation concerning automobile components;

defining coordinated research programmes involving industry, universities and public authorities, and setting up centres of excellence for advanced technology, bringing together car-makers, accessories manufacturers and State-run laboratories (in connection with high-temperature materials or composite materials, for example).

¹ It takes about five years to advance from the design stage to series production of a new model.

The structural development of the Industry

5. The Commission has special responsibilities here because of its powers in the field of competition and the financial instruments at its disposal.

Maintaining and improving the competitiveness of the European motor industry must be the essential aim of structural adjustments. Consequently:

- When applying the Community competition rules the Commission will give due consideration to the need for closer cooperation — both within the industry and with other industries earlier or later in the production chain — which does not distort competition on the world market. This assessment is naturally based on the principle that the common market remains open.

- Where State aid is concerned the Commission will supplement the existing rules by setting up a system for the post-monitoring of national aid, including specific aid as well as the application of non-specific schemes to the automobile sector. Indiscriminate use of public funds could lead to overcapacity; it might reinforce the trend towards protectionist measures or encourage the granting of different aid later, for conversion purposes. Moreover, the Member States with limited funds available would be the ones most affected by a 'beggar-my-neighbour' approach to State aid.

This system would increase the information at the Commission's disposal.

It would ensure greater overall transparency, and provide a common reference basis for discussions between the Commission and the Member States concerning matters relating to adjustment by the industry, thereby enhancing the discipline required as regards the granting of aid and averting the danger of overcapacity arising within the Community.

- Lastly, the use of Community instruments for the benefit of the motor industry, which has received considerable support in recent years, will have to satisfy criteria aimed at encouraging the industry's efforts to improve its productivity and to rationalize components production, taking into account the different situations and locations of Community firms.

These criteria will be designed to contribute to greater integration of activities in the Community, to encourage investment in the high-value-added stages of production and to promote technological development and automation.

Only by increasing competitiveness and by applying technological advances rapidly can jobs be safeguarded, not only in the automobile industry but also in the industries which supply it and depend on it.

These new criteria might also serve as a reference basis for the Member States and thus have a stimulating effect.

Changes in employment

6. The Commission attaches great importance to the questions relating to employment, which must also be taken into consideration along with and on the same basis as the other aspects. Given the rapidly changing economic and industrial conditions, it is particularly important that all the economic operators concerned should display the dynamism and flexibility that the scale of the adjustment required entails. First, a clearer picture must be gained of the effects on employment and working conditions that the changes which the industry is currently undergoing will have. This is a prerequisite for effective action in this field. In the current situation, the lack of adequate information and detailed research on this subject is disturbing — it restricts both the number of ways of adapting to the changes in practice and the companies' ability to find staff which satisfy their requirements.

The Commission will look into this problem in more detail. First of all, it will collect and evaluate, if possible at the level of the various regions, information and forecasts relating to the consequences that changes in production, and in particular automation, might have as regards employment, qualifications and working conditions, and contribute to the work to be done to this end.

Dialogue with the Community's trading partners

7. As an exporter, the Community's car industry needs to be competitive on the world mar-

ket. This will only be possible in the context of an open market. In its efforts to find solutions to international problems, the Commission will seek to draw full advantages from the current trend towards greater international integration of automobile production, as witnessed by the growing number of cooperation agreements and external investments:

- with a view to rationalization and stabilization of commercial structures, based on increased trade in components, spare parts and technology;

- by means of a coherent Community commercial policy towards non-Community countries. The present situation, and the concomitant fragmentation of the market, have slowed down the process of adapting the Community industry. The efforts to bring national strategies into line under a common commercial policy implies a gradual adjustment of imports into the Community as a whole and the promotion of exports to non-member countries.

The Commission will actively pursue the dialogue with its trading partners in order to arrive at the desired results.

*

These guidelines and the underlying analysis on which they are based are set out in detail in 'Structure and prospects of the European automobile industry—1981'.

The Commission intends to hold discussions with the other Community institutions and bodies, governments, the trade associations and the trade unions and its main trading partners in the next few months in order to build on the ideas expressed in this document.

Structure and prospects of the European automobile industry—1981

Summary

8. The European automobile industry is faced with one of the most fundamental changes in its history, and the magnitude of the adjustments to be pursued is now generally realized.

The firms in this industry are, of course, the parties most directly concerned, but the structural adjustment needed is so great that all the economic operators affected by the automobile industry have a part to play in this process.

A careful examination of the facts is needed in order to see what the various parties can and must do in order to help this industry to adapt to the changed circumstances.

In view of the problems facing the automobile industry, the Commission has thought it worthwhile to examine all the background information at its disposal in order to produce a summary report. As the Commission is anxious that the resources at its disposal should be administered as efficiently as possible in the present situation, an examination of what it is doing in this connection has been incorporated into the fabric of this analysis in order to give a clear idea of the emphasis it wishes to impart. This approach, which is set out in detail in this paper, places the European industry in the world context before taking a look at the likely developments.

9. The main conclusions of this analysis can be summarized as follows:

Automobile trends worldwide have entered a new phase characterized by significant changes in:

demand: the growth in demand has slowed down, demand has become more international in character, and its responsiveness to cyclical factors has increased;

technology: this has now become a fundamental factor in the competitiveness of firms, which must incorporate it at a faster rate in products and factories;

production: this is affected by rapid automation and a redistribution of value-added towards upstream industries and new sectors;

trade: there is, at one and the same time, a shift towards the most efficient manufacturing areas and a structural reallocation whereby finished products are being replaced by components;

employment: influenced by the consequences of the search for greater productivity and by the need for more qualified manpower adapted to the use of advanced technologies.

These trends obviously affect all carmakers. In this context, the European automobile industry has to cope with:

the competitiveness of the Japanese industry, with its highly efficient productive apparatus, low production costs (20 % to 30 % below those of Community manufacturers), and unparalleled sales drive;

the ambitions of the US industry, which was put out of its stride by the second oil crisis, but is determined to restore its competitive position by investing enormous sums of money;

the emergence of new competitors, who wish to expand their trade and establish their industrial growth on the basis of the automobile industry.

10. Over the last few decades, the automobile industry has been a focal point for economic development within the Community, not only because of its direct impact but also because of its stimulating effect on many basic industries. In future, the Community automobile industry can play a decisive role in the development of high-technology industries (robots, electronics, etc.).

It must, however:

keep up its trading strength, which is being undermined by a weakening of its position on the home market and the erosion of its position on foreign markets;

reorganize its industrial base, which has a vulnerable look about it because of its heterogeneous character where motor vehicle manufacture is concerned, and its dispersed character where the manufacture of components is concerned.

Despite these structural weaknesses, the Community automobile industry is capable of making considerable progress:

by rationalizing its productive apparatus, i.e. by streamlining its structures and modernizing its equipment;

by exploiting and developing its technological lead;

by making better use of its distribution systems, which can make a bigger contribution to the effectiveness of its marketing efforts.

In order to adjust the productive structures, with a view to making the industry more competitive, there is a need:

where the industry is concerned: for closer cooperation, which can quite easily be organized without affecting the conditions of competition adversely, and for particular attention to be paid to State intervention;

in this connection, a Community system for the post-monitoring of State aid would make it possible to guarantee the requisite degree of transparency and pave the way for the Commission and the Member States to pool their thoughts with a view to making the adjustments easier;

where the financial side is concerned: for large-scale investment programmes entailing the mobilization of considerable financial resources. It might be desirable to rethink the criteria for the granting of Community support, in order to encourage improvements in productivity and the rationalization of component manufacture;

where technology is concerned: for the stimulation of research and development as part of a long-term view of the development of the motor vehicle in general. This can only be achieved by exploiting the spin-off resulting from cooperation not only among firms but also with public authorities, the universities and all the parties concerned;

where regional and social aspects are concerned: for the geographical reorganization of production for the benefit of the less-favoured regions, for the redistribution of labour between sectors and for the qualitative redistribution of labour. A consensus between the economic and social partners and the relaxation of institutional rigidity would appear, in this respect, to be prerequisites for adjustments capable of reconciling an improvement in working conditions with better use of the productive apparatus.

11. The dynamics of the internal market would appear to be the requisite catalyst for this process:

by making it possible to create a more favourable general environment; this presupposes closer

harmonization of the conditions affecting the motor vehicle in general in the Community (transport, taxation and insurance matters) and the continuation of the work to remove the barriers to the creation of a genuine Community motor vehicle market;

as a result of *legislation* being adjusted in line with economic, technological and energy developments. In this respect, the Commission takes the view that an overall approach is needed which takes into account, at one and the same time, energy-saving, environmental and safety considerations with a view to obtaining a harmonious body of legislation which will help to defend the Community industry's competitive position. This presupposes, of course, that decisions taken on the subject in relation to other markets should also be taken into account.

12. Lastly, it is of vital importance for the Community that its automobile industry should make suitable adjustments so that it can slot into the future framework of international equilibria. To this end:

trade patterns must not evolve in such a way as to cause a shrinkage of the European industrial base as a result of excessive, one-sided concentration of trade on finished products. A careful analysis of trends in the development of the motor car clearly reveals the economic and industrial capacity for securing — as a result of increasing integration of motor vehicle manufacturing worldwide — stable, healthy commercial structures founded on increased trade in components and on the orderly future location of production units;

investment outside the three main producing areas is the most suitable way of bringing about this new equilibrium *by encouraging economic interpenetration*, an objective which is desirable in the context of industrial cooperation, which would now seem to be the only way of increasing the sector's economic effectiveness and relieving the tension on the markets. Such investment should therefore be encouraged in the context of closer consultation between the economic and political agencies concerned.

Part One

The European automobile industry in the world context

13. In order to assess the outlook for the European automobile industry, we should first of all place it in the world context, since the only way to pinpoint the adjustments needed so that it can take its place on favourable terms in the context of the future pattern of economic, industrial and commercial equilibria is to examine the strengths and weaknesses of the Community automobile industry in relation to the development of the conditions of international competition.

With this aim in view, Part One of this report seeks:

- to bring out the likely trends in the development of the motor car and the factors liable to affect the competitive position of the main producing areas;
- to analyse, against this background, the Community industry's advantages and disadvantages.

Development of the conditions of international competition

14. The expansion of the motor car worldwide has entered a new phase characterized by substantial changes in demand, technology, production conditions and trade patterns. This is a fact of life for all car-makers, but it is not the only factor with which the European industry must come to terms. There are also the ambitions of the US automobile industry, and the emergence of new competitors, not to mention the competitiveness of the Japanese industry.

A new stage in the development of the motor car

15. Most experts who have examined the main factors in the development of the motor car have come to broadly similar conclusions which in fact tend to give the lie to the idea of a sector in crisis, at least in the sense in which

this term has been used to describe other industries in very serious difficulties.

The trends which have determined the development of the motor car ever since it was invented are still there in the background influencing the sector's long-term prospects. The main factor is, of course, the increase in car ownership worldwide, and the following figures give some idea of the importance of this factor: while there are 540 cars in the United States (and 332 in the Community) per 1 000 inhabitants, the world average is only 79 cars per 1 000 inhabitants.¹

However, the world automobile industry has entered a new phase not because of a change in the nature of the factors determining its growth, but because of changes in the relationships between these factors which have combined to lay the foundations for a new order.

An examination of these changes, which concern the features of demand, the role of technology, production conditions and trade patterns, makes it possible both to understand the process of change which is under way and explain the adjustments which require to be made.

The features of demand

16. The demand for motor vehicles is, of course, responsive to the general economic environment, and in particular the consequences of the energy crisis. The general downturn in demand, as a result of the second oil crisis, is no different in this respect from the downturn following the 1973 crisis, and the experts are therefore not expecting demand to pick up in 1981.

In the longer term, most of the sources available take the view that demand will probably have three main features in the years ahead:

Slower growth

The number of cars sold worldwide rose by 5.6% per annum between 1975 and 1980, but the estimated average rate for the next five years is some 3% per annum, probably mainly because of the gradual saturation of the tradi-

¹ Annex 1.

tional markets in countries where car ownership has reached a fairly high level,¹ and the sensitivity of the new markets to general economic trends. Moreover, the evolution of the demand is very uncertain, for it is difficult to assess the repercussions of the profound changes which will affect the automotive production and use (rail/road balance on the one hand, and public/private transport on the other).

A number of factors liable to influence the validity of these forecasts and the possible consequences if they turn out to be accurate should be emphasized:

- The estimates in question relate to the number of vehicle registrations. However, the increasing sophistication of motor cars, which is likely to be accentuated as a result of fuel restrictions, entails a considerable increase in their value added content. As a result of the lack of forecasts of value added, the foreseeable trend in demand in real economic terms is therefore underestimated;
- The growing saturation of the motor vehicle market in the developed countries, on which these forecasts are based, could be called into question as a result of the rapid obsolescence of the vehicles now on the road because of substantial technical advances. In this case, motor vehicles might be replaced more quickly on the traditional markets, and the United States will probably be the first country to witness such a change.

Greater responsiveness to cyclical factors

The reasons for this are that the demand for replacement vehicles is now the predominant factor in the developed countries, and that the developing countries and the planned-economy countries (where most of the growth potential of the new markets lies) are heavily dependent on external energy sources.

Greater vehicle standardization

This applies at least as regards the basic features and is the result of fuel-consumption and cost constraints. This factor is particularly important as it has major structural implications with regard to production conditions.

¹ Annex I.

The role of technology

17. The role of technological advances in the development of the motor car and the pace of implementation of these advances have not been particularly significant in recent decades. The automobile industry has experienced a long period of comparative technological stagnation: present motor vehicle design dates back to the 1910s, series manufacturing to the 1920s, and front-wheel drive, four-wheel independent suspension and monopiece bodies to 1935 or thereabouts. All the changes that have occurred since the first energy crisis have now made the ability to get to grips with technical advances one of the decisive factors in firms' competitiveness.

The scientific back-up for the automobile industry will increase considerably in the next few years as a result of using new technologies for engine design, for reducing vehicle weight, for greater streamlining, and for optimizing functions by making greater use of electronics.

While the most rapid progress will obviously be achieved by improving existing systems, it is extremely difficult to predict the radical innovations that will be made and the time that will be required to make them generally available, because of uncertainties surrounding future energy availabilities and costs, the decisions of the public authorities and the strategies of the main manufacturers.

One thing is certain, however — the firms' technological capability will no longer be simply one aspect of their competitiveness but a very condition of their survival. In the years ahead, therefore, the automobile industry will be the scene of a significant technological revival as regards both products and production processes, and motor vehicles in general will constitute a highly strategic sector for the competing countries.

Production conditions

18. The automobile industry's production conditions have developed over the years as part of a constant striving for economies of scale.

As a result of the considerable advances made in the equipment industries, thanks to the use

of electronics and the increasing uniformity of demand, this striving is taking new forms — which may be summarized under three headings:

- automation of production processes;
- structural alterations to the production set-up;
- switching of value-added between sectors.

Automation of production processes

19. The most advanced aspects of motor vehicle manufacturing are in the forefront of the automation of manufacturing processes: some plants are already 97 % automated: the generalization of this development will be a feature of the coming decade for the car-makers themselves and for the components manufacturers and the upstream industries, as it is an essential element of the firms' competitiveness. For example, 50 % of Japan's industrial robot production (Japan being the leading producer worldwide) is already earmarked for the automobile industry, US manufacturers are planning to buy 5 billion dollars worth of new machine-tools in the next five years, and certain European motor manufacturers are producing automated equipment which is not surpassed anywhere in terms of technology.

This move towards automation, which is also a decisive factor in the context of greater production flexibility, combined with the increasingly international character of the sector, is fuelling a radical change in the production set-up.

Structural alterations to the production set-up

20. The automobile industry has for a long time been the epitome of assembly-line-based mass production. Two factors have for a number of years been exerting a growing influence:

- The 'world car' concept resulting from the increasing uniformity of the motor vehicle market. The term 'world car' does not refer to the manufacturing of identical vehicles for the entire world market, but to the designing of cars which can be assembled for different markets from components made on a large scale in a small number of production units;

- Varying scales of production runs: car-making can be divided into stages each of which, according to studies carried out on the subject, have different optimum scales of production. A few figures will help to make this clearer. For example, the minimum production level would seem to be around 500 000 units per annum for the manufacture of engines. On the other hand, where assembly is concerned, annual runs of 100 000 to 150 000 units would make it possible to exploit the essence of economies of scale. Unit distribution and associated costs would be halved if 500 000 vehicles were produced instead of 100 000.

These two factors naturally have a considerable effect on the overall production set-up.

Switching of value-added between sectors

21. Increased use of highly-automated equipment, the need to manufacture components on an adequate production scale, and increasing sophistication of vehicles ultimately entails a redistribution of value-added between sectors:

- towards the manufacture of components, the prime target area for the incorporation of technical advances;
- towards the equipment industries which produce the machinery used;
- towards maintenance activities, meaning both the maintenance of production equipment and the maintenance of the vehicles themselves (use of sophisticated checking and control equipment, for example).

Special attention should be devoted to this aspect, not only in order to assess the social effects of the changes under way (a transfer of value-added will also entail a transfer of jobs), but also in order to assess the regional impact (alteration of the geographical distribution of production units) and the international impact (implications for trade patterns).

Trade patterns

22. The above factors will inevitably have a considerable impact on the development of trade patterns, especially in conjunction with the economic decisions of certain countries with regard to the geographical distribution of production activities.

This impact is likely to be felt in the following ways:

- A growing tendency for assembly units to be located in the markets to be served, as a result of a technical capability combined with the political will of many countries to develop an automobile industry;
- A corresponding increase in trade in components, equipment and technology to the detriment of trade in complete cars. The Community has already been affected by this development.¹ In 1979, spare parts accounted for more than 31 % of Community automotive exports, compared with 23 % in 1970. This phenomenon should soon spread to the United States. US manufacturers are expected to make considerable purchases from their European subsidiaries and from Japan, whose sales of spare parts abroad will, according to certain estimates account for 40 % of automotive exports in 1985, compared with 20 % at present.

*

The various manufacturing zones are in very different positions for embarking on this new stage in the development of the motor car, and they have already planned their strategies. When looking at the competition with which the Community industry will have to come to terms, three main factors should be taken into account: the competitiveness of the Japanese manufacturers, the intentions of the US manufacturers and the emergence of new producers.

The competitiveness of the Japanese industry

23. This is the first challenge which the European automobile industry will have to meet. Japan is the country which, in recent years, has best succeeded in coping with the constraints which are a feature of the new conditions surrounding the development of the motor car worldwide. The results are there for all to see, but the important thing is to analyse the reasons for this competitiveness and the outlook for the future.

Results

24. In 1952 there were 100 000 foreign cars in Japan out of a total of 130 000.

In 1980, Japan made 7 050 000 passenger cars, more than 3 800 000 of which were exported. Between 1970 and 1980, the Community's automobile production remained virtually stable and exports fell by nearly 23 % in terms of units, whereas Japan's production rose by 122 % and her exports by 426 %.¹

The reasons for Japan's success

25. Many reasons have been advanced to explain the success of the Japanese automobile industry: productivity, social and labour factors, the exploitation of currency fluctuations, etc. However, the reasons for the high degree of competitiveness achieved by the Japanese manufacturers cannot be broken down into neat, individual packages, since it is the end-product of (i) a long-term development approach whereby investment decisions are guided by encouraging the modernization of processes and products, and (ii) an integrated organizational set-up in which the optimum level of industrial and commercial efficiency is encouraged.

