

THE UNITED KINGDOM AUTOMOTIVE INDUSTRIES

STATUS, ECONOMIC RECOVERY AND EXPECTATIONS

A report for the SMMT

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Foreword

The automotive sector in the UK is a vibrant and innovative enterprise. It enriches all aspects of our lives, generating diverse streams of wealth and jobs. As such it is crucial to our economy, transporting the goods we consume and getting us across town or country and even the globe. It is significant and strategic.

The UK motor industry still retains a uniquely British heritage and has successfully re-invented itself as the manufacturing home to global automotive companies. Foreign direct investment has been positive for the UK, with quality and keenness in management focusing our sectors' pool of skilled resources. It helped us retain a significant share of the global automotive market, despite fierce competition and a fast moving business landscape.

The true scope and scale of the UK industry and the economic and social value it creates has until recently been poorly understood. The skills, creativity and innovation associated with the industry have created benefits throughout the value chain from design and development, through to retail, service and repair.

In a very prosperous decade for the UK economy the automotive industry has been constantly changing, responding and adapting to challenging commercial, regulatory and technological trends. It has remained responsive, flexible and resilient. I believe this can continue and the recent report by the New Automotive Innovation and Growth Team sets out a strategic vision we all can embrace.

To help raise awareness for those with an interest in our sector, the challenges of today and ahead, industry colleagues have developed an informed and balanced report on the standing and direction of this multi-faceted sector. Industry associations and trade bodies, particularly the SMMT, RMIF and IMI, contributed their views and perspectives to create a balanced industry overview.

The panorama was broad and the timing was acute. Since initial discussions took place in mid 2008, the project has been overtaken by events, again and again. Such has been the rate of change that the report is, in reality, a third complete rewrite of the report. It should be seen as a 'Spring Snapshot 2009'.

The events and trends affecting the UK motor industry remain in a state of flux – and it is reliant on support from government in the UK and the EC to safeguard important industrial capability.

The views expressed in the report are informed, lively and independent. The report has been written by the automotive team at The University of Buckingham Business School led by Professor Peter Cooke, the KPMG Professor, with the support from the KPMG automotive group.

Paul Everitt
Chief Executive
SMMT

Executive Summary

This independent report seeks to examine the United Kingdom automotive industry systematically. It has been written at a time of unprecedented change in the global automotive industry. History may well record more changes over the next couple of years than at any time in the entire first century of the industry, in terms of strategic product development, location, ownership, manufacturing and markets.

Global migration cannot be stopped

These changes are more than merely 'rapid industry development' – they represent a fundamental move in the balance of power away from the mature industries of North America and Europe to fast-growing new economies and markets particularly in Asia. While global migration cannot be stopped – two new market opportunities each of a billion consumers are impossible to resist. That migration can be managed, however, and a new, lean British automotive industry developed. Given government support, the industry will be able to embark confidently on the necessary changes.

Importance of the UK automotive industry

The automotive industry in the United Kingdom is still one of its largest. It employs 175,000 people in vehicle manufacturing and a further 675,000 in related automotive activities. Automotive manufacturing generates revenue of nearly £50 billion and tax revenues of £45 billion. In terms of international trade, the automotive industry, including engines, generates £25 billion sales – some 10% of UK exports while imports represent £37.5 billion. Spin-offs from the mainstream industry are as important as the in-your-face numbers represent. The automotive industry's practices, technologies, research and development, skills creation and associated international business and finance are all crucial elements.

Historical context

The United Kingdom had the world's second biggest automotive manufacturing base

In the 1950s, the United Kingdom had the world's second biggest automotive manufacturing base and was the world's top car exporting nation. That position has been let slip with the UK now twelfth in the car manufacturing league. Given the emerging 'automotive revolution', it will need to take positive steps to arrest this decline and secure its position in an increasingly global industry.

Manufacturing volumes

While manufacturing volumes have held up reasonably well, other countries have passed the UK as new facilities have been built at locations closer to the growing markets of Central and Eastern Europe, Russia, China, India and South America. The challenge is to respond proactively and beneficially to these dynamics.

The very global nature of the product, as with high-technology goods, means that global companies will seek to concentrate manufacturing in large economic units and distribute to markets – taking the logistics hit as an offset.

UK buyers have always had an outward-facing attitude to buying, and have been happy to buy quality car imports, particularly as there has been no major indigenous OEM for nearly two decades around which they might rally. Thus, today as much as 80% of cars sold in the UK are imported – although this is, in part, countered by a significant export market. Despite the lack of a global indigenous car manufacturer, the UK has held up well. Although car manufacturing has been largely in the hands of three global Japanese and two American players, the UK has more diverse ownership of its vehicle assembly than any other automotive manufacturing nation.

While productivity in some European countries may have risen more rapidly than the UK, there are still considerable benefits to be had in terms of labour quality and flexibility, a sophisticated and mature supply chain, logistics, a relatively stable political and economic regime – and the third biggest new car market in Europe.

Could there be a basis for a rejuvenated, refocused automotive industry in the United Kingdom?

In essence, could there be the basis for a rejuvenated, refocused automotive industry in the United Kingdom - and perhaps the financial and automotive tsunami we are now entering may just be the catalyst necessary to propel the industry forward positively? The industry is on the cusp of a major change in terms of propulsion and new technologies and is in a pre-competitive stage with a large number of players examining and participating in network partnerships.

Industry vulnerability – business migration

The UK automotive industry is vulnerable on a number of fronts. Consider some of most immediate concern;

- A shift to the east – to CEE, Russia and further east of automotive components manufacturing, to be near to new assembly facilities being built by the OEMs to supply these new markets. Manufacturing, close to the end-user, offers flexibility of supply and reduced logistics costs as well as the opportunity to influence design and re-engineering.
- The loss of headquarters – global or regional – whether OEM or major Tier One components supplier, means there will be a loss of ‘ownership’ of business and a subsequent gravitational pull to move with those headquarters and decision-makers. There is also a natural movement for component suppliers to move with their customers.
- The ultimate risk is that Research and Development, too, will move further. This is the key, the heart of the organisation – ideas, technologies, and future value-added revenue streams. Retention of these skills will become increasingly challenged as countries with new component and vehicle assemblies develop their own technologists and engineers to work on those products. Hence the challenge to put ‘clear blue water’ between the UK and those new, nascent skills bases.

Consequences of inactivity – contract to manufacture

The consequences of this strategic hollowing out of the industry – a sort of ‘technological cherry-picking, is that the United Kingdom has developed a unique automotive industry with a number of characteristics that may be found singly elsewhere, but, in total, are probably unique to the UK. Consider them;

The UK is very good at making highly-competitive products for other people

- There is vehicle manufacturing in the United Kingdom rather than a vehicle manufacturing industry. Thus, it is very good at making highly-competitive products for other people, who ultimately have little economic loyalty to the UK, particularly if there are more effective places to manufacture – and that effectiveness includes the cost of logistics as well.
- The UK is not necessarily the lowest cost of manufacture country on a long-term basis – perhaps it is at present, but part of that is due to currency fluctuations. Its benefits come through well-trained, flexible, good quality labour and a mature supply chain, all of which can be replicated over time by other countries. The UK advantage is one of time leadership – a few paces ahead of the chasing pack. The problem is being further compounded by the loss of intellectual property and research out of the UK, to be based near to the real decision points rather than close to assembly facilities.
- While the UK has flexibility in skills and working within its overseas-owned plants, the migration of markets and other elements of the supply and technology chains mean it is unlikely that further significant new production facilities will come to the UK or any other western European country.
- A major strategic challenge is, therefore, to maintain the current OEM and component activity to retain current assembly and component manufacturing. Such retention strategies need to be based on effective communication with the key players, the provision of services, support, labour and business environment they all demand – all in severe competition with other countries, currencies and governments.

To retain the automotive footprint and competitiveness will be a big challenge indeed; growing it significantly could, even for the most positive and optimistic, be regarded as an uphill task.

Realistically, the future of a viable automotive industry is dependent on being able to satisfy these demands. As noted previously, the industry supports 850,000 jobs and a globally competitive industry, even if that competitiveness is in specific niches. The demise of the automotive industry would represent an unthinkable doomsday economic scenario.

Centre of excellence – manufacturing, vehicle services and innovation

The United Kingdom probably has more than its share of strengths

In a global industry, few if any countries excel in every aspect of a particular industry. The same is probably true of the automotive industries. Yet, the United Kingdom probably has more than its share of strengths that can be exploited to retain and redevelop a major industry.

Some of these particular strengths apply to manufacturing, others are less easy to define in terms of modus operandi, while some give the UK automotive industry undoubted supremacy in vehicle service, support and management – albeit a difficult bundle of benefits to exploit internationally in terms of value for UK plc.

Consider some of these industry strengths – centres of excellence that may offer opportunities for future exploitation and development;

- Engine development and manufacture; the UK could be called ‘a preferred engine manufacturer to the global automotive industry’ three global players use the UK as a key base for their engine manufacture. How could that capability be widened and used elsewhere? Given the competitiveness of engine manufacture, why can’t these same skills be developed further in terms of vehicle assembly?
- Vehicle retail and company car and vehicle finance; the UK is the European, probably the world leader in these increasingly important fields. On the one hand, they support a highly-competitive new car market of 2.0 to 2.5 million units a year and on the other, a seven million used car industry. As a nation that prides itself on selling financial services, is there a way we could sell these services to a wider market?
- The United Kingdom is the undisputed home of the world of Motor Sport and the Grand Prix industry – yet much of it is either foreign owned or foreign financed. Is there unidentified or under-exploited leverage in this industry that might be used to create further technological and market opportunities?
- Some of the world’s most sophisticated and prestigious vehicles are designed and built in the UK, even if ownership no longer rests in the country. No other country can claim a portfolio as prestigious as Rolls-Royce, Bentley, Aston Martin, Jaguar, Land Rover, McLaren, and Lotus – albeit none of them are UK owned. Given the growing sophistication in terms of market niches and reducing product life cycles, there is a clear message here.
- A further and increasingly important plus-point for the United Kingdom is its inherent political and economic stability. While the country is about to enter what might be a deep recession, essentially it is a stable base for business development with no ‘nasty shocks’ of the sort that can easily deter potential investors.

The UK is the undisputed home of the world of Motor Sport

It is against these essentially positive issues that the UK needs to be viewed strategically. However press and politicians might deride the automotive industry, it has a lot running for it. The clear challenge is – how can it be fully exploited?

Challenges for exploitation – scope for (pre) competitive cooperation

There are a number of challenges to be faced

There are a number of challenges to be faced (explored later in this report) that the industry and government have to come to grips with, if the breaking automotive tsunami is to be overcome and a new dynamic sector emerge for the second century of the industry.

If the financial and now imminent manufacturing meltdown and repositioning that have appeared are to be countered, a number of critical issues need to be addressed urgently, yet strategically;

- Is the industry at a tipping point where exports might decline and the UK become essentially an 'automotive importing nation' with the associated implications for the balance of payment and jobs; or does it wish to continue as a significant player in the global automotive industry?
- If the UK content of cars assembled in the UK automotive slips further, will there still be justification for global vehicle manufacturers to continue to regard the UK as a viable manufacturing base?
- How can the inherent strengths in the UK industry, some of which have been outlined and others that are touched on later, be leveraged to add business and strategic justification to the industry in terms of building on iconic brands and the things the industry does well?
- How does the UK automotive industry retain and grow its skills base at all levels from the factory floor through technologists to engineers. How does it grow its engineering and technology base? How does it consolidate these skills into technological portfolios or create excellence in targeted, developing sectors?
- Is it possible to build IPR and value-added skills in a highly-fragmented and essentially independent industry through creating focus and attention – and investment on a number of highlighted industry sectors? Such emerging sectors as InfoTech, safety, new fuel sources among others.

In the absence of a range of UK-based Tier One players and headquarters, how might the UK create vehicles/mechanisms to sponsor research and development and technical development – with sufficient capacity and resource to fully exploit those activities?

Is there, or what might it take, to create an appetite among key players to consider investment back in the UK for R&D and development?

Government support – activism on key resource support for self help

Perhaps the most immediate support for the automotive sector is to release the log-jam in terms of finance for new and used vehicle sales. The recommendation is a simple one as shown in the bullet points below;

- Encourage finance sources to give high priority to releasing, prudently, funds for buyers to acquire both new and used cars and light commercial vehicles.
- Offer government support to 'pump prime' vehicle sales and support the retail motor industry and associated specialist businesses, while taking due care not to distort the market in the medium term or to prolong the weak market.

*Release the log-jam
in terms of finance
for new and used
vehicle sales*

In terms of motor manufacturers and the components sector as well as the technology consultancies, requirements are longer term to support structural change.

Is it possible for the UK to reverse the trend, and grow the value of its automotive investment?

Quite simply, is it possible for UK plc to reverse the trend and grow the value of its automotive investment, or is it merely going to look to protect the current level? Equally important, if the UK automotive sector is not to be amongst the leaders, what might be done to attract more Tier Two and Tier 3 players to develop those programmes in the UK, rather than follow strategic assembly to developing BRIC countries?

There is a rising social and environmental challenge emerging among global automotive players that could offer new markets and business opportunities. What, if anything, might the UK do to exploit these new opportunities that are currently at a stage of exploitation – and develop a new level playing field for the industry?

The UK is at a balance point. There is a challenge for its automotive industry, whether an assembler, a components or a technology player of businesses involved in the provision of vehicles sales and services. Does it want to restructure to compete successfully in the second century of the global automotive industry – or retire to a gentle backwater?

Equally, for government, there is a similar challenge. There will be many demands for funding and support to keep industries afloat. The automotive industry is not looking for a long-term subsidy to keep it afloat. Rather, it is looking for investment and support to enable it to reposition and be able to take on the best global competition in those areas where it has genuine strengths.

A series of actions requiring government support

A series of actions requiring government support are identified in the report. These are finite steps and not seeking subsidies to keep existing businesses afloat but to provide support for the industry to restructure for the 21st century. The challenge is a simple one – other national automotive industries have already opened negotiations with their governments for support to keep the existing industry alive and to help in reshaping for the future.

Specifically, the following requirements have been identified;

- Focus support during the critical phases of planning of model change to ensure retention of automotive manufacturing in the UK – including skills training, minimisation of bureaucracy and logistics enhancement.
- Support to identify needs for new technology in the automotive industry.
- Identify the skills required to be able to develop/exploit those innovative technologies.
- Identify the existing skills to be able to exploit those opportunities.
- Provide support to bring together those skills and businesses to create suitable organisations to exploit the opportunities

- Continue the support as long as necessary to achieve independence.
- Provide the necessary financial support for these actions – with a realistic payback period.

Or is the United Kingdom to slip into a quiet backwater?

Quite simply, is the UK automotive industry to become a powerful force in terms of leading edge technology – or is it to be allowed to slip into a quiet backwater and buy all its requirements from overseas – with the financial, cultural and employment implications that will bring?

Discussions should continue between the industry and government to determine the most effective way to move the automotive industry forward.

Government support initiatives for the automotive sectors must be tightly focused to ensure they achieve strategic industry development and competitive objectives, and must not suffer accusations of supporting short-term political objectives. Strategic development support takes a broad spectrum of formats; can be expensive and the results may take time to come to fruition. However, one hopes that lessons have been learned from historic short-termism and the demise of a once global leading industry.

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Chapter 1

The United Kingdom Automotive Industries; Status, Economic Recovery and Expectations

The United Kingdom was the world's second biggest manufacturer of motor vehicles

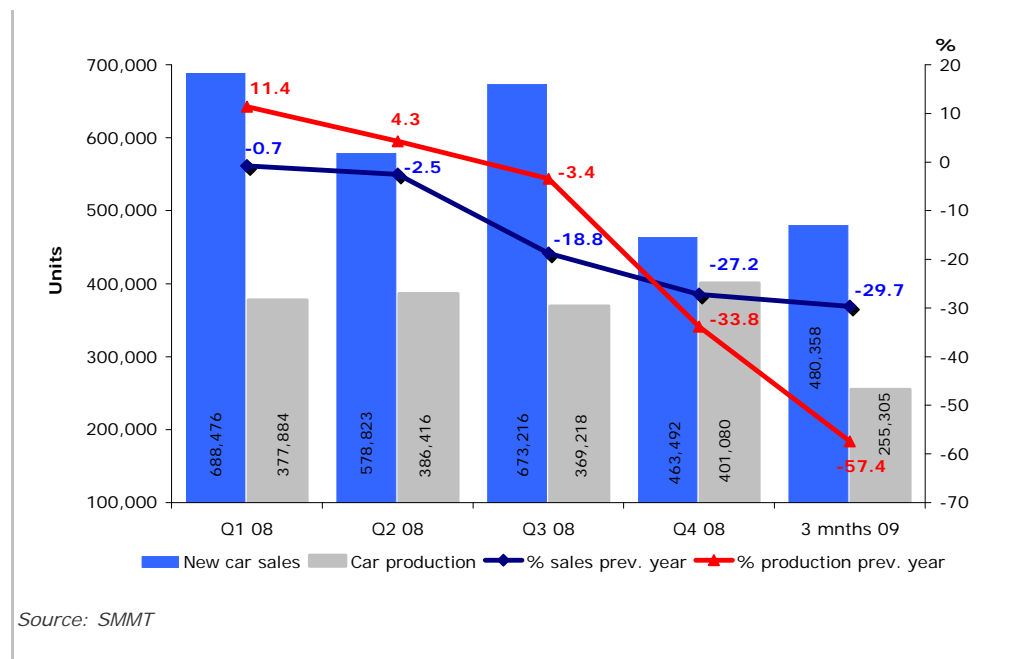
Within the business career of many readers of this report the United Kingdom was the world's second biggest manufacturer of motor vehicles and the world's biggest exporter of cars. That position has slipped; today the UK is the twelfth largest vehicle manufacturer and still a major exporter.

This report must start with a caveat. It was researched and written over eight months between late summer 2008 and March 2009. During this time, the global automotive industry has experienced an unprecedented collapse in sales and manufacturing greater than any other period in peacetime.

As such, the report has been rewritten several times and, when finally completed at the end of March 2009, could well be designated still 'work in progress'. Such is the speed of change throughout the automotive industry, that some issues will inevitably be overtaken by events before the report is published.

Change has come rapidly to the United Kingdom, and indeed the global, automotive industries. Figure 1.1 below shows the speed that vehicle sales and manufacturing have declined over a two year period. The implications of these changes for the industry, economy and working population are spelt out in more detail as the report unfolds.

Figure 1.1; UK new car manufacturing and sales 2008 vs. 2007 (Jan/Mar 09)



The writing team would beg your indulgence in terms of keeping the analysis up to date, but a decision had to be made to go to print in this period of unparalleled change. As a result, the report has sought to focus on the medium and longer-term, although sections of the report do focus on the short-term debate. It has been difficult to achieve a balance between the different levels of concern and analysis.

Background to the report

This report, commissioned by the Society of Motor Manufacturers and Traders (SMMT) and other industry representative bodies, has been researched and written independently by the automotive team at The University of Buckingham Business School with support from the KPMG automotive group – together with the generous help and input from a wide spectrum of individuals and organisations within the UK automotive industry.

It has been written as a review of a complex, multi-faceted industry and targeted for a broad non-specialist readership. It seeks to be an independent, thought-provoking statement of the status and future of the wider automotive sector in the UK, which is readable and accessible for all those with an interest in the development and future of the industry.

The report has also sought to reflect the inputs and discussions with other key industry trade bodies – and in particular the RMIF and the IMI, especially in areas of distribution and retail and the relevant skills agendas in these sectors.

As such, the views and expectations expressed in the report are not necessarily those of the SMMT, the RMIF or IMI, but which members of those bodies and the industry in its widest context will recognise as relevant.

Objectives

The principal objectives of the report might be summarised as follows;

- To review objectively the historic, current and anticipated status of each of the principal sectors of the UK automotive industry.
- Based on the analysis, highlight actions required to retain and enhance the position of the UK automotive industry and build on its strengths for the 21st century.

To highlight the potential impact of the recession now sweeping the UK economy, and suggest how the impact on the automotive sector might be contained so the United Kingdom emerges with a viable and vibrant motor industry at the end of the recession. The report has been written for a broad readership and as a basis for debate regarding the future of the UK automotive industry rather than as an internal document.

As such, the authors have been relatively sparing in the amount of statistical material presented in the report and have sought to present findings as graphically as possible. However, the analysis and findings are solidly supported by a plethora of analysis and statistics.

Principal findings of the research

The writers have taken the approach of writing a comprehensive and extended Executive Summary which is designed to stand alone. Thus, rather than repeat the exercise, we would ask, if you have not already done so, that you treat the Executive Summary as a comprehensive summary of the whole document.

Methodology

The report is broad in its objectives and the areas to be covered, while the methodology has sought to utilise the following resources and contacts in preparing the study;

- EU and UK government data and statistics prepared by ONS and other government agencies as well as department specific reports and analyses.
- Extensive review of studies, analyses and reports regarding the total industry and individual elements.
- Original field research and interviews undertaken for the project by the Automotive Group at KPMG. This included face-to-face and telephone interviews with a wide range of senior executives in the automotive industry. These findings have been interpreted by the writing team at Buckingham.
- The report was written by members of the Centre for Automotive Management at The University of Buckingham and subject to peer review.

The report has sought to span the whole automotive industry

The report is possibly unique in that it has sought to span the whole automotive industry from product development through manufacture and distribution, operational support to used vehicle operations, and eventually end of life.

Too often an industry, as complex as the automotive sector, is broken down into its individual elements – components; manufacture and assembly; sales; service and support and used vehicle disposal – rather than treated holistically with each element of the industry depending upon its relationship with the other sectors. Long-term problems in one sector can all too easily influence associated sectors – causing longer-term problems.

Report format

The report is split into five principal sections as follows;

- **Global Automotive Industry;** a chapter that seeks to show the historic growth of the industry and its globalisation, as well as identifying the position of the United Kingdom within the sector.

- **UK Manufacturing Industry;** these three chapters focus on the manufacturing elements of the industry – Original Equipment Manufacturers (OEMs) or vehicle assemblers and component makers. Manufacturing is considered to be a global industry with the risks and benefits that globalisation can bring both to the principal players and their customers.
- **UK Market;** these chapters review distribution and channels to market, together with service support, vehicle finance, fleet and leasing, used vehicle disposal and the used vehicle market. While it is accepted this is essentially a domestic industry that cannot easily be exported, these UK markets are considered by many to be the most competitive market in Europe – possibly in the world.
- **Future Developments;** the fourth element of the report considers some of the key issues of automotive industry sustainability and the possible opportunities and policies for further profitable development of the sector through enhancing competitiveness on a sustainable basis. This section of the report makes both recommendations to government and to the industry with regard to its survival in the short term and future development.
- **Principal Conclusions and Implications;** a short chapter wrapping up the report with the principal conclusions and implications of the study, also highlighting requirements for government support to restructure and refocus the UK automotive industries.

Within each of these stand-alone chapters, an attempt has been made to follow a broadly standard chronology and layout.

Chapter summary

For the sake of completeness, the following paragraphs briefly summarise each chapter. Further guidance to the contents of the individual chapters is presented as short bullet points at the beginning of each chapter.

- **Chapter 2;** seeks to set the global automotive industry in context. The principal conclusions are that the industry is steadily migrating away from its long-term power bases of North America and Western Europe. While these areas will remain important as markets and as manufacturing bases, the emerging markets of the so-called BRIC countries – Brazil, Russia, India and China are fulfilling an increasingly important role in terms of lower-cost manufacturing and as growing end user markets.

The chapter also shows how the United Kingdom has slipped from being the world's biggest exporter and second biggest assembler to twelfth position in the global vehicle production table.

- **Chapter 3;** examines the contribution of the motor industry to the UK economy on a historical basis, It highlights other issues such as failure to recognise emerging trends and opening the back door to allow Japanese manufacturers to enter.

The industry is steadily migrating away from its long-term power bases

The chapter concludes that the industry's UK ownership roots were lost partly due to policy errors, weak business models, failure of management, union militancy and through the dominance of the domestic industry and market by two American players. There are many parallels with the current crisis in the automotive industry in North America.

- **Chapter 4;** considers the current situation of the UK assembly and components industry. The two are closely interrelated and it would be pointless to try to separate them. The critical issue, from an industry development point of view, is that vehicle manufacturing is owned almost entirely by overseas companies – Japanese, German, American, Russian and Indian – with alas no British players among the country's volume assemblers.

The components industry is highly fragmented and many companies are small

In terms of the components industry, it is highly fragmented and many of the companies are small. There has been a tendency for engineers to move between business enterprises in the component sector.

- **Chapter 5;** explores the operational issues of the assembly and components industries and highlights some of the critical issues regarding the credit crunch and imminent recession.
- The chapter highlights the risk of OEMs cutting orders with their tier suppliers, risking the latter going out of business because they do not have the financial strength to stand on their own without a steady throughput of business.
- **Chapter 6;** considers distribution in the UK market and concludes that it is probably the most developed and competitive market in Europe – if not the world. While volume-wise the UK domestic market has been buoyant for some years, the past 12 months has seen a significant fall in sales and, given the shortage of credit, volumes have come under further severe pressure.

Dealer groups have developed over the past decade, with the top 100 now dominating the industry. However, margins have become increasingly tight, service intervals extended and cars ever more reliable, squeezing traditional dealer profit opportunities. Increasingly, dealers are turning to selling soft services like finance, insurance and warranties. The credit crunch has brought problems for this sector as 90% of vehicles are acquired using some form of external finance/credit. A special concern is that there are close to 70,000 businesses in this sector – the bulk of them employing less than 20 people. Many must be at risk in an economic downturn without some form of financial support.

- **Chapter 7;** looks at the fleet and leasing sector of the industry. Cars run on the business represent well over half of the new car market, while leasing and contract hire accounts for around half of such units in operation. The principal players in the leasing sector are owned by banks or car manufacturers' captive finance houses.

However, the threat of recession, the drop in new car sales and shortage of finance for the used car market have driven down residual values of cars returned at the end of their contract.

Jobs and mortgage payments are the highest priorities and cars come later

Chapter 8; Private Finance; the crackdown on easy finance from banks is causing serious problems. While demand for new and used cars is probably there, credit through banks is not so readily available. Jobs and mortgage payments are the highest priorities and cars come later. While OEMs' finance houses are making up some of the discrepancy, this source of funding focuses principally on new cars.

- **Chapter 9;** reviews the used car market. Few cars are run by one user throughout their useful lives. Thus, every new car eventually becomes a used car and, until it is sold, the equity cannot be released to buy a new or newer car. In volume terms, the UK used car market is around three times bigger than the new car market, and the value of the used car sector was slightly larger than the new car market value in 2007. Credit availability, VED and fuel prices are all pressurising residual values - hence the appeal, or otherwise, of buying and selling used cars.
- **Chapter 10;** Motor Sport; presents a short, thumbnail sketch of this sector, the special issues and concerns for its future development and the possible role model it might hold for the development of other automotive technology sectors. As with other industry sectors, motor sport appears to be entering a period of rapid changes.
- **Chapter 11;** Environment and Sustainability; outlines the efforts being made by the industry to minimise the carbon footprint through the stages of vehicles' life, and highlights areas for sustainable development. Importantly, this chapter also highlights some of the development opportunities which offer the UK automotive industry the opportunity for future consolidation and strategic growth, following restructuring.
- **Chapter 12;** Future of the Industry; reflects on the strategic requirements necessary to bring the industry up to speed as a major player once more. In the short term, it is unlikely to be able to generate a new major British OEM.

There is the basis for the UK to become a major player in new technology development

However, there is the basis for the UK to become a major player in new technology development. This will require industry consolidation and positive support to encourage a greater number of engineers to seek a career in manufacturing and companies to work together to form sustainable critical masses in the industry.

- **Chapter 13;** seeks to summarise the support required by the principal elements of the UK automotive industries. These requirements have been split between short and medium-term – the most immediate requirements, and the longer-term requirements to hasten the restructuring of the industry to become a global technology leading industry.

- **Chapter 14;** Implications and Actions; seeks to pull together the highlights from the individual chapters and set out the actions required by industry and government to redress the slippage in economic importance of the UK automotive industry. This chapter also spells out the short-term and medium/longer term requirements for government assistance to restructure the automotive industry.

Some initial conclusions

This opening chapter has sought to summarise the structure and format of the report. Also, to highlight the principal issues that might assist in the recovery and redevelopment of the UK automotive industry – if not as a major OEM within the current industry model, but a major global player developing and providing the new technologies required to take the industry into its second century – and the era of minimal emissions and new technologies.

Chapter 2

Global Automotive Industry in Context

The global automotive industry is moving east. There is a tectonic shift in the industry; as demand for new vehicles for first-time, often lower-income buyers accelerates in new markets, while demand in mature markets is principally for replacement units.

Real power in the global automotive industry once rested with the 'Big Three' in North America. However, industry myopia, market invasion, product isolation and failure to respond to a changing market, saw that initiative move firstly to Europe and then to the Far East. The centre of the global automotive industry is now Japan with its 'Big Three'. Ultimately, that may move to China where industrialisation and rising incomes could soon create the biggest automotive market the world has ever seen. While such change may be moderated by the credit crunch and a slipping economic growth rate to perhaps 6% per annum, it will continue.

China will not be alone in this tectonic shift

China will not be alone in this tectonic shift; there are fast-growing automotive industries and markets in India and Russia, and a dynamic industry in Brazil. One as yet unanswered question is will these markets be dominated by existing global players (whoever owns them at the time), or will new, currently insignificant or even not yet existent companies emerge to rule the automotive industry?

Older, more mature manufacturing markets will continue to be important as long as there is demand. However, their focus and strength will be innovative technology, and design as they seek to defend and retain their manufacturing capability. To counter higher costs, their strategy will be high productivity, flexibility and high value-added services.

For every nation involved, automotive industries' strategic opportunities split into three parts;

- Technological, new product development; component development
- Vehicle assembly
- Vehicle distribution, sales and marketing; finance; operations; service and repair and maintenance,

The first two groups are truly global and can migrate between countries; the third element is tied to the point of delivery – although an increasing range of services required to manage and operate vehicles can be outsourced internationally; that range of services is likely to grow.

The critical issue, from the automotive industry, economic and political viewpoint is that all of these elements are part of a supply chain and, like any chain; it is only as strong as its weakest link.

Global industry development

Historically, automotive industries were the bailiwicks of North America and Europe

Historically, automotive industries were the bailiwicks of North America and Europe as they represented the major markets as well as the principal design and manufacturing bases. That changed during the 1960s and 1970s with the growth of new markets and Japanese manufacturers supplying vehicles to both North America and Europe. Such were the geographic and logistics implications that manufacturing in or close to these market blocks was logical and was also welcomed as substantial inward investment and employment. Between 1950 and 2007, global vehicle production grew by 680% although it slipped back in 2008.

Figure 2.1; Global production car and commercial vehicles 1950 – 2007

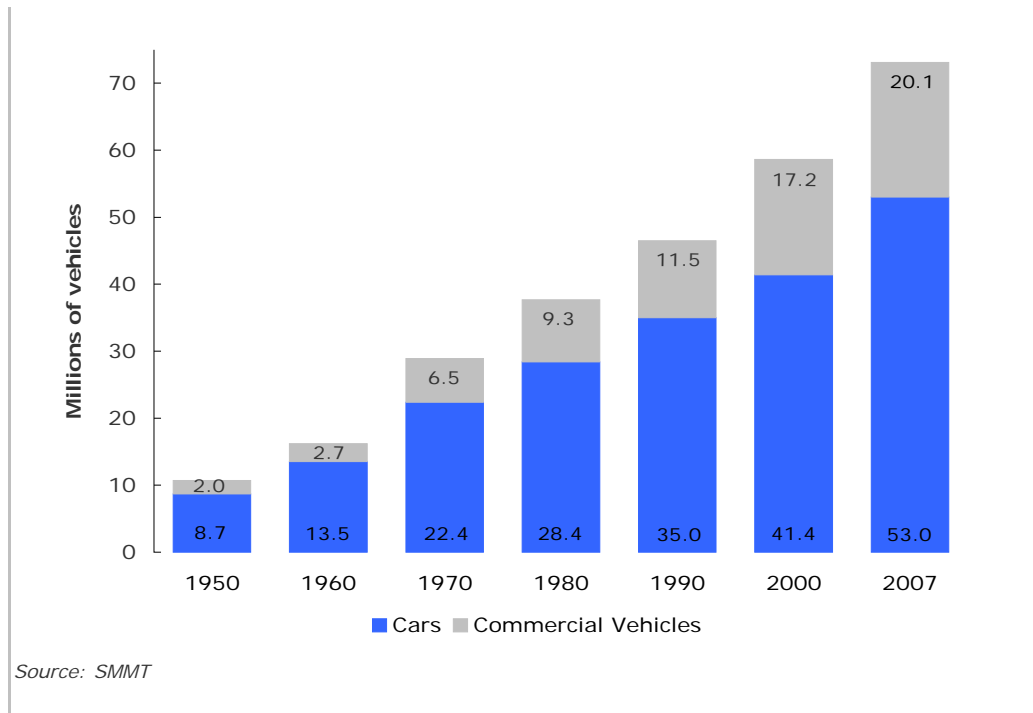


Figure 2.2 shows the growth in manufacturing between the principal ‘mature manufacturing nations’ over the past 50 years.

Figure 2.2; Principal production car and commercial vehicles; 1950 – 2008

1000's	UK	France	Germany	Italy	Japan	Canada	USA	Spain
1950	784	358	306	128	32	390	8,003	-
1960	1,811	1,369	2,055	645	480	396	7,869	-
1970	2,099	2,750	3,842	1,855	5,289	1,194	8,284	539
1980	1,313	3,378	3,879	1,611	11,043	1,374	8,370	1,182
1990	1,566	3,769	4,977	2,121	13,487	1,926	9,886	2,053
2000	1,814	3,318	5,527	1,738	11,145	2,962	12,777	3,033
2007	1,750	3,016	6,214	1,284	11,596	2,578	10,781	2,890
2008	1,650	2,568	6,040	1,023	11,564	n/a	n/a	2,542

Source: SMMT/ACEA/OICA

The United Kingdom was second only to the United States in terms of vehicle production

In 1950, the United Kingdom was second only to the United States in terms of vehicle production, dwarfing Japanese output and more than twice that of Germany. By 2007, the UK had slipped well down the car and commercial vehicle production league – outpaced by Japan and the USA on the world stage.

During that period, UK vehicle production grew by close to two and a quarter times, German production grew by more than 20 times, while French production grew by more than eight times and Spanish vehicle production grew from zero to over 2.8 million units a year.

Figures 2.3 and 2.4 show 2007 world motor vehicle and passenger car production figures, the last year complete comparable data is currently available.

The first chart shows that the EU accounts for 26.9% of all motor vehicle production; while NAFTA (North America) accounts for 21.1%, Japan 15.9% with China, in fourth place, with 12.2% of global output.

Figure 2.4, dealing with world passenger car output puts the EU at 32.2%, Japan at 18.7% – with NAFTA and Japan almost neck and neck at 12.2% and 12.0% respectively.

The difference between the shares for world vehicle production and passenger cars, particularly the North American variation, is caused by US buyers' penchant for pickups, SUVs and 4x4s, which are not classified as passenger in the US.

Vehicle production is only half of the story. Figure 2.5 overleaf shows just how vehicle sales have grown between 2006 and 2007 with the major growth coming in Asia and Brazil.

Figure 2.3; World vehicle production (% share) 2007

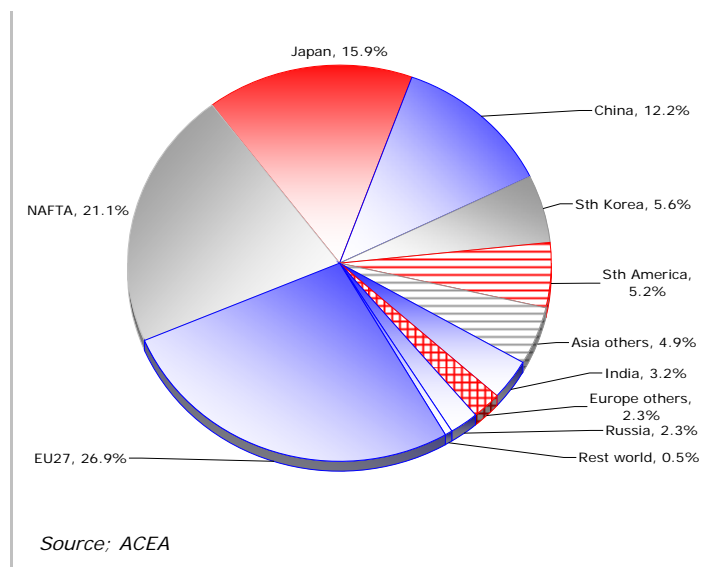


Figure 2.4; Passenger car production (% share) 2007

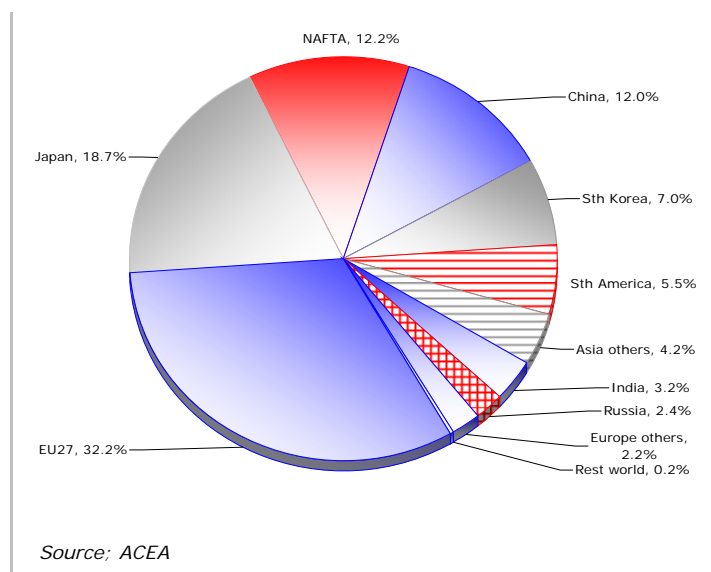


Figure 2.5; World new vehicle registrations 2007 vs. 2006

	2006	2007	% Share	% Change
Europe	18,322,820	18,670,832	28.2	1.9
EU15	16,640,122	16,747,632	25.3	0.6
EFTA	476,988	518,546	0.8	8.7
EU10+2	1,205,710	1,404,654	2.1	16.5
Eastern Europe	3,395,364	4,084,887	6.2	20.3
America	22,281,639	22,329,406	33.7	0.2
NAFTA	19,893,606	19,298,365	29.1	-3.0
of which USA	17,046,981	16,460,405	24.9	-3.4
Mercosur	2,388,033	3,031,041	4.6	26.9
of which Brazil	1,927,547	2,466,115	3.7	27.9
Asia	17,822,135	19,372,545	29.3	8.7
Japan	5,739,507	5,353,945	8.1	-6.7
South Korea	1,218,008	1,292,012	2.0	6.1
China	7,215,525	8,791,528	13.3	21.8
India	1,751,263	1,988,955	3.0	13.6
Other	1,897,832	1,946,105	2.9	2.5
Rest of the World	1,708,918	1,765,157	2.7	3.3
Total World	63,528,068	66,222,745	100.0	4.2
United Kingdom	2,734,360	2,799,620	4.2	2.4

Source: ACEA/SMMT

Figures 2.6 and 2.7 below highlight the new car market prominence of the enlarged EU compared with the traditional supremacy of North America.

Figure 2.6; World vehicle sales (% share) 2007

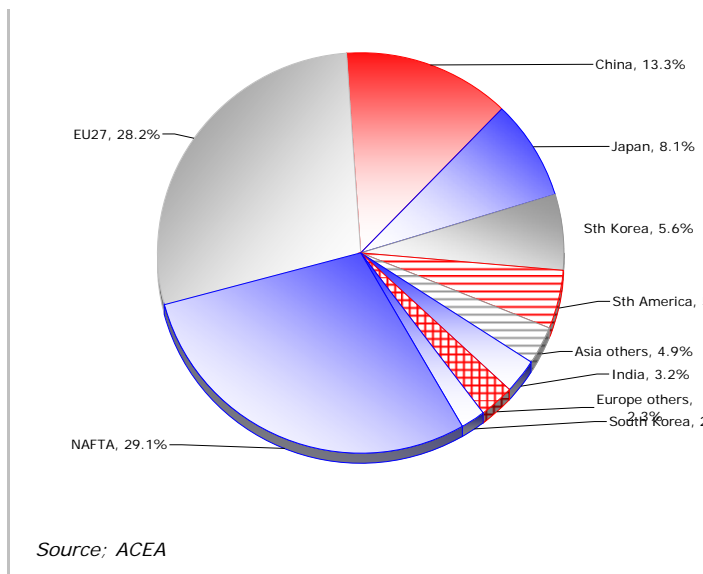
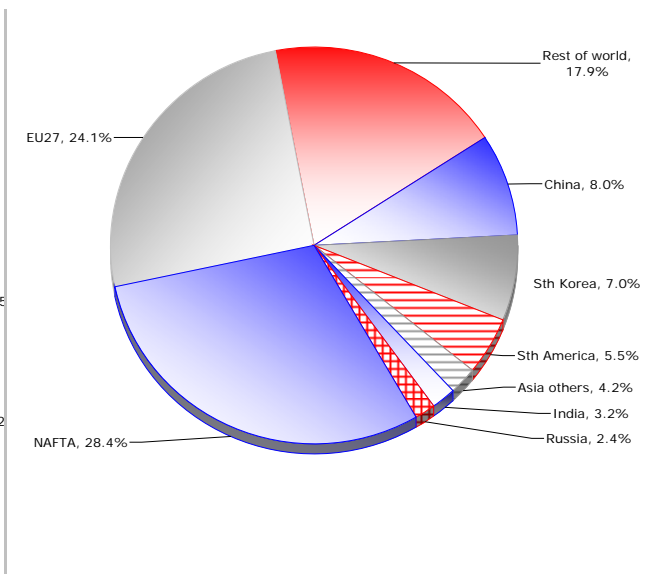


Figure 2.7 Passenger car sales (% share) 2007



Global automotive manufacturers' logical and economic strategy was to set up manufacturing capacity near to growing markets, to cut logistics costs and respond quickly and cost effectively to market changes and operational demands.

There is currently 20-25% excess vehicle manufacturing and assembly capacity

While the challenge for vehicle manufacturers may have been to balance supply and demand for vehicles, it could be claimed they have not totally balanced the equation. There is currently 20-25% excess vehicle manufacturing and assembly capacity, with further new plants still being built.

Part of the excess capacity is in redundant locations because markets have moved, the wrong product has been built there, it is not economic to reconfigure the plant, or production costs would be uneconomic as the plant does not meet modern production strategies.

There has been a political and labour relations challenge to close older plants and release the equity. However, governments, politicians and trade unions have sometimes lobbied for support to retain otherwise redundant plants to protect employment at either manufacturers' or governments' expense.

The challenge of redundant plant may be further exacerbated by the development of new ultra low-cost cars such as the Dacia Logan owned by Renault. While this was initially planned as a 'developing markets product', if rumours are to be believed, it could be sold in western Europe. Equally, Tata Motors has just launched the Tata Nano in India – at a retail price of \$1,400 – and indicated that the company is now working on European and North American versions. One must expect further competitive models to be launched.

Close to markets

The outcome has been to build plants to supply new markets close to these markets

Wherever possible, the logical outcome has been to build plants to supply new markets on sites close to these markets. New European plants have focused on Central and Eastern Europe in the past few years and more recently Russia, where nearly all of the global players have added or share new facilities, principally for smaller cars. It is still an industry in migration.

Figure 2.8; Stakeholders in automotive manufacturing

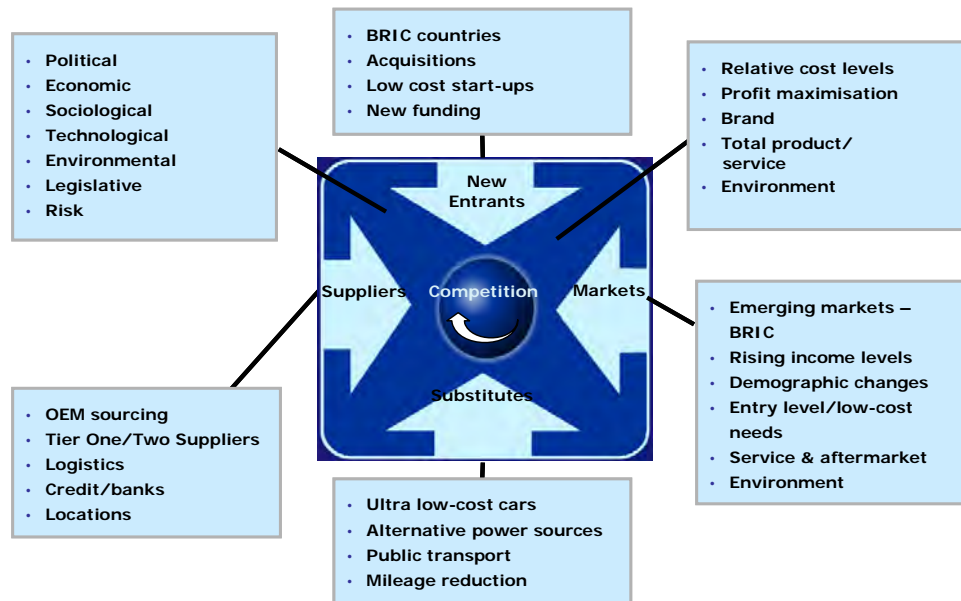


For illustrative purposes only

Figure 2.8 highlights some of the stakeholders in automotive manufacturing. This paradigm provides but a flavour of the complexities, pressures and counter pressures that might be brought to bear on the establishment or retention of an automotive manufacturing facility.

While the stakeholder analysis may be a shorthand way of illustrating the complexity of interested parties in a manufacturing plant, it represents but the tip of the iceberg. Figure 2.9 outlines some of the principal drivers for change that might affect the industry and contribute to the dynamics of the sector.

Figure 2.9; Drivers for change on the global automotive industry;



For illustrative purposes

Where are new markets and manufacturing developing?

Figure 2.10 highlights some of the strategic new markets automotive manufacturing is migrating to, and summarises the current rationale for the migration. While global recession might delay these shifting patterns, they will surely emerge again as the global economy regains momentum. Over time, the rationales will change as relative cost levels and market maturity evolve.

Figure 2.10; Developing automotive industries and markets

Market	Source of emerging wealth/market growth
Central/Eastern Europe	EU membership; lower labour costs; rising incomes; growing markets
China	Lower manufacturing costs; exports; growing individual wealth; new demand
India	Lower manufacturing costs; growing individual wealth and rising demand for cars
Russia	Liberalisation of trade; growing energy revenues and growing individual wealth; rising demand
Brazil	Natural resources; rapid industrialisation and growing personal wealth
Caspian Basin	Energy and other raw materials; rising private wealth

For illustrative purposes only

The Chinese market could grow to some 10 million units by 2010

Before the current financial downturn, widely available forecasts were suggesting that Chinese middle-classes would be in a position to start buying entry-level cars in 2009, and that the Chinese car market could grow to some 10 million units by 2010, and twice that a decade later. Economic downturn will certainly slow down that rate of growth, but not stop it. With the economic downturn, that may have cut China's industrial growth rate to a 'mere 6% year on year', and created 20 million unemployed, such figures may be delayed – but not stopped.

The Russian market is forecast to be 5.2 million units by 2012, of which 4.6 million will be new foreign models. Indian car and commercial production was 1.95 million and sales 1.75 million in 2006 and is predicted to increase by 21.6% in the next year with, over time, a move from motor bikes and motor scooters, initially to ultra low-price cars to add to the congestion.

The balance of the industry is moving east

One needs look a little further to understand why the balance of the automotive industry is moving to the east within Europe. Figure 2.11 shows how the production of cars and commercial vehicles is likely to develop in Europe. While mature players are forecast to show a modest increase in production levels, real growth is expected to be in Central and Eastern European countries.

Real growth is expected to be in Central and Eastern European countries

Figure 2.11; Automotive manufacturing migration; cars and commercials

	2005	2013	2013 vs. 2005
Country	mill/units	mill/units	%
Germany	5.2	5.5	6
France	3.5	3.7	6
Spain	2.6	2.5	-4
United Kingdom	1.8	1.7	-6
Italy	1.0	1.3	30
Other old EU	1.8	1.8	0
	15.9	16.5	4
Russia	1.2	1.7	42
Czech Republic	0.6	1.0	67
Poland	0.6	0.9	50
Turkey	0.8	1.0	25
Slovenia	0.3	1.0	233
Other	0.6	0.7	17
	4.1	6.3	54
Global	62.6	72.6	16

Source: KPMG/Buckingham

While the turbulence in the global economy and automotive industries mean these figures will be quickly outdated, they do give a clear indication as to how Central and Eastern Europe are becoming increasingly important manufacturing bases for the automotive industry.

UK automotive industry in context

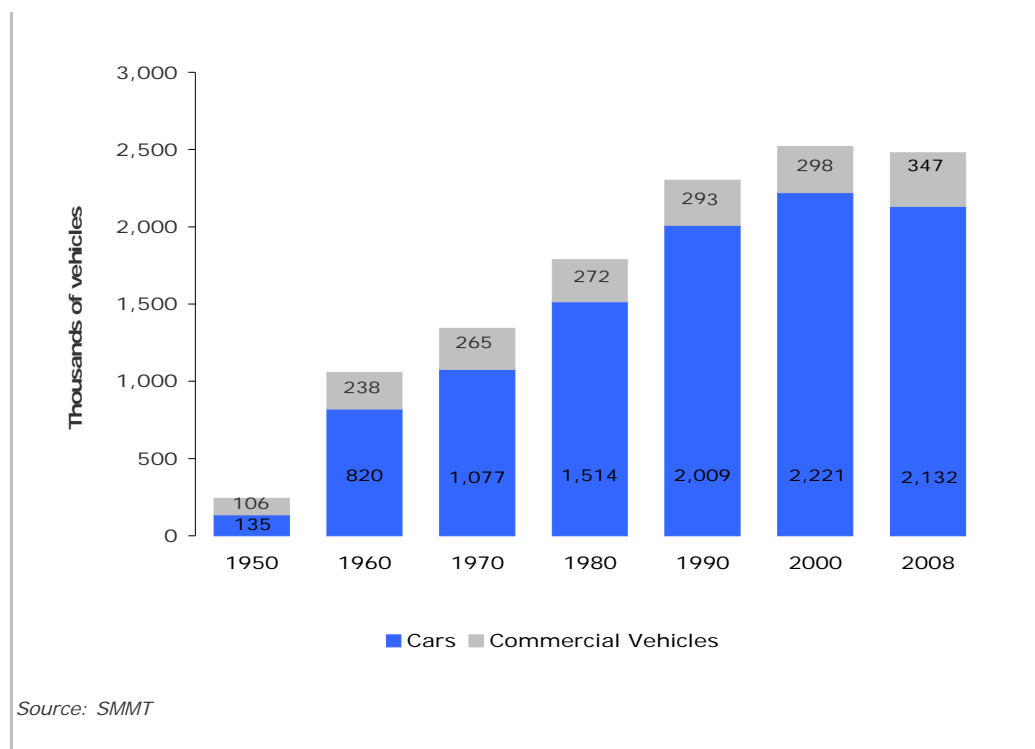
As shown in Figure 2.2, the United Kingdom was once the world's second largest producer of new car and commercial vehicles. It was also the biggest exporter of new cars, perhaps more by luck than strategic planning. North American products were developed for local demand and had relatively few export markets.

The very success of the British automotive industry was perhaps its Achilles Heel.