A long-term development strategy

26. Japanese firms generally adopt an approach focusing more on the industrial side than the financial side, in that they attach less importance to immediate profitability than to the consolidation of trading positions. This expansionary policy has led Japanese manufacturers to devote a greater proportion of value-added to investment than that earmarked by their American or European competitors. Between 1974 and 1977, the proportion of value-added earmarked for investment by the three main Japanese manufacturers was 35 %, on average, compared with only around 18 % for the ten main European companies and barely 14 % for the four main American groups.

This investment effort, the funding of which was made easier by considerable internal resources and the implementation of which was

¹ Annex 2.

¹ Annexes 1 and 3.

facilitated by favourable tax provisions, has focused on increasing production capacity and improving productivity through the intensive automation of production lines. According to some estimates half of all the industrial robots at present in existence worldwide are installed in Japanese factories.¹ Accordingly, in the last twenty years, the productivity of the Japanese automobile industry has increased twice as fast as that of the European industry and four times as fast as that of the US industry. Furthermore, this investment by the Japanese manufacturers could not have been so effective had there not also been:

- a very rapid improvement in the qualifications of the workforce: in Japanese car factories, two-thirds of skilled and semi-skilled workers have the equivalent of GCE A level qualifications;
- considerable improvements in productivity in the components industry: according to an interim report on the car components industries in the European Community and Japan, productivity in this sector is twice the Community average. This factor is of course particularly important in view of the strategic role of components manufacture and the structure of the Japanese automobile industry in which subcontracting (buying-in) can be as much as 65 % to 80 % compared with 50 % to 55 % in the Community.

A perfectly integrated industrial and sales system

27. The Japanese automobile industry's production and marketing set-up has some very individual features which are reflected in the optimum integration of all industrial and distribution aspects.

The main advantages are as follows:

- very fluid production flows: As a result of numerous financial links, Japanese motor vehicle manufacturers have a considerable measure of control over their components suppliers. In

addition, the Kanban system for the ordering and routing of materials developed by Toyota ties most of the suppliers to the manufacturers, who can therefore efficiently coordinate supplies to production lines, keep the level of stocks of spare parts to a minimum, and benefit from a two-way flow of information which facilitates the close coordination of production;

- extremely efficient distribution systems, thanks to the delivery of vehicles as a result of using sophisticated data-processing facilities (and even a satellite for the transmission of orders) and a centralized transport fleet with rates 40 % below European rates.
- an excellent balance between supply and demand, particularly on external markets, owing to the manufacture of products which satisfy the specific needs of these markets (whereas, in many cases, their competitors tend to try and export the surplus of a production adapted to their own market) and to the immediate reaction of manufacturers to consumers' wishes.

Last but not least, one of the main factors in the efficiency of the Japanese industry is the extremely favourable social climate, resulting for example in the virtual absence of strikes and the extremely high rate of utilization of productive equipment (the average period of utilization in Japan is estimated to be around 2 000 hours per annum, compared with 1 717 in France and 1 626 in the Federal Republic of Germany, according to the French Chambre Syndical and the German VDA).

All these factors combine to give the Japanese automobile industry considerable advantages over its rivals, the most striking advantage being the difference in production costs, which are 20 % to 30 % lower in Japan than in Europe.

In the circumstances, it is very important that we should analyse the likely developments.

The future outlook

28. At this stage, let us confine ourselves to an analysis of the Japanese manufacturers' known projects and stated objectives, since the general question of future international equilibria in the industry, which will depend on the decisions taken in the various manufacturing zones, is considered in detail in Part Two of this report.

¹ It should be emphasized in this connection that the figures available are very difficult to interpret and are often disputed, as there is no clear definition of the term 'industrial robot'. According to the calculations made by Renault using the Japanese classification, the number of robots used in the European and Japanese automotive industries seem to be about the same.

The MITI recently said that Japanese manufacturers are going to make 12 000 million dollars worth of investment in Japan over the next three years in order to replace models and productive equipment, increases in production capacity being confined mainly to small-engined (500cc) vehicles. Although this information contradicts certain forecasts predicting a 20 % increase in Japanese production capacity between 1981 and 1983, no final judgment can be made on this basis, since:

- according to a recent French Senate report, the MITI has just adopted a new automobile industry policy providing for the accelerated computerization of production processes with a view to doubling labour productivity in five years. The first incentive under this new policy is to be a special depreciation subsidy to be granted to manufacturers purchasing high-technology robots. Information from various sources also indicates that Toyota has ordered 720 welding robots and is planning to have its factories running completely automatically by 1984;

- the figures quoted only refer to production units located in Japan. In fact, there are several signs of a change in Japanese automobile strategy towards moderation in the growth of exports, the establishment of facilities abroad and industrial diversification. It therefore looks as if the Japanese industry is changing its emphasis in such a way as to make production and automobile assembly activities more international in character and to pursue a policy of investing outside the automobile sector. The increasing number of agreements between Japanese, European and American companies and the emergence of direct investment projects (Nissan in the United Kingdom) tends to confirm the first part of this change of policy.

The available financial resources of the Japanese companies are so great that they cannot, in any case, all be ploughed back into the automobile industry. For example, according to a report that has already been mentioned, Nissan is going in for the manufacture of outboard motors and the series manufacture of complete boats, whilst Toyota, which already has banking interests, has started to make mass-produced prefabricated houses.

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All in all, the Japanese automobile industry has attained such a standard of efficiency, profita-

bility and drive that it constitutes a major threat for its main competitors, and above all for the North American industry, on the basis of the strength that it has built up in recent years alone.

The aims of the US automobile Industry

Difficulties

29. In 1980 the US automobile industry experienced the most serious difficulties in its history:

- the aggregate losses of the three main manufacturers in 1980 are estimated at over 4 500 million dollars;

- production fell by almost 30 % compared with 1979;

- the automobile sector's trading deficit totalled over 13 000 million dollars and the rate of foreign penetration of the US market exceeded 25 %;

- nearly 300 000 workers were laid off by the manufacturers, representing over one-quarter of the workforce employed in the sector.

The reasons for this state of affairs can be summarized in a few lines: The American manufacturers were not prepared for the sudden shift in demand towards small cars in the wake of the second energy crisis. Accustomed as they were to servicing a market the specific features of which constituted a barrier to foreign competition, they went in for policies involving superficial changes to models instead of investing in productivity and technological improvements. Faced with the pressure from the Japanese manufacturers, which account for 80 % of automobile imports into the United States, the US manufacturers were at a disadvantage in two respects:

- they were unable to handle the qualitative change in demand;

- their cost prices were much higher; according to figures published by the US Department of Transportation, Japanese firms have a cost price advantage over American firms of 1 000 to 1 500 dollars per car, after taking into account the cost of transport and access to the American market.

The automobile industry plays a much more important role in the US economy than it does in the Community economy, not because of its intrinsic importance — which is directly comparable — but because of its role in the American transport system: 95 % of urban passenger journeys and 83 % of inter-city passenger journeys are made by car in the United States. It is therefore hardly surprising that the United States should wish to regain its supremacy in the world automobile industry. While this does not constitute an immediate threat to European manufacturers, since the transition period regarded as being necessary for the American companies will run until at least 1984, this country's automobile projects will have a decisive effect on medium-term equilibria in the sector.

Projects

30. Before examining the implications of the US automobile industry's projects for the years ahead, we should take a look at the objectives pursued, the resources deployed and the responsibilities involved.

Objectives

The American manufacturers are aiming to completely reorganize their productive apparatus and the production set-up in order to manufacture competitively sufficient vehicles to satisfy estimated demand on the home market in 1985. According to data worked out by the Department of Transportation on the basis of the investment programmes published by the firms concerned, the aim is to make 11 million¹ fuel-efficient passenger cars (or 13 million fuel-efficient vehicles if vans and light commercial vehicles are added) in the United States in 1985.

Resources

Total investment by the American groups in the next five years has been estimated at 70 to 80 000 million dollars,² which is much more

than the cost of the Apollo programme. Most of this capital will, of course, be devoted to retooling and downsizing (at an estimated cost of 56 000 million dollars), the remainder being for research and development and pre-manufacture and launching costs.

This investment will, of course, enable US manufacturers to considerably improve their productivity, in particular as a result of buying a lot of industrial robots (GM is proposing to double its stock of robots by 1983 to arrive at a total of 470 units). However, this investment will take some time to implement, which explains the extensive recourse to another method of adjustment: technology and external supplies.

American manufacturers have already signed or begun negotiations on a number of agreements with Japanese and European companies for the supply of engines and other components for their new models. For example, Chrysler, is to buy one million engines from Mitsubishi between 1981 and 1985.¹ At the same time, GM and Ford will be calling to a large extent on their European and Latin American subsidiaries, who will thus play a much more active part in their world production set-up.

What is more, these agreements are not confined to trade in components. It should be recalled in this connection that there have been strong financial links for a number of years between the US and Japanese companies: Ford holds 25 % of the capital of Toyo Kogyo, General Motors controls 34 % of Isuzu, and Chrysler owns 15 % of Mitsubishi. According to information recently reported in the press, Ford would seem to be about to conclude two agreements, one with Toyo Kogyo for the importation into the United States, as from 1984, of a small-engined car completely assembled in Japan, the other for the production in the United States, in conjunction with Toyota and Toyo Kogyo, of 300 000 light vans each year with components mainly imported from Japan.

Responsibilities

31. A wide-ranging discussion of the political aspects of the automobile sector in the United

¹ This figure includes estimated VW-USA output, i.e. 450 000 units, but not the output of any other foreign manufacturers' plants. See Annex 4.

² In constant dollars.

¹ A table indicating some of the recent agreements is given in Annex 5.

States is at present under way. Without anticipating the decisions which will be taken, it is worth examining the main subjects raised, which have a bearing on the responsibilities of all the economic operators concerned:

At government level, a self-restraint agreement of the Japanese exports has been negotiated in order to give the American producers time to make the necessary adjustments; help from the public authorities to make it easier for firms to find the investment capital required has, moreover, been requested.

In addition, particular thought is being given to the question of legislative policy, with a view to ensuring closer cooperation between industry and government in the setting of objectives. The American administration has already decided to lighten the regulatory constraints affecting car producers by cancelling some of the regulations, lengthening implementation deadlines and facilitating the control of programmes already started (air-bags, polluting emissions and energy consumption).

Lastly, the taking into account of international competition in the enforcement of anti-trust legislation and the training campaigns to be pursued in order to retrain the workforce are matters of vital importance.

The industry will have to improve its productivity, step up its research and development efforts, accept greater responsibility with regard to the environmental and social impact of its production units and products, and reorganize its labour relations.

The trade union organizations are faced with the need to come up with a wage strategy aimed at reducing the difference between labour costs in the United States and those in Japan.¹ One of the ideas put forward in this respect is wage concessions in exchange for profit-sharing.

Consequences

32. The effects of this thorough reorganization of the US automobile industry are at once internal and external, qualitative and quantitative. The internal implications have been analysed

in detail by the US Department of Transportation from the point of view of the:

Social and regional impact. Even if the aims of the US manufacturers are fulfilled, i.e. if they succeed in producing 13 million units in 1985 and in winning back their home market, it is likely that 200 000 jobs in the automobile industry will be lost between 1980 and 1985. The regional impact is also likely to be considerable, since the small number of new production units to be built will in many cases be located outside the regions in which the old ones have been closed down;¹

Commercial aspect: The US's 'automobile' deficit is likely to continue to increase, in particular because of growing imbalance in trade in components.

The external effects are more complicated to analyse:

qualitatively, the future outlook for the American industry matches the new trends in the development of the motor car worldwide;

quantitatively, and as regards the development of the balance of trade, forecasts can only be based on speculation about the behaviour of the rival production zones. It should be emphasized, however, that if the American companies' projects come off, there is likely to be a surplus automobile production capacity worldwide around 1983-85, as the Department of Transportation has in fact already stated.

Where the countries or producers involved are concerned, of course, this risk is only significant in terms of their competitiveness and the development of trade. The main problem, the possibility of which must be appreciated here and now, is as follows: the United States at present imports around 2.8 million cars; if domestic production capacity is on a par with domestic demand in 1985, what will happen to these imports? Three extreme cases can be considered:

- The US industry will succeed in winning back its home market: In that case, where will the present imports go?
- The US industry will become an exporter: Who will buy its cars?

¹ The table in Annex 6 gives the US Administration's estimates on this matter.

¹ 90% of US automobile production is concentrated in seven states.

- Another crisis will occur, even more serious than the present one in view of the sums of money committed.

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Careful consideration should, of course, be given to these prospects, in particular in view of the likely increase in competition that will result from the emergence of new producing countries.

The emergence of new competitors

33. The new producer countries (countries other than North America, Japan and the European countries traditionally engaged in motor vehicle manufacture) have so far played a limited role. However, their share of world production has steadily increased, rising from 10.3% to 19.8% between 1970 and 1980. In order to assess their effect on the conditions of competition of the European automobile industry, they should be subdivided into three groups: the State-trading countries, the countries that have applied to become Community members, and the other countries (Latin America, Africa, Asia).

The rise of the State-trading countries

34. In 1980, the Eastern bloc countries accounted for 6.9% of world motor vehicle production. The development of the automobile industry in these countries has been furthered by the transfer of technology, mainly from Western Europe, in particular in the form of turnkey factories (e.g. Togliatti complex built by Fiat in the USSR). A considerable proportion of the vehicles manufactured are exported, although the percentages involved are diminishing (34.7% in 1970, but only 27.4% in 1980), mainly to West European markets.

The impact of this boom on the Community industry should be assessed in relation to:

- the role of the State in the Eastern bloc countries: foreign currency requirements have a direct influence on the quantity and prices of vehicles for export;
- the features of the end-product, which — as it is manufactured under licence — bears direct

comparison with the West European models. Furthermore, the cars produced are at the lower end of the range and are intended for a public which is very sensitive to selling prices, and this is the main factor in their competitiveness.

Commercially speaking, East-West transfers of automobile technology have so far enabled West European producers, at the price of a slight increase in competition on the Community market:

- to export factories and knowhow to markets which are tightly sealed where finished products are concerned;
- to obtain low-price vehicles and components under buy-back deals: Fiat, for example, has undertaken to buy 820 000 engines, 50 000 vehicles and various subassemblies over 7 years in exchange for building two factories in Poland.

35. However, an analysis of recent trends in East-West industrial cooperation in the automobile sector suggests that the impact on the Community automobile industry is likely to increase. Information in a memo recently published by the Development Committee of the Economic Commission for Europe indicates that since 1975 three factors have combined to produce a rapid increase in automobile-linked trade with these countries: the increasing number of contracts between Western companies and Eastern bloc countries, the increasing number of buy-back deals involving Western partners and the increasing size of the projects envisaged.

In addition, whereas the first cooperation agreements concluded focused to a large extent on the existing models and proven manufacturing processes of Western companies, some of the more recent projects involve new models which will be made exclusively by the Eastern bloc partners using the most advanced technology (e.g. Citroen's agreement with Romania to make the Olcit model and Fiat's agreement with Poland concerning the Zero model).

Two reasons may be advanced to explain this development:

- Firms in the countries concerned can only meet the construction and quality standards of their Western partners by adopting the most recent technologies (this factor is very important, in view of the development of buy-back deals).

- The Eastern bloc countries concerned want to become competitive on the world markets so that an adequate proportion of their production can be earmarked for export.

The scale of the commercial implications of these various factors is difficult to assess, but according to certain estimates, deliveries from East European firms under buy-back agreements might total between 2 and 3 000 million dollars per annum in 1982-83 or thereabouts, compared with 500 million dollars per annum in the 1970s. It is also estimated that motor vehicle imports into the EEC from Eastern bloc countries might rise from 160 000 units in 1979 to around 500 000 units in 1985.¹

The integration of countries that have applied for membership (Spain and Portugal)

36. The situation in these two countries is particularly important, as they will shortly be joining the Community. The recent changes that have occurred in their respective automobile industries and their future prospects are obvious: gradual integration into the European production system. The growth of their production and their impact on competition have been characterized by:

- The rapid expansion of their home markets: between 1969 and 1977 car ownership rates rose from 49 to 149 per 1 000 inhabitants in Spain and from 37 to 85 per 1 000 inhabitants in Portugal;
- the decisive importance of the decisions taken by their respective governments with the aim of rapidly developing a local industry both for assembly and for the manufacture of components (the rate of local incorporation for the various manufacturers has been set at 50 % in Spain), both to encourage the adjustment of the productive apparatus and to bring about a change in the balance of trade by restricting imports² and by increasing exports (49 % of Spanish production was exported in 1980 compared with 6.9 % in 1970);
- the importance of the role played by subsidiaries of multinational corporations: in Spain,

production is controlled by Seat (in which Fiat has a considerable holding), PSA Peugeot-Citroën (Citroën and Chrysler), Renault and Ford; in Portugal, most motor vehicle activity is carried out by companies controlled by EEC firms.

37. The recent changes in the automobile situation in these two countries are characterized by the following:

- Cautious enforcement of new legislation gradually opening up their domestic markets to imports: granting quotas for imports of vehicles already assembled in Spain, enlargement of quotas in force in Portugal;
- Launching of restructuring plans to improve the competitiveness of the local industry;
- Stimulation of foreign investment: It is estimated that carmakers are planning to invest 3 800 million dollars in Spain in the next five years, and in Portugal two big Renault and Ford projects are now being considered. EEC firms are not the only ones involved either, since Nissan recently took a 35.9 % holding in the capital of Motor Ibérica in order to produce commercial vehicles in Spain as from 1982, and talks are now reported to be under way between the Spanish authorities and Japanese manufacturers concerning a Japanese holding in the capital of Seat.

In this context, the impact of these two countries on the European industry's competitive situation should be considered from the point of view of the competitive potential which they may bring to the Community industry after integration rather than from the point of view of the short-term competition they may represent for certain manufacturers.

The industrialization of the developing countries (Latin America, South Korea and India, Africa)

38. At present, these countries account for less than 7 % of world production.

The main factors determining their competitive impact where the European automobile industry is concerned are as follows:

¹ Estimates range from 300 000 to 800 000 units.

² There are very considerable customs and tax barriers in Spain and quotas in Portugal.

- the industrial and commercial policies adopted by their respective governments in favour of their expanding home markets or their external outlets;

- the establishment strategies and the degree of autonomy of the major manufacturers on their markets;

- the extent of the technology transfers of which they are the recipients.

The competitiveness of these new producers has so far been predominantly influenced by the role of the major manufacturers, since the ability to make vehicles for the world market depends, where these countries are concerned, on the extent to which they can use the technology and knowhow already developed in Japan, the United States and Europe.

39. However, some of these countries represent a growing risk for the European industry in terms of direct exports. A case in point is South Korea, which is starting to sell on the Western markets very competitive cars manufactured under very favourable conditions characterized by:

- very low labour costs;
- the use of large Japanese components and technology;
- European design and equipment.

On the other hand, their import potential would seem to be very limited in view of the extremely restrictive policies pursued by their governments: imports of passenger cars are virtually prohibited in Brazil, which also imposes a 250 % customs tariff on other vehicles; the mandatory rates of local incorporation exceed 60 % in Argentina and Korea, and the rate is as much as 95 % for certain types of vehicle in these countries.

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An assessment of the strengths and weaknesses of the Community automobile industry can be made on the basis of all these factors.

Strengths and weaknesses of the Community automobile industry

40. The Community automobile industry has been — and still is — a pace-setting industry in the economy. Any analysis of its strengths and weaknesses should look at the problem from the four different angles outlined below:

- Over the last few decades, the automobile industry has been a *focal point for industrial development*, not only because of its own growth but also because of its ability to carry along a wide range of basic industries in its wake. In future, too, it can continue to play this role by providing impetus for the high-technology industries.