The very success of the British automotive industry and its ability to adapt to global pressures was perhaps its Achilles' Heel. Both the market and manufacturing was dominated by three players which once accounted for more than 80% of the car market. Two of these players, Ford and Vauxhall, were American.

The third, ultimately British Leyland, amalgamated into a single national automotive champion with more hope than direction in business synergies, management focus and union realism on industrial cooperation.

Figure 2.12; UK market car and commercial vehicles; 1950-2008



In the 1970s and early 1980s the UK economy suffered through lack of strong economic direction and labour militancy, nowhere more than the motor industry. Not only did this badly affect order fulfilment, it also hugely damaged vehicle quality, leaving the domestic market wide open to imports – and export markets at the mercy of competition.

During this period, the two global US manufacturers embarked on a strategy of Europeanisation that ultimately led to them to move their power bases to mainland Europe, to compete with new players from across Europe and the far east – initially Japan and later Korea – where next?

One might argue who or what was responsible for the demise of the British-owned automotive industry

One might argue endlessly on who or what was responsible for the demise of the British-owned automotive industry. It is tempting to look no further than 'political consolidation to get it off the government balance sheet', by pushing traditional British manufacturers Austin-Morris, Jaguar, Rover, Triumph and others to form the British Leyland Motor Company in 1968, which was partly nationalised in 1975.

After a short period in the hands of British Aerospace, the remaining Rover Group business was sold to BMW, the German prestige car manufacturer. In turn, BMW felt the company did not fit within its strategic portfolio and, while retaining the MINI and its manufacturing base at Cowley, divested itself of the remaining operations.

Longbridge together with the Rover and MG marques were subsequently bought by a consortium of Midlands' businessmen on the semblance of protecting jobs (MG Rover). This ultimately went bankrupt in April 2005, to be taken over by Nanjing Automobile. One wonders what might have happened if the alternative private equity bid had been allowed to acquire the company, with its plan to prune it and work from a smaller base.

Jaguar was acquired by Ford Motor Company in 1990, followed by Land Rover in 2000 – two iconic brands that fitted into Ford's global strategy at that time, as did the purchase of two niche prestige marques, Aston Martin and Volvo Cars.

Ford has now sold Aston Martin to Middle East interests and Jaguar and Land Rover to Tata, the Indian multi-national holding group and car maker. Rumours abound that it is in negotiation to sell Volvo to Chinese interests.

To complete the picture, at the time of writing, Gaz, the owners of the van maker LDV, are understood to be seeking to divest themselves of the company.

Whether these divestments can be blamed on the economic downturn or whether it is merely acting as a catalyst, there is a message emerging of an industry whose ownership is 'moving to the east'.

The UK automotive industry could claim to have reinvented itself over the past 15 years

The UK automotive industry could claim to have reinvented itself over the past 15 years. While there are no longer any British-owned volume manufacturers, the UK plays host to 19 of the world's top-20 industry suppliers and vehicle assemblers.

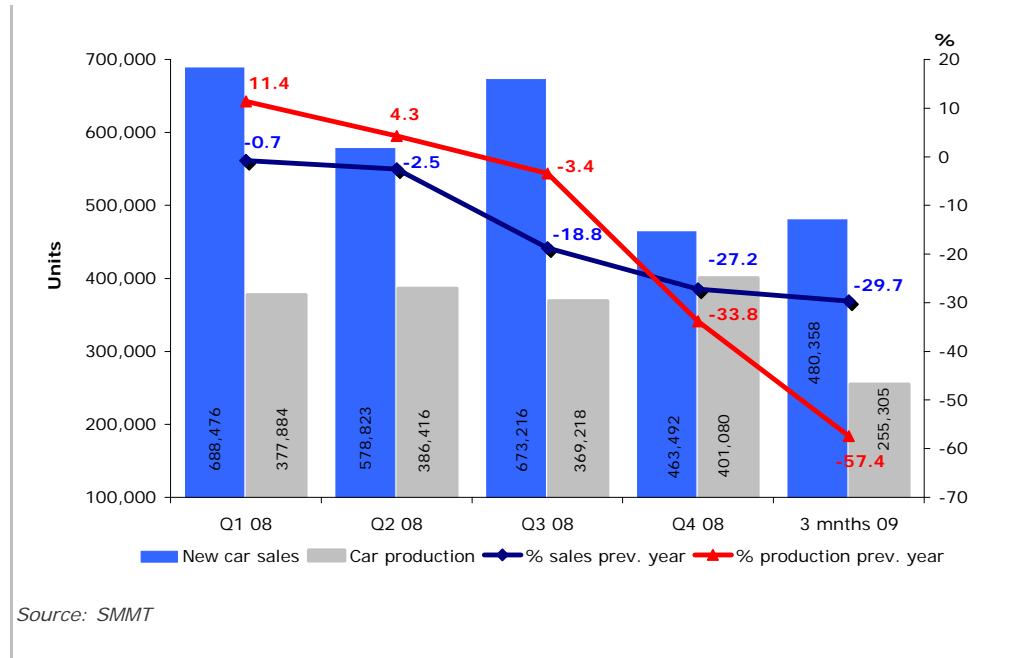
As will be seen later, the UK is emerging as a 'post global automotive industry player' with assembly, technological development and design engineering – all supplying the rest of the world.

Historic implications of economic downturn

The UK automotive industry has had more than its fair share of economic recessions, some of which were caused by government trying to use the industry as a lever of economic management in the 1970s. The current downturn, principally driven by a lack of credit for component suppliers, OEMs and buyers, would appear to be a severe one. Economic forecasters seem to be divided as to whether the recession will be a 'short V recession' or a longer 'U recession'.

The immediate impact of the recession can be seen in Figure 2.13 below which shows UK vehicle production and sales on a quarterly basis for 2008 and the first three months of 2009.

Figure 2.13; UK new vehicle manufacturing and sales 2008 vs. 2007 (Jan/March 09)



Implications for government

The automotive industries in the United Kingdom is split into three distinct areas when one considers industry protection and recovery, as noted below.

Without being able to turn the clock back, there is little government can do about changes that have already taken place. However, to ensure the United Kingdom emerges from recession with a viable automotive industry, support needs to be considered for three distinct elements of the industry. Consider them;

Support needs to be considered for three distinct elements of the industry

- **Components industry;** the Tier Two and Three players – suppliers to the international sub-system builders and the vehicle assemblers are especially vulnerable as they are often SMEs dependant on their automotive clients for the lions’ share of their business. If the OEMs stop production, these smaller companies will loose their client requirements too. As such their cash flows will suffer dramatically and they may be forced to lay off workers.

Essentially these are well-managed, viable businesses but short term without clients. The nature of the integrated supply chain in the automotive industry means that if any of the key players are lost, the OEMs may, in future, have to source from outside the UK – with all that that entails. Specific support is required for this group of players so they will be able to update and continue when production restarts. Financial and other support requirements are discussed later in the report.

- **OEMs** – vehicle assemblers and Tier One players; essentially the international companies in the sector. These are the big industry employers, ones where political focus tends to rest. In almost all cases, at the time of writing, these businesses have moved to short-time– or have even shut down production totally, in some cases for several months. Requirements here are for the OEMs and Tier One players to be able to keep their workforces intact – and to be able to kick start production.

However, the kick-start situation is complicated further by around 80% of new cars manufactured in the UK being exported. To kick start the market would, by implication, indicate kick starting elsewhere in Europe by whatever means.

The situation in the UK and Europe is totally different to North America

The situation in the UK and Europe is totally different to North America. In Europe, vehicle assemblers are highly competitive and with attractive product ranges; their requirement for support is until the industry can rebuild sales. In North America, on the other hand, financial support is required by the indigenous players to update their products so that buyers will actually want to purchase them at all.

- **Retailing and Distribution;** the third prime strand of the automotive industry requires assistance to rebuild sales to generate cash flows and profit opportunities. If the government were to kick start new car sales through some form of financial stimulus, then about 75% of those cars will be imported. Politically, that may be difficult.

Maybe, as will be explored later, any financial stimulus needs to promote the acquisition of used cars up to say five or six years old – as well as new cars. By promoting used car sales, those units will require refurbishment and offer business opportunities to the SMEs which comprise the bulk of the retail motor trade. If the financial stimulus comes through incentives to scrap the oldest cars, there will be potential emissions benefits too. But, as will be examined later, there may be credit availability issues too.

Perhaps the message from this chapter is that government should look at the shape of development and seek to get ahead of the curve, rather than trailing and responding with too little – and much too late.

The administration should look at individual larger companies and industries where there is a risk of those principals being sold to international organisations who would seek to ‘reduce costs by centralising head offices’ – and so, De facto, take decision-making out of the country. Protection of domestic ownership is important.

The loss of decision-making can have a rapid knock-on effect

The loss of decision-making can have a rapid knock-on effect on a company, and an assembly operation becomes little more than that. A lack of product development and Tier One relationships reduces the value-added opportunities of a facility, leaving it isolated as little more than a stand-alone assembly operation.

To take that issue one step further, such activities can become ‘hollowed out’ and become especially vulnerable in times of economic downturn, when supply outstrips demand – and both vehicle manufacturers and Tier One players start to look for short-term economies.

Some initial conclusions

The foregoing pages have sought to illustrate how the global automotive industry has evolved over the past 50 years with manufacturing focusing initially in North America and Western Europe, but opening new assembly plants in or near growth markets in more recent years.

The complexity of the industry, and the need for a sophisticated supply chain to support assembly operations, has led to further industry developments as will be examined later in the report. There is every expectation that these dynamic changes will continue, at least in the foreseeable future, as new markets develop.

Chapter 3

Automotive Contribution to the UK Economy

The UK automotive industry is a pivotal part of the manufacturing sector. Automotive players are leaders in best practice in many areas of manufacturing and provide a key source of development for the UK manufacturing sector as a whole.

The UK leads Europe as the most diverse and productive vehicle manufacturing location

The UK leads Europe as the most diverse and productive vehicle manufacturing location, and is a global centre of excellence for engine development and production.

The UK also has the widest range of automotive manufacturers in Europe, although most are foreign owned. UK automotive is characterised by significant foreign direct investment and high exports – equivalent to 10% of the overall value of the UK's export of goods. Automotive manufacturing contributes £9.5 billion to the UK economy and provides around 175,000 jobs associated with manufacture and assembly – with 850,000 dependent on the motor industry as a whole.

Figure 3.1 below shows the relative importance of automotive industries to the UK in terms of turnover, share of manufacturing in the transport sector, including aviation, all employment in the sector and as a share of exports. The strongest message is that, while total employment in the automotive sector has declined steadily across the past five years, turnover and value of exports has grown.

Figure 3.1; UK automotive industry sector profile 2003 - 2007

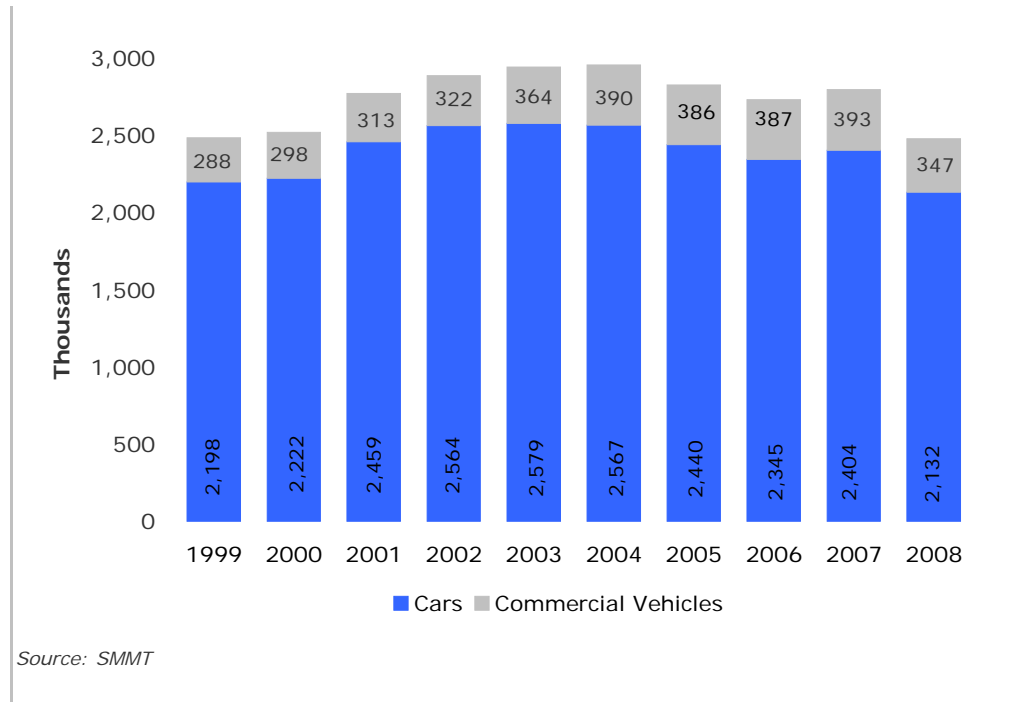
	2003	2004	2005	2006	2007
Automotive manufacturing sector turnover (£bn)	46.2	46.9	48.1	49.3	53.0
Share of total transport manufacturing turnover (%)	68.0	67.1	67.7	66.7	66.6
Total net capital investment (£bn)	1.2	1.4	1.3	1.4	1.0
Total employees directly dependent on the UK automotive sector (thousands)	890	867	874	843	827
Value of exports (£bn)	21.9	22.5	23.8	24.1	26.1
Percentage of total UK exports (%)	11.6	11.8	11.2	9.9	11.8
All automotive sectors—value added share of GDP (%)	3.7	3.4	3.2	3.1	3.0
UK share of global passenger car production (%)	3.9	3.7	3.5	3.0	3.0
Number of volume UK car manufacturers	9	9	8	7	6
Number of volume UK commercial vehicle manufacturers	9	9	9	9	3

Source: SMMT

United Kingdom automotive market

Annual UK new car registrations have fluctuated between 2.2 and 2.6 million units during the past decade as can be seen in Figure 3.2. The UK is the third biggest new car market in Europe, accounting for 15% of the enlarged EU total. The retail market is the most sophisticated in Europe and generates £22 billion valued added.

Figure 3.2; UK new car and commercial sales; 1999 - 2008



The severe economic downturn in 2008 and 2009 has seen a dramatic decline in the numbers of cars sold and manufactured in the United Kingdom. The bulk of cars assembled in the UK are exported, while the majority of new cars sold in the country are imported.

Used car sales, examined later in the study, are around three times new car sales volumes and would appear to be holding up better than new unit sales during the recession.

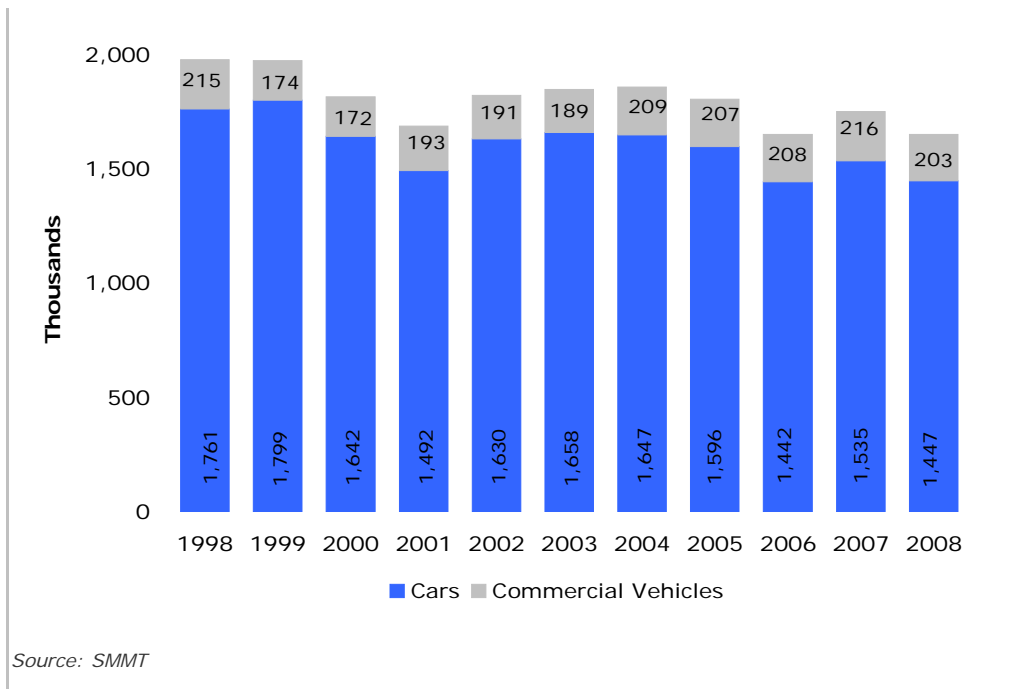
Vehicle manufacture

The United Kingdom is a significant vehicle manufacturer, producing around 1.8 million car and commercial vehicles as shown in Figure 3.3. However, production volumes have slipped over the past 10 years, during which time Ford, Vauxhall, MG Rover and Peugeot have all closed assembly plants in the UK.

Given the excess installed manufacturing capacity in the EU, and support being offered by some European governments, there is a continuing risk that a cash-strapped manufacturer might be tempted to move or rationalise capacity elsewhere in Europe if provided with sufficient support. While support may be provided quickly, plant could be moved as the economy recovers.

Production volumes have slipped over the past 10 years

Figure 3.3; UK car and commercial production; volumes 1999-2008



The volume of new cars manufactured in the United Kingdom is considerably lower than the number of units sold. The explanation imports.

Figure 3.4; Car and commercial vehicle import and export volumes; 1999-2008

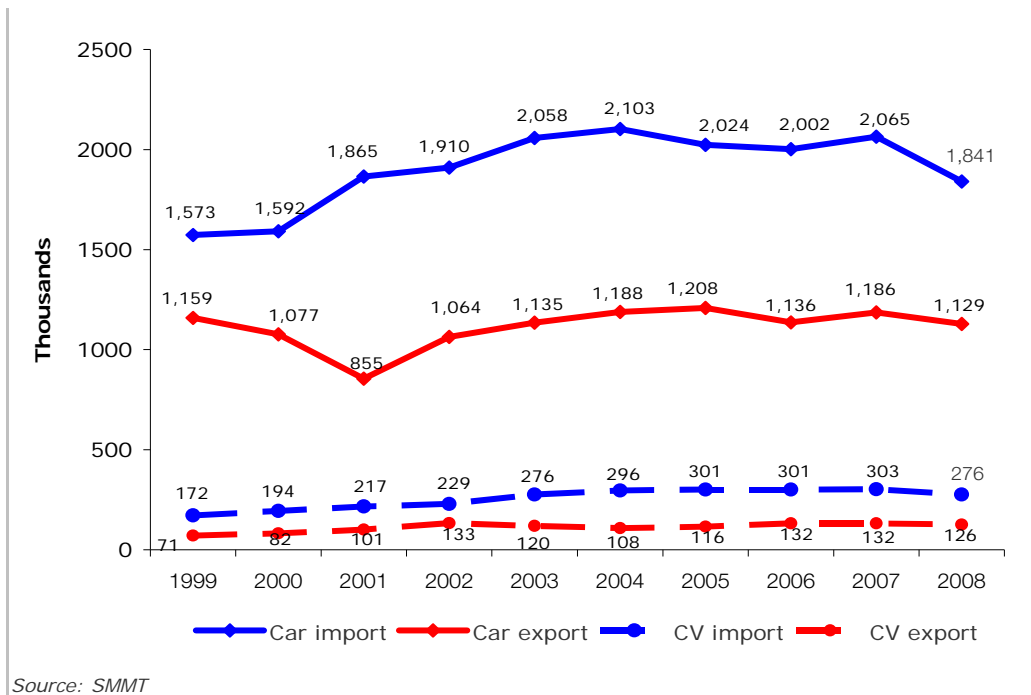
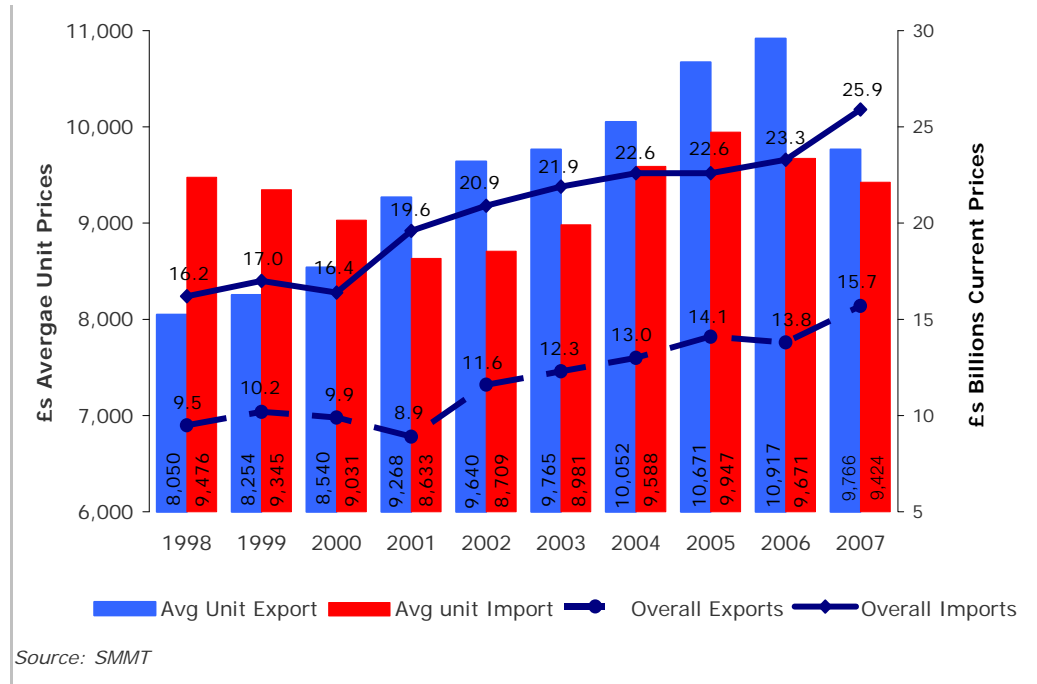


Figure 3.5 overleaf shows the average value of vehicle manufacture has risen over 10 years, slipping somewhat in 2007 with the average prices rising, in part, by the growing production of prestige products.

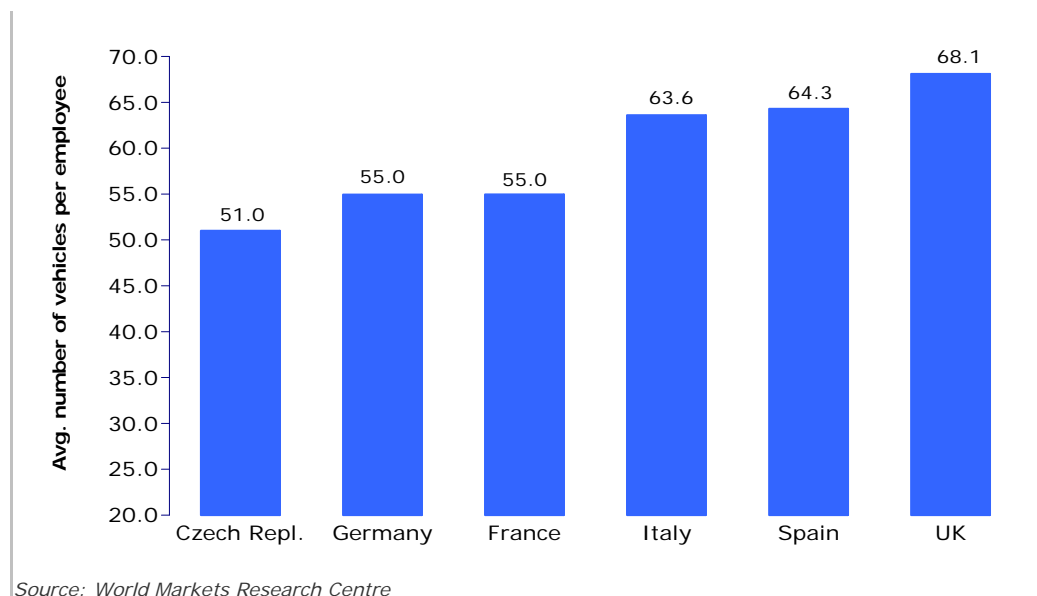
The significantly greater ratio of imports to exports in volume terms is contrary to the relative values ratio of imports to exports. A comparison of the two ratios shows the United Kingdom exports higher value units than are imported. This mix is reflected both in volume exports and in the export of high-value luxury products. Although the volumes are different, a single \$200,000 Rolls Royce or Bentley export represents ten \$20,000 imported units in value terms.

Figure 3.5; Average value of vehicle imports and exports; 1998 - 2007



While the UK is considered a higher-cost manufacturing location, it has excellent productivity compared with other countries in Europe – as the sample survey in Figure 3.6 shows. It has been suggested the reason the UK features well in such analysis is because of the presence of three Japanese assemblers in the country.

Figure 3.6; Productivity; manufacture per employee; [average selected plants]



The weakening of the sterling; euro exchange rate could well upset the value of imports and exports

The weakening of the sterling: euro exchange rate in 2008-9 could well upset the ratio of the value of imports and exports. While exports costs will become relatively cheap to the OEM, the price of cars being imported could escalate substantially. It will be interesting to observe whether OEMs decide to take the hit, or balance it against relatively lower price exports and regard it as a simple currency fluctuation.

At first glance, the UK's high productivity would suggest a pretty healthy industry. However, there are some issues of strategic concern when one looks behind these apparently rosy figures – as will be examined later.

United Kingdom automotive manufacturers’ domestic locations

The previous chapter indicated the United Kingdom does not have a single indigenous motor manufacturer. Germany has three major players – BMW, Mercedes-Benz and the Volkswagen Group, France has two, Renault and PSA, while Italy has Fiat.

Figure 3.7 shows UK car and commercial assembly locations spread between the northern plants of Nissan at Sunderland to the Ford Transit operations at Southampton.

Figure 3.7; UK car and commercial manufacturing facilities



Source: SMMT

Passenger car manufacturing					
	Manufacturer	Site		Manufacturer	Site
1	Aston Martin	Gaydon	9	Lotus	Norwich
2	Bentley	Crewe	10	LTI	Coventry
3	BMW(MINI)	Oxford	11	Mercedes-Benz	MTC Woking
4	Caterham	Dartford	12	Morgan	Malvern
5	Honda	Swindon	13	Nissan	Sunderland
6	Jaguar	Halewood	14	Rolls-Royce	Goodwood
7	Jaguar	Birmingham	15	Toyota	Burnaston
8	Land Rover	Solihul/Halewood	16	Vauxhall	EllesmerePt.

Commercial vehicle manufacturing					
	Manufacturer	Site		Manufacturer	Site
17	Alexander Dennis	Guildford	23	Leyland Trucks	Leyland
18	Dennis Eagle	Warwick	24	Modec	Coventry
19	Ford	Southampton	25	Optare	Leeds
20	IBC	Luton	26	Smith (Tanfield)	Tyne/Wear
21	Land Rover	Solihul	27	Vauxhall	Ellesmere Pt.
22	LDV	Birmingham			

Virtually every global automotive manufacturer has some vehicle assembly operation in the UK as shown in Figure 3.7. However, research and development work undertaken in the country is low compared with the other principal automotive manufacturing nations.

Steady decline in R&D spend in the United Kingdom

Figure 3.8 shows a steady decline in R&D spend in the United Kingdom compared with selected European countries. The reasons for the low spend are perhaps partly historical and part consequential. There would appear to be logic in focusing R&D activities close to the seat of power, the OEM or Tier One component company head office, so it can be managed tightly and new ideas sparked off management for timely implementation.

Figure 3.8; R&D expenditures; motor vehicles, engines and component sectors

\$ Millions	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
UK	1,275	1,476	1,481	1,440	1,646	1,364	1,439	1,522	1,870	1,390
France	2,241	2,139	2,193	2,260	2,685	2,917	3,406	3,543	3,531	
Germany	5,579	6,225	6,946	7,925	9,385	11,130	10,922	11,476	12,726	13,421
Italy	929	968	923	897	936	969	985	834	857	967
Spain	240	255	236	255	333	364	467	510	546	640

Source: NAI&T

Between 1995 and 2004, R&D in the UK grew by 9%, while German R&D grew by 240%. In 1995, German R&D expenditure was more than four times that of the UK, but increased to more than nine times that of the UK over the next 10 years.

The two principal manufacturers in the UK have historically been Ford Motor Company and Vauxhall (General Motors). Both have their European head offices in mainland Europe (Germany and Switzerland), but with some R&D in the United Kingdom. Given the parlous situation of General Motors in Europe and the US parent company's search for a potential external investor, there could be further threats to the R&D base in the United Kingdom.

A third R&D facility is that of Jaguar/Land Rover. But, with the sale to Tata, one has to ask how long that centre of excellence will remain in the UK or will it become the Tata R&D focus in Europe?

The Realpolitik of OEM financial requirements, and the skills at playing off one government against another, may become apparent as governments seek to protect skilled jobs during a period of recession and rationalisation.

This table suggests that, of the major European automotive manufacturing countries, only Italy has a lower Research and Development spend than the UK. From a strategic viewpoint, the UK is almost totally denuded of vehicle manufacturer R&D capacity; the question has to be asked – does that make it little more than a productive assembly-only operation?

R&D in the components industry is much more difficult to measure but, again, it is an asset that tends to be retained close to Tier One suppliers' head offices or their European, North American or Asian head offices where strategic decisions may be taken. The United Kingdom boasts few such headquarters. The strategic implication is that there is a lack of 'nodes of component development excellence' at Tier One level. This, in turn, may percolate down to Tier Two players who might otherwise have built up their own modest but important R&D facilities.

Such situations can lead to a 'hollowing out' of the components sector

Such situations can lead to a 'hollowing out' of the components sector so, like assembly operations, it can become just that – assembly, with little or no associated intellectual property. It is interesting to note the way that Central and Eastern European governments are actively encouraging shared as well as individual R&D facility development among their nascent Tier Two suppliers.

There is a long-established, independent design and engineering sector offering the full spectrum of services from concept design through to limited vehicle production. This sector is recognised internationally for its flexibility, responsiveness and the innovative quality of its engineers.

This sector continues to evolve and the past five years have witnessed a succession of acquisitions, closures and re-emergences in response to the complex global situation.

Labour and productivity

The quality of labour in the UK has been criticised in some studies for its skills level and training ethos, and the industry in general, for its lack of recruitment and use of engineering graduates. It has been suggested by more than one serious commentator that the present meltdown in the financial services industry may lead to a change in career intentions by some of our best engineering graduates, away from financial engineering and back into the real world of creating sustainable wealth.

Could manufacturing become a popular source of employment for the ablest graduates once more?

Relatively easy to lay off workers compared with many countries in Europe

UK manufacturing has a double-edged sword with regard to labour flexibility in that it is relatively easy to lay off workers compared with many countries in Europe. Such flexibility might be excellent while industry is thriving, but when there is an economic downturn it may not be so attractive – at least for the workforce.

Labour productivity at Nissan and other Japanese assemblers in the United Kingdom is among some of the best in Europe.

Economic downturn

As noted previously, the impact of the economic downturn is already being felt in the UK car industry for both the domestic and export sectors, and will surely continue until the economy begins to recover.

We will not seek to enumerate which assembly plants in the United Kingdom are currently working short time. At the time of writing, all plants have closed for greater or lesser periods. This is driven by the necessity to cut costs, the fall in demand for vehicles – and the importance of not building large inventories when it is difficult to predict what the mix of vehicles required when the markets begin to improve.

The stocks of finished vehicles so beloved of television news reporters are commonly vehicles built for export waiting shipment.

While it may be argued that factory layoffs and negotiated downtime are a result of good relations between management and unions, there are a number of imponderables in any such situation. Are those well negotiated packages could all too easily turn into permanent cuts, might the workforce gradually leech away into other activities – and what level of training will be necessary to bring them back up to speed once manufacturing picks up again?

Those well negotiated packages could all too easily turn into permanent cuts

The UK automotive industry has a strong combination of heritage, diversity and agility that should serve it well for future growth, but that will cut little ice should the industry need to rationalise during or after the recession.

The UK automobile industry is essentially an assembly operation and the plants that suffer first tend to be those furthest away from head office. While OEMs may be able to weather the storm of short-term shut down, the real problem will be the supply chain which is commonly made up of smaller businesses.

Will those players be able to withstand the trauma of having their business switched off for a month(s) or cut for a week a month? While that might not be a real problem for an OEM in the short term, how many critical suppliers might go into administration, and how long could it take to restore the supply chain when the recession is over?

Cars built in the UK tend to be of a higher series and specification

It has been shown earlier, that cars built in the UK tend to be of a higher series and specification than those assembled in mainland Europe. From the viewpoint of a would-be buyer in an economic downturn, or when credit is tight, there could also be the opportunity to trade down and buy a less expensive model. Once more, manufacture in the United Kingdom could all too easily suffer.

The current weakness of sterling may work in favour of the UK assembly and components industry, at least in the short term. However, an increasing number of organisations are working in Euros. Over time, the sterling/euro benefit may be challenged as the quality of low-cost overseas producers continues to improve to match the best available in Europe.

Some initial conclusions

This chapter has focused on the contribution of automotive manufacturing to the UK economy. It has highlighted the contribution to exports, although the automotive industry is major importer too. It has not, however, paid much heed to the retail sector – the largest single contributor in terms of employment – or to issues of fuel tax – one of the largest single contributors to government revenues.

Economic recession may hit the industry hard in that all of the players manufacture in a number of locations. Therefore, strategic decisions could be taken to cut back UK manufacture as has happened in the past, particularly when one remembers there is some 20-25% excess global manufacturing capacity.

Chapter 4

Automotive Assembly and Components Strategy

The previous chapter showed how the United Kingdom has foregone its position as a world leader in terms of automotive manufacturing, not so much by slipping back hugely in terms of car making, but by being passed by other emerging players. There is a problem in being an early player on an offshore island on the edge of the world's largest car market!

It could be argued that the United Kingdom partly lost its pre-eminent position as a vehicle exporter because of the market dominance of its two American-owned OEMs – General Motors and Ford seeking to develop their mainland European activities. At the same time, the UK lost its own indigenous player, starved of capital and direction by governments.

Union militancy could close a plant at the drop of a spanner

Union militancy could close a plant at the drop of a spanner and overseas investors sought much calmer waters. The problems were further compounded by government becoming more interested in building a financial services industry than retaining a world-beating manufacturing industry.

As the two US manufacturers sought to europeanise their products and real decision-making moved to mainland Europe, Tier One and many Tier Two suppliers migrated with them to be close to the action. The United Kingdom was, after all, moving towards becoming an offshore assembly location, however efficient it might be.

UK needs to review its position

An objective review of the current situation suggests that, if the United Kingdom wishes to continue as a major force in global automotive manufacturing, it needs to review its current position, the expertise it possesses and the way that talent can be developed for the benefit of the industry. That is the objective of this chapter.

Automotive assembly is a global industry; and there are always countries willing to undercut the high-cost assemblers of north western Europe – or indeed countries in north western Europe seek to stimulate their own industries at the expense of the wider good. But, that is a political argument beyond the remit of this report.

China recently used to be able to offer average wage rates of \$0.61 per hours compared with \$24.71 in the United Kingdom. One does not need to be as genius to see that, even with a relatively low and declining labour input, there could still be a massive cost-saving potential. This would need to be offset against such issues as transport and logistics costs; loss of flexibility; quality and customer service/satisfaction.

Industry ownership and influence

Over 95% of the UK's vehicle assembly capacity is owned by non-British companies

The first 'given' in current automotive assembly industry analysis is that over 95% of the UK's vehicle assembly capacity is owned by non-British companies.

- The three leading car assemblers are Japanese owned – Toyota, Honda and Nissan – each with a major assembly plant in the United Kingdom, often with a significant input of components made outside the UK, exporting a large proportion of vehicles to mainland Europe and beyond. Those final assembly plants may also be supported by such additional activities as engine manufacture. Each one has other facilities in Europe.
- BMW owns the MINI brand, manufacturing at Oxford, and has been massively successful in reinventing the brand and building production for global export.
- From 2008 Tata, an Indian conglomerate, has become a major UK manufacturer with Jaguar and Land Rover design and production in the Midlands and Merseyside. Its rate of development may be influenced by the apparent lack of enthusiasm by Indian investors in the external capital raising activity to pay for this acquisition and the current state of the industry. Tata's automotive share values have nosedived in India since this acquisition and, at the time of writing, Tata was said to be negotiating with the UK government for significant financial support to tide over its UK operation.
- General Motors has an interest in van production in Luton, as well as its assembly operations on Merseyside. Given the parlous state of General Motors in North America and its quest for a new investor in its European operations, and allowing SAAB in Sweden to move into administration, there must some sort of shadow over its UK assembly operations, given the needs of the Opel/Vauxhall Group. Once again, at the time of writing, it is rumoured that senior executives from its European head office are negotiating with governments in several European countries where GM has assembly facilities.
- Ford, through its Transit operations in Southampton, has retained some UK assembly capacity – although has been cut and some transferred to other European factories. Although the volume car plants at Dagenham and Halewood are long gone, Ford has become a major engine manufacturer in the United Kingdom with the centres at Dagenham and Bridgend.
- Russian interests – GAZ - acquired the LDV van operations, assembling vehicles in the UK for domestic and wider distribution. However, the parent company, GAZ, has announced it wants to sell the LDV operation as quickly as possible. While it has sought government support, that can only be a temporary Elastoplast until longer-term restructuring is sought. The LDV management are looking for protection and investment to enable them turn the product into an electric delivery van principally for urban delivery.

Real strategic decisions are made outside the United Kingdom

The problem with foreign owned assembly operations is that the real strategic decisions for their development are made outside the United Kingdom – either at a European or global headquarters – and those decisions shape the future of the industry.

Essentially the United Kingdom is now a high-quality, medium-cost, flexible assembly operation for major global players. Productivity in the United Kingdom has risen steadily over the past decade, but has been outstripped by enhanced productivity in other automotive manufacturing nations as seen in Figure 4.1.

Figure 4.1; Manufacturing productivity

Productivity in DM 34 (GVA per person employed)	2001	2002	2003	2004	2005	2005 vs 2001
UK	59.5	54.3	52.3	63.7	62.1	4.4%
France	61.1	65.2	62.4	69.0	67.1	9.8%
Germany	66.4	62.9	71.1	70.3	70.3	5.9%
Italy	40.5	36.3	42.2	42.8	45.0	11.1%
Spain	46.8	48.9	54.0	56.0	54.4	16.2%

Source: NAIGT

Why do OEMs remain in the United Kingdom?

Given the 'midfield position' of the United Kingdom in the productivity stakes, what does it bring to the boardroom table in terms of retaining and developing assembly capability? Numerous studies have been undertaken, both academic and pragmatic, to find the answer. The following points highlight some reasons for retention;

- United Kingdom is the third biggest new car market in Europe so 'domestic assembly' is an important element in market development.
- Investment inertia; the major players have significant investment in the United Kingdom, not only in terms of assembly facilities but also in supply chain and logistics. To move to a new facility would cause huge disruption, not only in terms of closing one facility and opening a new one, but also in terms of labour training, redundancies, supply chain reorganisation and political fallout. A massive benefit would be needed; therefore plant migration cannot be ignored. Ford, General Motors and Peugeot have closed some 400,000 units of capacity in the past few years
- Low Risk operation; historically a shadowy issue in the background but given the current global turmoil, whether political, religious or financial – this has risen up the decision list.
- Supply chain; is increasingly important to an assembler. But, as has been shown in CEE, Tier One and Two players are able to set up or relocate to satisfy manufacturers' demands.
- Labour quality and flexibility; despite the problems highlighted in previous generations, the United Kingdom now has an excellent quality and highly-flexible and adaptable labour force. The past few years have seen the development of a two-tier workforce in many plants – a permanent force and a supplementary force of additional workers employed through an agency.

Supply chain is increasingly important to an assembler

Promise that workers will have their jobs when demand returns

In many UK assembly plants most agency workers had been paid off and their services dispensed with. The permanent workforce has been put on short time, or plants closed and wage levels cut. Every effort appears to have been made to be in the position to retain the workforce on lower wages, with the promise to the unions that workers will have their jobs when demand returns.

While it was possible at the start of the recession to offer those workers a range of training programmes to enhance their productivity, there is only so much that can be undertaken. To motivate and retain workers some more innovative programmes are being offered. However, with relatively high costs, plus social charges, it needs to be very productive.

- Labour laws; both a strength and a weakness are UK labour laws. It is reputedly the easiest country in Europe to lay off workers. Certainly, trade unions work closely with the manufacturers to ensure equitable treatment. However, there is always a strategic risk of mass redundancies if the economy was to turn seriously downward or the shape of the industry changes radically.

While these are all good tactical reasons for the OEMs to continue manufacturing in the United Kingdom, there has also been steady rather than spectacular new investment in manufacturing in the automotive sector in the UK as illustrated below.

Figure 4.2; Investment in UK automotive assembly

£ millions	2002	2003	2004	2005	2006
Investment	1,300	1,200	1,400	1,300	1,400

Source: NAIGT

A significant share of this investment will have been used to develop the United Kingdom as a major engine building centre by Ford, BMW, Toyota, Honda etc., all having significant capacity in the UK and exporting a substantial proportion for use elsewhere in Europe.

UK assembly facilities can no longer expect to compete with CEE

UK assembly facilities can no longer expect to compete with CEE, China or India on price alone; as they can always be undercut, so it is a matter of finding qualitative alternative methods of competition.

Commentators have likened UK automotive assembly to 'paying for a four or five star hotel rather than a Travel Lodge'. With the former you are made to feel wanted and everything you need is available, while the latter provides comfortable beds – without the trappings. But, are hotel guests seeking a different level of service in a serious economic downturn?

Research and development

While the United Kingdom has very few true Tier One components suppliers and a declining number of Tier Two players, there is still a level of research and development continuing in the country.

Consider some of the higher profile players;

- Ford Motor Company; has a large R&D facility at Dunton which is a centre of excellence for engines, emissions and environmental issues. The company spends some £500 million a year on this activity; as such it is a world class player.
- Tata; through Jaguar Land Rover has two facilities – one at Gaydon in Warwickshire which is closely associated with the manufacturing facility and a second activity at Whitley near Coventry that focuses on engines. Will these facilities be developed further under new ownership, or could they be seen as facilities that could be replaced by investment in India, with its growing expertise in engineering and significantly lower costs?
- Nissan has an R&D centre at Cranfield in Bedfordshire.

There is a string of important international consultancies with UK operations

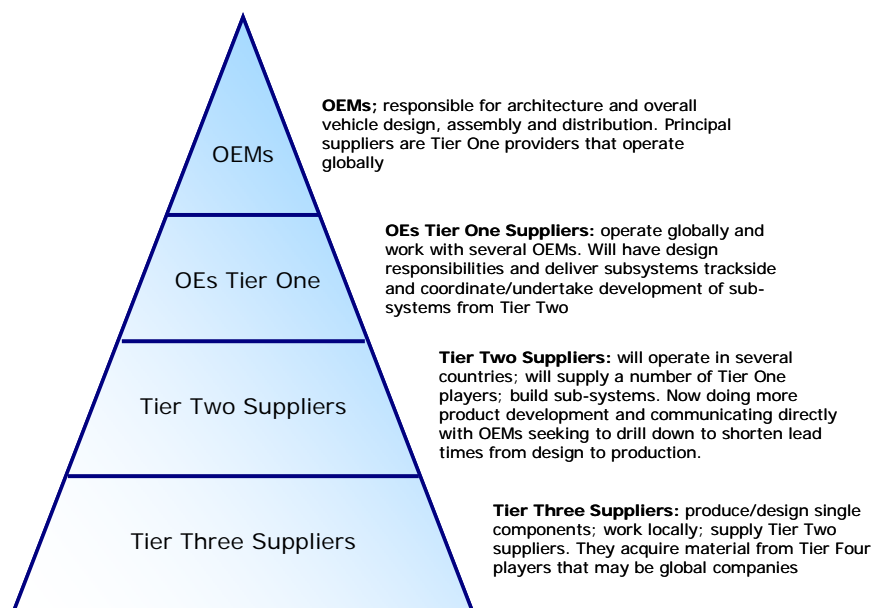
In addition to these principal OEM based facilities, there are a string of important international consultancies with UK operations. These include Lotus Engineering, MEL, Millbrook, MIRA, mi Technology, Perkins, Pi Technology, Prodrive, Ricardo, and TRW to name but a few. From a UK point of view, the concern is that they are practically all owned by non-British organisations.

The role of these and other British players in the sector are examined in more detail later in the report. It is widely accepted that access to shared high-cost facilities associated with research, development and testing are a positive benefit to a country to attract and retain automotive industries.

Automotive supply chain

The automotive supply chain is a commonly banded-about term, but it represents a complex of different organisations with different levels of expertise and relationships with each other.

Figure 4.3 Automotive supply chain



Source; KPMG Automotive Components Industry 2007

Within the automotive assembly industry there are two groups of players; those who work with the Japanese players as partners and those who do not. In the case of the former, there are longer-term arrangements possible. Investment funding is that much less difficult to obtain if a business has a supplier agreement with a high-profile Japanese automotive manufacturer.

BMW and other suppliers, too, have sought to build a strong relationship with their UK suppliers and, the cynic might argue, those relationships will be tested as manufacturing volumes are reduced significantly and quickly.

The Japanese automotive supply chain has developed partly by making effective use of capital and labour and by proximity to the assembler or to its head office. It has sought to deliver value and be able to avoid head-on price confrontation.

Japanese assemblers have forced up quality and delivery levels from UK suppliers

Japanese automotive assemblers have forced up the quality and delivery levels from their UK suppliers – whether those suppliers are UK owned or not. Given the lean competitive price situation of suppliers, this has demanded a quick learning curve.

A weakness in the UK supply chain is that it has traditionally been made up of a large number of small players. Surveys suggest there are over 2,000 players, mostly Tier Two or Tier Three, with a small clutch of Tier One players. From the OEM's viewpoint this has been very satisfactory because of the lean nature of the industry and the added flexibility. However, there has been a serious downside; in that the plethora of small companies have not, individually, had the critical mass or been able to afford the resources to undertake serious original R&D for their clients. The relatively long and potentially complex supply chains created has also offered a lack of response speed.

UK component suppliers, whether UK or internationally owned, have developed their skills with a wide range of users and assembly methodologies and have also had to add a high degree of flexibility to their skills. There is perhaps more of a 'can do' approach among UK Tier Two and Tier Three suppliers than many of their continental competition.

This weakness is further compounded by the very flexibility that has been discussed. Within the components sector, because it is a mature industry and because business has fluctuated considerably, there has been an ethos of almost being 'jobbing engineers' with staff willing to take their skills where they will get the best price.

The result has been a lot of successful, professional players and often small companies – but relatively weak in terms of cutting edge technological research to satisfy developing industry expectations.

Thus, one finds 'virtual leadership' with a particular technology or development, where the developers have moved on at some point, so it will not be followed up and developed further. Such thinking may well be a hangover from the 'stop/start' economics of the 1970s and early 1980s, but is not a strategy for success. The multiplicity of small firms in the supply chain has failed to create a critical mass capable of becoming a centre of excellence in whatever area.

Expertise has been lost when development engineers have moved on

All too often, the expertise has been lost when development engineers have moved on to another organisation to develop their ideas further, rather than having the support to generate a global leap forward. While Japanese businesses have a philosophy of ‘continuous learning’, this appears not to have happened in the UK components industry – perhaps because the players are too far down the supply chain.

From the Tier One and Tier Two supplier level, there have been greater incentives to develop R&D elsewhere in Europe, where costs may be lower and where there may be a much greater empathy and priority for engineering, rather than financial services and they are closer to the real decision making.

The strategic impact of the lack of R&D in the components sector has been that UK engineers have been starved of the opportunities to develop their technologies and innovations and be able to apply them through UK-based, and even owned, components companies.

Supply chain development

To date, the report has examined the development of UK automotive industries at a high level, and concluded that significant problems have been allowed to multiply and continue so, today, the country has an efficient assembly industry with a potentially frustrated supply chain seeking to break in and sit at high table, rather than below the salt.

The supply chain cannot compete on price and flexibility alone

The supply chain, like assembly, cannot compete on price and flexibility alone. Rather, it needs to find a means of generating that strategic advantage and competitive edge, based perhaps on technology, support, investment and proximity to its potential client bases.

Despite the recession, it is critical that the automotive industry, and particularly the supply chain, determines how, and in what form, it can introduce new value-added services, expertise and products to the much changed post-recession market.

Realistically, any such developments will need to be based on collective industry-based technology development and deployment. This is a challenge for a components industry, traditionally made up of a large number of small businesses, many of which have been acquired by or from elements of larger European groups.

It has already been noted that the global automotive industry is entering a period of unprecedented change. If the UK industry does not take action to be involved in such change, whether that means restructuring or repositioning or significant consolidation to form major groups that can compete globally in defined industry areas, it could lead to a loss of a serious role in automotive industry development for a generation.

The challenge is what form should that repositioning take – and how might it be supported?

Strategy for external support for components and assembly sectors

Support for the components and assembly sectors needs to be divided into immediate, medium and longer term. The short term is perhaps the most crucial at this stage and is governed by EU rules as well as the financial priorities of a heavily overcommitted government.

Consider the following timeframes;

- **Short term;** the most immediate requirement is to enable the Tier Two and Three components suppliers, as well as OEMs, to be able to manage financially. That may take the form of guaranteed loans, holding back on collecting NI and VAT and tax revenues. It may also take the form of assisting banks to provide loans – possibly by guaranteeing or underwriting or insulating those loans. Access to such funds needs to be uncomplicated and timely, even though it will be selective.
- **Medium term;** providing support to organisations to plan their future development whether through rationalisation, expansion or contraction. Within the components sector, the creation of larger groups, whether formal amalgamations or closer strategic alliances will be important to be able to share and reuse technical expertise and problem solutions. Access to R&D and assured funding/loans may also be high on the list.
- **Longer term;** support to OEMs and the various stages of the components industries to develop new technologies that may be sold to those emerging new OEMs. This is explored later in the report. However, the key will be for the United Kingdom to become a major ‘innovation base’ with access to the required funding, facilities and technical expertise to be able to develop those areas of industry leadership.

Such support will doubtless be demanded by other industries. However, the advantage with the automotive industry is the multiplier in terms of jobs and international trade it represents. The alternative is to cast the industry aside to look after itself while other governments, in best Keynesian terms, ‘prime the pump’ – and wonder why well-paid and productive UK jobs are leaving the country.

And wonder why well-paid and productive jobs are leaving the country

Some initial conclusions.

This chapter has examined the current status of the UK vehicle assembly and components industry, and contends the industry cannot and should not seek to compete on price alone. Rather, it needs to reinvent itself as an innovative, leading-edge technology supplier, and in the areas of low-carbon, energy-efficient and electrical vehicles.

Chapter 5

Status of Assembly and Components Industry

Automotive assembly in the United Kingdom has declined in recent years with the closure of the Ford car line at Dagenham, General Motors facility at Luton, the loss of MG Rover and, more recently, the end of production at Peugeot's Ryton plant.

However, not all is doom and gloom. This chapter seeks to review the immediate situation and the short and medium-term expectations and opportunities – including scenarios for the impact of the recession.

Objectives

The principal objectives of this chapter are as follows:

- To review the current status of UK vehicle assembly and component production.
- To discuss the anticipated short-term implications of recession on industry sectors – and actions to minimise the impact.
- Outline the likely development of assembly and components industry post recession, whenever that might be.