- Today the Community's position as *the world's leading trading power* in this field appears to be in jeopardy, partly because its dominant position on the Community's internal market has weakened and partly because its place on external markets has been eroded.

- Over and above the efforts specifically connected with changes in competition, the Community automobile industry must carry on restoring its overall competitiveness. In this context it is clear that its *broad-based yet heterogeneous and fragmented structure* conceals a number of inherent weaknesses.

- Despite this handicap, which clearly has its roots in history, the European automobile industry has *considerable potential for development*, though that potential can only be fulfilled by restructuring the industry, rethinking the technology and reorganizing the sales networks.

Focal point for economic development in the Community

41. Over the last few decades the impact of motor vehicles on economic development in the Community has gone far beyond the effects of activities directly involved in automobile production.

Despite slackening market growth as a result of the factors outlined above, there are still many reasons to expect the automobile industry to

remain one of the focal points for economic progress in the Community.

However, the industry's contribution to economic growth must develop along the lines that are best for the Community economy as a whole — its role of carrying along basic industries in its wake can gradually be extended into that of promoting high-technology industries.

Carrying along basic industries

42. A few figures will help demonstrate the stimulating effect which the automobile industry has on the Community's economy:

some 20 % of all steel and machine tools produced in the Community, together with 5 % of all glass and roughly 15 % of all rubber, are intended for the automobile industry;

for every one job provided by the car-makers themselves roughly two more are created earlier in the chain.

Moreover, in spite of steady improvements in productivity over the last few years, direct employment in the industry has continued to rise steadily, reaching almost 2 000 000, or 5.4 % of the entire industrial workforce, in 1979.

Naturally, this effect is more than just a matter of figures (for instance, pressure from the automobile industry led to increased sales of special steels and lightweight alloys at the expense of less sophisticated metals). Nevertheless, to date, the automobile industry's weight as a major customer for the basic industries has been more significant than any qualitative improvements, however important these may have been.

Driving force behind high-technology industries

43. The technological changes called for by the deteriorating energy situation combined with the need to optimize production costs in order to combat competition from abroad have provided the Community automobile industry with an opportunity to develop into the basic driving force behind the high-technology industries.

The reasons for this trend have already been given.¹ What is important here is the effect that they have on the European industry and on its ability to harness those forces in an effective development plan.

The technological revolution in the automobile industry will affect both vehicle design and the manufacturing processes:

- From the technical point of view, European cars are already closely tailored to market requirements, and it is fair to say that European car-makers have the most satisfactory product ranges, both as regards quality and as regards the proportion of their products which meet market requirements. This is why only minimal changes are required here — unlike the case of the American industry, which will have to switch from the chassis/body concept to the integral construction concept, from rear-wheel drive to front-wheel drive and from rigid rear axles to fully independent suspension.

The Community industry will have to follow two main lines of approach as regards the products themselves — one towards lighter vehicles, using new materials, and the other towards improving performance through the application of very advanced electronic components.

- The main change in the manufacturing processes is automation, which is not as widespread in the Community as it is in Japan (mainly because the equipment used is, on average, older). This will entail strengthening the production plant by the addition of industrial robots and precision machine tools.

The need for the European industry to assimilate these changes is acknowledged by producers and trade unions alike, yet at first sight the prospects in Europe do not appear to be as bright as in Japan. Japan is the world's leading producer of industrial robots and her car-makers have maintained close ties with electronics companies for some time (e.g. Toyota with Toshiba and Nissan with Hitachi). Although a few similar arrangements have been made in the EEC over the last few years, both on the part of car-makers (Renault-Bendix) and on the part of component manufacturers (Jaeger-Matra), there is nevertheless ground to be made up.

¹ Point 17.

Three considerations should be borne in mind before making any assessment of the effect that developments in this industry might have within the Community, particularly as regards employment:

- Automation and electronics do not affect the automobile industry alone, they concern all manufacturing industries. Over the next few years most jobs in industry will be provided by the industries manufacturing the requisite equipment (i.e. industrial robots, microprocessors and precision machine tools), whereas less labour will be required for the final product and quality will improve.

- The impact that changes in the automobile industry will have on employment can only be gauged by considering the overall effect on all industries concerned. Japan is an interesting example in this respect, since it has already seen a large proportion of its workforce drift away from the automobile industry and towards robot production and maintenance

Table 1 — Japanese penetration of Community market, 1970 to 1980

	D	F	I	UK	B/L	NL	DK	IRL	GR	EEC
1970	0.1	0.2	0.02	0.4	5.0	3.2	0.4	0	14.6	0.6
1980	10.3	3.1	0.1	11.9	24.6	26.2	29.5	30.5	42	8.9

activities. However, this took place in an extremely favourable economic climate.

- The fundamental question concerns the promotion of the high-technology industries. This is where motor vehicles can make a crucial contribution, by opening up large enough markets to allow rapid and, more important, strategic development of these industries.

At all events this is the only way to maintain the competitiveness of the Community automobile industry, the key to the Community's trading power.

A major trading power, but at risk

44. In 1979 motor vehicles worth over USD 23 000 million were exported from the Community, as against slightly over USD 18 000

million for Japan, the industry's second highest exporter in terms of value.¹ The European industry's strength in this sector is such that the Community can pay roughly 20% of its oil import bill from its trading surplus in cars.

However, it is clear from trends over the last few years that the trading position of the Community automobile industry is threatened on two fronts — the dominant position of European car-makers on the internal market has weakened and their position on external markets has been eroded.

Weakening of position on the Community market

45. The increase in Japanese car-makers' share of the Community market is the clearest pointer to this deterioration.²

Japanese penetration of the Community market rose as follows between 1970 and 1980:

Japanese car sales in the Community rose from 48 400 units in 1970 to over 754 000 in 1980. Naturally, Japanese car-makers' edge in terms of production costs³ is the main reason for their success on the Community and international markets.

Erosion of position on external markets

46. Community exports of passenger cars to non-member countries fell from 2 458 000 units in 1970 to 1 899 000 units in 1980 (down by 23%), whereas over the same period world car exports rose by almost 77%, from approximately 4.8 million units to just short of 8.5 million, and Japanese exports shot up by 426% from roughly 700 000 to over 3.8 million.⁴

¹ Annex 2: Exports of passenger cars, commercial vehicles and spare parts.

² Annex 9: (passenger cars and commercial vehicles).

³ Points 23 *et seq.*

⁴ Annexes 1, 3, 8 and 10.

This decline can only partly be put down to Community manufacturers constructing plants in the USA and certain Latin American and African countries, since the Japanese companies' share of the market has risen sharply in those three areas of the globe as well, particularly between 1969 and 1979 when it increased from 5 % to 11 % in Latin America and from 15 % to 35 % in Africa.

The North American market is a particularly telling example. Between 1970 and 1980 Community exports to North America fell by 435 000 units, while only 250 000 more European cars were produced on the spot (by Volkswagen), and Japanese sales to the USA rose by over 1.5 million units, to take Japan's share of the market from 4 % to 21 %.

The Community automobile industry's loss of exports ultimately results in a loss of earnings. If the Community had been able to hold its share of world trade in motor vehicles at the 1970 level — over 51 % of all exports — it would have sold about 4.3 million cars in 1980, 2.4 million more than at present. Given the average productivity of the industry (including components) in 1979,¹ that would be the equivalent of approximately 400 000 jobs.

Prospects

47. All the analyses agree that the current trend can be expected to continue at least until 1985. This would mean an increase in imports of motor vehicles in Western Europe in general and in the Community in particular, and a reduction in Community exports of assembled cars.

Together these two phenomena will bring about a gradual deterioration in the Community's trade in passenger cars. Some studies suggest that Europe could be a net importer of cars from 1983 onwards, whereas other scenarios predict that the Community's net exports will fall from their present level of approximately 550 000 units to below 300 000 in 1985.

These forecasts are based on a number of factors:

— continuation of the Japanese pressure;

— development of plants outside the Community;

— restructuring of the American industry, which will stop importing small models such as the Ford Fiesta from its European subsidiaries;

— increased imports from the Comecon countries and a number of other sources (especially Korea and Brazil).

The prospects are brighter as regards trade in components, though it is difficult to analyse the situation, particularly since American companies are planning to sell large quantities to their European subsidiaries.¹

48. All these factors, coupled with the foregoing analyses of the transformation which the automobile industry is currently undergoing and of the changing pattern of competition, suggest that the Community's motor vehicle trade should be looked at in the terms set out below:

• The trend towards trade in components supplanting trade in assembled cars is likely to continue, partly for the industrial and technical reasons already given and partly as a result of changes in economic policy towards imports of motor vehicles. What is more, as regards prices, it will take time for the Community to regain its strength as an exporter, and in the meantime its competitors will keep up their pressure on the Community market and in non-member countries;

• Large new export markets will gradually open for spare parts, motor vehicle production plant (in particular industrial robots) and technology and knowhow.

It is important to realize that this is a positive development in that these areas account for a growing proportion of the final product's value-added and that an international division of labour where trade is not limited to finished products alone would make for greater stability. If different stages of production were carried out in different countries, the trade flows would be based on industrial interests in addition to purely commercial interests.

At any event the future role of the automobile industry in the defence of the Community's for-

¹ Approximately six vehicles per man per year.

¹ Point 30.

eign trade will depend on its ability to grasp these opportunities.

A wide industrial base, but made up of many small parts

49. Comparison of the Community's motor vehicle industry with its Japanese and North American competitors gives a vivid picture of the relationship between the size of the markets, the homogeneity of the environment and industrial structures.

The motor vehicle industry is the predominant industry in the four largest Community countries, and the European automobile industry is, above all, a patchwork of national industries which:

- individually, have a comparable structure to the Japanese and American industries, though their market is much smaller;
- collectively, share the world's largest market for motor vehicles, though structurally they have not yet fully adapted to that situation.

A more detailed analysis of motor vehicle production in the Community shows that although the Community is the world's leading producer, its automobile industry is heterogeneous in respect of production and the components industry is fragmented in a way which is bad for it.

The automobile industry: A heterogeneous whole

50. Compared with its Japanese and American competitors, the European automobile industry presents a heterogeneous picture with the following salient features:

Diversity of the situation of the firms as regards:

industrial options — American and Japanese companies face direct competition on their home markets, whereas various European car-makers (e.g. BMW, Daimler-Benz, Alfa Romeo) have specialized in particular 'slots' of the market;

relations with companies in other countries — there are no car plants owned by non-Japanese car-makers in Japan, and Volkswagen is the only European company currently manufacturing motor vehicles in the USA, yet almost a quarter of all cars produced in Europe from

the European subsidiaries of Ford and General Motors, which are now to be incorporated more fully in their parent company's plans;¹

relations with the public authorities which exercise direct control over certain companies in the Community (e.g. British Leyland and Renault);

finally, the scale of operations and financial situation — although there are wide differences in the size of the various Japanese companies and market disparities in the financial situation of the individual American producers, both phenomena exist side by side within the Community;

Smaller degree of concentration

In the USA and Japan, the two leading producers control roughly 75% of the domestic market, whereas in the Community the same share of the market is split up between the top five companies. This situation clearly has its roots in history, when production was concentrated along national lines.

As a result, although a number of groups within the Community have now reached a size which places them in the world's top ten in terms of annual production, their operations nevertheless remain on a much smaller scale than those of the two leading American producers, as can be seen from Table 2.

Table 2 — *World's top ten car-makers. 1979*

	Production
1. General Motors	8 533 742
2. Ford Motors	5 230 383
3. Toyota	2 996 225
4. Nissan	2 704 544
5. Volkswagen — Audi	2 530 565
6. Peugeot — Citroën — Talbot	2 425 798
7. Renault — Saviem — Berliet	1 945 289
8. Fiat — Autobianchi — Lancia-OM	1 542 163
9. Chrysler Corp.	1 429 082
10. Toyo Kogyo	971 421
11. Mitsubishi	938 517
12. Honda	801 869
13. British Leyland	657 637
14. Daimler-Benz	604 859
15. Isuzu	424 788

Source: L'Argus.

¹ Points 29 *et seq.*

These figures include:

all vehicles produced by the companies concerned (both passenger cars and commercial vehicles);

the production figures for all their branches abroad, excluding plants in State-trading countries, since such plants cannot be considered as branches (e.g. Lada and Polski in the case of Fiat). The very names of the firms listed in the table betray one of the weaknesses from which the European industry still suffers in relation to its competitors — the complexity and cumbersome nature of its production structures.

Japanese and North American groups have developed mainly through internal growth, i.e. by investment in expanding existing companies, whereas the European groups have had to turn mainly to external growth, i.e. financial mergers, in order to attain a scale of production in keeping with the expanding markets.

Inevitably, concentration of this type over a relatively short period gives rise to extremely cumbersome structures. Before the full benefits of scale can be felt, far-reaching harmonization is required, a task which is rendered all the more difficult as the economic situation becomes more tense.

Three Community car-makers are affected in particular — though there are wide differences in their financial situations: Peugeot — Citroën — Talbot, Fiat and British Leyland. At the opposite end of the scale Renault and Volkswagen benefit from a more rational internal organization.

Bearing in mind the effects of economies of scale described above, it can be seen that the length of runs is a more significant factor in the production of components than in the range of models produced. Engines are normally produced by the car-makers themselves and offer a prime example of the current disparities between European producers. A recent report showed that there was a ratio of 1:10 between — at the lower end of the scale — the annual production of BL, which fits most of its models with different engines and therefore produces only extremely limited series (say, 60 000 units per year), and — at the top end — VW, where far-reaching standardization has made it possible to produce series of 635 000 units per year.

For the car-makers standardization of components is a question of internal organization and, in some cases, cooperation with other companies, but it should also be tackled by the specialist producers scattered throughout the Community.

Production of components: Damaging fragmentation

51. The Community's car components industry is much less concentrated than its Japanese and American counterparts, not only in terms of the number of companies but also in terms of the specialization of the individual companies and of the standardization of production. A comparative study drawn up at the Commission's request showed that:

- there are in Japan 350 companies supplying components to the Japanese automobile manufacturers, whereas in Europe there are 1 750;
- on the whole Japanese companies are larger, some 85 % of them having a workforce of over 100, as compared with less than 60 % in this category in the FR of Germany and approximately 40 % in France;
- although the studies are not unanimous on this subject, labour productivity in the Community car components industry appears to be lower than in Japan; one should, however, also take into account the fact that recourse to subcontractors is greater in that country than in the Community;
- the scale of production gives Japanese companies additional advantages over Community producers and Japanese manufacturers share equipment more often.

Behind these facts lie profound differences between the organization of the Community car components industry and that of its competitors, particularly as regards the relationship between car-makers and component manufacturers.

In the United States of America and, more important, in Japan a large number of component manufacturers are under the financial or commercial control of the automobile producers (in Japan 83 % of all components were supplied as original equipment), but the situation is the reverse in the Community, where most component manufacturers are financially

independent and where roughly 50 % of all the components produced are intended for the spare-parts market.

Clearly it is impossible to quantify the effect that these organizational differences have on the competitiveness of the companies concerned, since the differences bring both advantages (for instance, greater competition) and drawbacks (limited scope for economies of scale). However, the Japanese industry seems to make better use of its distinctive structure than European companies.

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This brief analysis leaves no doubt that the European industry has much more scope for improving its production system than its Japanese competitors, where operations are more or less optimal.

Considerable room for improvement

52. The American industry has launched a large-scale conversion programme entailing sweeping changes in its plant, and the Japanese production system is so perfectly organized that there can no longer be any hope of substantial gains through further improvement. This places the European automobile industry in a unique situation, since it is in Europe that the cost/benefit ratio for the measures to be taken is probably highest.

There is still very wide scope for improvement, not only through the rationalization of its production apparatus but also through the application of European technical knowhow and improvement of the distribution networks.

Rationalization of plant

53. The only means of assessing the efficiency of industrial plant are the productivity figures and the unit production costs, the basic indicators of firms' competitiveness.

However, it is difficult to draw comparisons between industries, not only because of struc-

tural differences in the apparatus of production of each industry but also because of the different economic and social environments in which they operate. For example, in any analysis of the extent and type of improvements that could be made in the Community's industry it must be remembered that the Japanese industry operates in an extremely propitious social climate.

Table 3 gives a general comparison of production and employment in the Community, US and Japanese automobile industries.

Table 3 — *Production and employment*

(1 000)

	Community (1979)	USA (1979)	Japan (1978)
Vehicles produced	11 487	11 480	9 269
Workforce	1 953	2 200	665

Sources: Community: Eurostat;

USA: DOT report;

Japan: Daiwa Securities report (The Japanese Automobile Industry 1980).

The production figures include all passenger cars and industrial and commercial vehicles.

The employment figures cover all direct employment with car-makers and component manufacturers.

Although all these figures were drawn from similar sources, a measure of caution is nevertheless called for when interpreting them since:

- different ranges of vehicles are produced in the three different geographical regions: the Community and USA each produce approximately 500 000 heavy goods vehicles per annum whereas Japan produces only approximately 150 000;
- the figures for the Community and the USA do not take full account of components, since a large proportion of the components produced are intended for the spare-parts market;
- the complexity of subcontracting means that it is hard to say exactly how many people are employed, particularly in the case of Japan.

However, the Japanese industry's higher productivity cannot entirely be put down to these differences. A detailed analysis by a major American automobile manufacturer made a direct comparison of production units which confirmed this gap and concluded as follows:

As regards assembly

Productivity at even the most efficient European plants is one-third that of Japanese plants. For example, a Toyota assembly plant would only employ one person per vehicle produced per day, as against three in the FR of Germany and six in the United Kingdom;

As regards the production of components

Here too there is a wide gap, with Toyota producing nine engines per person per day as against only two in a comparable production unit in the United Kingdom.

These differences stem from the more extensive automation and higher rate of plant utilization in Japan.

This explains why production costs are still much lower in Japan despite the fact that wages there are catching up with those in Europe and the USA.¹

The analysis must also take account of two other factors namely:

- *per capita* wage costs for Japanese automobile manufacturers in the strict sense of the word are now higher than those for European producers;
- nevertheless, the average hourly costs for the industry (including components) are still much lower in Japan, as the table in Annex 6 shows.

Finally, all these factors combined with the aforementioned structural developments as regards plant in the Community automobile industry make it clear that the industry's ability to rationalize its apparatus of production will require:

- Improvements in the industry's internal organization — this is probably where the greatest progress can be made;

- more efficient plant use — this depends to a large extent on cooperation between both sides of industry;

- putting the emphasis on automation — this is directly influenced by the individual firm's financial capacity.

It is, of course, impossible to divide the Japanese industry's advantages over the Community industry into two categories — one for which compensatory action can be taken and another where the nature of the economy precludes such action. However, given the wide scope for structural improvements directly open to the European automobile industry, the 'non-transferable' aspects seem to be of only secondary importance in the current state of affairs, all the more so since production costs are only one of the factors affecting competitiveness.

Application of technical knowhow

54. The Community's automobile technology is unparalleled, not only as regards the products themselves but also in relation to the production methods employed. Accordingly, the Japanese industry based its expansion on European technology, and American manufacturers will also depend heavily on Europe in their redeployment programme.

However, the technical expertise which allows European car-makers to build the best cars:

- has lost some of its lead over foreign — and in particular Japanese — industries, where extensive research and development work has been carried out. A recent report by the French Commissariat au Plan revealed that research and development costs account for well over 10 % of all expenditure by the Japanese automobile industry, whereas it has slumped below that level in the Community;

- is scattered over a large number of companies;

- does not appear to have been put to the best use, as can be seen from the two examples described below:

¹ Production costs 20 % to 30 % lower than in the FR of Germany and France and USD 1 000 to 1 500 lower than in the USA (points 25-27).