OEM Vehicle assembly in the UK; current status

The UK has become an off-mainland assembly operation for global OEMs

The UK has become an off-mainland assembly operation for global OEMs. As such, price, flexibility and efficiency are the prime benefits the manufacturing base brings to the party – but at a higher level cost and not true lowest cost. Despite the significant domestic market, this is a risky strategy in that it limits flexibility in terms of innovation and puts businesses at risk through currency fluctuations and location and an added logistics charges.

There are also associated environmental issues/footprints that have to be absorbed to measure direct cost comparisons with European alternatives.

Global automotive assemblers use competitive internal bidding for new models and ongoing production so there is constant sensitivity and monitoring in the sector. Given the recession and short-time working, OEMs will look ever harder at available facilities and cost cutting opportunities.

Figures 5.1 and 5.2 overleaf shows the principal assemblers' production output over the past six years.

It represents quite a mixed bag of strategic changes, at least up to the start of the recession in 2008. Prior to that, BMW has shown a steady growth of MINI output, as had Land Rover, Nissan, Toyota and Vauxhall. However, there have also been reversals over the period for Jaguar/Daimler, MG Rover and Peugeot – with the eventual closure of Peugeot's plant at Coventry.

Fig 5.1; UK leading car manufacturers 2003 - 2008

	2003	2004	2005	2006	2007	2008
BMW (Mini)	174,191	189,136	200,163	184,687	237,709	245,627
Honda	184,693	193,455	186,984	184,351	237,772	234,969
Jaguar/Daimler	126,121	105,532	84,040	69,852	54,030	73,916
Land Rover	147,545	149,764	175,879	175,714	232,548	195,521
MG Rover	132,789	106,088	29,104	-	-	-
Nissan	331,924	319,652	315,297	301,201	353,718	398,033
Peugeot	207,237	173,091	126,521	75,401		
Toyota	210,617	244,799	264,279	282,214	277,825	218,863
Vauxhall/Opel	124,061	146,894	189,398	143,654	115,486	105,842
Others	18,380	18,835	24,691	25,011	-	-
Total	1,657,558	1,647,246	1,596,356	1,442,085	1,534,567	1,446,619

Fig 5.2; UK leading commercial vehicle manufacturers 2003 - 2008

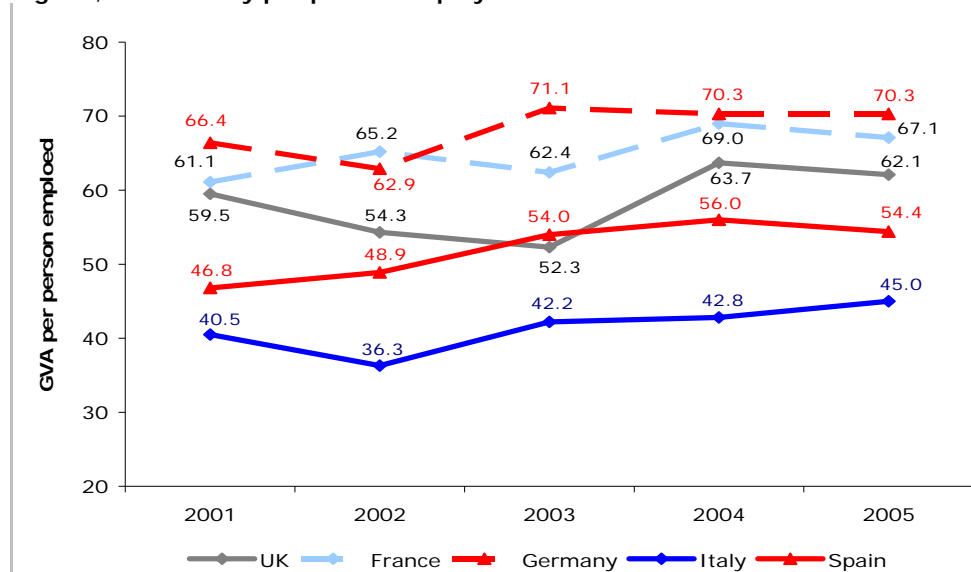
	2003	2004	2005	2006	2007	2008
Ford	54,316	69,903	71,885	70,890	75,662	66,215
IBC	73,958	88,715	90,456	89,068	94,968	87,248
Land Rover	14,630	14,090	11,747	13,663	2,099	3,536
LDV	8,900	7,515	10,175	6,990	10,418	9,308
Leyland Trucks	12,316	14,296	16,277	16,954	17,478	24,662
Peugeot	2,371	7,265	3,097	3,803	-	-
Vauxhall/Opel	18,193	4,428	0	3,298	12,478	9,250
Others	4,187	3,081	3,116	3,041	-	-
Total	188,871	209,293	206,753	207,707	215,686	202,896

Source: SMMT

Again, prior to the recession, commercial vehicle assembly shows a somewhat more positive picture, although this sector is also owned by overseas companies and most recently has suffered even more severely than the car sector.

In terms of improvement over a five year period, the UK's productivity moved by somewhat less than that of other European players as is shown in Figure 5.3.

Fig 5.3; Productivity per person employed



Source

Engine manufacture

The United Kingdom has become a major engine manufacturing base

The United Kingdom is a major engine manufacturing base for Ford, BMW, and Toyota among others. Ford has also announced a further £70 million investment for low-emission engines at its Bridgend plant, taking its production capacity to 1,000,000 units a year. BMW, Honda and Toyota each build at least a quarter of a million plus engines in normal times.

Fig 5.4; Volume engine manufacturing 2003 - 2008

	2003	2004	2005	2006	2007	2008
Bentley	n/a	8,000	10,000	9,386	10,014	7,675
BMW	124,000	146,000	181,000	217,000	367,000	
Cummins	55,000	44,000	54,000	65,000	79,000	
Ford(Bridgend)	594,000	621,000	552,000	671,202	758,581	704,200
Ford(Dagenham)	620,000	682,000	605,000	683,729	900,776	1,047,600
Honda	180,000	188,000	146,000	190,538	248,000	203,700
Land Rover	250,000	47,000	17,000	-	-	
Nissan	281,000	272,000	282,000	212,046	119,000	
Powertrain	200,000	114,000	30,000	-	-	
Toyota	420,000	580,000	427,000	438,000	345,000	
Vauxhall	100,000	12,000	-	-	-	
Others	5,000	4,000	-	-	-	

Source: SMMT

It is a paradoxical question as to why the UK has become one of Europe’s major volume engine manufacturers, yet is not a significant assembler of small cars – but, that is a discussion beyond this review.

While these plants represent major investments, a significant part of the components used are imported and the finished engines exported. One has to question whether this is a long-term sustainable event.

The real challenge may come if manufacturers decide to invest in alternative powertrain for volume vehicles

Engine facilities represent major commitments but are assembly rather than development facilities. The real challenge may come if one or more manufacturers decide to invest in alternative powertrain for their volume vehicles.

Would the new manufacturing investment come to the United Kingdom or would it be taken elsewhere for reasons of corporate strategy, lower costs or market representation? The UK clearly has to maintain a tight watching brief.

OEM Financial analysis

Analysis of a consistent sample of OEMs shown in Figure 5.5 across a five year period shows some interesting ongoing trends. Consider some of them;

Figure 5.5; Manufacturers' financial performance

	Latest £'000	- 3 years £'000	- 5 years £'000
Turnover			
UK sales	29,468,897	26,152,766	22,540,990
Overseas sales	4,403,602	3,731,979	3,422,806
Gross profit	2,375,773	1,341,341	1,200,714
Gross profit % of sales	7.0	4.5	4.6
Operating profit	-703,294	-1,557,334	-1,930,132
Operating profit % sales	-2.1	-5.2	-7.4
Number of employees	74,768	79,312	84,960

Source: Companies House

- The monetary value of domestic sales has risen by more than 30% over the five year period, while exports have increased by 29% – with very little change, if any, in the ratios.
- Gross profits have shown an increase of close to 98% across the equivalent period, the bulk of the improvement arising in the recent period. However, gross profit as a percentage of total sales was 7% in the latest period, up from 4.6% five years ago.
- The more telling ratios are those associated with operating profit – negative in all three years shown, but improving to 2% negative in the most recent year – and improvement from the 7.4% of five year point.
- One further ratio is that of employee numbers. Overall employment has fallen by 10,000 and 12% across the five year period. In terms of sales per employee involved in manufacturing; that rose from £305,000 to £453,000 – a significant improvement. However, the cost of employment has risen significantly too.

Any such comparisons, using data from Companies House, always requires a certain degree of health warning, particularly in an industry as dynamic as this one. Companies are reporting figures for a statutory purpose, and against set definitions, rather than reflecting the industry as it develops. For example, there will have been changes in the composition of inputs into assembly. How are they treated in the numbers? And, similarly, there could be changes in outsourcing patterns in the assembly process.

Whatever caveats are introduced – the strategic thrust of the message is that productivity has improved across the period as has the value added per employee using this set of data. Value added is perhaps the industry's strongest mantra at present.

Employment in automotive assembly

A major manufacturing industry such as the automotive assembly sector would be expected to generate significant employment and compensation. However, in the past decade direct employment in assembly has fallen by some 90,000 to 2006 and represents just under 11% of manufacturing employment - from close to 17% ten years earlier.

Changing patterns of employment and vehicle manufacture suggest a fundamental change in relationship between the two areas. Production is increasing significantly while employment in manufacturing is declining. This might be accounted for in a number of ways;

- Use of agency and temporary workers – the constant pressure within manufacturers to reduce headcount. These are also the first to suffer when the business goes on short time as has been witnessed in late 2008 and the early months of 2009.
- Increased use of automation to replace labour in a move to reduce overall cost – ‘replace labour with capital’.
- Outsourcing of component production and increased modularisation of assembly with larger sub-systems being introduced.
- Outsourcing of routine non-assembly services – security; finished vehicle delivery; human resources; payroll, marketing; catering etc. In some OEMs, there appears to be a conscious effort to reduce outsourcing, if at all practical, and to pull jobs back in house to protect permanent staff.

Growth in productivity in the industry has been significant

The growth in productivity in the industry has been significant, although it is barely average when measured against the European picture. The picture is further complicated by the change in the manufactured vehicle mix whereby the UK is producing a growing proportion of luxury and higher specification cars.

Skills levels

Relatively low skills level involved in the automotive manufacturing sector

An issue that has been reported for some time is the relatively low skills level of the workforce involved in the automotive manufacturing sector – and the lack of craft skills and the low position recorded for manufacturing industries among engineering graduates.

Regular research exercises report a long-term decline in the recruitment of graduate engineers and skilled engineering personnel to the automotive industry. Graduates are attracted to other, perhaps more rapidly growing industry sectors, as well as to the City. Maybe the collapse in financial services will encourage a greater number of engineering graduates to forsake the City and turn to manufacturing, engineering and R&D? Retraining schemes for graduates leaving financial services, at this stage, appear to focus on them being fast tracked as teachers.

Discussions across the industry suggest that some of the principal labour related weaknesses in the industry are linked to the availability of skilled labour and the relative cost of skilled labour. Although, this is countered, in part, by the high degree of flexibility and generally good labour and union relations.

Many respondents also believe there are a shortage of high-quality, middle and junior managers and the lack of ability of major players to offer as attractive career paths as some other sectors.

Risk management

The UK automotive assembly sector is facing a number of concerns

Strategically, the UK automotive assembly industry is facing a number of concerns;

- Finished vehicle assembly away from markets in mainland Europe creates an incremental transport cost to bring components to the United Kingdom and then move the finished vehicles back to markets. There are reports of finished vehicles being shot at in transit, particularly in Belgium.
- Logistics; the cost of logistics has risen significantly and leading to review of distribution.
- Skills base; the UK automotive assembly industry is in need of higher skills as well as a greater number of engineers. This is an issue that should be addressed during a period of economic downtime through meaningful, quality programmes rather than time-filling activities.
- Environmental concerns; the UK government is demanding the industry runs ahead of EU agreed objectives, which could make it less attractive for international investors and create added bureaucracy to be managed.
- Legislation, health and safety regulations and issues are growing tighter in the United Kingdom compared with some other EU members.

Components industry

The components industry is a multi-tiered activity

As discussed in the previous chapter, the components industry is a multi-tiered activity with OEMs seeking to reduce the number of suppliers they work directly with – looking for Tier One players to consolidate components into sub-systems and ship them into the plant.

Such an approach has been likened to supermarket operations with regional distribution depots gathering materials and consolidating shipments to meet just-in-time requirements.

The UK components supply chain is made up of some 2,600 companies a relative handful of whom are global players. The sector employs about 115,000 people – an average of less than 45 per company, creating and added value of £9.5 billion. It can be seen just how fragmented the sector is and how this can give rise to concern during a period of recession.

The components sector is noted for its great flexibility which is regarded as one of its strengths within automotive manufacturing and higher Tier components companies. It is, however, also an 'Achilles Heel' in the way it has led the industry to develop, and could be seen as another example of the British trait of 'having the good ideas but being unable to commercialise them'.

The 'can do attitude' and flexibility within the automotive components industry is based on the ability, within the close-knit auto components industry, to develop a particular product very quickly to solve a problem. Once the problem has been solved, the component or sub-system can then be manufactured or outsourced to a lower cost supplier. The design engineers then move on to another company to solve their 'new problem', then move on again.

While such a policy allows a components company to solve problems with elegant solutions, the team and its new-found expertise are quickly dissipated and that new knowledge lost. The result may be that short-term cash flows are kept positive, headcount does not increase and even production can be outsourced.

The outcome is a 'hollowed out company', which has the product and perhaps manufacturing capability but, for short-term expediency, has let its intellectual property disappear. The real challenge is to retain that expertise, develop the solution to the next level, link it to other sub-systems and generate significant valued-added cash flows which can be ploughed back into further R&D.

Creating critical mass companies that can afford to have permanent R&D activities

There are a multitude of reasons that might be quoted as to why this form of outsourcing has developed, by breaking the circle, creating critical mass companies that can afford to have permanent R&D activities to offer manufacturers and higher tier components companies.

Consolidation within the components industry would enable teams to be built and retained so they can develop expertise in specific areas and have the ability to generate greater added value for the business, rather than allow exploitation elsewhere.

Employment and skills

There are about 115,000 employees within the component sector, the majority working in SMEs.

Further investment in skills and management training has to be high on the agenda

While skills levels have historically been low compared with other manufacturing nations, the rate of innovation and new methods of working mean there is an ever growing shortage of qualified and graduate engineers and managers. The level of attractiveness has declined with job security.

Further investment in skills and management training as well as engineering skills has to be high on the agenda and is examined later in the review.

UK components industry financial performance

Financial analysis of key published data regarding UK parts suppliers is shown in the Figure 5.6. As previously, the quality and consistency of historic data from Companies House allows only the most general conclusions to be drawn. Furthermore the companies included in the analysis are categorised as ‘automotive’ while organisations which are partly automotive may not be included.

Figure 5.6; Parts suppliers’ financial performance

	Latest £'000	- 3 years £'000	- 5 years £'000
Turnover			
UK sales	3,796,695	3,950,990	8,348,745
Overseas sales	2,060,198	2,781,743	2,647,673
Gross profit	732,446	927,525	1,132,181
Gross profit % sales	12.5	13.8	10.3
Operating profit	-247,210	-127,636	-250,051
Operating profit % sales	-4.2	-1.9	-2.3
Number of employees	45,633	60,104	98,771

Source: Companies House

- The table indicates that the monetary value of domestic and export sales in the component sector has fallen by more than 50% across the five year period.
- The ratio of domestic to export sales has moved from 76% to 65% domestic – driven, one might assume, by the substantial growth in the manufacture and export of engines by the likes of Ford Motor Company.
- Gross profit has risen from 10% to 13% over the review period.
- In terms of operating profit however, the ratios are somewhat different with a negative number involved in both cases. In the previous five year review the operating profit showed a negative of 2.3%, compared with a negative of 3.9% on the larger value of business.
- Over five years, the number of staff almost halved from over 99,000 to less than 46,000.
- One further ratio is that sales per worker changed from £111,000 per annum to £130,000. The message here is that there was clearly a significant rise in productivity over the period. The challenge is to be able to export at an attractive rate.
- The activities of component suppliers have declined with growing imports while the outputs of the OEMs have largely remained steady.

Imports and exports

A second analysis of the components sector is that presented by the OEMs and their arrangements for importing and exporting parts. Figure 5.7 below presents a basic analysis based on ONS statistics.

Figure 5.7; OEM Vehicle and component exports and imports

	2005 £ million	2006 £ million	2007 £ million
Motor vehicle export	14,042	13,838	15,726
Motor vehicle component export	7,429	7,887	7,699
Motor vehicle import	22,644	23,324	25,877
Motor vehicle component import	11,414	12,618	14,201
Total automotive exports	23,763	24,134	26,065
Total automotive imports	35,585	37,475	41,913

Source: SMMT

The following points of analysis may be of interest;

- In value terms, vehicle exports increased by more than 12% across the review period, while motor vehicle components exports rose by over £250 million.
- The total import figures shown in the lower part of the table show a 10% increase in the value of vehicle imports, while the value of motor components imports has seen a significant 18% rise.

Once again, among the motor vehicle manufacturers, there has been a move against manufacturing in the United Kingdom.

Impact of economic downturn

The 10–20% collapse in new car sales in the UK and Europe in 2008 has hit the UK assembly and components industry hard. The following points are but a first evaluation.

- OEMs – BMW/MINI, Toyota, Nissan, Honda, Jaguar, Land Rover and Bentley have all lost shifts, shorter working weeks or closure for complete weeks or months in the fourth quarter of 2008 and first half 2009. Clearly, the strategy is to avoid building inventories of unsold vehicles. Given the pressure on markets from the credit crunch as well as unstable fuel prices; there is no certainty what the true shape of demand will be when the market revives.
- The most recent messages emerging from some OEMs suggest that they could have real problems struggling through the recession and there are an increasing number of requests to government for assistance. The cynic would ask if this is part of global strategy with the major players holding out the begging bowl to each government in turn, particularly those with early parliamentary elections or with nationalistic tendencies.

The collapse in new car sales in 2008 and 2009 has hit the UK assembly and components sector hard

- Tier One and Tier Two players are also feeling the impact of economic downturn, demonstrated by the growing pace of staff and agency layoffs and signs of OEMs seeking to pull outsourced work back into their facilities. There have been an increasing number of bankruptcies and players going into administration.
- It will be important to OEMs and Tier One players that the lower-tier companies manage to survive through the recession. Failure could create serious, even if small, gaps in higher-tier players' ability to respond to changing demands.
- Flexible labour agreements enable OEMs to turn assembly on and off more rapidly than in the past, and downtime can be used for skills training and plant maintenance.
- The new car sales decline means pressure is being put on dealers to take units for stock as well as offering deals to the market. This will be explored later in the report.
- In the retail sector, the loss of cash flow and margins will cause some failures and consolidations. The collapse in the commercial property market will also impact negatively on some dealers who have relied on property as collateral for loans. Credit availability for buyers may be the key to kick starting the industry.
- The automotive sector overall is in a poor state, largely led by major US OEMs in their domestic market. Increasingly, North American difficulties are hitting Japanese players in the USA, and Toyota has confirmed it will be exporting vehicles from its massive North America inventories to the Middle East and other markets that are not currently suffering.

The loss of cash flow and margins will cause some failures and consolidations

European industry support

Members of the EU are taking both shared industry support through borrowing from the Central European Bank and there are also a range of different approaches underway at present. The programmes announced to date at March 2009 are summarised on the following page;

- On 12th March, the European Investment Bank (EIB) freed €3 billion in loans to finance automotive projects, most of them concerning 'green' investments. The Bank indicated, in total around €7 billion will become available in the first half of 2009 and its budget allows maintaining similar levels of financing until 2012.
- On 25th March, the European Parliament adopted the following resolution on the future of the automotive industry in light of the current crisis.
 - Increase the lending capacity of the European Investment Bank
 - Speed up and simplify access to credit
 - Coordinate fleet renewal measures throughout the EU
 - Support measures to retain a high-skilled workforce

- Facilitate and sustain high levels of R&D
- Ensure a balanced and fair trade agreement with South-Korea
- Scrutinise new regulatory proposals to ensure competitiveness.

Issues for further discussion

Further examination and discussion is needed to determine which areas of the automotive supply chain the United Kingdom might look to pursue. As discussed, while there is the basis for a healthy and profitable industry, it needs players of a critical mass that can look towards sustainable development – something that is not the case at present. This is discussed in more detail in Chapter 13.

*There is the basis
for a healthy and
profitable industry*

Some initial conclusions

This chapter has examined the position of automotive assembly in the United Kingdom and indicated that it is owned by overseas players. While the sector can compete, it is not on price but on quality and flexibility and, it is hoped, with new and emerging technologies that are emerging.

The components industry requires a critical mass of players in target areas to take advantage of emerging technologies and bring them through to their full value-added potential, rather than allow these ideas to be developed by non-British companies.

Chapter 6

Vehicle Distribution, Retailing and Support

The United Kingdom is one of the largest new car markets in Europe and sales have run consistently above two and a quarter million per year for much of the past decade. Equally important, the retailing and distribution system in the United Kingdom is arguably the most sophisticated and competitive in Europe – some would claim the world.

While global automotive manufacturers are massive multi-national entities, distribution and support for their vehicles in the marketplace is provided by a multitude of much smaller companies. Distribution and support is a complex activity indeed. Its very nature means it needs to be spread widely across the country to provide support where ever required.

The best-known sector of distribution is 'the car sales outlet'

The best-known distribution sector is 'the car sales outlet', whether that is a franchised dealer, an independent outlet or a specialist used car retailer. However, there are 14 differentiated distribution and support sectors identified within the automotive sector skills area – a research programme to quantify industry training needs. According to a study undertaken in 2008, the distribution sector employs at least 590,000 staff, of which 243,000 are employed in vehicle sales in some 22,500 business enterprises. Figure 6.1 overleaf provides a breakdown of employees in the different sectors of the industry.

The current chapter looks at vehicle distribution, retailing and support in two principal areas;

- Overview of the total sector with its 14 constituent participants, offering some overall analysis and commentary.
- Focuses on the key new and used car sales sector – using that as an example for the distribution, retailing and support industry.

UK vehicle sales and distribution has undergone a series of quite dramatic changes in the past decade – in part, due to more reliable vehicles, growth of brands and changing product offering – becoming more of a 'total product offering' than in the past.

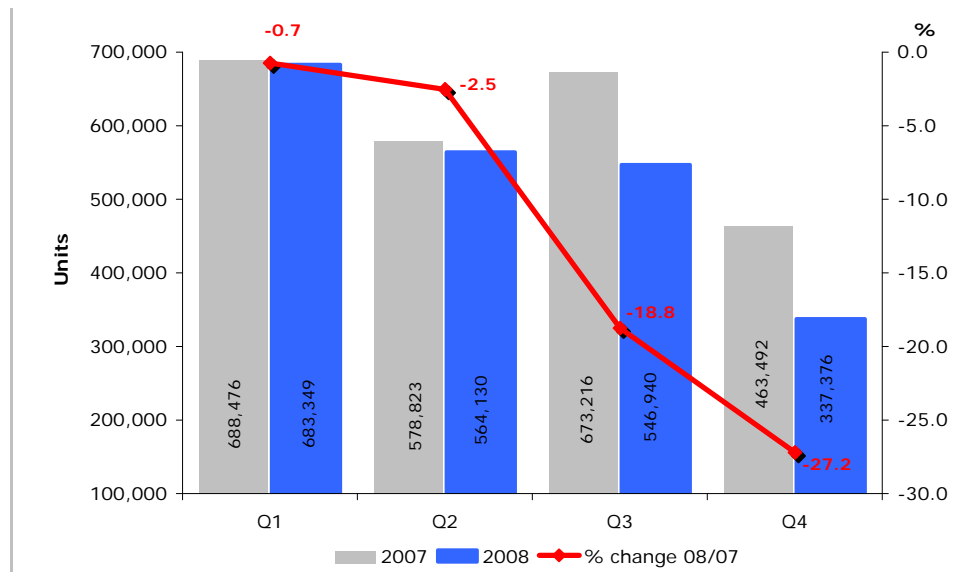
The lack of credit and economic downturn are bringing severe pressures on automotive retailing

The lack of credit and economic downturn are bringing severe pressures on automotive retailing in its widest context.

A relatively new pressure which has started to influence the market is the Internet. It was originally anticipated it would be used for new vehicles sales mainly for establishing information about the product. In the used car sector the Internet appears to have taken on a more proactive role in tracking down the location of suitable used cars.

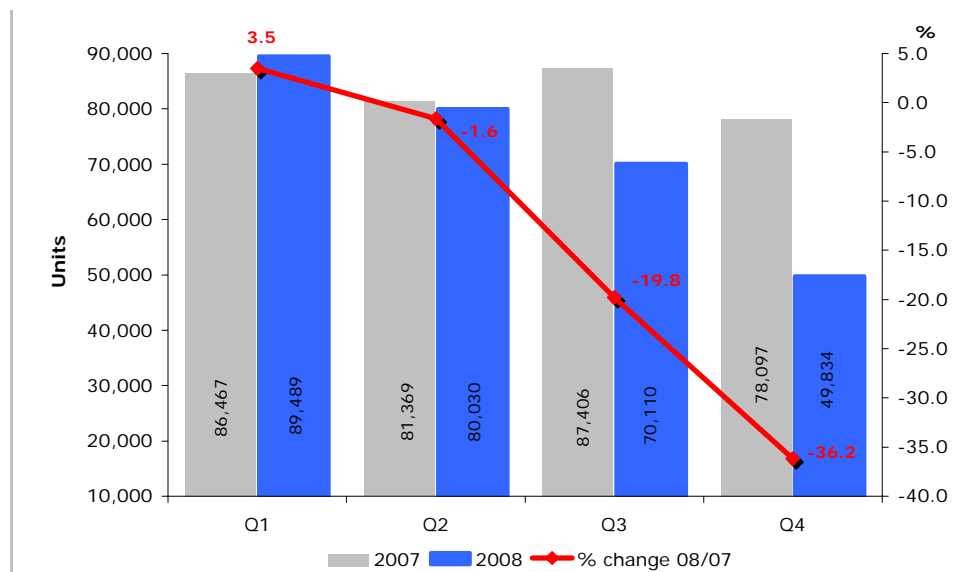
It is against these changes in the new and used car market and changing business conditions this chapter should be read.