Production methods

Some European motor vehicle manufacturers lead the field in industrial robot technology, yet do not produce sufficiently long runs to give production costs which bear comparison with those of their Japanese competitors:¹

Products

Systems allowing substantial improvements in the behaviour of vehicles are available in only a small proportion of the vehicles produced in Europe (e.g. antilock braking system, ABS).

Exploitation of Europe's automobile technology resources can therefore be seen as a key factor in any bid to improve the competitiveness of the industry. However, it will involve:

- breaking down the divisions between R & D operations and extending R & D agreements — the Joint Research Committee set up by Renault, British Leyland, Fiat, PSA, Volkswagen and Volvo is one noteworthy effort in this direction;

- speeding up the application of technological advances in industrial processes and in the end products.

Making the best use of distribution networks

55. The paper presented by the Commission last October drew attention to the economic and strategic importance of the distribution and maintenance networks.²

There are roughly 500 000 firms engaged in the sale and maintenance of motor vehicles in Europe, with an estimated total workforce of 2 900 000. Japan and the USA have a workforce of 656 000 and 2 600 000 respectively, though, of course, the economic and geographical size of the markets should be taken into consideration. The fact that motor vehicle distribution

networks in the Community are particularly dense is obviously a powerful weapon in the fight against competition from abroad.

Since European motor vehicle distribution networks are directly affected by any restructuring carried out by the producers (as can be seen from the reorganization of the Talbot network, for example), they would probably benefit from a strengthening of their ties with the manufacturers. The chief benefits would be:

- an improvement in supply's responsiveness to demand — Japanese companies use highly advanced computerized methods to detect changes in customer preference patterns and adapt their products accordingly as quickly as possible;

- provision, in optimum conditions, for the equipment which has to be installed in keeping with the latest improvements in methods of inspecting and controlling motor vehicles.

Finally, distribution networks abroad also fall to be discussed, since they determine the effectiveness of any external development and export policy. The basic problem is that it is difficult for many European manufacturers to bear the cost of setting up networks of this sort by themselves. The most likely solution is for manufacturers to combine their efforts in the fashion of the recent Peugeot-Fiat agreement in Latin America.

56. This analysis of the changing conditions as regards international competition and of the strengths and weaknesses of the European automobile industry gives some idea of the extent and nature of the changes with which it is confronted.

Clearly, over and above the cyclical problems arising from the general decline in demand, the structural adjustments already undertaken must be pursued and reinforced.

Naturally, it is the companies themselves that are most directly affected. Nevertheless all economic operators with an interest in, or responsible for, ensuring that this industry runs smoothly should do all that they can to encourage its development.

Against this background, it is important to assess the effects that these changes in the automobile industry might have on the work of the various bodies concerned.

¹ The average price for an industrial robot in Europe in 1979 was FF 450 000 as against FF 250 000 in Japan.

² Bull. EC 10-1980, point 2.3.19.

Part Two

A look at the future

57. The basic information required for any such assessment, which, of course, includes the Commission's programmes and the main objectives thereof, will be provided by the analysis — in Part Two of this paper — of the following topics:

- adaptation of production structures as a prerequisite for any improvements in the competitiveness of the industry;
- liveliness of the home market, which must be exploited in order to create a favourable climate for companies;
- development of international equilibria within which the Community automobile industry must seek to maintain its position.

Reorganizing production

58. Reorganization of production in the Community's automobile industry will have industrial, financial, technological, regional and social implications. A look at these various implications shows what complex changes will have to be made, although it also emerges that those responsible for taking the economic and social decisions broadly agree on what forms they should take. It is, of course, up to the firms to take the initiative as regards the decisions to be made, but they should be given an environment which is favourable to the implementation of these decisions.

Industrial adjustments

59. As far as the industry is concerned, the two most important matters for discussion are the development of cooperation and mergers in the industry and public intervention.

Mergers, cooperation and competition

60. The fact that production in the automobile industry has become increasingly fragmented, in spite of numerous attempts to amalgamate and reorganize over the last fifteen

years, means that the industry will have to continue along this same course and in many cases start to think in Community rather than national terms, particularly as far as component manufacture is concerned. This is, in the first instance, the industry's responsibility, and is the only way of taking advantage of economies of scale and of setting up groupings which can compete at international level, which is what the industry is after.

Cooperation between European companies would thus seem to be the best way of achieving these aims at present.¹

61. In this respect, the Commission has a special role to play because of the responsibilities in the field of competition assigned to it by the Treaties.

In applying the Community competition rules in the motor vehicle sector, the Commission has sought to ensure the maintenance of effective competition within the common market, and in doing so has taken into account the actual and potential effect of competition from outside the common market. Examination of the competitive conditions faced by Community manufacturers, particularly the changes over a period in their Community market shares, shows that despite its oligopolistic structure and the cooperative links already established, the motor vehicles market is the scene of effective competition. This appreciation of the present competitive situation is based on the fact that the common market, closely integrated into the world market by the effective application of the principle of free trade in manufactures, remains open, and that neither imports nor potential imports are excluded by protectionist measures.

Structural considerations

62. The Commission has the power to forbid an abusive reinforcement, by concentration, of a dominant position held by one or more undertakings.²

¹ This cooperation is in fact encouraged by the European Parliament in para. 24 of its resolution of 13 January 1981 (OJ C 28, 9. 2. 1981) and by the European Metalworkers Federation.

² Article 86 of the EEC Treaty; the *Continental Can* doctrine, based on a judgment of the Court of Justice of the European Communities.

Comparison of the market shares of the four largest European manufacturers of cars and commercial vehicles and of the European subsidiaries of the two North American groups permits the conclusion that no manufacturer has as yet achieved such a dominant position within the common market.

The maintenance of a balanced, competitive oligopoly implies the necessity of preventing abusive reinforcements of dominant positions, which would remove from the market the balancing force which is indispensable to the free play of effective competition; it is, however, impossible to lay down in advance and in the abstract the size which a single undertaking should not exceed, or what constitutes a sufficient number of competitors.

With regard to components and accessories, production and distribution structures are very different. Certainly there remains some scope for concentration moves which could improve undertakings' competitiveness. But the markets for certain parts have already reached a level of concentration so high that a horizontal concentration concerning them, or a vertical concentration with major vehicle manufacturers could be caught by the prohibition of certain concentrations. Previous analyses have shown that the adjustments to be made in the manufacture of components chiefly concern those where production on a continent-wide scale has not yet been achieved and those whose production needs to be improved because of technical progress.

Agreements

63. In addition, the Commission exercises the power of forbidding agreements which limit competition in the common market and authorizing cooperation which brings advantages both for the productivity of undertakings and for consumers.¹

Until now, cooperation agreements concerning research, development and larger-scale production of components necessary for vehicle manufacture have always been accepted by the Commission, in view in particular of the ration-

alization benefits which result. Cooperation agreements of this kind should not pose any major problem under Article 85, especially where they do not concern components whose cost would be a significant element in the price of the end product.

Cooperation at end-product level, i.e. in the actual manufacture of certain vehicles, has also been approved. The Commission must, however, examine closely the possible risks of market-sharing which some examples of cooperation in this field may entail.

64. The competitive functioning of the distribution trade is an important element of competition in the motor vehicle sector within the common market. The Commission recognizes the manufacturers' rights to set up networks based on the selection of dealers, which has enabled sales systems appropriate to the products to be established. In this way, the manufacturers' ability effectively to use their specialized sales networks as necessary to defend their market positions is guaranteed in law. Experience makes it possible to contemplate the early adoption of a regulation giving a block exemption to distribution agreements applied, in circumstances which are equitable towards the various interests concerned, in the motor industry. Because of the importance of maintaining effective competition in the oligopolistic motor vehicles market, the Commission must ensure that the sales networks of the major manufacturers remain independent, and in particular that price competition in trade between Member States is not eliminated.

These considerations together show that the wishes expressed by the European Parliament as regards the safeguarding of competition and the need for increased cooperation within the Community motor vehicle industry, stressed in its opinions as a whole, are quite compatible.

It should, however, be noted that efforts towards cooperation should not be limited to the vehicle sector in the strict sense of the term, but should also extend to links with the electronics and industrial plant industries. In view of the strategic nature of these two sectors and of the breadth of their markets in the Community, the question of concentrations and agreements at European level in these two fields should indeed be examined carefully.

¹ Article 85 of the EEC Treaty.

Intervention by public authorities

65. Nowadays, public intervention in the automobile industry is a general phenomenon:

in Japan, where the industry originally developed in a closed market spurred on by the MITI¹ and with the help of tax and financial concessions — and is still the subject of an attentive industrial policy;²

in the USA, where the Federal Government rescued the Chrysler Group by guaranteeing loans and where a deregulation programme has recently been implemented;³

in most European countries, where governments support their motor manufacturers in different ways and to different degrees.

Measures taken by the Japanese authorities in this respect seem to have been extremely effective although their level of support was no higher than in some other countries. In the USA, the debate about federal financial aid to certain manufacturers still goes on. In the Community, discussions are focusing on the effect of public intervention policies on the structural reorganization of the automobile industry.

66. This concern is expressed in the European Parliament resolution which, in para. 5, insists on the need for 'the coordination of national aid schemes'. The European Metalworkers Federation would like an investment notification scheme to be set up at national and Community level and public subsidies to the automobile industry to be harmonized on a Community scale.

These requests seem all the more well-founded as the growth forecasts made by the automobile industry in general clearly show up a slower development in which replacement could constitute the essential part of the future demand on the traditional markets. In such a perspective the inapposite use of public resources could lead to the risk of creating overcapacity with regard to which the temptation to remedy by the search for protectionist measures or by the granting of new reorientation aids would exist.

The possibility of such public incentives should rather be contemplated with the aim of improving the competitiveness of the automobile industry, in particular by the reorganization and the increase of the content of the value-added by the firms.

67. In general, the need to restructure and modernize the automobile industry and the special competitive situation prevailing on the market should be taken into consideration:

by the Member States, when granting State aid to certain firms. In this respect, the factors to be taken into account by the Member States should not be based exclusively on national considerations but should take into account the possible effect of this aid on the situation in the Community industry as a whole. Taking the Community context into account in this way should make it possible to achieve consistency and avoid the risk of one-upmanship and expensive wastage from the point of view of the common interest;

by the Commission, which is responsible for ensuring compliance with the rules on State aid under Articles 92 *et seq.* of the EEC Treaty. In doing so, the Commission can include in its assessment, subject to certain conditions and under the discretionary powers which it has pursuant to Article 92 (3), certain aspects of the special competitive situation existing on the world automobile market. In the points of view that it has expressed, the Commission has accordingly already taken account of Community priorities in various areas (energy saving, pollution control, regional and employment policy). In addition, once the objectives have been set and the requisite adjustments have been recognized, resources must be deployed in order to carry out the action involved. This is one of the aspects which will have to be taken into consideration when assessing State aids; it may also have a direct bearing on the allocation of Community support.

Such an overall approach to public intervention will entail careful consideration, in conjunction with the Member States, of the need for specific sectoral measures and possibly the criteria for using Community financial instruments.

68. In this connection, the Commission could set up machinery for monitoring the aid granted to the automobile industry. As an appropriate

¹ Ministry of International Trade and Industry.

² Point 23.

³ Point 31.

measure under Article 93 (1) the Commission could ask the Member States to inform it, after the fact, of all aid granted to the automobile industry, whatever its origin and legal basis. Such an arrangement would extend the information available to the Commission beyond the types of aid of which it receives prior notification to include aid granted directly by the Member States in the context of special agreements with the Commission under the heading of regional or general aid schemes. This would obviously not prevent these types of aid being implemented, but would make for greater transparency and enable the Commission to assess the overall impact of the aid. Where appropriate, the Commission could activate preventive action, in particular if it was to find that this aid was likely to aggravate the structural problems of the industry.

By contrast, an aid management system would seem to be inappropriate as long as the industry is not in a state of crisis, as already emphasized in point 15 of this paper.

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Financial matters

69. Considerable amounts of investment will be required in order to reorganize production in Europe's automobile industry, although not as much as will have to be invested by North American manufacturers. Moreover, inevitably the climate will not be nearly so favourable as in the past.

Some particularly important points have to be considered here; not only the amounts which should be allocated and in what fields, but also the extent to which firms can actually raise the money.

Investment and financial capacity

70. The information available does not give a very clear indication because of the complexity of financial structures and because firms regard such information as confidential.

Generally, the position can be summarized as follows:

Investment projects

American manufacturers expect to spend 75 000 million dollars over the next five years, although this is for the retooling of production plants;¹

Japanese manufacturers will be investing 12 000 million dollars at home over the next three years, although their plant is already extremely efficient;²

European manufacturers are planning to invest some 35 000 million dollars over the next three to five years (estimate).

By way of comparison, the amounts invested between 1970 and 1977 were as follows:

the four leading American manufacturers spent less than 35 000 million dollars;

the three leading Japanese manufacturers spent some 8.5 000 million dollars;

the ten leading European manufacturers spent a little over 15 000 million dollars.

Financing capacity

Only the Japanese will be able to release surplus financial resources over the next few years; this is already allowing them to begin to diversify to some extent.

Although, over the last ten years, American manufacturers have been able to finance themselves (average self-financing ratio between 1970 and 1977 was around 170 %), they will now have to borrow heavily, not only because of their investment plans, but because of the heavy losses they have been making, particularly in 1980.

European manufacturers were just beginning to restore their overall financial capacity (with a self-financing ratio of 110 % between 1974 and 1977 compared with 85 % between 1970 and 1973), but will probably have to start borrowing again more substantially. Their debt burden is still high compared with their competitors; in 1978, the long-term indebtedness of the main Community groups was generally 20 % higher

¹ Point 30.

² Point 28.

than their long-term capital compared with figures of 4.8 % for General Motors and 0.1 % for Toyota.

Under these circumstances, all the institutions which help in one way or another to finance motor industry investment, particularly the Commission, which has contributed substantial amounts over the last few years, should reflect on their policies.

Community financing

71. To date, the Community's financial contributions to the automobile industry have been granted for non-industrial reasons, usually regional or social.

Over the last few years the following amounts have been granted:

some 290 million units of account (u.a.) in aid from the European Regional Development Fund (1975-80);

some 435 million u.a. in European Coal and Steel Community (ECSC) loans (1975-80);

some 250 million u.a. in European Investment Bank loans (1975-79);

several million u.a. in Social Fund aid.¹

When assessing the practical effect of these contributions, it should be remembered that:

ERDF aid is only a partial refinancing of national aid and is designed to have a 'neutralizing' effect, i.e. to compensate firms for the cost of siting their plants in specific regions;

EIB loans are granted on the basis of normal market conditions and carry no privileges;

ECSC loans, which may be combined with interest subsidies, are used to encourage firms to set up plants and to enter into various employment commitments in accordance with Article 56 of the ECSC Treaty.

Their financial impact has been far from negligible, since the ERDF contributions towards financing of the investment in question was nearly 7 % between 1975 and 1980 and, in many cases, ECSC loans have financed as much as 50 % of the operations in question (that being the maximum rate). According to an approxi-

mate calculation, more than 5 % of investment in the car industry over the last few years has been financed out of Community funds.

These figures show that, as a result of its dynamism, the automobile industry has managed to make considerable use of the possibilities offered by the Community's financial instruments.

The importance of the Commission's contribution in the future will not be the amount it spends, but where it spends it — e.g. to help better coordinate productivity improvement objectives — and the way it raises and distributes the capital the industry requires.

72. What has to be decided now is obviously which criteria should be used as a basis for allocating Community financial support. These criteria might also serve as a reference basis for assessing the aid given by the Member States and thus provide an impetus. Taking into account our previous remarks on the kind of changes the industry will have to make and the circumstances governing its intervention, these criteria could be defined so as to:

- encourage the integration of Community activities by supporting attempts at cooperation between several manufacturers;

- support the rationalization of component manufacturing since, for the economic and industrial reasons already mentioned (economies of scale, increasingly international character of the market), that is where efforts should be concentrated; Community support would then be given to component plants, which account for an increasing proportion of value added, rather than to final assembly lines;

- avoid that the conditions for the granting of Community aids, amongst other things, hinder technical progress by linking too strictly the aids to the number of jobs created. Only by increasing competitiveness and rapidly applying technological progress can we protect employment, not only in the automobile industry but in the industries which supply it and depend on it.

Technological aspects

73. The international competitiveness of the motor industry has traditionally been based on

¹ Point 79; Annex 15.

its technological lead. In view of the need to produce — competitively — vehicles which meet increasingly stringent energy requirements whilst complying with safety and environmental protection requirements, the firms must make better use of the technological lead and speed up research.

Apart from the actual efforts made by the various zones of production, success will depend on the ability to organize these efforts consistently over the long term, since research and development has a rather long lead time because of the time-lag between the design and marketing of vehicles.

This time factor specific to the automobile industry makes for a certain amount of inflexibility which to a great extent determines the transitional stages which the decisions to be taken by the firms must take into account. It highlights the need for a long-term view of the R&D policy to be pursued and the legislative implications so that the industry can decide in the best possible conditions.

Research and development

74. The first point which has to be made is that the extent and nature of R&D extends well outside the automobile industry in the strictest sense. One only has to consider the importance of electronics, research into new materials and experiments with alternative drive systems to realize that there are many different industries involved.

This being the case, it is first necessary to consider the overall positions of the main competitors. The graph in Annex 11 clearly shows that the general level of research in the Community is proportionately lower than in the United States and for some years now has been overtaken as a result of an increase in Japanese research. The amounts spent on R&D by individual European motor manufacturers also seem lower than those spent by their main competitors. Expenditure on R&D in motor manufacturing in the Europe of Nine has been estimated at less than 10% of the industry's total expenditure; the figure in the United States is at this level and that for Japan substantially exceeds it.

In addition to these figures, we should compare the amounts contributed by the various public authorities. Although there are considerable dif-

ferences between the figures available, they do show that the American and Japanese manufacturers receive much more public support than European manufacturers:

the US Government finances 11% of R&D expenditure by motor manufacturers, whereas in Germany and France the figure is put at 5% and 1% respectively;

the tax arrangements which apply to R&D expenditure in Japan mean that they can be partially offset against profits tax.

This is serious because technological progress now seems to be the main growth factor and industrial competitiveness and flexibility of production depend in the long term on ability to innovate.

It should be emphasized that the Community will only be able to take advantage of the opportunities presented by the reorganization of the automobile industry, e.g. the use of robots and the use of electronics, if it can come up with and implement the new developments required in the industries concerned by setting up production plants which can cater for changing demand requirements. If it cannot, this will have extremely serious repercussions, not only in a direct economic way but also because of the risk of European industry becoming technologically subservient.

75. Because of the increasing importance of the economies of scale which can be achieved financially and industrially, the only solution once again seems to be cooperation and coordination. Dispersal of effort could be extremely disadvantageous, both as regards the use of already familiar technologies and in devising techniques for the future.

Cooperation concerns not only automobile manufacturers, who have already set up the Joint Research Committee¹ with a view to carrying out joint research in, for the moment, non-competing areas. It should also be extended to the manufacture of components which can only be modernized by technological developments, to the electronics industry, which will have to provide an essential contribution and to the capital goods industries for the development of research into the use of robots.

¹ Renault, PSA, BL, Fiat, VW and Volvo.

It should concern not only firms but also public authorities, universities, trade unions and consumers, which are all affected.

As stated in para. 19 of Parliament's resolution, it is only at European level that the requisite coordination can be considered.

For the present situation to develop along those lines, however, an overall approach will have to be devised whereby a long-term view is taken of the whole of the car industry and its prospects for change.

The need for a long-term view

76. A number of R&D projects have been undertaken in the various Member States, and programmes on the use of alternative fuels and the development of vehicles of higher energy efficiency are under way.

The Commission is also giving support, in the form of studies and financial encouragement, for specific projects into ways of reducing consumption.

Hitherto, these projects have been undertaken basically for defensive reasons, but it now seems necessary to move into a more active mode, anticipating long-term developments in the motor industry on the basis of reasonable economic and social assumptions for the next fifteen or twenty years and working out short-, medium- and long-term objectives accordingly.

At Community level, the main points of this policy would be:

- action to encourage a climate more favourable to innovation;
- supporting the industry's attempts at cooperation;
- legislation in line with technological and economic development;
- working out R&D guidelines as part of an overall long-term view of the development of the motor car.

Firms will obviously play the leading role where goal-setting and attainment are concerned. In this connection, the projects on which work is at present being carried out in the Joint Research Committee concerning, in

particular, long-term research into combustion, quality and composite materials should be encouraged. One of the initiatives taken by this Committee seems particularly noteworthy — the setting up of a joint centre in the framework of which manufacturers will define the characteristics of the electronic components needed for cars. This venture should make it possible for requirements to be expressed in standardized fashion; as a result of the creation of homogeneous demand, this would be favourable both for users (less expensive supplies) and the electronics industry which would have a European automobile components market.

77. The Commission's contribution, the main aim of which would be to help the industry gain a better awareness of requirements and possibilities, would consist of:

- One-off operations:

taking stock of research, development and innovation work and projects under way in the Community, so as to have a clearer idea of what has been achieved and clarify the options;

making a contribution to the pursuit of studies or pilot projects recognized as being very important (e.g. gas turbines, multi-fuel engines, etc.);

- Ongoing operations with a view to:

setting up observation and joint consultation machinery the purpose of which would be to provide all the parties concerned with information and a forum for exchanges of views on the findings of research and development programmes, developments abroad, and the long-term requirements on the various markets throughout the world etc.;

setting up technical centres for research and innovation concerning automobile components;

defining coordinated basic research programmes involving industry, universities and public authorities, and setting up centres of excellence for advanced technology, bringing together car-makers, accessories manufacturers and State-run laboratories (in connection with high-temperature materials or composite materials, for example).

Such an approach can clearly only be successful if all the parties concerned are actively and coherently involved.

Changes concerning employment and regional problems

78. The social implications of the economic, industrial and technical developments relating to the automobile industry will, of course, be considerable. They will entail significant changes in qualifications and the sectoral allocation of labour and will affect the regional location of activities.

Nature of the changes

79. For several years the Commission has been taking steps to help adjust employment to economic change and improve industrial relations. In particular, Social Fund operations have been directly aimed at the automobile industry to enable several thousands of workers to be found jobs or retrained. Various types of measures have been introduced:

- measures concentrated in regions which were slow to develop or where the principal industries were in decline;
- encouraging the application of technical progress by means of specific vocational training operations (use of robots, CAD, computerization of assembly bays);
- increasing job mobility and worker retraining in groups of companies.

It can be seen from the foregoing remarks that in the future there will be changes in:

the types of jobs; the labour force will have to face major conversion problems to cope with structural changes affecting the level of qualifications and the distribution of jobs in the industry;

the numbers of jobs; the problem will have to be tackled taking the automobile industry in its broadest sense, including the industries which supply it upstream and depend on it downstream.

80. Faced with this situation, the trade unions have come out in favour of shorter working hours, changes in the way work is distributed and a far-sighted manpower policy,¹ whereas the industry emphasizes that the way the econ-

omy is developing will make it difficult to keep improving social advantages and that it is necessary to increase the rate of utilization of the production equipment.

However, more automated production, which everyone agrees to be necessary, will have the following consequences:

- it will cut the workforce employed by motor manufacturers, as a result of the partial shift to industries upstream (components, machine tools, industrial robots and electronics) and downstream (servicing and maintenance);
- the proportion of directly-employed workers will drop and the number of indirectly-employed will increase, thus limiting the effect of direct labour costs on retail prices and tending to push up salary levels;
- working conditions should improve as tedious jobs are eliminated.

The whole problem really boils down to reorganizing work and the need to use equipment more fully, along the lines already followed for data-processing equipment. Some kind of solution may be found in:

greater flexibility in allocating work and the duration of work;

job enhancement by using equipment favouring the use of skilled and versatile labour;

adjusting salaries to changes in qualifications and working conditions.

This kind of reorganization will only be possible with the agreement of both sides of industry, and must not be hampered by excessively inflexible administrative regulations, since it is particularly important — in view of the fact that the economic and industrial conditions are in such a state of flux — that all the economic operators involved should display the drive and flexibility required by the scale of the adjustments to be made.

81. The first stage should, of course, be to try to predict as accurately as possible the effects of the changes under way on employment and working conditions. The shortage of detailed information and research on this topic is really disturbing in the present circumstances, as it restricts the genuine scope for adjusting to the changes and the ability of firms to find labour in line with their requirements.

¹ See the EMF's position papers of 22. 10. 1980 and 13. 4. 1981.

The Commission takes the view that it is necessary to collate, expand and assess the information and forecasts concerning the implications of the changes affecting production, and in particular automation, with regard to employment, qualifications and working conditions, and it will make a contribution towards the efforts that will be made in this connection.

82. Last but not least, vocational training would seem to be a really important matter. It is amazing that, despite the high level of unemployment resulting from the general economic crisis, a large number of jobs remain unfilled because personnel with the right qualifications are just not available, and this leads to bottlenecks, very often at strategic points in the production process.

For example, according to a recent article on the situation in France — to take only the industries directly related to the needs of the automobile industry — the staff complement available for training microelectronics engineers is less than half of what is needed and the market for technicians and engineers specializing in the maintenance of sophisticated equipment (e.g. robots) is very tight.

Although the Commission can help with specific operations, the main responsibility lies with the Member States. It is essential that they set up training, education and vocational retraining programmes.

There is a very wide difference between the average training levels of Japanese and European workers,¹ and many European companies are already complaining that they cannot find enough engineers and technicians with the right training to implement the production changes they would like. This point really must be stressed: if industry is to change successfully, its workforce must adapt to new forms of production; this is a problem which is faced by other industries, too.

Location of activities

83. The location of automobile manufacturing activities does not depend solely on technical requirements. The choice of geographical area for new investment largely depends on the

existing equipment, networks for trade between industries and the position of staff already employed.

For fifty years, the Community's automobile industry was the main 'industrializing industry'. The move towards units producing parts and accessories and the use of virtually fully-automated production lines means that other activities will assume this function.

It does not mean the elimination of human involvement but the concentration of manpower on building, maintaining and organizing production units, which means replacing semi-skilled with highly-skilled jobs.

From a general point of view, it follows from the above that the structural changes required will increasingly shift the proportion of the value added in automobile manufacture to industries further up the chain, particularly the component-makers. This will have major repercussions on the geographical distribution of investment since the growth in the value added of the product causes markets to expand and these can be served from one single production unit (the cost of purchasing and transporting the raw materials and of distributing the finished product would be less significant in relation to the overall cost price).

In addition, these plants will have much larger production capacities than the plant they replace; they will employ fewer staff but they will be more highly skilled. Such plants will also make much more extensive use of outside services than the old plants. This factor ties in with the effects of the trend towards the 'world car', leading to the erection of production plants which are designed to serve larger markets.¹

All these factors ultimately increase the degree of flexibility with regard to options for the location of production, and accentuate the stimulating effect of the instruments now available for the implementation of regional policies.

The dynamics of the internal market

84. The Community automobile market is the second largest in the world after the American

¹ Point 26.

¹ Point 20.

market where passenger cars are concerned.¹ Allowing for differences in car ownership levels, it is this market which will generate — in absolute terms — the major part of world demand in the years ahead. This is an important advantage for the Community automobile industry, since a broad, homogeneous internal market is needed as the basis for the industrial changes needed, and the precondition for making them pay off, from three points of view:

possibility of producing on a large scale, and hence of benefiting from the economies of scale inherent in series production;

diversification of demand, thereby increasing the development potential;

impetus to innovate, a vital necessity with a view to improving competitiveness.

Strengthening the internal market, and making use of the dynamics of the internal market, i.e. combining all the favourable effects attaching to the size of the market, are therefore really important:

for all the economic operators with responsibility for bringing about this economic entity, and

above all for the firms, on which it falls to exploit the potential developed in this way.

85. The action taken by the Commission in the last two decades has made it possible to achieve a great deal in this area, in particular as a result of the removal of technical barriers to intra-Community trade, by virtue of which manufacturers can now produce the same vehicles for all Member States.

However, an examination of the present situation indicates just how much remains to be achieved in order to create an environment which is genuinely favourable to the development of the motor car within the Community. The dimension required for the structural adjustments to the automobile industry is clearly that of the Community, and greater efforts will be required with a view to the gradual convergence of the many heterogeneous aspects and in order to achieve greater consistency within the Community framework. The prospects afforded by framing of legislation in

line with technical and economic developments are, to the Commission's way of thinking, an important aspect in the creation of the environment required.

The general framework

Removal of barriers to Intra-Community trade

Achievements to date

86. Optimum conditions for automobile manufacture in relation to the size of the market cannot exist in the Community unless the technical characteristics of the vehicles manufactured in each Member State are such that they can be freely sold on the other markets. Only if this condition is fulfilled can economies of scale be fully exploited. This basic consideration illustrates the industrial effect of harmonizing legislation, the practical expression of which is the removal of technical barriers to intra-Community trade.

The Commission has naturally given prominence to this action in the automobile sector in view of the economic importance involved: exports of motor vehicles between Member States are almost 50 % higher than exports outside the Community, totalling some 2 700 000 units in 1980.

The Commission has almost reached its goal of achieving EEC type-approval, enabling the technical specifications of a vehicle approved in one Member State to be recognized throughout the Community.

Such has been the progress with the harmonization of the technical characteristics of vehicles in the last ten years, thanks to the efforts of the Commission in close conjunction with the industry, that there are now fewer differences in specifications between the Member States than exist between the various states in the USA.¹ The areas where harmonization is still to be achieved are not a source of concern for the automobile industry, which is now able to exploit the advantages of series production.

¹ Fifty-nine Directives have been adopted in this field, including those relating to adaptation to technical progress (Annex 13).

¹ Annex 1.

It has been estimated that these harmonization measures have produced cost price savings of more than 10 %.

Questions outstanding

87. The Community type-approval system has not yet been put into practice. All that remains is for the latest Directives on the removal of technical barriers to trade in motor vehicles to be adopted, as called for in para. 14 of the European Parliament resolution: the three Commission proposals remaining (windscreens, tyres and permitted towing weight¹) have been before the Council for some time. As the resolution also points out, adoption of these proposal will pave the way for an EEC type-approval certificate for motor vehicles which would put the Community in a strong negotiating position — under the new GATT agreements — concerning reciprocity in respect of non-tariff barriers. The present problem is one of external trade since the industrial benefits of harmonization can now be fully exploited.

It is for this reason that the full implementation of EEC type-approval is now directly linked to the concept of Community certification for industrial products coming from non-member countries; a Commission proposal for a Directive on this subject is also pending before the Council.²

The two areas for detailed consideration are:

the accessibility of vehicles from non-member countries in a truly unified internal Community market in which a vehicle approved in one Member State would, *de facto*, meet the required marketing specifications in the other Member States. This matter is obviously directly connected with the question of the balance of trade;³

the reciprocity which the Community has a right to expect from other manufacturing zones regarding the removal of non-tariff barriers. In this connection, the industry has called on the Community on various occasions to promote international trade actively, in particular

through the removal of the barriers to exports to other parts of the world. Accordingly, the Commission has already approached the Japanese authorities with a call for the removal of technical barriers to automobile exports to Japan and, in particular, for the simplification of type-approval procedures and the delayed implementation of standards relating to pollutant emissions in respect of vehicles imported from the EEC.

As things stand, it would appear to be highly desirable that any attempt to find a solution — which would naturally involve the adoption of the Directive on non-member countries and Community certification — does not increase protectionist pressures and lead to a fragmentation of the internal market.

88. Consideration should also be given to a final point concerning the removal of technical barriers, namely roadworthiness tests. The fact that some Member States still do not have the facilities for testing private cars is disruptive to the trade in second-hand cars between Member States.

There are grounds for thinking that the widespread introduction on a European scale of roadworthiness tests for passenger vehicles — as called for in para. 15 of Parliament's resolution and by a number of manufacturers — would have beneficial effects on safety, the environment, fuel consumption and maintenance of vehicles and on the pattern of demand.

However, those Member States which do not have such a system believe that its introduction would have an adverse effect in cost-benefit terms.

In the final analysis, some preliminary investigation should be carried out to verify the value of broadening the scope of the Community Directive on roadworthiness tests,¹ which was restricted by the Council to commercial vehicles when it was adopted.

The automotive environment in the Community

89. However, the technical unity of the internal market, to which the removal of barriers to

¹ OJ C 119, 16. 11. 1972; OJ C 15, 20. 1. 1977; OJ C 37, 14. 2. 1977.

² OJ C 54, 4. 3. 1980.

³ Points 98 *et seq.*

¹ OJ L 47, 18. 2. 1977.

trade has contributed, should not conceal the many differences still affecting the automotive environment within the Community. These persisting differences are preventing firms from exploiting the full potential offered by the dimension provided by the Community as an economic entity.

A brief review of the conditions affecting the manufacture, acquisition and use of motor vehicles in the Community will highlight the diversities which exist, and the policies which could be pursued by the various parties concerned, in order to arrive at a solution.

Manufacture

90. Mention has already been made of the impact of taxation on the conditions of production.¹ In this respect, the circumstances in the various Member States are highly disparate. The national taxation systems, over which the Member States still exercise almost supreme authority, are highly divergent and complex and it is very difficult to determine — for a given Member State — whether the systems are more or less favourable to automobile production than in another Member State or in Japan.

This situation raises two key issues, i.e.:

the distortions which may, for purely fiscal reasons, affect the conditions of competition between Community manufacturers;²

the overall effectiveness of any aid granted: it is clear that fiscal measures have played a particularly effective part in developing the competitiveness of the Japanese industry although the financial burden has been no greater than in other competing countries.

Harmonization measures already carried out or proposed by the Commission have concentrated on structural aspects and taxable amounts.

In the coming years, the action will continue along these lines and a whole series of proposals have yet to be made in this field, particularly as regards the determination of firms' taxable profits.

Apart from the structural disparities existing between the various taxation systems, mention should also be made of the vast spread of rates of taxation, which are again laid down under the sovereign authority of the Member States and have a direct effect on the number of vehicles purchased.

Vehicle acquisition

91. There are considerable discrepancies in the national laws concerning vehicle purchase taxes (VAT and registration fees): in Denmark and Greece, for example, the level of these charges is particularly high, but they are fairly low in Luxembourg.

The effects may be assessed from two main angles:

- The general level of taxation directly affects the volume of vehicle demand, and the relative differences in this taxation burden consequently manifest themselves in divergent trends in the markets affected;
- The methods by which this taxation is applied (methods of calculation etc.) have an impact on the actual pattern of demand and thus have a favourable or adverse effect on particular stages of the production process. This also considerably upsets the homogeneity of the internal market, which, in turn, may also have significant commercial repercussions *vis-à-vis* external competitors for example, by encouraging imports of low-priced vehicles, as has happened in Denmark and Greece. The Commission would draw the attention of the Member States to the favourable effects that would flow from greater solidarity within the Community in this respect; this would lead to less divergent policies.

Finally, a more general factor concerning the acquisition of vehicles in the Community should also be stressed, namely the role of the consumers themselves, who have a dual responsibility by being concerned both with the operation of the manufacturing system and by taking decisions to purchase.

Since the conditions of production on the Community market are different from those in other manufacturing areas a clear distinction should be made as regards consumption between:

¹ Point 74.

² Point 65.

- the purchase of Community products which may be more expensive because their cost reflects a standard of living which does not exist in certain competing countries, and
- the acquisition of cheaper vehicles manufactured under different circumstances where there is clearly an indirect cost to the Community since it leads to a market loss and hence to an erosion of the Community's industrial base.

Use

92. There are two overriding factors which affect the use of motor vehicles, namely the cost of fuel and road taxes, on the one hand, and the cost of insurance, on the other.

The taxes on fuel, which constitute an essential element of the prices of these products, and the road taxes, the calculation methods of which are very variable from one Member State to another, can also affect the pattern of demand (for example, the ratio of petrol- to diesel-driven vehicles): in the United Kingdom, the excise duty on diesel fuel is high, but it is much lower in Italy.¹ Overall, the proportion of excise duty in the price of fuel has dropped since 1973 in many Member States. Bearing in mind the aims to be pursued in the energy sector, it would seem desirable that this relative proportion should remain the same or even be levelled out in future.

This disparity may also be observed in relation to the cost of third-party insurance which is influenced in particular by the third-party liability systems themselves, which have not been harmonized, and by the amounts for which vehicles have to be insured. The Commission made some proposals with a view to 'approximation' in this respect in August 1980.

In addition, it may be unwise to advocate an examination of the 'practical scope there is for an agreement between producers of components, insurance companies and organizations of vehicle repairers to expedite, standardize and reduce the cost of the procedures followed for repairing vehicles and settling complaints' referred to in para. 29 of the European Parliament resolution, since there is a possibility that the partitioning of markets would increase as a

result of such an agreement, a trend which would run counter to the efforts now being made by the Commission to ensure freedom in the provision of services in the insurance sector.

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All the matters raised above provide the basis for an analysis of the main aspects involved in strengthening the cohesion of the Community's internal market.

In the light of this, the Commission takes the view that an important aspect of its efforts must concern legislation in line with technological and economic development.

The outlook as regards legislation

93. The effect of legislation on the motor vehicle industry is not merely confined to the direct impact of constraints concerning safety and environmental conservation and energy consumption, it may also significantly affect the competitive position of rival zones of production.

Hence the need for a European approach embodying all these aspects.

The economic importance of legislation

94. Legislation has had a marked effect on the automobile industry in recent years. In the new economic order created in the wake of the energy crisis and characterized by increased international competition, legislation will — by virtue of its economic impact — be required to play a decisive part.

The facts of the problem

95. The scope of legislation is becoming ever wider: in addition to safety and the environment, increasing attention is being paid by the legislative bodies to energy consumption, either because of dependence on external supplies or because of the specific importance of the motor vehicle sector in the total consumption of petroleum products.

From this point of view, the situation in the United States is markedly different from that in

¹ Tables in Annex 12.

Europe and Japan in that the US is less dependent on external supplies; on the other hand, the automobile sector accounts for a particularly high share of oil demand (30 % compared with 16-17 % in Europe).

The present situation in the three major manufacturing zones is as follows:

Japan. Tough legislation already exists regarding safety and the environment, and manufacturers have adopted voluntary targets concerning the reduction of fuel consumption which are generally much more severe than those currently envisaged in Europe.

United States. The existing regulations on safety and the environment have been backed up by administrative constraints to reduce the relatively high levels of consumption, bearing in mind the present efficiency ratings of American cars. The new Administration has recently embarked on a deregulation policy consisting of removing a number of constraints,¹ reducing restrictions concerning the formulation and implementation timetable for projects maintained, and turning towards active cooperation with the industry in determining future objectives.