Figure 6.1; Quarterly new car sales; 2008 vs. 2007



Source: SMMT/BCA

Figure 6.2; Quarterly new LCV sales; 2008 vs. 2007



Source: SMMT

Distribution objectives

The principal objectives of the automotive distribution, retailing and support industries might be summarised as follows;

- To provide a national route to market for automotive manufacturers' products and services and promote the brand.

- To offer both specialist and general aftermarket service support for cars and commercial vehicles.
- To provide a way for vehicle owners to release the equity in their current vehicle to acquire a replacement vehicle.

Overview of vehicle distribution and support sector

The overall sales and support sector employs close to 600,000 staff divided by the Sector Skills Footprint Analysis into the categories shown in Figure 6.3. It will be noted just how small is the average number of employees per sector.

Figure 6.3; overview of automotive retail and support sector

Sub-sectors	Firms	Employment	Avg. Employees
Fast-fit	2,190	12,220	6
Roadside assistance	510	3,270	6
Accident repair	5,500	38,400	7
Vehicle rental	3,240	43,080	13
Vehicle sales	22,490	243,380	11
Motorcycle maintenance	440	1,020	2
Body building	80	800	10
Parts distribution and supply	8,500	86,350	10
Lift truck maintenance	40	170	4
Motorsport maintenance	30	230	8
Heavy vehicle maintenance	900	7,830	9
Light vehicle maintenance	26,350	145,410	6
Motorcycle sales	3,000	10,120	3
Windscreen fitters	400	1,650	4
Total	69,420	593,930	9

Source: IMI Automotive Skills Footprint

These figures represent the best estimates of the business enterprises and employees that fall within the Sector Skills footprint.

The message is that there is a huge support industry associated with vehicle operation and management. These companies are spread across the country, the majority of them employing less than 10 staff.

In terms of industry infrastructure and support for other businesses, this is clearly a critical industry support sector. With serious reductions in vehicle sales and cost reduction led cutbacks elsewhere in the automotive sector, it has to be seen as vulnerable in a recession. Yet, as the economy recovers, many car users and businesses will look on it as essential to continue offering them service.

The shape of support industries will certainly change

The shape of the support industries will certainly change during a period of economic downturn with some businesses folding, others changing direction and some consolidating. It is important, that as the economy recovers, there is a strong support industry in place rather than a collection of empty facilities and a dearth of skilled staff.

How can the sector be protected and supported through the current recession?

- OEMs, and suppliers further up the supply chain, will have an important role to play in supporting the multitude of small businesses during recession by managing their increased demands on small customers carefully – not shortening credit times; not changing minimum order sizes and not threatening to withhold products and services or demanding cash on delivery.
- Equally important, access to bank support in terms of credit availability will be critical. Threats of foreclosure do not make for good longer-term relations, and some clients even respond positively to a little practical commercial concern and support.
- Large customers of these businesses can help the situation by managing cash flows and payments and not seeking to trade on smaller businesses' credit.

Figure 6.43; Retail and support sector employment by company size

Firm size	No. of firms	No. of employees
1-4	40,550	89,490
5-9	16,050	80,450
10-19	6,490	65,930
20-49	4,220	96,990
50-99	1,240	63,610
100-199	520	53,930
200-249	130	21,780
250-499	110	29,810
500+	100	91,940
Total	69,420	593,930

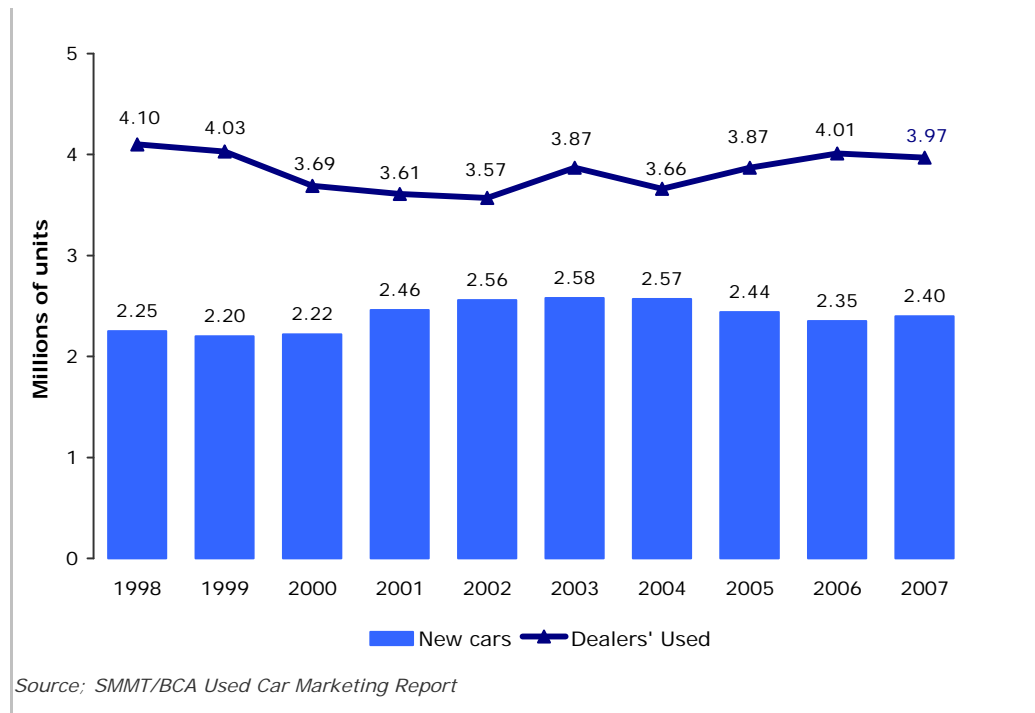
Source: IMI Automotive Skills Footprint

New and used car sales and distribution

The chart at the beginning of this chapter presented a short-term view of the automotive market. Business decisions tend to be based on longer-term patterns and Figure 6.5 overleaf shows the sales picture over the past 10 years – a more realistic planning horizon. While the focus of distribution tends to be on new car sales, franchised dealers and independent used car retailers also play a critical role in the used car market.

In addition to providing service and support for vehicles they have sold, dealers also have the opportunity to provide service and support for the remainder of the 26 million UK car parc.

Figure 6.5; UK new and used car sales through dealers 1998-2007

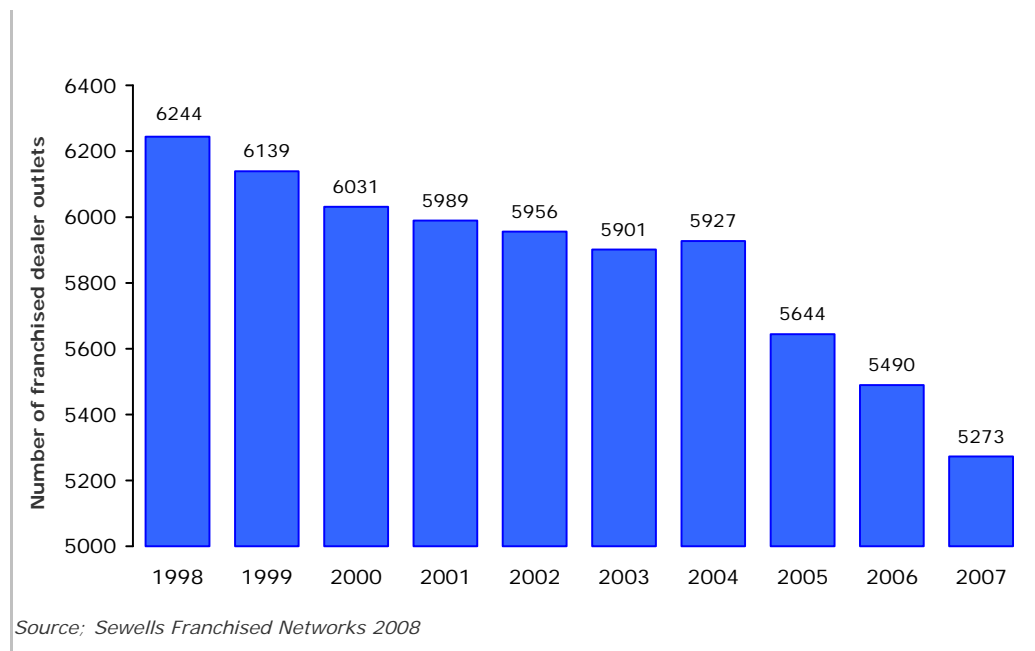


There has been a steady decline in the number of franchised points

Figure 6.6 below shows the changing number of franchised new car sales outlets in the UK over the past decade. There has been a steady decline in the number of franchised points as the nature of the market and vehicle manufacturers' requirements have changed.

There were over 10,000 franchised new car sales outlets in 1975, which have fallen steadily to the current level of 5,273 at the end of 2007 – with manufacturer rationalisation, dealers surrendering franchises, others going out of business and industry restructuring.

Figure 6.6; UK new car sales outlets; 1998-2007



Within the top-10 volume car manufacturers, there has been a steady evolution in the number of franchised dealers as they seek to enhance the quality and locations of their outlets. Figure 6.7 outlines the change in principal OEMs' national franchise representation.

Figure 6.7; Top-10 car manufacturers' new car sales outlets 1998 - 2007

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Ford	769	741	700	670	650	597	589	594	550	537
Vauxhall	523	511	496	475	470	451	436	428	412	405
Volkswagen	268	258	258	251	251	242	237	229	223	223
Peugeot	367	364	357	351	350	333	319	308	301	301
Renault	318	304	291	279	282	298	311	331	320	244
BMW	156	155	153	153	154	155	156	159	151	150
Toyota	228	226	220	213	206	183	182	186	190	190
Honda	177	189	195	194	189	191	200	200	195	195
Audi	135	130	126	124	121	118	117	115	126	117
Citroën	249	244	243	231	230	220	211	205	206	203

Source: Sewells Franchised Networks 2008

The other side of the equation is that the number of open points – locations for which OEMs are looking for potential dealers – increased in at the end of 2007 to 347 although the take-up during 2008 is unlikely to have been high despite manufacturers' best intentions.

Vauxhall had the highest average new car sales per outlet in 2007 – 1,401 per outlet while Ford achieved 1,312 and Renault, the third ranked player, 914 units, followed by Volkswagen at 872. Maybe it is significant that the top four players are also significant forces in the fleet industry?

OEMs have sought further coverage for service support

In addition to the full-service franchised dealer networks, OEMs have sought further coverage for service support through a network of authorised service networks. While at the end of 2007 there were 5,273 combined sales and service main dealers, satellite and retail dealer outlets there were a further 759 'authorised repairers' in the UK – a rise of 20 over the previous year.

These authorised repairers would offer similar service support as main franchised dealers, but do not sell new vehicles. In 2007, Ford had 81 such outlets, Vauxhall 75 and Citroën 63. In addition to franchised dealers and authorised service outlets, the principal OEMs have developed a network of 'Fast Fit' programmes to offer routine service and repairs to their clients. Figure 6.8 identifies the principal players.

Although the number of Vauxhall fast-fit activities fell by 29 during 2007, fast-fit operations are another important route to develop and protect customer loyalty to the specific brand.

Figure 6.8; Manufacturer fast-fit operations 2007

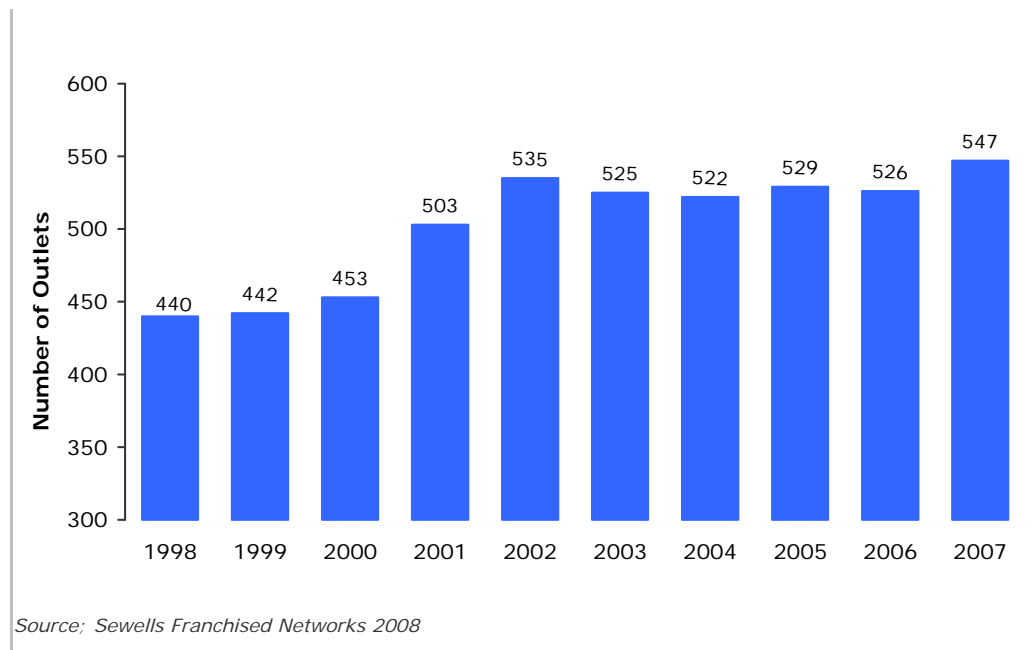
Franchise	Fast-fit Programme	No. of Sites
Vauxhall	Master Fit	342
Ford	Rapid Fit	260
Volkswagen	Express Fit	253
Nissan	Nissan Rapid Service	109
Renault	Renault Minute	78
Citroën	Express Service	75
Peugeot	Express Fit	58

Source: Sewells Franchised Networks 2008

The past decade has seen a steady increase in sales per outlet among the principal franchised dealers as is illustrated by figure 6.9 overleaf.

Manufacturers and importers are fighting for the best representation

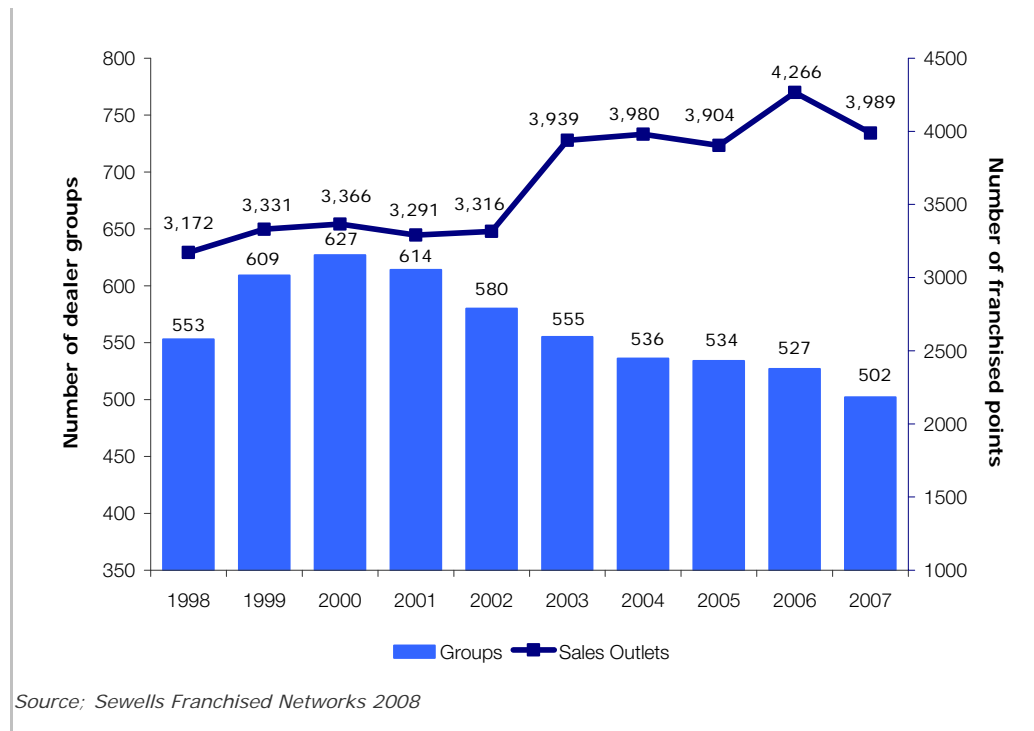
The message is a clear one; in a mature market, manufacturers and importers are fighting for the best representation they can achieve; the average sales per outlet is rising and there are secondary programmes such as authorised service outlets and fast-fit programmes to promote the brand and franchise further.

Figure 6.9; New car/LCV sales per outlet 1998 - 2007

Dealer groups

New car distribution in the United Kingdom is firmly in the hands of dealership groups. Figure 6.10 overleaf highlights the trend in ownership of franchised new car sales outlets.

Figure 6.10; Overall group trends



However, an increasing amount of power is in the hands of the largest dealership groups as illustrated by the ‘top-20 group analysis’ shown in Figure 6.11 This is partly due to the range of services they offer, the opportunities to share back office facilities and some manufacturers’ strategy. It also allows volumes of vehicles for the fleet market to be channelled to market more effectively.

Figure 6.11; Top 20 group trends

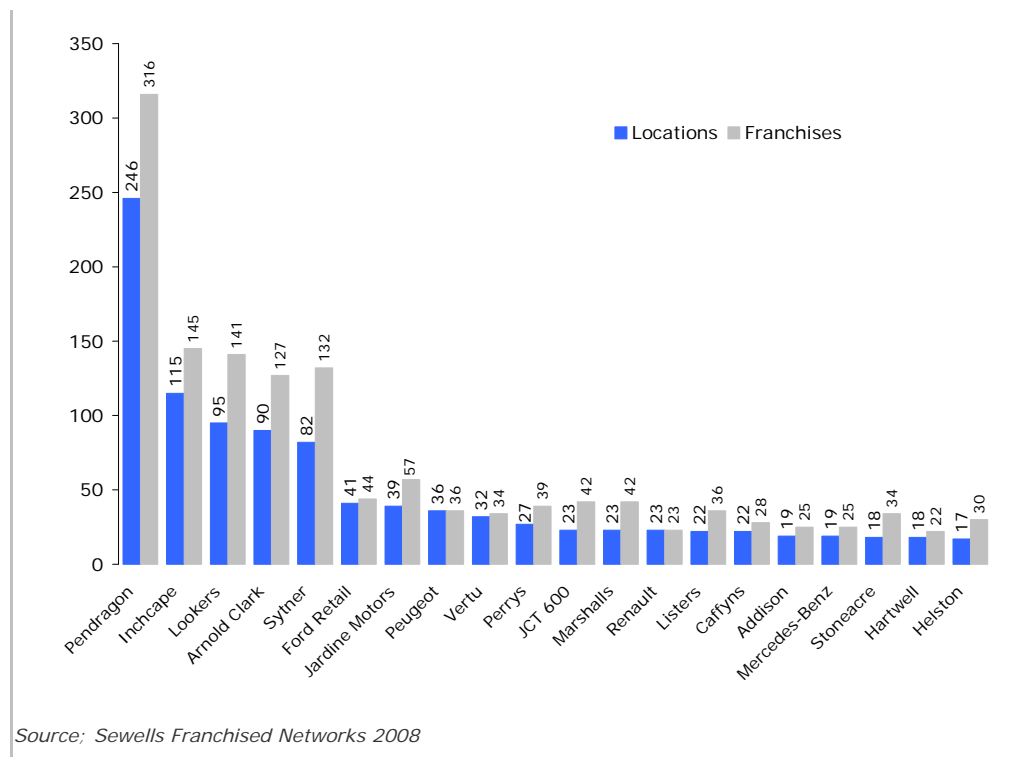
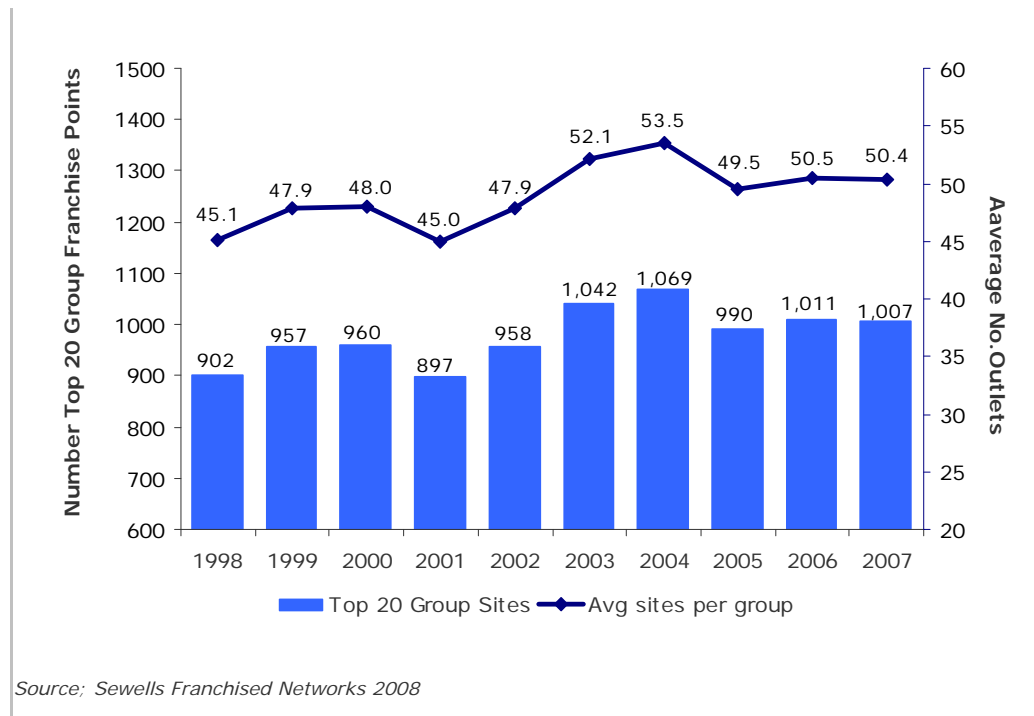


Figure 6.12; Top 20 franchised dealer groups by number of sites 2007



Despite the growth of these large dealer groups, profitability has been relatively poor in recent years compared with other industries as will be demonstrated later in this chapter.

It will be interesting to see over the next year as bank credit is renegotiated by dealership groups of all sizes how those negotiations are affected by the collateral offered in terms of commercial premises; just how have those values changed since the last round of negotiations – and what might be the impact on credit lines?

Distributor product offering

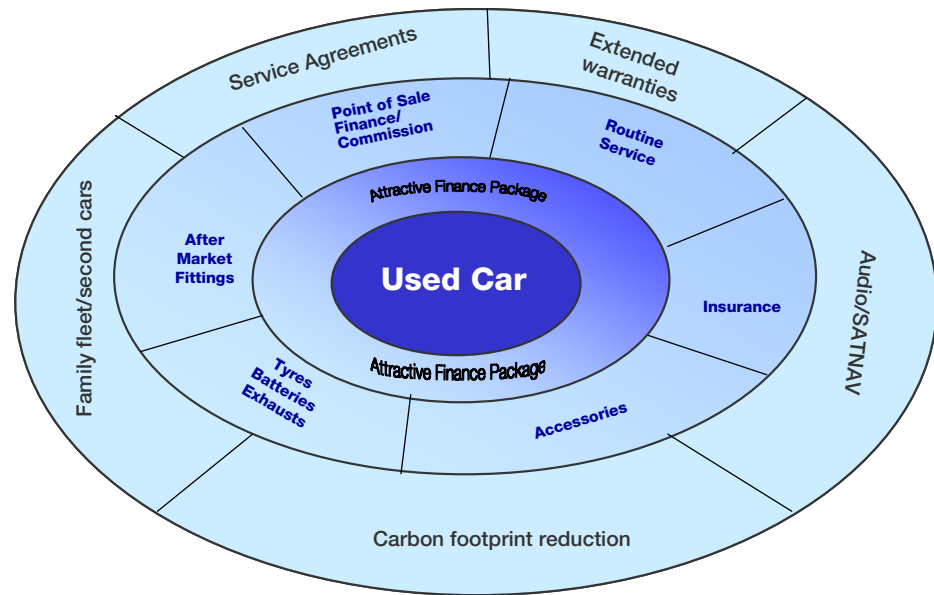
Conventional wisdom suggests that the product offered by dealers is primarily ‘new and used cars’. While that is part of the total product, the real product offering has taken on a much more rounded appearance with dealers offering a wide range of ‘soft services’ to support the client. Figure 6.13 offers a paradigm of the product.

Many of the soft services are bought in by the dealer from specialist providers and bundled together to create the total package to offer customers. Vehicle manufacturers also seek to take a share of these potentially lucrative soft services. The most important of these is finance, which the credit crunch has made this especially vulnerable.

The most important of soft services is finance

Within the retail sector, the biggest requirement at present is access to finance for buyers, whether direct from banks, through OEMs captive finance houses or other sources. This is examined in more detail later in the report.

Figure 6.13; Distributor total product offering



For illustrative purposes only – not comprehensive

Sector financial analysis

Figure 6.14 summarises key financial data for the past five years from records at Companies House for companies in the vehicle distribution, retailing and support sectors.

Figure 6.14; Financial analysis; vehicle distribution, retailing and distributors

	Latest £'000	- 3 years £'000	- 5 years £'000
Turnover			
UK sales	109,497,927	96,150,216	79,443,842
Overseas sales	3,438,490	3,913,779	3,433,914
Gross profit	14,817,951	12,909,490	10,584,087
Gross profit % sales	13.1	12.9	12.8
Operating profit	1,546,849	1,484,381	1,344,493
Operating profit % sales	1.4	1.5	1.6
Number of employees	315,483	305,286	265,593

Source: Companies House

Some of the salient points arising from the chart might be summarised as follows;

- The table shows that sales value for the sector rose by 38% over the past five years, due entirely to a significant increase in UK sales.
- While gross profitability rose 40% in monetary terms, the gross profit margin rise was modest – up from 12.8% of sales to 13.1% over five years.

- A similar pattern exists for operating profitability; although it rose by 15% in monetary terms, as a percentage of sales it dropped from 1.6% to 1.4% during the review period.
- The companies reviewed increased their headcount by 19% over five years from 266,000 to 315,000 – accompanied by a 15% rise in productivity from £312,000 to £358,000 per employee.
- The high sales revenue figures represent the aggregation of dealer and distributor sales including trading between distributor and dealer and between dealers.

Skills requirements

A number of independent studies of the automotive retailing sectors have identified skills shortages in the rapidly reorganising sector. It is interesting to break down those skills requirements into a number of different categories;

- **Management skills;** automotive retailing has historically not recruited significant numbers of graduates yet it is an industry where an ambitious person can, in their mid thirties be in charge of a multi-million pound operation with a fair degree of autonomy and selling a glamorous product.

Equally important, there are growing opportunities for further promotion within dealership structures. Doubtless, as sustainable business and environmental management become even more important, there will be growing opportunities for innovative management.

Well thought-through management development programmes are certainly in place, but there is a need for further expansion. At the less glamorous end of the industry – the support companies – there are still low barriers of entry and an ongoing requirement for basic management skills training as the whole complexity of the services sector increases.

There are still low barriers of entry

- **Customer care skills;** vary enormously across the distributive spectrum – some players are now claiming to be retailers rather than motor dealers or traders. Given the level of competition in the sector, the ability to develop and implement real customer care skills could be the USP between success and failure. Customer care goes far deeper than ‘answering the phone by the third ring’ – equally it goes far beyond box ticking – it is an attitude of mind among management and employees. Value-added is the result of focus of customer care.
- **Technical skills;** the past few years have seen even more effort in building technical skills by the manufacturers through their various training schemes, whether providing these programmes themselves, working with colleges of further education or specialist training agencies. Agreed levels of certification between colleges and marques may help the situation further. A significant new development in the skills landscape is automotive technician accreditation (ATA) that measures current skills levels and seeks to enhance the reputation of the industry.

There are, however, still some challenges to be overcome in terms of common levels and standards of qualifications, teaching, funding and perhaps most of all, recruitment and ongoing motivation of personnel. These issues are being addressed by the SSC and IMI at all levels – both technical and management.

- Qualification above apprenticeship level to take ambitious staff into the first levels of responsibility – whether into lead-technical roles or into supervisory and management roles. Such opportunities may encourage more ambitious people to join the industry with the genuine hope of a career path ahead of them. Very few dealer principals have risen through service management.

Creation of further certificates and diplomas with a high level of practical skills involvement which may, over time, be accumulated towards professional and degree level programmes.

Dealer technicians are no longer working in a cold open shed but a clean, warm facility; equally, the role is no longer focused on dirty repairs but involves increasingly sophisticated use of high technology and diagnostics. Does the retail industry need to work on building a more positive career-based image? An economic downturn may well be an ideal opportunity to start appearing at schools and colleges to promote such opportunities.

It is a matter of stability and good quality supervision

There is much published evidence regarding the impact of a skilled team on dealership performance. It is a matter of stability; good quality supervision; and personal motivation of a willingness to invest in employees that is the key. It is highly likely that during the looming recession there will be cases of dealerships and even groups ceasing to trade. Will they be the ones with a high level of skill – or merely ‘ordinary dealers?’

There is always a challenge in terms of providing skills and management training for smaller businesses. However, the lower work levels achieved during a recession may well create the time to provide skills training for those who normally miss out.

Implications of economic downturn

Experience suggests the used car market is quite healthy

At the time of writing, UK new vehicle sales have fallen by double digit amounts year over year. Exactly how far new car sales will fall is open to speculation; however, recent experience suggests that the used car market is quite healthy and in some way is compensating for the fall in new car volumes.

At the same time, there is a weakening in terms of the mix of vehicles sold with higher sales of smaller cars – with both manufacturers and dealers offering highly-attractive propositions. Dealerships are going into liquidation, others being closed and staff layoffs and short-time working being reported. Some immediate symptoms, and potential steps to mitigate the impact of economic downturn, might be summarised as follows;

- Audit the dealership; reengineer if is necessary to develop the value-added elements and seek to reduce the less effective parts of the activity.

- Immediate cost reduction programme; go through every function and cost in the dealership. What can be improved? What costs can be eliminated? Are all tariffs the most effective? What historic practices can be eliminated to save cost? Cash flow issues?
- Reduction in new car sales; review the current product offering. Does it include finance as part of the offering? Equally, what other services/benefits rather than price reduction might be offered? Is a clear used car re-purchasing plan in place? For clients who have delayed replacement – sell them service to keep their current car roadworthy. Review customer bases and identify prospects in ‘safe jobs’ and approach.
- Review Point of Sale finance options to ensure the most appropriate ones are available and all staff are trained in their effective, legal use – and promote them.
- Decline in service business; examine service business; what packages might be put together to entice clients? Monthly payments; special one-off deals? Checking of wear and tear components. Get on the phones to lapsed service customers. Differential pricing for older cars.
- Sales and service and customer care training; if staff are to be retained and currently not fully utilised, now is the time to increase the amount of training. Create flexibility so employees can still be used when business recovers. Develop/buy in-house training/use franchise training and keep costs down.
- Used car sales; appear to be holding up better than new car sales at present although values have slipped. Focus on used car outlets targeting appropriate market groups – family fleets, second cars in the household. Seek to segment the used car market – and pursue in the same way as new car markets are segmented. There is a chapter on the used car sector later in the report.

While dealer client prospects may wish to discuss issues associated with the cost of fuel and VED; all staff should be briefed and aware of the issues, and how these apply to new and used car sales as well as service and finance.

A franchised dealership is becoming an increasingly holistic organisation with an ever-increasing proportion of staff required to deal competently and confidently with customers and prospective customers.

Industry strategic developments

It is claimed recession moves industry forward by leaps and bounds. An equally positive attitude to the emerging recession is necessary, but there will certainly be changes in distribution once the economy starts to emerge. The extent of those changes will depend on the length and depth of the recession and the broader economic climate.

*It is claimed
recession moves
industry forward by
leaps and bounds*

The following predictions are offered at this stage;

- Reduced headcount working in automotive retailing and associated industries.
- Fewer franchised dealers and less independent outlets in the sector with part of the reduction caused by business failure and part by manufacturers restructuring their distribution.
- New and novel ways of selling vehicles emerging – growth in the role and amount of electronics used in the retailing activity.
- More highly-skilled workforce engaged in the industry.
- A new regime and rules for new and used vehicle finance with variable rates and a risk/reward ethos entering the market.
- A revitalised and restructured used car industry with a focus on placing individual units rather than simply ‘selling used cars’.
- Increasing numbers of cars on the road offers dealers/garages the opportunity to grow their service and repair business.

While short-term forecasts suggest there will be a decline or plateauing in terms of new car and commercial vehicle sales, dealers will need to change their modus operandi. Their overall business model must also change to embrace an ever wider spectrum of revenue generating business associated with the provision of cars.

The used car share of the car parc may increase, despite government announced policy to support scrapping older vehicles. The older vehicles get the more unlikely they are to return to franchised dealers for service; so dealers will have to take steps to win this business through more imaginative and innovative service marketing strategies.

Although difficult to quantify at this stage, there will be pressure to increase the supply of low and non-CO₂ producing cars – likely to be plug-in hybrid and later battery-sourced power. Such changes will have implications for vehicle sales, service and the associated technologies and used vehicle operations. There will be a challenge for new skills and also for the management of the transitional period between the two forms of power.

Government will have a significant input in the future shape of distribution with their new close interest in banks and insurance companies.

European industry support

Once again there are different approaches to support for car sales offered by European governments. Figure 6.15 overleaf summarises the principal sales support programmes currently on offer in mainland Europe. Perhaps the most successful of these programmes is the one implemented by the German government and based on an allowance of €2,500 for scrapping a car over nine years old.

While the system would appear to be very simple, there are persistent rumours that dealers in the Czech Republic and other adjoining states are gathering used cars to trade against the generous terms and splitting the benefits with their German dealer colleagues.

Figure 6.15; Car sales support programmes in Europe

Major Markets	Direct Employees	Jan - March 2009 new car market	% change	Scrappage Incentive Scheme	Other measures
Germany	862,000	868,090	+18.0%	Yes 12 January 2008 - 31 December 2009	Reduced circulation (road) tax, over €100bn in support measures.
France	289,000	505,456	-3.9%	Yes 4 December 2008 – 31 December 2009	First country to offer support package. €6bn package and credit guarantee for finance arms worth €779m.
UK	185,000	480,358	-29.7%	Yes 18 May 2009 – 28 February 2010	£1,000 plus £1,000 from participating manufacturers – cars and LCVs up to 3.5 tonnes registered before 31st August 1999 - £300 million fund limit. £2.3bn loans package.
Italy	162,000	538,270	-19.1%	Yes 01 February 2009 - 31 December 2009	TBC.
Spain	159,200	197,995	-43.1%	Yes 1 December 2008 - 31 July 2010	€4bn package for automotive sector.

Scrappage schemes have also been introduced in Romania, Luxembourg, Cyprus, Slovakia and the Netherlands – and are being considered by Belgium, Hungary, Poland and the Czech Republic.

Reports of the success of the German scrappage scheme have been highly positive – and it has been increased from 600,000 to 900,000 units to be scrapped. However, some questions are being asked regarding the strategic implications for the German automotive industry as a whole. Will the change distort the country's used car profile and could it create an unintended consequence of pulling forward new vehicle sales, thus creating a substantial drop in sales in the medium term?

In the United Kingdom, the government has introduced a capped scrappage scheme with a subsidy of £1,000 per unit from the government matched by a similar sum from car manufacturers. At the time of writing, most manufacturers were developing their own schemes to encourage car owners wishing to scrap their 10 year-old plus vehicles – employing more generous incentives for above entry-level models, recognising that a shortage of smaller, fuel efficient cars is likely to develop.

Governments have to be aware of the high proportion of new cars that are imported, and the risk of attracting the jibe that 'taxpayers money is being used to subsidise imports'.

Issues for further discussion

From a government point of view, there are probably four issues of immediate concern

From a government point of view, there are probably four issues of immediate concern which would assist automotive distribution in recession and when the industry starts to recover;

- Revert to the existing VED rules for at least two years to support residual values of less fuel efficient used vehicles. If residuals can be managed and VED is not punitive, buyers will accept the units either because they need them as part of their employment while others may acquire them as low mileage units – and so flush them through the system.
- Force fuel prices down for larger vehicles, so buyers will feel more buoyant in attitude. Ensure there is a strategic balance in petrol versus diesel to accelerate flushing through petrol units.
- Credit; encourage banks and other institutions to release, in a controlled way, finance for vehicle acquisition – for new and used vehicles.
- Create quickly and easily accessible skills training at all levels of the industry both locally and centrally.

Some initial conclusions

The retail sector of the industry is highly vulnerable to an economic downturn, in part because of the large number of small businesses that may not have the financial depth to be able to withstand a long period of poor trading. Equally, many franchised dealers may suffer through withdrawal of credit which has been secured against the value of their commercial premises.

Recession may offer the opportunity to enhance skills in the sector, but it will require external stimulation to move forward on such a front.

How successful the imminent scrappage scheme will be remains open to question. Many of the car owners targeted by the scheme are unlikely to have the money to hand fund the gap between the 'scrappage allowance' and the sales price of the new car – so the scheme's will rely heavily on the availability of credit.

In addition to the long-awaited scrappage scheme for cars and LCVs over 10 years old, Budget 2009 confirmed the government's policy on VED and Fuel Duty.

The new 13-band VED system for cars comes into force on 1st May 2009, followed by differential first-year rates on 1st April 2010. While it seems the third stage rise in First Registration Fees has been postponed – there remains a possibility of a large increase in 2010 – given the sharp fall in fee income the DVLA is facing due to the severe drop in new vehicle sales.

Following the 2p/litre rise in duty on 1st April 2009, and a further 2p/litre on 1st September 2009 for petrol and diesel – a further 1p/litre increase will take place on 1st April each year from 2010 to 2013.

Chapter 7

Fleet, Leasing and Daily Rental

UK new car volumes are dominated by the fleet operator and business sectors that, jointly, account for well over half of the new car market. In reality, with various below the line incentives, this figure may well be significantly higher. Germany is the only other nation in Europe to challenge the number of new cars sold to business car users.

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The high proportion of cars sold to fleets can be traced back to the pay restraint policy introduced by Prime Minister Edward Heath in the 1970s. To help retain and recruit staff, companies had to find a way of enhancing pay through some form of benefit in kind. Providing a company car was deemed by many to be an acceptable way of improving both an employee's 'reward package and circumventing the pay restraint directive.

While the fleet industry took some time to get organised in terms of levels of provision and management, over the past 30 years it has become the most sophisticated fleet management sector in Europe – and probably the world.

This short chapter looks at the size of the industry and the profile of major providers. It also highlights some of the critical issues currently facing the fleet and business car sector.

Magnitude of the fleet industry

Figure 7.1; Fleet, business and private sector car sales

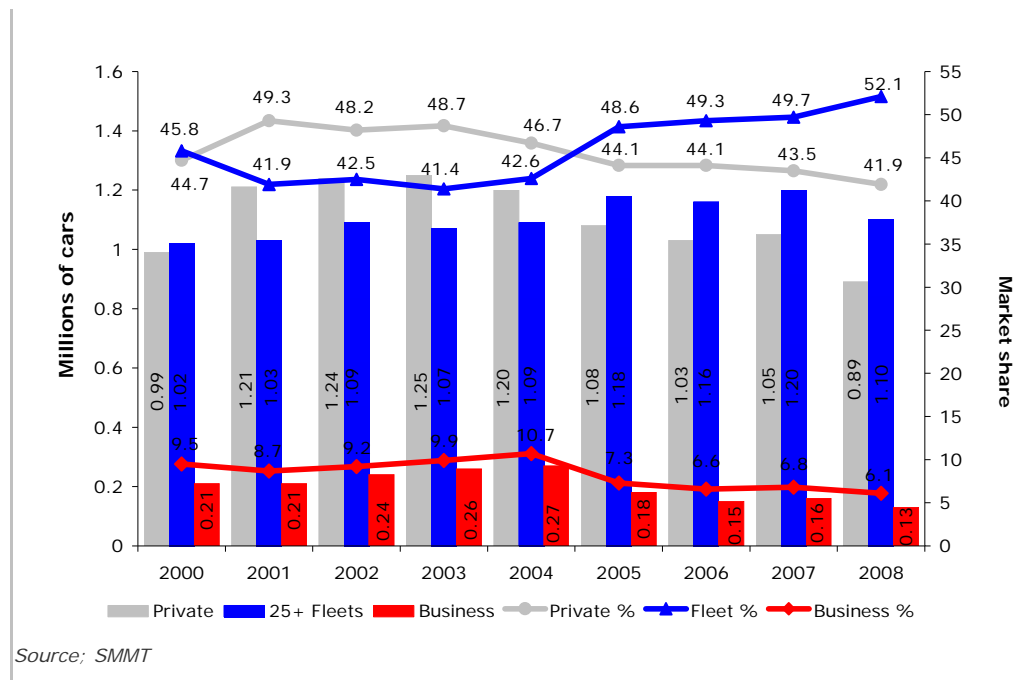


Figure 7.1 traces the pattern of UK new car volumes, divided into private buyers, 25-plus fleet operators and sub-25 business users. Business users are essentially smaller companies; individuals who run cars ‘on the business’ – sometimes private motorists with a third party funding or part funding their car.

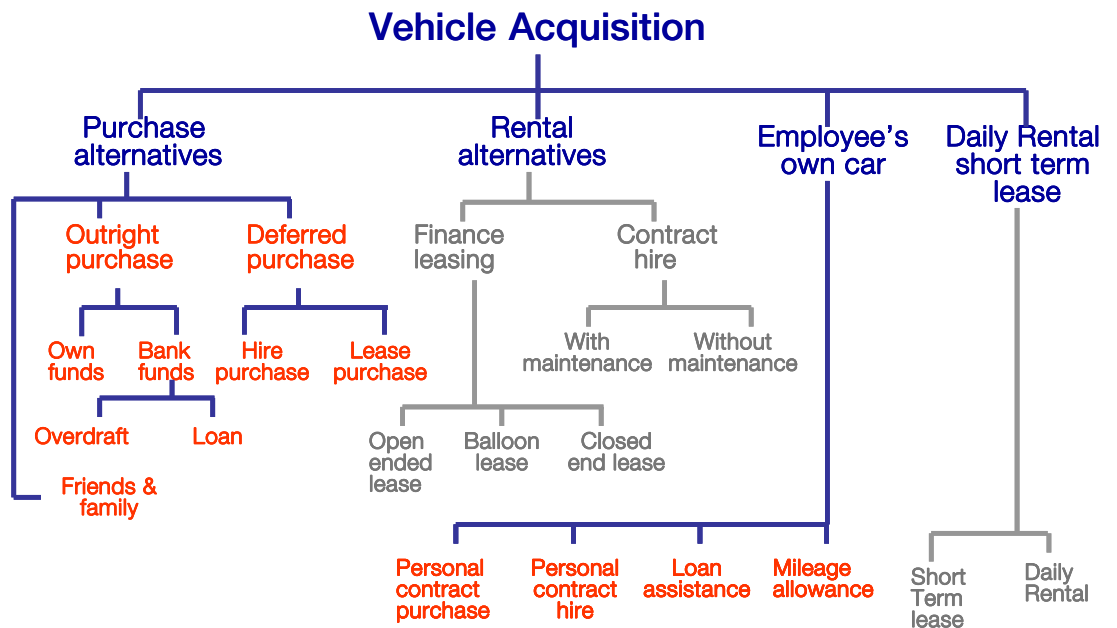
During a period of serious economic downturn, the number of cars run by businesses tends to fall considerably

Historically, during a period of serious economic downturn, the number cars run by businesses tends to fall considerably. Companies may reduce headcount or cut the number of cars provided, while others may go out of business. In past recessions, there has also been a fall in the number of cars operated by sole traders. It may be that some part-time businesses simply cease trading for a period of time, then resume as the economy recovers.

Fleet vehicle finance and provision

There is a plethora of alternative methods of vehicle funding within the fleet and business car sector. Figure 7.2 summarises the range of alternatives – to which daily rental for short-term requirements could also be added.

Figure 7.2; Alternative forms of fleet vehicle funding



Source: The University of Buckingham

Without delving too deeply into vehicle funding alternatives, essentially they break down into four principal options;

- **Purchase alternatives;** a range of alternative ways of vehicle purchase shown on the left of Figure 7.2, ranging from using a business’s own cash through to borrowing funds from banks or finance institutions. Some of these are classified elsewhere as Point of Sale finance, which can be arranged through the supplying dealer.

Easy access to credit may have encouraged some businesses in the past few years to have used bank sourced funds for vehicle acquisition when alternative methods might have been more suitable. Given the tightening in bank-based credit, some organisations are seriously rethinking their fleet funding and, it would appear that both the economic downturn and shortage of funds has led some operators to consider extending replacement cycles.

- **Rental alternatives;** the middle block shown in the paradigm are vehicles that are hired rather than owned. Leasing companies, typically owned by a bank or vehicle manufacturer's finance house, fund business vehicles that are typically retained for three to four years, and perhaps 50-60,000 miles. In the case of finance leasing – the lessee, the user company, carries the residual value risk. In the case of contract hire, the lessor, the vehicle provider, bears the residual value risk – although for larger clients, there might be an agreement to share any positive proceeds on disposal. Residual values and residual value forecasting have been issues of special concern in the recession with average values achieved at auction falling considerably, although they now appear to be recovering somewhat.
- **Employees;** may provide their own cars and have them funded through various schemes as set out in the third part of the paradigm. The advantage of some of these methods is that maintenance of the vehicles can be assured – a critical issue. Employees would normally take the residual value risk. Companies have a number of options in this regard;
 - Pay employees a mileage allowance and let them choose any car they wish; as a method of car provision current thinking does not favour this approach as it can be fraught with legal, operational and image issues.
 - Organise a Personal Contract Purchase (PCP) programme to help employees acquire a new car; the organisation and the lessor have some involvement in the vehicle and the legal risks may be reduced.
 - Organise an Employee Car Ownership (ECO) scheme that gives the employer firm control and allows it to introduce the same rules as cars which are part of its normal company car programme.

Residual value risk and maintenance is with the employee in the first option, with the lessor or employee in the second case, and with the lessor in the third instance.

- **Daily rental/short-term lease;** a short-term lease is a relatively recent development and may provide cars for up to say six months, typically for new employees or for specific field campaigns. These units may not necessarily be new vehicles. Shared car schemes and daily rental may become more popular in future as they offer the opportunity to pay for use of vehicles rather than have to manage them all of the time. However, the decline in business requirements for daily rental, largely driven by company effectiveness plans and reduced client contact, has pushed down the demand in the short term for daily rental, and a number of players have either consolidated or gone out of business.

- Maintenance agreements/management;** the box across the bottom of the paradigm indicates maintenance agreements available for lessees and fleet operators. In such instances, leasing companies will provide maintenance and management agreements for units that are not on comprehensive contract hire packages. The benefit is that these vehicles are professionally managed and costs are tightly controlled. With regard to the provision of maintenance programmes, there would appear to be a steady growth in the number of units under management having those services provided in the field by non-franchised service operations.

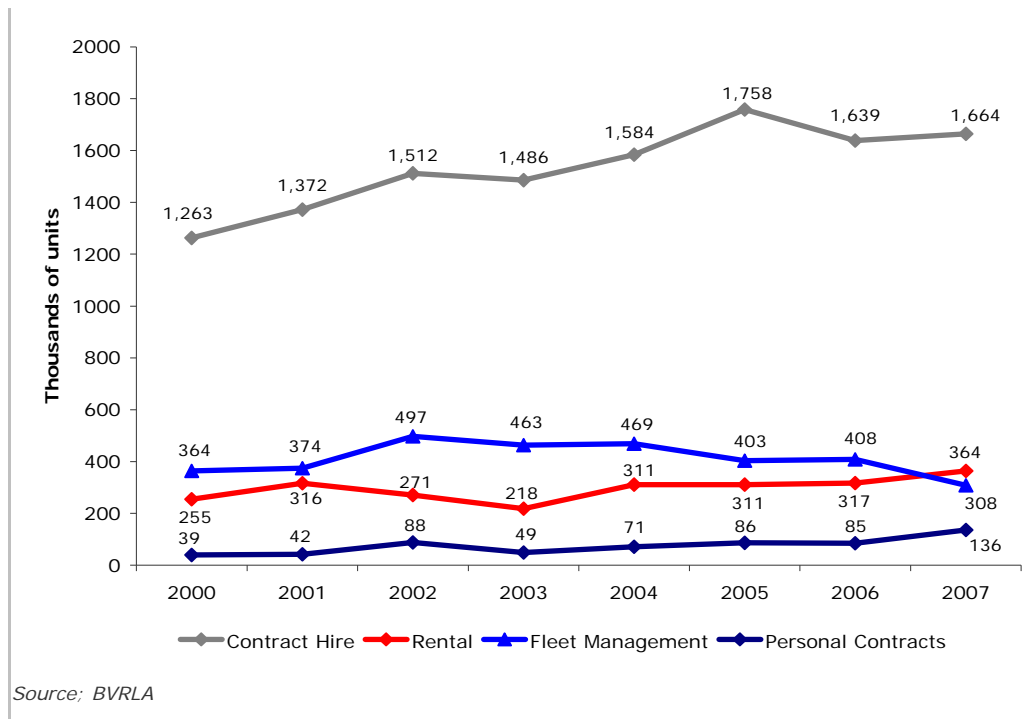
It is generally accepted that around 90% of new cars are bought with some form of finance

It is generally accepted that around 90% of new cars are bought with some form of finance. Thus, the real impact of the current credit crunch on the fleet and business user sector can be imagined.

Product/market segments

Figure 7.3 shows the trend and magnitude of the principal methods of vehicles supplied by the leasing industry. These figures account for around 90% of units in operation in each category, gathered by the British Vehicle Rental and Leasing Association – BVRLA.

Figure 7.3; Contract hire, fleet management, personal contracts and rental



Fleet operators that acquire and manage their own units would typically use the range of funding alternatives shown in Figure 7.2. They, too, are currently suffering from a lack of credit availability. While fleets may require significant amounts of capital for vehicle acquisition, whether for immediate payment or deferred payment, vehicle acquisition may not be regarded as a core activity.

Leasing and contract hire companies

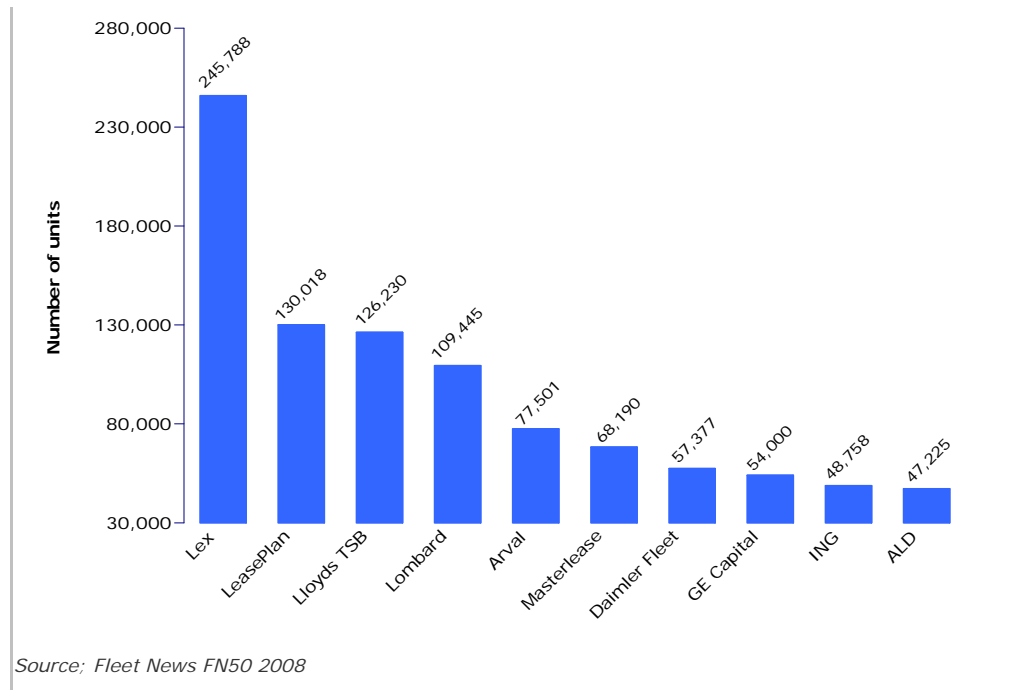
The industry is dominated by companies owned by banks or vehicle manufacturers

Given the level of funding necessary to finance the many thousands of vehicles operated by leasing companies, it is hardly surprising the industry is dominated by companies owned by banks or vehicle manufacturers' finance arms, operating either on a single-brand or an all-brand policy.