Europe. The regulations on safety are fairly stringent but are less so as regards the environment (with the exception of noise). At present, the only constraints on consumption consist of voluntary commitments given by manufacturers to their respective governments to reduce the fuel consumption of their vehicles.

Taking into account the changes under way in the rival manufacturing zones, and in particular deregulation in the United States, objectives must be set and resources must be deployed in order to secure a more homogeneous body of legislation in the Community. The problem to be resolved is extremely complicated, since account must be taken of legislative constraints in all the measures for reducing energy consumption and, in particular, tax provisions.² The advisability of making use of motor fuel excise taxes in order to keep fuel costs in line with the general price trend, and the possible effects of a more general reorganization of purchase taxes and vehicle use taxes based on energy consumption, have already been emphasized.

¹ Thirty-four different regulations in the first stage.

² Point 89.

Moreover, it is necessary to:

- reconcile the aims of improving safety and reducing noise on the one hand and reducing fuel consumption on the other,
- take into account the disparity which exists within the European industry and the effects of legislation on its competitive position.

Economic impact of regulations

96. This is closely bound up with the effect of regulations on the competitive capacity of firms. The inter-relationship between the legislative and competitive factors must be viewed from three complementary viewpoints, i.e.:

- Any delay in the legislative programme would make the European domestic market increasingly vulnerable to outside competition and would encourage latent protectionist trends which would not only threaten the cohesion of the internal market but would also jeopardize the progress already achieved in the field of commercial and tariff policy;
- The penetration of foreign markets would become even more difficult because — in order to comply with local regulations — the European products would have to undergo modifications which would be very costly since they would not be part of the normal production process. For foreign competitors, the effect would obviously be the opposite since they would have no difficulty in exporting their more sophisticated mass-produced products to zones where the constraints were less strict;
- The cost of introducing regulations is closely bound up with the length of production runs.

From this point of view, the European automobile industry — already handicapped in comparison with the Japanese and the Americans — could not cope with heterogeneous regulations within the Community.

Given the increasingly international nature of the motor vehicle market, legislation will have to take greater account of international trade since those States with the strictest regulations will be able not only to dictate general market trends — if their manufacturers are powerful enough — but also to protect their domestic markets and promote their exports. Accordingly, it is highly desirable that at Community

level there be formulated a legislative programme which reflects all these aspects.

Definition of an integrated approach

97. The attitudes of the interested parties to the trend in legislation in the Community are still very different:

The trade unions support the establishment or strengthening of European standards relating to fuel economy, the campaign against pollution and nuisances and safety, emphasizing that this can only help to increase the competitiveness of European manufacturers;

The automobile industry, on the other hand, calls on the Community to give priority to improved competitiveness rather than to marginal improvements — e.g. concerning environmental protection — which could be achieved by tightening up Community motor vehicle standards;

The European Parliament resolution requests the Commission 'to conduct a survey of the effects of Community regulations on energy saving, safety and pollution.'

These different shades of opinion are also apparent among the Member States, some of which want the pollution legislation to be tightened while others stress the difficulties for industry of over-stringent environmental legislation.

At the same time, these questions are being discussed at the highest level in the United States,¹ and have led certain Community partner States to tighten up administrative constraints (e.g. Sweden and Switzerland).

The Commission has already undertaken a number of studies on certain aspects of the relevant legislation and is holding detailed discussions with the industry on this topic. Furthermore, the Directives already adopted are being regularly adapted to changes in technical progress.

Two topics can be considered here and now.

speed limits: there are now very few regions in which speed limits have not yet been introduced. The economic benefits (reduction in

fuel consumption and vehicle cost prices) which the generalization and standardization of speed limits could promote must be considered;

the balance between active and passive safety: in many cases, with the present state of technology, passive safety tends to increase fuel consumption. A careful examination of the options open and policy to be pursued in this area would undoubtedly be very useful, and over the last three years the Commission, in conjunction with all the relevant bodies in Europe, has been carrying out a major study programme on biomechanics, the findings of which, which will be available in 1982, will provide food for thought.

In the present circumstances, bearing in mind the pressure exerted by rising energy costs and the direct effects of the energy efficiency of vehicles on the conditions of competition, the Commission does not think it advisable to introduce legislation on fuel consumption.

In the light of all the factors mentioned above, however, there is a need to adapt the relevant legislation to the changes in the economic, technological and energy situation. With this in view, a global approach must be adopted, i.e. taking simultaneous account of the factors relating to energy saving, the environment and safety and the salient decisions taken in respect of other markets in order to create a stable legislative climate conducive to the defence of the competitive positions of the Community industry.

The changing balance of international trade

98. It is vital for the Community that its automobile industry responds positively to the changing balance of international trade. An examination of the changes affecting the trend and structure of trade highlights the economic and industrial opportunity of achieving stabilized patterns of trade.

The relaxation of present tensions, and the changes that are going to occur in the distribution of automobile production throughout the world, will therefore basically result from political consultation between the various producing countries, since the growing integration of production structures is conditional on the con-

¹ Points 39 and 93.

sistency of the decisions to be taken with regard to external investment and industrial cooperation.

The redeployment of trade

99. The present situation is characterized by a marked imbalance in the situations of the various manufacturing zones with respect to trade in automobiles.

Developments conducive to a lessening of the commercial pressures created by this imbalance could, however, lead to a redeployment in the patterns of trade made necessary by the structural changes taking place within this sector.

Imbalance

100. The present situation regarding trade in motor vehicles in the three major manufacturing zones may be summarized as follows:¹

the United States is a net importer, output is currently some 1.8 million vehicles below consumption;

the Community is a net exporter, manufacturing one million more passenger cars than it consumes;

in Japan, there is a large surplus in the balance of trade since over 50% of the total output is exported whereas imports are currently negligible; the net surplus in the trade in passenger cars is close to four million units.

This global review highlights the severe imbalance in the patterns of trade in passenger cars. Even including the other items of trade associated with motor vehicles (commercial vehicles, components, machine tools, etc.) the overall assessment remains the same.

Within the Community, there are also major disparities between the levels of penetration of Japanese vehicles (which alone account for more than 50% of Community imports² on the various markets.³ The reasons for these disparities are as follows:

¹ Annex 1: Passenger cars.

² Annex 1.

³ Point 45.

historical: Italy has a system for the formal curbing of imports of Japanese cars which have been limited since 1956 to 2 200 vehicles per year; or

commercial: voluntary restrictions or *de facto* stabilization of Japanese sales in the United Kingdom and France.

The commercial pressures caused by these imbalances have led to calls in the United States and in Europe for a curb on exports of Japanese vehicles. On 25 November 1980, the Community's Council of Ministers issued the following statement:

'... in the sectors where a continued increase in Japanese exports to the European Community would lead to difficulties, there needs to be effective moderation designed to produce early and tangible results. This should apply to the European Community as a whole and not only to certain markets'.

It is nevertheless clear that relations in the automobile sector must be seen in a global context and that any decisions taken in this field in the Community, the United States and in Japan are closely interdependent.¹ In addition, the role of the developing countries — in which the motor car is a major industrial factor — should not be overlooked.

101. The potential danger facing these three major manufacturing zones is obviously an increase in protectionist pressures which would be damaging to them all since it would lead inevitably to a downturn in world trade as a whole.

As a recent GATT report points out:

'... If a government increases trade barriers to delay adjustments in the stock of domestic plant and equipment, it will aggravate the financial imbalance of the banking sector through the impact of that action on the profitability, and thus on the risk of default of export-oriented firms. Even in the absence of retaliation, protective action would hurt not only foreign exporters, but also export firms in the protecting country. This is due to the fact that any import-reducing action will eventually lead to a decline in exports. The decline results from (i) the reduction in foreign exchange earn-

¹ Points 28 and 32.

ings abroad, and (ii) the reduced availability to the exporting firms of domestic resources, tied up in the protected sector.'

This reasoning is particularly apposite to the automobile sector, where any blockage in the adjustment mechanism would be likely to turn the recession into a crisis. Moreover, the arguments developed earlier clearly reveal the possibility of ensuring continued growth in this sector through the coherent adaptation of trading structures. Seen in this light, industrial change is not a burden but an activity generating revenue to provide the basis for a new upturn in this industry and in the various related trades.

Stabilization of trade relations

102. The underlying reason for the increasing commercial pressures in the motor vehicle industry is that the pressures are unduly and disproportionately concentrated at the end-product stage. Careful scrutiny of possible future trends in the automobile sector nevertheless points to the economic and industrial opportunity of achieving — through more intense world-wide integration of motor vehicle production — stable and healthy trading structures based on increased trade in components and on a balanced development in the siting of productions units.

It should also be pointed out that future assessments of this sector should increasingly include not only the sale of finished vehicles and components but also trade in industrial plant and technology.

Without wishing at this stage to reiterate the detailed arguments concerning the changing patterns of trade contained in Part One of this report, it is worth while to recall the main factors which — if exploited positively — could provide a stable basis for international trade in motor vehicles.

From a technical and industrial point of view, two phenomena merit attention, namely:

the increasing disassociation in the stages of automobile production which, for reasons to do with economies of scale, have different levels of optimum operation;

a shift in value-added to sectors upstream (components and industrial plant) and making it more 'brain-intensive'.

These two phenomena affect the balance of factors influencing the siting of production units by giving greater flexibility of choice (less dependence on the traditional criteria concerning the international division of labour) and by promoting an increase in world-wide integration of motor vehicle production (need to manufacture components in large quantities and the possibility of easier siting of a particular production or assembly stage in the various markets).

The consequence of this development where trade is concerned is the possibility of substitution or, at the very least, an increase in the proportion of trade in components, capital equipment and knowhow compared with trade in finished products. The importance of this is twofold since it would not only reduce the level of tension in trade but would also strengthen trading links by giving them a sound industrial base.

External investment and industrial cooperation would obviously provide the basis for such a reorientation, which will, of course, be successful only if the economic partners concerned have the same political aims.

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External investment and industrial cooperation

103. The importance of the issues relating to these two subjects is underlined in the resolution passed by the European Parliament on 13 January 1981, paras 25, 26 and 27 of which deal with investments by non-member countries in the Community, investments by European manufacturers in non-member countries and the establishment of joint undertakings.

Two trends are evident, namely, the growing integration of production structures and the increasing number of cooperation agreements.

Integration of production structures

104. Although welcoming investment made by European motor vehicle manufacturers in non-member countries, the European Parliament resolution draws the Commission's attention to the possible repercussions of non-member country investments in the Community.

On this second point, the industry has also repeatedly stressed that the establishment in Europe after the Second World War of subsidiaries of North American companies is the best example of successful integration, made possible by the high degree of local acceptance which placed these companies in competitive positions directly comparable to those enjoyed by European-based firms.

It follows logically from the foregoing arguments that the issue should be considered in the following terms:

- the world wide scale of motor vehicle manufacture nullifies any assessments based on a 'compartmentalized' conception of the various markets;
- as a result, the options open to the industry no longer come within the ambit of the two traditional and alternative policies adopted by American and Japanese manufacturers in recent decades, i.e.:

in the case of the Americans, the installation of the entire manufacturing operation in the relevant markets, or

in the Japanese case, the centralized production in the country of origin and the direct export of finished products.

105. In future, automobile manufacturers will have to gear their production and marketing strategies to a distribution of the manufacturing and trading activities between all the markets involved. In other words, this means the large-scale development of policies akin to those already pursued for many years by European manufacturers, as practised locally by Japanese firms in the Asian markets and which are currently being developed by the major American companies.¹ Such a change would entail a substantial increase in motor vehicle trade generally and rapid diversification in its structure. In addition to this basically favourable aspect, it would make it possible to envisage a more balanced development of trade since it would increase the reciprocal advantages for the various manufacturing zones and the opportunities for intra- and inter-sectoral trade-off. Since such a development is directly dependent on the decisions of firms regarding external investments, it also concerns the public authorities who are largely responsible for determining the

conditions in which the foreign investing companies are received. It would be detrimental to all the economic operators involved if more serious divergent trends were to appear — not only between the major manufacturing zones but also within the zones themselves. The Member States of the Community have a special responsibility in this respect since differences in attitude to the manner in which foreign investors are welcomed would naturally have serious repercussions for the Community industry as a whole. In this connection, it would be useful if the Member States could take account of the guidelines that the Commission will be laying down regarding criteria for granting Community support.¹

This matter is all the more important since the development of industrial cooperation has become necessary in order to improve the economic effectiveness of the industry and to ease commercial pressure.

Development of cooperation agreements

106. Whereas there have been comparatively few industrial cooperation agreements in recent decades and only then restricted to specific requirements, recent years have seen a sharp increase in their number and type coupled with a greater diversification in the underlying reasons. The following examples illustrate this point:

the American corporations have developed their links with the Japanese industry through financial participation and trade agreements which are now widening to embrace industrial and technological trade;²

a number of agreements have been signed recently between Japanese and European companies (Honda and British Leyland; Nissan and Alfa, Motor Ibérica and Volkswagen);

the acquisition of holdings with a practical impact in industrial terms by companies in the Community and in the United States (Renault-AMC, Peugeot-Chrysler);

cooperation agreements between Community and East European manufacturers have taken on new forms.³

¹ Points 77 and 72.

² Point 30.

³ Point 34.

¹ Point 20.

This large-scale movement clearly reflects the underlying trend already mentioned towards the gradual integration on a world scale of motor vehicle production and also the recourse to highly varied and flexible methods of making the many adjustments in this sector:

recovery of firms in difficulty,

adaptation of technologically backward companies,

harmonization of the conditions of international competition,

rationalization and strengthening of trade.

It is therefore important not only to encourage this trend but also to master its repercussions.

107. Hence the need to develop greater cooperation between the economic and political entities involved. This clearly means that everyone should play the free-trade game and comply with GATT rules. On this point, the Commission takes the view that the Community, the United States and Japan should fully recognize their responsibilities to ensure the continued existence of the free economic order, in which they are the main protagonists.

As the Commission pointed out during the European Parliament's debate on the European automobile industry on 13 January 1981, all the beneficiaries of this system should share the burden; in this respect, Japan is in a special situation since, for historical and structural reasons, its present contribution is less than that of its partners. It would not be normal for this state of affairs to continue and for this country to maintain its intransigent position *vis-à-vis* trading arrangements, whereby manufactured products could leave but not enter the country. Each partner has a right to expect from the others a fair contribution to the proper functioning of a system of benefit to them all.

In the final analysis, the world motor vehicle industry will not develop as it should unless there is truly reciprocal and effective integration of manufacturing and trading structures.

The Commission has the political will to contribute to this objective, but positive results will only be achieved if the three major manufacturing areas, namely the Community, the United States and Japan, strive to achieve the same aims.

Annexes

1. The automobile industry, 1970-80 (passenger cars)
2. Value of imports/exports of Japan and the Community
3. Geographical breakdown of Japanese exports of passenger cars
4. Estimated US production capacity of newly-designed fuel-efficient cars, 1980-85
5. Foreign sourcing — Recently announced commitments by US automobile manufacturers to purchase foreign-made components for use in domestic vehicles production
6. Estimated hourly compensation of production workers in the motor vehicle and equipment industries, 1975-80
7. Employment in the European motor vehicle industry, 1974-79
8. Geographical breakdown of Community exports of passenger cars
9. Japanese penetration of the Community market
10. Development of world car exports
11. Trend of research and development expenditure — expressed as a percentage of gross domestic product
- 12a. Annual car use tax burden
- 12b. Summary of taxes and prices of premium petrol, diesel fuel and LPG
13. Motor vehicles directives
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Annex 1

The automobile industry, 1970-80 (passenger cars)

	Year	Community	USA	Japan	Rest of world	Total
Passenger cars on the road (millions)	1970	53 770	88 209	8 041	38 180	188 000
	1975	70 258	105 987	16 683	60 672	253 600
	1980	86 534	120 104	23 655	86 892	317 185
% change 1970-80		+60.9	+36.1	+194.1	+127.00	+68.7
Car ownership (number of cars per 1 000 inhabitants)	1970	214	431	77	12	51
	1975	272	496	149	17	63
	1980	332	540	202	23	79
% change 1970-80		+55.1	+25.2	+162.3	+91.6	+54.9
Registrations (000)	1970	6 751	8 388	2 379	4 582	22 100
	1975	6 964	8 262	2 738	7 745	25 709
	1980	8 535	8 801	2 886	10 528	30 750
% change 1970-80		+26.4	+4.9	+21.3	+129.8	+39.1
Production (000)	1970	9 424	6 550	3 179	3 547	22 700
	1975	8 328	6 717	4 568	5 787	25 400
	1980	9 545	7 000	7 050	7 155	30 750
% change 1970-80		+1.3	+6.9	+121.7	+101.7	+35.4
Exports (000)	1970	2 458	285	726	1 307	4 776
	1975	2 050	640	1 827	1 808	6 325
	1980	1 898	695	3 820	2 034	8 447
% change 1970-80		-22.8	+148.2	+426.2	+55.6	+76.9
Imports (000)	1970	149	2 007 ¹	18	2 275	4 449
	1975	599	2 077	42	3 414	6 132
	1980	1 362	2 830	47	4 203	8 442
% change 1970-80		+810.0	+41.0	+161.1	+84.7	+89.8

Source: Marketing Systems.

¹ Including imports from Canada.

Annex 2

Value of imports/exports of Japan and the Community

Passenger cars

(million USD)

	1970	1975	1978	1979	1980
<i>Total imports of</i>					
Community		1 246.5	3 621.9	5 004.8	
Japan	54.1	236.9	412.6	575.0	
<i>Total exports of</i>					
Community	3 668.0	6 628.8	10 337.1	11 839.5	
Japan	903.4	4 030	10 617	11 964	

Commercial vehicles

	1970	1975	1978	1979	1980
<i>Total imports of</i>					
Community		204.7	546.6	798.7	
Japan		7.0	12.8	24.0	
<i>Total exports of</i>					
Community	980.3	3 703.7	3 438.7	4 091.3	
Japan	402.5	2 039.6	5 019.4	4 563.6	

Spare parts

	1970	1975	1978	1979	1980
<i>Total imports of</i>					
Community		571.6	1 181.8	1 594.3	
Japan		45.5	89.9	93.7	
<i>Total exports of</i>					
Community	1 389.8	3 806.3	5 381.9	7 284.2	
Japan	124.6	637.6	1 613.0	1 737.4	

Passenger cars, commercial vehicles and spare parts

	1970	1975	1978	1979	1980
<i>Total imports of</i>					
Community		2 022.8	5 350.3	7 397.8	
Japan		289.4	515.3	697.7	
<i>Total exports of</i>					
Community	6 038.1	14 138.8	19 157.7	23 215.0	
Japan	1 430.5	6 707.2	17 249.4	18 265.0	

Annex 3

Geographical breakdown of Japanese exports of passenger cars

Destination	1970		1979		1980	
	Volume x (000)	%	Volume x (000)	%	Volume x (000)	%
<i>North America</i>	404.5	55.7	1 648.4	53.1	1 986.7	52.0
of which: United States	339.5	46.8	1 587.5	51.2	1 850.0	48.4
<i>Community (Nine)</i>	44.6	6.1	630.2	20.3	743.4	19.5
of which: FR of Germany	0.4	0.1	175.9	5.7	211.0	5.5
France	1.5	0.2	47.6	1.5	54.8	1.4
Italy	0.4	0.1	1.6	0.1	0.3	—
Netherlands	15.2	2.1	94.1	3.0	117.0	3.1
Belgium/Luxem- bourg	17.0	2.3	81.3	2.6	105.6	2.8
United Kingdom	5.0	0.7	175.7	5.7	201.1	5.3
Ireland	—	—	27.0	0.9	28.1	0.7
Denmark	5.1	0.7	27.0	0.9	25.5	0.7
<i>Rest of Western Europe</i>	56.5	7.8	179.6	5.8	217.0	5.7
of which: Greece	3.8	0.5	15.7	0.5	10.7	0.3
<i>Nine + Greece</i>	48.4	6.7	645.9	20.8	754.1	19.7
<i>Asia</i>	63.9	8.8	345.1	11.1	485.1	12.7
of which: Middle East	7.7	1.1	149.2	4.8	209.9	5.5
Saudi Arabia	1.3	0.2	100.2	3.2	130.3	3.4
<i>Australia & New Zealand</i>	86.3	11.9	149.5	4.8	165.0	4.3
<i>Africa</i>	39.6	5.4	72.3	2.3	117.5	3.1
<i>Latin America</i>	29.8	4.1	72.4	2.3	104.1	2.7
<i>Eastern Europe</i>	0.4	0.1	4.5	0.1	2.0	0.1
<i>World</i>	725.6	100.0	3 102.0	100.0	3 820.8	100.0

Source: Marketing Systems.

Annex 4

Estimated US production capacity of newly-designed fuel-efficient cars, 1980-85

(in million units)

1980:		Chrysler:	
General Motors:		Omni/Horizon	300
Chevette	400	K-body	<u>900</u>
X-body	<u>800</u>	Total	1 200
Total	1 200	Volkswagen: Rabbit	<u>450</u>
Chrysler: Omni/Horizon	300	Total, 1983	<u>7 210</u>
Volkswagen: Rabbit	<u>250</u>		
Total, 1980	<u>1 750</u>	1984:	
1981:		General Motors:	
General Motors:		Chevette	400
Chevette	400	X-body	860
X-body	860	J-body	900
J-body	<u>450</u>	Intermediate/standard	<u>3 000</u>
Total	1 710	Total	<u>5 160</u>
Ford: Escort/Lynx	<u>485</u>	Ford:	
Chrysler:		Escort/Lynx	1 200
Omni/Horizon	300	Compact/intermediate	1 100
K-body	<u>525</u>	Standard	<u>1 000</u>
Total	825	Total	<u>3 300</u>
Volkswagen: Rabbit	<u>250</u>	Chrysler:	
Total, 1981	<u>3 270</u>	Omni/Horizon	300
1982:		K-body	<u>900</u>
General Motors:		Total	1 200
Chevette	400	Volkswagen: Rabbit	<u>450</u>
X-body	860	Total, 1984	<u>10 110</u>
J-body	500	1985:	
A-body	<u>400</u>	General Motors:	
Total	2 160	Chevette	400
Ford: Escort/Lynx	<u>600</u>	X-body	860
Chrysler:		J-body	900
Omni/Horizon	300	Intermediate/standard	<u>4 000</u>
K-body	<u>700</u>	Total	<u>6 160</u>
Total	1 000	Ford:	
Volkswagen: Rabbit	<u>250</u>	Escort/Lynx	1 200
Total, 1982	<u>4 010</u>	Compact/intermediate	1 100
1983:		Standard	<u>1 000</u>
General Motors:		Total	<u>3 300</u>
Chevette	400	Chrysler:	
X-body	860	Omni/Horizon	300
J-body	500	K-body	<u>900</u>
Intermediate/standard	<u>2 500</u>	Total	1 200
Total	4 260	Volkswagen: Rabbit	<u>450</u>
Ford: Escort/Lynx, compact/intermediate	1 300	Total, 1985	<u>11 110</u>

Note: All data based upon estimates made by US Department of Transportation and public information available through trade magazines.

Annex 5

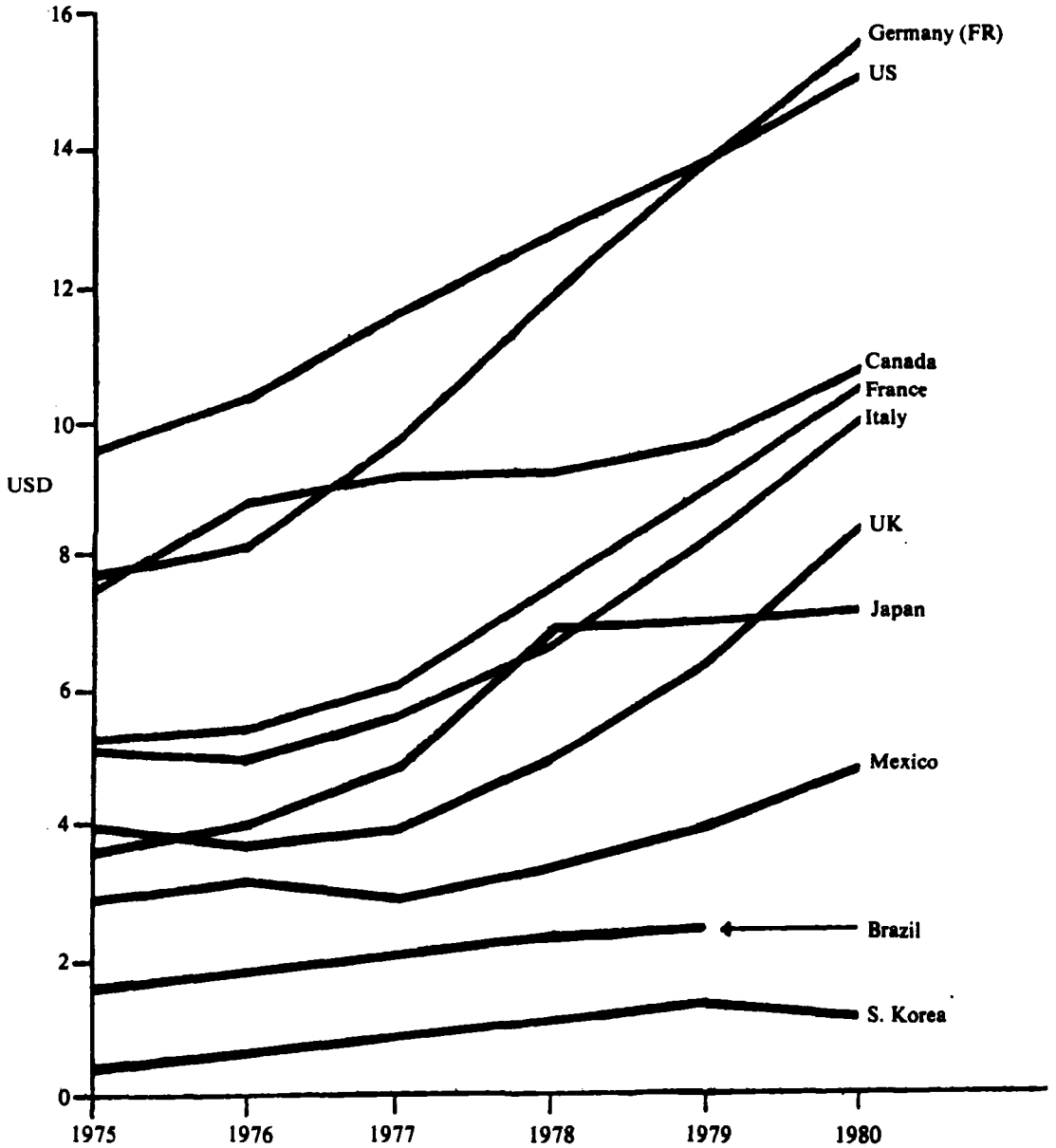
Foreign sourcing — Recently announced commitments by US automobile manufacturers to purchase foreign-made components for use in domestic vehicles production

Automobile manufacturer	Description of component	Intended use	Manufacturing source	Approximate number of components	Period
GM	2.8 lit V-6 2.0 lit L-4 with transmission	Cars Mini trucks	GM Mexico Isuzu (Japan)	< 400 000/year 100 000/year	1982- 1981-
	1.8 lit diesel L-4 1.8 lit L-4 THM 180 automatic transmission	Chevette J-car Chevette	Isuzu (Japan) GM Brazil GM Strasbourg (France)	small numbers 250 000/year ~ 250 000/year	1982- 1979- 1979-
	2.2 lit L-4 Diesel L-4 2.0 lit L-4 2.3 lit L-4 Diesel 6 cyl. Turbo-diesel/ 4 cyl. Manual trans- axles Aluminum cyl- inder heads Electronic engine control devices Ball joints	Cars Cars Mini trucks Cars Cars Cars Front disc cars 1.6 lit L-4 Cars Cars	Ford Mexico Toyo Kogyo Toyo Kogyo Ford Brazil BMW/Steyr BMW/Steyr Toyo Kogyo Europe, Mexico Toshiba	< 400 000/year 150 000/year < 100 000/year ~ 50 000/year 100 000/year — 100 000/year — 100 000 + /year	1983- 1983- 1982- 1979- 1983- 1985- 1980- 1980- 1978-
Chrysler	L-6 and V-8 engines 2.2 lit L-4	Cars K-body	Musashi Seimibu Chrysler Mexico Chrysler Mexico	1 000 000/year < 100 000/year < 270 000/year	1980-84 early 1970'
	2.6 lit L-4 1.7 lit L-4 1.6 lit L-4	K-body L-body (Omni) L-body	Mitsubishi Volkswagen Talbot (Peugeot) Peugeot	1 million 1.2 million 400 000 total	1981-85 1978-82 1982-84
	2.0 lit Diesel V-6 1.4 lit L-4	K-body A-body (Omni replace- ment) 2.2 lit L-4	Peugeot Mitsubishi Fiat	100 000/year 300 000/year	1982- 1984-
	Aluminum cyl- inder heads Car components and power train	AMC-Renault	Renault in France and Mexico VW Mexico	300 000/year	1982-
	Radiators, stampings L-4 diesel and gas	Rabbit Cars	VW Mexico VW Mexico	250 000/year 300 000 + /year	1979- 1982-

Sources: Automotive News, Ward's Engine Update, Ward's Automotive Report, American Metal Market, Detroit Free Press, and Japan Economic Journal.

Annex 6

Estimated hourly compensation of production workers in the motor vehicle and equipment industries, 1975-80



Source: Bureau of Labor Statistics, Office of Productivity and Technology, November 1980.

Note: Major automobile-producing corporations pay higher wages and hence show higher corporate average labor costs than the above, which includes many small firms.

Annex 7

Employment in the European motor vehicle industry, 1974-79

(000)

	1974	1975	1976	1977	1978	1979
Germany (FR)	634.1	591.5	589.7	619.5	646.9	672.8
France	414.8	446.7	463.7	486.1	487	489.3
United Kingdom	497.8	478.3	444.1	474.1	486.7	471.6
Italy	253.7	242.5	240.4	230.6	228.3	
Belgium	50.7	46.4	50.5	52.5	54.6	56
Luxembourg	0.6	0.7	0.8	0.8	0.8	
Ireland	7.6	7.2	7.0	7.0	6.2	6.1
Denmark	4.8	4.0	3.9	4.3	4.4	
Netherlands	22.8	21.8	21.4	22.4	22.7	24.1
Community	1 886.9	1 839.1	1 821.5	1 897.3	1 936.2	1 953.4

Source: Eurostat — Workers in industry, NACE 35.
 Figures include both assembly and spare parts manufacture.

Annex 8

Geographical breakdown of Community exports of passenger cars

Destination	1970		1979		1980	
	Volume (000)	%	Volume (000)	%	Volume (000)	%
<i>Western Europe</i>	659.0	26.8	803.1	38.4	733.4	38.6
of which: Greece	21.4	0.9	45.0	2.2	37.2	2.0
<i>Eastern Europe</i>	80.9	3.3	80.1	3.8	63.4	3.3
<i>North America</i>	993.9	40.4	534.3	25.5	501.0	26.4
of which: United States	867.5	35.3	428.9	20.5	441.6	23.2
<i>Latin America</i>	162.5	6.6	131.4	6.3	108.5	5.7
<i>Asia</i>	154.6	6.3	217.7	10.4	226.8	11.9
of which: Middle East	69.2	2.8	82.2	3.9	139.0	7.3
Japan	12.2	0.5	39.1	1.9	31.5	1.7
<i>Africa</i>	258.9	10.5	253.5	12.1	221.0	11.6
<i>Oceania</i>	123.3	5.0	57.2	2.7	29.7	1.6
<i>Other</i>	24.8	1.0	14.8	0.7	15.0	0.8
<i>World Total</i>	2 457.9	100.0	2 092.1	100.0	1 898.8	100.0
<i>Intra-Community exports</i>	2 272.6	—	2 999.5	—	2 692.8	—

Annex 9

Japanese penetration of the Community market

% of motor vehicle market

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980
D	0.1	0.1	0.4	1.1	1.3	1.7	1.9	2.4	3.7	5.6	10.3
F	0.2	0.2	0.4	0.7	0.8	1.5	2.7	2.6	1.8	2.2	3.1
I	0.02	0.1	0.1	0.1	0.04	0.1	0.2	0.1	0.1	0.1	0.1
UK	0.4	1.0	2.9	5.5	6.7	9.0	9.4	10.6	10.9	10.8	11.9
B/L	5.0	7.0	10.0	12.0	13.0	16.5	18.0	19.3	17.8	17.7	24.6
NL	3.2	6.7	9.5	11.4	11.6	15.6	16.8	19.8	18.8	19.5	26.2
DK	0.4	4.3	9.6	6.6	10.7	16.1	19.0	17.4	18.0	14.4	29.5
IRL	0	0	0.9	5.3	4.9	11.6	12.7	19.7	23.9	26.7	30.5
GR	14.6	13.5	13.3	8.7	8.9	10.8	15.1	19.1	13.8	34.2 ¹	42 ¹
Total: EEC	0.6	1.0	2.0	3.0	3.4	4.8	5.4	7.0	6.3	6.9	8.9

Source: Marketing Systems.

¹ Estimate: Passenger cars and commercial vehicles.

Annex 10

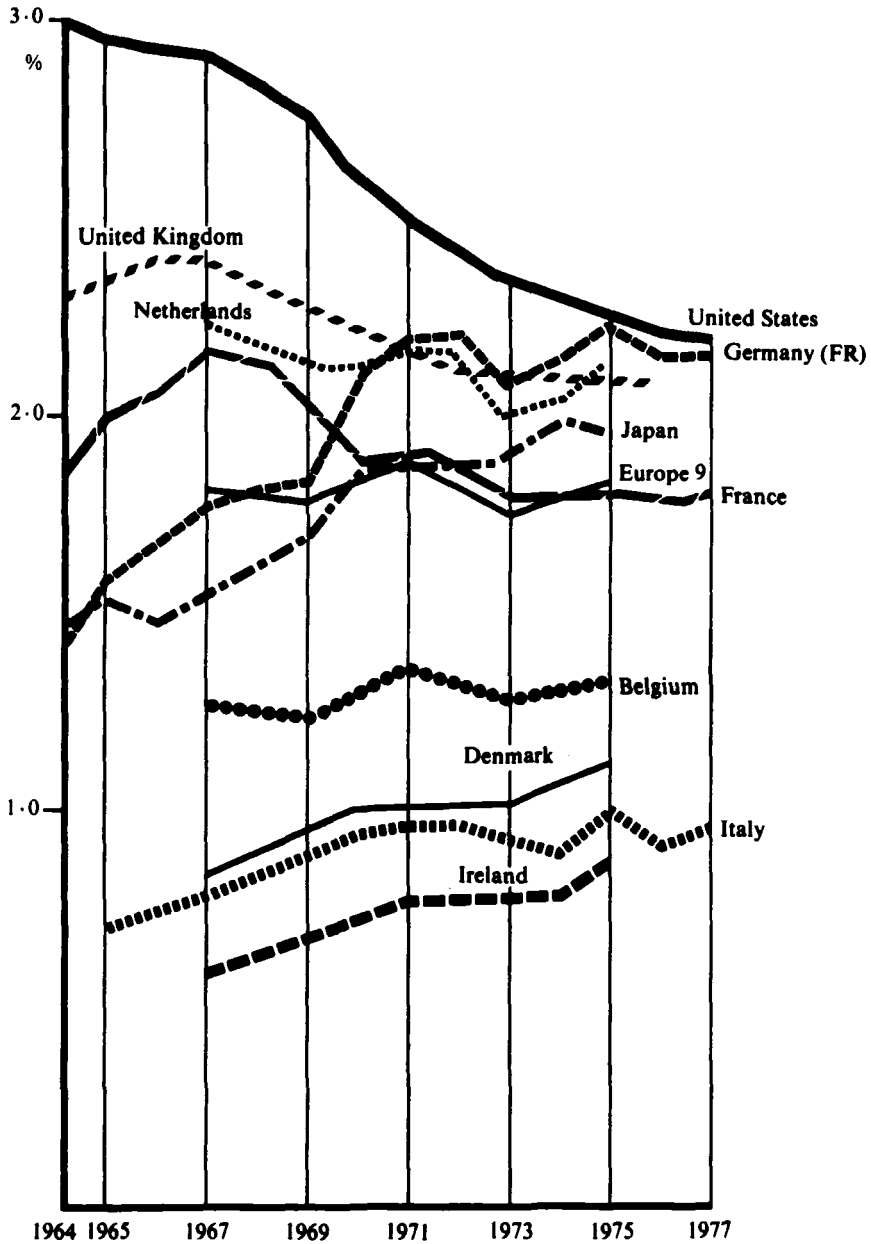
Development of world car exports

Destination	Year	Exports from								Total (000)
		Community		Japan		USA		Others		
		Volume- (000)	%	Volume (000)	%	Volume (000)	%	Volume (000)	%	
Community	1970	—	—	44.6	30.1	6.4	4.3	96.9	65.5	147.9
	1975	—	—	367.1	69.0	13.0	2.1	231.9	37.9	612.0
	1980	—	—	743.4	54.6	40.5	3.0	577.0	42.4	1 360.9
Western Europe outside Community	1970	647.5	90.6	56.1	7.9	4.9	0.7	5.7	0.8	714.5
	1975	687.1	80.0	118.2	13.7	6.8	0.8	47.3	5.5	859.4
	1980	729.1	71.9	210.6	20.8	13.5	1.3	60.9	6.0	1 014.6
Africa including Nigeria and South Africa	1970	104.3	85.8	16.5	13.6	0.1	0.1	0.6	0.5	121.5
	1975	94.4	77.7	15.6	12.8	0.2	0.2	3.5	3.1	114.0
	1980	82.3	48.2	71.3	41.7	2.5	1.5	14.8	8.7	170.9
Middle East	1970	74.6	77.2	8.8	9.1	4.5	4.7	8.7	9.0	96.6
	1975	194.3	62.3	59.7	19.2	38.5	12.4	19.0	6.1	311.7
	1980	141.8	31.4	215.1	47.6	50.9	11.3	43.8	9.7	451.5
Far East excluding South Korea and Taiwan	1970	70.7	58.4	41.5	34.3	5.7	4.7	3.1	2.6	121.0
	1975	60.3	37.0	70.9	43.9	15.1	9.3	15.2	9.4	161.5
	1980	59.0	19.5	212.5	70.2	14.0	4.6	17.2	5.7	302.6
Oceania Australia and New Zealand	1970	119.9	57.4	67.7	32.4	1.0	0.5	20.3	9.7	208.9
	1975	80.1	28.2	185.1	66.3	0.1	—	13.6	5.5	278.9
	1980	25.6	12.4	155.2	75.0	0.4	0.2	25.7	12.4	206.9
North America USA and Canada	1970	993.9	67.8	404.5	27.6	—	—	67.5	4.6	1 466.9
	1975	627.9	41.9	801.8	53.5	—	—	68.9	4.6	1 497.8
	1980	501.0	21.4	1 986.7	75.8	—	—	73.4	2.8	2 561.1
South America excluding Brazil, Argentina, Mexico, Venezuela	1970	39.8	64.9	10.3	16.8	5.0	8.2	6.2	10.1	61.3
	1975	26.6	42.8	24.2	38.9	4.3	6.9	7.1	11.4	62.2
	1980	40.5	30.4	60.7	43.6	12.9	9.7	19.0	14.3	133.2

Source: Marketing Systems.

Annex 11

Trend of research and development expenditure expressed as percentage of gross domestic product



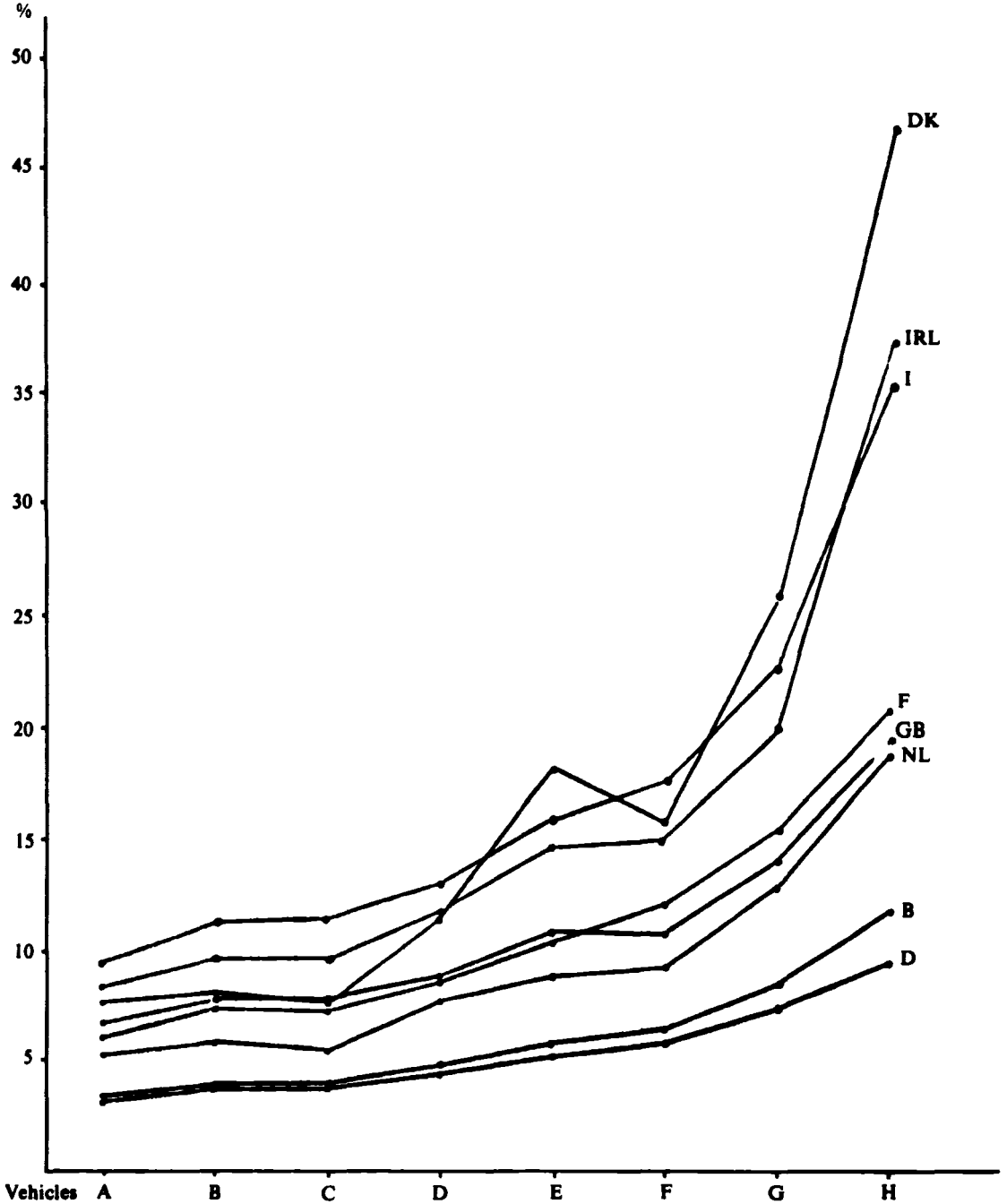
Source: Commission of the European Communities, analysis of the research and development potentials of the Member States of the European Communities.

Annex 12 a

Annual car use tax burden

(Petrol taxes, vehicles taxes + 10 % of purchase taxes for eight European cars running 15 000 km a year)

In real terms (ratio of taxes to average wages, not including social contributions)



Annex 12 b

Summary of taxes and prices of premium petrol, diesel fuel and LPG

(end-February 1980)

(EUA/100 l (A, B, C, D) % (E, F))

	B	DK	D	F	I	L	NL	IRL	UK
A. Excise									
Premium petrol	20.99	23.56	17.72	25.05	29.91	17.26	19.13	20.77	12.54
Diesel fuel	6.94	3.88	16.80	13.13	2.16	4.96	6.76	12.78	14.23
LPG	6.82	3.88	12.89	7.14	17.51	2.23	0	9.83	6.26
B. VAT									
Premium petrol	7.51	9.58	5.32	8.78	6.04	2.04	7.89	4.52	5.76
Diesel fuel	4.98	5.44	5.32	5.68	2.67	1.24	5.15	3.69	5.59
LPG	4.74	4.53	3.83	5.09	4.65	1.12	3.14	2.88	3.73
C. Total tax									
Premium petrol	28.50	33.14	23.04	33.83	35.95	19.34	27.02	25.29	18.30
Diesel fuel	11.92	9.32	22.12	18.81	4.83	6.20	11.91	16.47	19.82
LPG	11.56	8.41	16.72	12.23	22.16	3.35	3.14	12.71	9.99
D. Selling price									
Premium petrol	54.57	56.96	46.33	58.00	56.50	43.41	51.52	49.80	43.71
Diesel fuel	36.18	32.49	46.33	38.20	25.01	25.79	33.62	40.66	43.04
LPG	34.37	27.05	33.44	34.07	38.12	23.28	20.38	31.78	28.80
E. Selling price (relative)									
Premium petrol	100	100	100	100	100	100	100	100	100
Diesel fuel	66	57	100	66	44	59	65	82	98
LPG	63	44	72	59	67	54	40	64	66
F. Excise (relative)									
Premium petrol	100	100	100	100	100	100	100	100	100
Diesel fuel	33	16	95	52	7	29	35	62	113
LPG	32	16	73	29	59	13	0	47	50

Annex 13

Motor vehicles directives

No	Reference	Council/ Commission	Title	Date of adoption	No and page of OJ	Date of OJ
1.	70/156 ¹	Council	Type-approval of motor vehicles and their trailers	6. 2. 1970	L 42/1	23. 2. 1970
		Council	Resolution regarding EEC whole vehicle type-approval for passenger cars	29. 6. 1977	C 177/1	26. 7. 1977
2.	70/157 ¹	Council	Permissible sound level and exhaust system of motor vehicles	6. 2. 1970	L 42/16	23. 2. 1970
3.	70/220 ¹	Council	Measures to be taken against air pollution by gases from positive-ignition engines of motor vehicles	20. 3. 1970	L 76/1	6. 4. 1970
			— Corrigendum		L 81/15	11. 4. 1970
4.	70/221 ¹	Council	Liquid fuel tanks and rear protective devices for motor vehicles and their trailers	20. 3. 1970	L 76/23	6. 4. 1970
			— Corrigendum (FR, EN, IT, NL, DA)		L 65/42	15. 3. 1979
5.	70/222 ¹	Council	Space for mounting and fixing of rear registration plates on motor vehicles and their trailers	20. 3. 1970	L 76/25	6. 4. 1970
6.	70/311 ¹	Council	Steering equipment for motor vehicles and their trailers	8. 6. 1970	L 133/10	18. 6. 1970
			— Corrigendum		L 196/14	3. 9. 1970
7.	70/387 ¹	Council	Doors of motor vehicles and their trailers	27. 7. 1970	L 176/5	10. 8. 1970
8.	70/388 ¹	Council	Audible warning devices for motor vehicles	27. 7. 1970	L 176/12	10. 8. 1970
			— Corrigendum		L 176/72	21. 6. 1974
9.	71/127 ¹	Council	Rear-view mirrors of motor vehicles	1. 3. 1971	L 68/1	22. 3. 1971
10.	71/320 ¹	Council	Braking devices of certain categories of motor vehicles and of their trailers	26. 7. 1971	L 202/37	6. 9. 1971
11.	72/245	Council	Suppression of radio interference produced by spark-ignition engines fitted to motor vehicles	20. 6. 1972	L 152/15	6. 7. 1972

¹ Treaty of Accession (Denmark, Ireland, United Kingdom), adopted on 22. 1. 1972, OJ L 73, 23. 3. 1972.

No	Reference	Council/ Commission	Title	Date of adoption	No and page of OJ	Date of OJ
12.	72/306	Council	Measures to be taken against the emission of pollutants from diesel engines for use in vehicles — Corrigendum (FR, EN, IT, NL, DA) — Corrigendum (FR, EN)	2. 8. 1972	L 190/1 L 215/20 L 297/27	20. 8. 1972 6. 8. 1974 23. 11. 1977
13.	73/350	Commission	Adaptation to technical progress of the Council Directive 70/157/EEC of 6. 2. 1970 relating to the permissible sound level and the exhaust system of motor vehicles	7. 11. 1973	L 321/33	22. 11. 1973
14.	74/60	Council	Interior fittings of motor vehicles (interior parts of the passenger compartment other than the interior rear-view mirrors, layout of the controls, the roof or sliding roof, the backrest and rear part of the seats) — Corrigendum (FR, EN, NL, IT, DA)	17. 12. 1973	L 38/2 L 215/20	11. 2. 1974 6. 8. 1974
15.	74/61	Council	Devices to prevent the unauthorized use of motor vehicles — Corrigendum (FR, EN, NL, IT, DA)	17. 12. 1973	L 38/22 L 215/20	11. 2. 1974 6. 8. 1974
16.	74/132	Commission	Adaptation to technical progress of the Council Directive 71/320/EEC of 26. 7. 1971 relating to the braking devices of certain categories of motor vehicles and of their trailers	11. 2. 1974	L 74/7	19. 3. 1974
17.	74/290	Council	Adapting to technical progress Council Directive 70/220/EEC of 20. 3. 1970 relating to measures to be taken against air pollution by gases from positive-ignition engines of motor vehicles	28. 5. 1974	L 159/61	15. 6. 1974
18.	74/297	Council	Interior fittings of motor vehicles (the behaviour of the steering mechanism in the event of an impact)	4. 6. 1974	L 165/16	20. 6. 1974
19.	74/408	Council	Interior fittings of motor vehicles (strength of seats and of their anchorages)	22. 7. 1974	L 221/1	12. 8. 1974
20.	74/483	Council	External projections of motor vehicles	17. 9. 1974	L 266/4	2. 10. 1974
21.	75/443	Council	Reverse and speedometer equipment of motor vehicles — Corrigendum	26. 6. 1975	L 196/1 L 296/19	26. 7. 1975 15. 11. 1975

No	Reference	Council/ Commission	Title	Date of adoption	No and page of OJ	Date of OJ
22.	75/524	Commission	2nd Adaptation to technical progress of the Council Directive 71/320/EEC of 26. 7. 1971 relating to the braking devices of certain categories of motor vehicles and of their trailers	25. 7. 1975	L 236/3	8. 9. 1975
23.	76/114	Council	Statutory plates and inscriptions for motor vehicles and their trailers, and their location and method of attachment	18. 12. 1975	L 24/1	30. 1. 1976
24.	76/115	Council	Anchorage for motor vehicles safety belts	18. 12. 1975	L 24/6	30. 1. 1976
25.	76/756	Council	Installation of lighting and light-signalling devices on motor vehicles and their trailers	27. 7. 1976	L 262/1	27. 9. 1976
26.	76/757	Council	Reflex reflectors for motor vehicles and their trailers	27. 7. 1976	L 262/32	27. 9. 1976
27.	76/758	Council	End-outline marker lamps, front position (side) lamps, rear position (side) lamps and stop lamps for motor vehicles and their trailers	27. 7. 1976	L 262/54	27. 9. 1976
28.	76/759	Council	Direction indicator lamps for motor vehicles and their trailers	27. 7. 1976	L 262/71	27. 9. 1976
29.	76/760	Council	Rear registration plate lamps for motor vehicles and their trailers	27. 7. 1976	L 262/85	27. 9. 1976
30.	76/761	Council	Motor vehicle headlamps which function as main-beam and/or dipped-beam headlamps and incandescent electric filament lamps for such headlamps	27. 7. 1976	L 262/96	27. 9. 1976
31.	76/762	Council	Front fog lamps for motor vehicles and filament lamps for such lamps	27. 7. 1976	L 262/122	27. 9. 1976
32.	77/102	Commission	Adaptation to technical progress of the Council Directive 70/220/EEC of 20. 3. 1970 relating to measures to be taken against air pollution by gases from positive-ignition engines of motor vehicles	30. 11. 1976	L 32/32	3. 2. 1977
33.	77/212	Council	Amendment to Directive 70/157/EEC of 6. 2. 1970 on the permissible sound level and exhaust system of motor vehicles	8. 3. 1977	L 66/33	12. 3. 1977
34.	77/389	Council	Motor vehicle towing-devices	17. 5. 1977	L 145/41	13. 6. 1977

No	Reference	Council/ Commission	Title	Date of adoption	No and page of OJ	Date of OJ
35.	77/538	Council	Rear fog lamps for motor vehicles and their trailers — Corrigendum (FR, DE, EN, NL, IT, DA)	28. 6. 1977	L 220/60 L 284/11	29. 8. 1977 10. 10. 1978
36.	77/539	Council	Reversing lamps for motor vehicles and their trailers — Corrigendum (FR, DE, EN, NL, IT, DA)	28. 6. 1977	L 220/72 L 284/11	29. 8. 1977 10. 10. 1978
37.	77/540	Council	Parking lamps for motor vehicles — Corrigendum (FR, DE, EN, NL, IT, DA)	28. 6. 1977	L 220/83 L 284/12	29. 8. 1977 10. 10. 1978
38.	77/541	Council	Safety belts and restraint systems of motor vehicles	28. 6. 1977	L 220/95	29. 8. 1977
39.	77/649	Council	Field of vision of motor vehicle drivers — Corrigendum (FR, DE, EN, IT, NL, DA) — Corrigendum (FR, DE, DA, IT, NL)	27. 9. 1977	L 267/1 L 150/6 L 284/11	19. 10. 1977 6. 6. 1978 10. 10. 1978
40.	78/315	Council	Amendment to Directive 70/156/EEC of 6. 2. 1970 on type-approval of motor vehicles and their trailers	21. 12. 1977	L 81/1	28. 3. 1978
41.	78/316	Council	Interior fittings of motor vehicles (identification of controls, tell-tales and indicators)	21. 12. 1977	L 81/3	28. 3. 1978
42.	78/317	Council	Defrosting and demisting systems of glazed surfaces of motor vehicles	21. 12. 1977	L 81/27	28. 3. 1978
43.	78/318	Council	Windscreen-wiper and windscreen washer systems of motor vehicles	21. 12. 1977	L 81/49	28. 3. 1978
44.	78/507	Commission	Adaptation to technical progress of the Council Directive 76/114/EEC of 18. 12. 1975 relating to statutory plates and inscriptions for motor vehicles and their trailers, and their location and method of attachment	19. 5. 1978	L 155/31	13. 6. 1978
45.	78/547	Council	Amendment to Directive 70/156/EEC of 6. 2. 1970 on type-approval of motor vehicles and their trailers	12. 6. 1978	L 168/39	26. 6. 1978
46.	78/548	Council	Heating systems for the passenger compartment of motor vehicles	12. 6. 1978	L 168/40	26. 6. 1978
47.	78/549	Council	Wheel guards of motor vehicles	12. 6. 1978	L 168/45	26. 6. 1978

No	Reference	Council/ Commission	Title	Date of adoption	No and page of OJ	Date of OJ
48.	78/632	Commission	Adaptation to technical progress of the Council Directive 74/60/EEC of 17. 12. 1973 relating to interior fittings of motor vehicles (interior parts of the passenger compartment other than the interior rear-view mirrors, layout of the controls, the roof or sliding roof, the backrest and rear part of the seats)	19. 5. 1978	L 206/26	29. 7. 1978
49.	78/665	Commission	Adaptation to technical progress of the Council Directive 70/220/EEC of 20. 3. 1970 relating to measures to be taken against air pollution by gases from positive-ignition engines of motor vehicles	14. 7. 1978	L 223/48	14. 8. 1978
50.	78/932	Council	Head restraints of seats of motor vehicles	16. 10. 1978	L 325/1	20. 11. 1978
51.	79/488	Commission	Adaptation to technical progress of the Council Directive 74/483/EEC of 17. 9. 1974 relating to external projections of motor vehicles	18. 4. 1979	L 128/1	26. 5. 1979
52.	79/489	Commission	3rd adaptation to technical progress of the Council Directive 71/320/EEC of 26. 7. 1971 relating to the braking devices of certain categories of motor vehicles and their trailers — Corrigendum	18. 4. 1979	L 128/12 L 146/35	26. 5. 1979 14. 6. 1979
53.	79/490	Commission	Adaptation to technical progress of the Council Directive 70/221/EEC of 20. 3. 1970 relating to the liquid fuel tanks and rear underrun protection of motor vehicles and their trailers	18. 4. 1979	L 128/22	26. 5. 1979
54.	79/795	Commission	Adaptation to technical progress of the Council Directive 71/127/EEC of 1. 3. 1971 relating to the rear-view mirrors of motor vehicles	20. 7. 1979	L 239/1	22. 9. 1979
55.	80/233	Commission	Adaptation to technical progress of the Council Directive 76/756/EEC of 27. 7. 1976 relating to the installation of the lighting and light-signalling devices on motor vehicles and their trailers — Corrigendum (FR, DE, EN, IT, NL, DA)	21. 11. 1979	L 51/8 L 111/22	25. 2. 1980 30. 4. 1980
56.	80/780	Council	Rear-view mirrors for two-wheeled motor vehicles with or without a side-car and to their fitting on such vehicles	22. 7. 1980	L 229/49	30. 8. 1980

Annex 13 (continued)

No	Reference	Council/ Commission	Title	Date of adoption	No and page of OJ	Date of OJ
57.	80/1268	Council	Fuel consumption of motor vehicles	16. 12. 1980	L 375/36	31. 12. 1980
58.	80/1269	Council	Engine power of motor vehicles	16. 12. 1980	L 375/46	31. 12. 1980
59.	80/1267	Council	Amendment to Directive 70/156/EEC relating to the type-approval of motor vehicles and their trailers	16. 12. 1980	L 375/34	31. 12. 1980

Annex 14

European Social Fund — Beneficiaries in the automobile and components sector

	Region		Technical progress		Groups of firms	
	Beneficiaries	EUA/ECU	Beneficiaries	EUA/ECU	Beneficiaries	EUA/ECU
1978	—	—	—	—	—	—
1979	—	—	—	—	—	—
1980	5 000	6 203 000	1 000	1 200 000	—	—
1981 ¹	2 000	1 482 000	240	149 000	1 000	1 900 000

¹ The figures for 1981 are incomplete as the Commission has not yet decided grants of the second instalment for 1981.

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