Figure 7.4 below shows the top-10 players in the leasing industry – they now represent 64.5% of the sector. Conventionally, this has been a fairly diverse sector with a broad spread of players. However, the past five years have seen a significant degree of rationalisation.

As a result of the refinancing of the major UK domestic banks, it is realistic to expect a further degree of consolidation within the leasing industry driven in part by the consolidation of the new, megabanks' own reorganisation – and also by the industry consolidation that inevitably comes with economic recession.

Figure 7.4; Top 10 UK leasing companies



Used vehicle disposal

Predicting used car values is arguably the 'Achilles Heel' of the industry

With depreciation accounting for more than 40% of the cost of vehicle provision, predicting used vehicle prices three to four years ahead is arguably the Achilles' heel of the industry. Unsurprisingly, the current severe fall in residual values, particularly among higher value and luxury vehicles, is hitting the industry hard.

Leasing companies have had to take a wide range of hits with regard to projected residual values compared with the figures achieved. Figures have been quoted of £200-£1,250 per unit as the typical hit on residual values. Multiplied by the numbers of units being disposed of, the full order of magnitude can be imagined. Residual values are explored in more detail later in the report.

Used car disposal is a critical and continuing issue. Lessors' remarketing organisations seek to dispose of vehicles through a variety of channels to maximise the price achieved and counter the vagaries of economic recession. However, the majority of used ex-leasing cars are sold through auctions and, in turn, are bought by franchised dealers and used car retailers for sale to used car buyers.

While it is always possible to sell used cars through an auction, the prices raised will be 'those on the day' which, at the time of writing, are significantly lower than a year ago – although there appears to be a slight decline in the rate of fall in residuals.

Given the large quantities of used cars sold by the leasing and contract hire companies, with many of those units being of higher specification, there is real concern regarding business viability. As a result of poor residual values, some leasing companies seem to be offering extended leases in the hope that residuals might recover within the extended lease period – or at least offer the opportunity to spread the depreciation over more rentals.

Employment

While the leasing industry has a massive turnover, the sector does not have a huge headcount; estimates suggest around 8,000 employees. There are also a significant number of specialist companies servicing specific aspects of the industry, such as IT, forecasting, market intelligence and training.

Indirectly, the leasing and fleet management industry also utilises the services of a broad range of dealership and aftersales outlet personnel for vehicle service and maintenance.

Medium-term industry development

Pressures of duty of care, environmental management, reporting needs and cost minimisation will all encourage the strategic growth of alternative ways of vehicle funding.

However, the size and mix of the industry could be influenced by businesses downsizing, in terms of vehicles in use and the absolute numbers of cars and commercial vehicles provided.

There is already a trend showing toward forms of personal contact hire and employee contract hire (PCO/ECO) as outlined earlier.

Recent amalgamation of banks is also likely to lead to industry consolidation

The recent refinancing and amalgamation of banks is also likely to lead to industry consolidation, restructuring and rebranding, as all of the banks involved in recent amalgamations have substantial contract hire operations. These are likely to be consolidated or perhaps even sold on – providing there are buyers available.

The recession will certainly lead to a degree of defleeting among lessors

The recession will certainly lead to a degree of defleeting among lessors – reflecting staff reductions and fewer company provided cars. Equally, there is already a downsizing movement as employees seek to pay less tax and companies seek to reduce the VED paid on larger emission vehicles and petrol vehicles.

The fall in residual values over the past 18 months is causing significant problems across the fleet industry. At the time of writing, there are many reports of auction prices being a thousand pounds, or more, below the predicted residuals values envisaged when the contracts were drawn up.

While larger leasing companies, with cash flows for vehicles with 2-3-4 years to run on their contracts, should be able to weather such adverse revenue streams, smaller and independent leasing companies may not be so robust. It is highly likely there will be a string of rationalisations in the marketplace. Certainly, there are organisations outside the industry increasingly interested in entering the leasing sector, once the residual value tsunami has passed.

The reduction in residual values achieved by some players are already being reflected in rental rates, despite the higher front-end discounts available.

Implications of economic downturn;

Discussions across the industry suggest the following key issues of concern as a result of the economic downturn;

The sector is suffering from uncertainty regarding proposed changes to VED and capital allowances

The leasing industry is being hard hit because of the collapse in residual values particularly for medium and larger vehicles and 4x4s – the majority of which are used by fleets. Equally, the sector suffered unnecessarily due to uncertainty regarding proposed changes in VED and capital allowances. Clarification regarding changes in the rules can help the fleet industry considerably.

While high fuel prices may have retreated, they are still high compared with the past few years and any reduction would be a help to the industry.

The credit crunch and economic downturn has hit the leasing industry's customers on two fronts – businesses that buy its services and, secondly, the organisations and individuals that buy its used vehicles.

As such, there are a number of areas where government support could help to reactivate the largest buyers of new vehicles.

- Encourage banks to release funding for businesses to buy or replace fleet vehicles, to acquire more environmentally-friendly units and to replace units for continued reliability.
- Encourage banks to release funds for the acquisition of used cars and commercial vehicles, critical to restoring prices in the used car market and getting sales moving again.
- Vehicle Excise Duty; revert to the current system of VED on used vehicles to protect the used vehicle market. Many buyers, particularly in rural areas, need 4x4s and more robust vehicles.

- Exert pressure on energy companies to cut fuel prices so users will continue, at least in the short and medium term, to acquire a spread of vehicles.
- Present a logical and assured policy towards company cars and hold it for at least five years; so fleet operators and leasing companies can plan economic and environmentally-friendly fleets, thereafter creating an appropriate supply of quality vehicles for the used car marketplace.

The economic recession will hit the fleet and leasing industry hard

The economic recession will hit the fleet and leasing industry hard as businesses seek to reduce the total cost of company car provision – whether through extending replacement cycles, reducing mileage, downsizing or changing fuel type – as well as reducing the absolute size of the fleet.

The biggest hit in the short term for the leasing industry is the negative impact on residual values that, in turn, is highly likely to force up leasing rates.

Some initial conclusions

The leasing, contract hire and daily rental industries are currently suffering a multi whammy – their user clients are suffering and seeking to extend replacement cycles, while used car buyers have let prices slip – and for the independent players there may be a shortage of credit to acquire replacement or incremental units for hire.

Significant consolidation caused by the above issues, plus the problems the banks are having, could create an uncertain short-term future for the industry.

Chapter 8

Private Vehicle Finance

Approaching a half of the UK's 2.5 million annual new car sales go to the private sector and the balance to fleet and business, although there are probably another 10% of cars 'run on the business'.

Some 80-90% of private sales have some sort of external funding

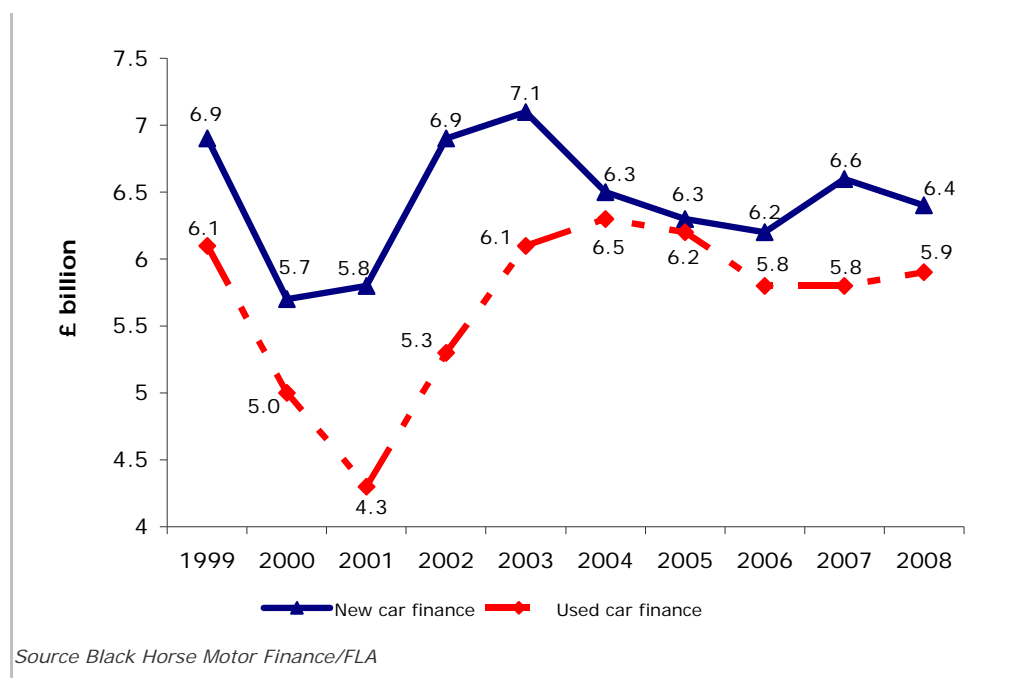
There is an accepted mantra in the retail motor industry that some 80-90% of private sales have some form of external funding. That funding may be from friends and family, from credit unions, from banks or building societies, over the Internet – or through dealers. At the time of writing, there is a severe shortage of any form of finance for private car acquisition.

The current chapter seeks to examine finance for private buyers. For the past few years, credit has been cheap and readily available through banks, building societies, over the Internet or a range of secondary lending organisations. As a readily available source of funds banks, the much discussed banking crisis and subsequent credit shortage has decimated the availability of easy funds for private buyers; albeit some funds are still available – but the terms are much tighter and rates do not reflect the near zero rates.

Private vehicle finance market

Demand for finance for private vehicle acquisitions has been quite volatile over the past few years as shown in Figure 8.1 below. The chart shows that over the review period the market for finance for private new car transactions fluctuated between £5.7 billion and £7.1 billion over a relatively short period. Finance for private used car buyers fluctuated between £4.3 billion in 2001 and £6.3 billion in 2005.

Figure 8.1; Value of new and used car finance markets; 1999-2008



At the time of writing it is claimed that while credit for private cars is available, the criteria are much tighter than they have been for a long time and interest rates are somewhat higher than they have been.

Used vehicle prices at auction are still significantly lower than during late 2007

The irony of the situation is perhaps that used vehicle prices at auction, as a good a guide as one might find, are still significantly lower than they were during late 2007.

New cars being sold through dealers are attracting bigger discounts than have been available for a long time, with both dealers and manufacturing contributing margin and manufacturers' finance houses offering zero or close to zero rates of interest on the car loans they make available. However, there is generally a degree of trade-off – exceptional finance and lower discount – or exceptional discount.

Implications of economic downturn

Economic downturn is a situation the private vehicle finance industry is relatively well used to handling. Certainly, customers have tightened their belts in the past but, subject to a high level of prudence, funds have been available.

The credit crunch, however, is perhaps a newer phenomenon that has created a double problem for the sector, in that buyers are wary and there is less finance available for those who decide to use it. The turn in the market has occurred since the major finance houses began to promote Point of Sale finance and has followed the collapse in much conventional bank finance.

At the same time, the major players have started to move from setting rates on Point of Sale finance according to the amount of finance borrowed to a case of 'rate for risk', where the borrower is judged for creditworthiness rather than the vehicle they plan to buy. The second half of 2008 saw a significant rise in the amount of business being transacted using Point of Sale finance for private buyers.

Research undertaken for Black Horse Motor Finance suggests dealers and salespeople do not, as a matter of course, offer car buyers Point of Sale finance.

Training requirements

The quality of training in the finance sector, principally to sales management and dealership staff has generally been provided by the finance houses. While technically this is excellent, there is always a challenge as to whether it is too partisan, and whether such training should be provided externally?

From an industry viewpoint, it is important that franchises and dealers put particular effort into developing a good understanding of private vehicle finance, the options and sources among their face-to-face sales force as well as the specialists,.

Among some of the most successful dealers there is a simple rule of thumb; 'never let a prospect leave without a finance quote – even if they have the funds already available'.

Issues of concern

Discussions with a range of senior members of the industry suggest the following are short-term issues where government support would be appreciated;

- Provide price support for vehicle sales; such schemes have been discussed elsewhere in the report. Germany has been particularly successful with its €2,500 allowance for scrapping cars over nine years old. The allowance can be set against a new car. In the UK case, as discussed earlier, such a scheme might be far more effective if it were to include cars up to five years old. This would not pull in so many immediate imports and part of the value-added would go to dealers in terms of refurbishing and trading used cars. At the same time, there would still be a substantial improvement in the CO₂ footprint.
- The benefits of a ‘scrapping subsidy’ could perhaps be further enhanced by encouraging nationalised banks to grant, on appropriate commercial terms and risks, loans to buyers who have scrapped over nine year-old vehicles.
- Reverse policy on VED to encourage prospects to acquire a proportion of higher-value used cars or higher-emission vehicles in specific circumstances. This is required to get used vehicles out of dealerships and to protect residual values for those units – set rates so they would be suitable/economic for lower-mileage drivers.

*Reverse policy on
VED*

Some initial conclusions

Private buyers have come to rely on easy credit; that appears to be changing and easy credit from the banks is but a fond memory. Instead there has been a growth in Point of Sale finance, but it is important that dealers are well versed in the legal, practical and client benefits of such alternative means of finance.

Car finance will have a big part to play in the success of the ‘scrappage allowance’ scheme for cars and LCVs more than 10 years old. Under this programme, the bulk of new car demand is likely to be for cheaper, smaller cars and will often require substantial finance support over an above the £2,000 allowance.

A good number of these prospective buyers could be classified as ‘sub-prime’ customers by finance companies, become subject to a high degree of caution and invariably find it very difficult to gain credit approval.

Chapter 9

The Used Vehicle Market

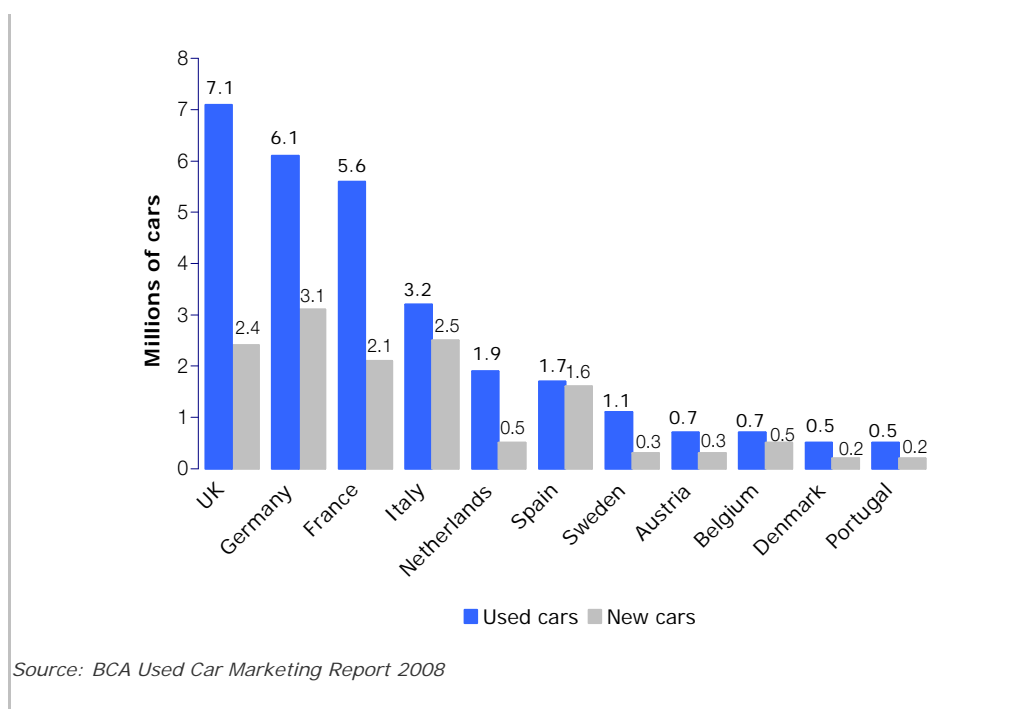
The UK used vehicle industry is all too often dismissed as being 'somewhat irrelevant' to the new vehicle market. Nothing could be further from the truth. New and used car markets rely heavily on each other for their continued existence.

In a mature automotive market such as the United Kingdom's, the vast majority of new cars and commercial vehicles sold are, in reality, replacement units. Invariably, a used vehicle has to be disposed of to release equity to part fund a new vehicle or a newer used unit.

Used car market volume

The UK used car market is the largest in the EU by some considerable margin, with Germany in second place.

Figure 9.1; European new and used car markets; 2007

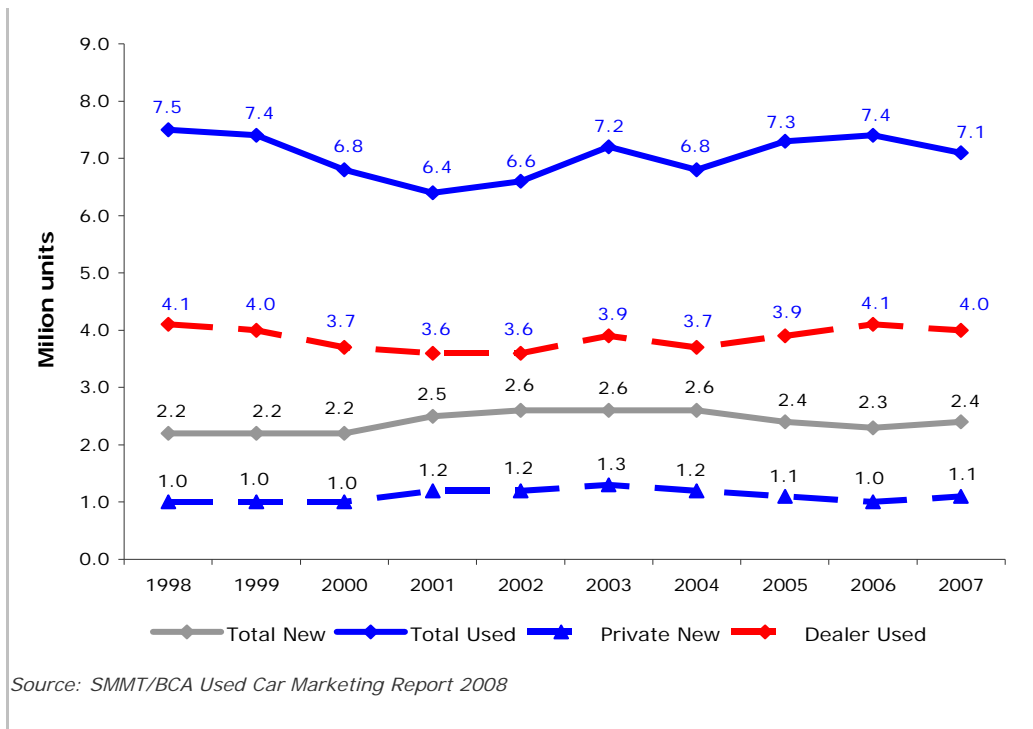


UK used car sales are about three times the volume of new car sales

Overall UK used car sales are about three times the volume of new car sales, and this has been remarkably consistent as is shown by Figure 9.2 overleaf. The chart shows that over the past decade, annual used car volumes have topped the seven million mark on six occasions.

The used car market is almost exclusively private, as the number of used cars bought by fleet operators or businesses is minimal. Perhaps a fairer reflection of the used car market is that, together, franchised and independent dealers sell around four times as many used cars as new cars sold to the private sector.

Figure 9.1; New car vs. used car sales volumes

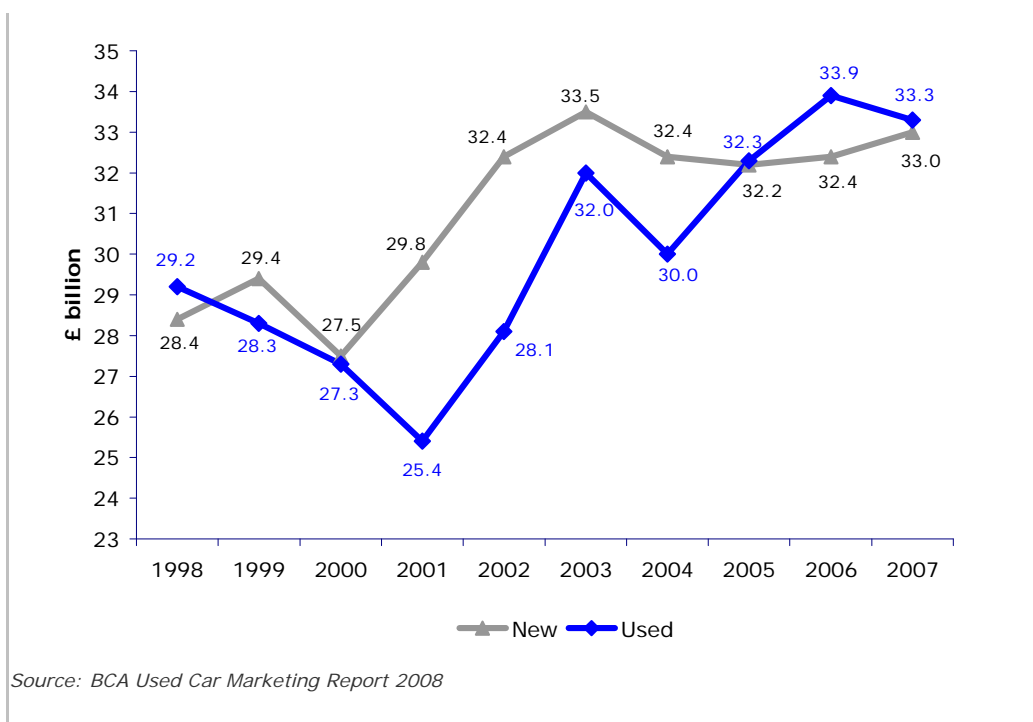


Used car market value

The market value of used cars grew by £8 billion in five years

Used and new car market values were roughly similar in 2007 at the £33 billion mark. The market value of used car sales grew by £8 billion in five years to a high of £33.9 billion in 2006 – overtaking the new car market value as new car volumes slipped back in 2005. Used car retailers account for around three-quarters of used car market value - £25.7 billion in 2007.

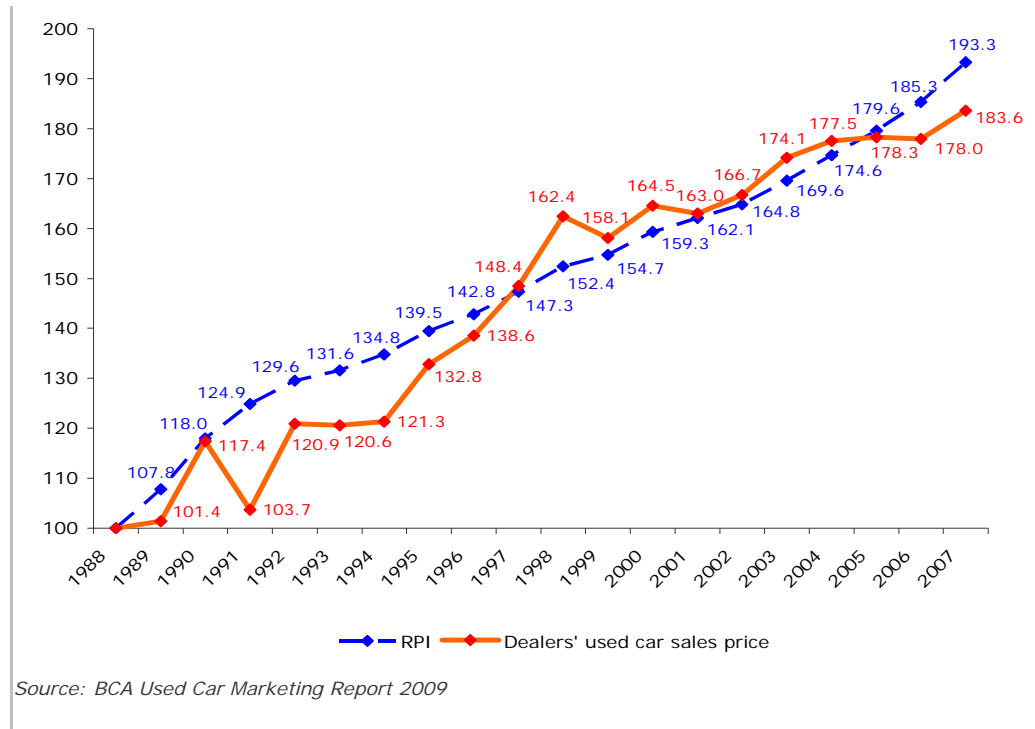
Figure 9.2; New car vs. used car market values



Consistent residual values

Recent historical analysis has shown that the average value of used cars sold through UK dealers has remained remarkably consistent when indexed against the official Retail Price Index as shown in Figure 9.3.

Figure 9.3; Average UK dealer used car selling price and RPI



The relevance of this index is perhaps that it shows just how stable real values of used car prices have been over some 20 years. It might also suggest that financing quality used cars is not as risky as has occasionally been suggested.

A 'forgotten industry'

The used car market tends to be a 'forgotten industry'

Despite the large size of the used car market, it tends to be a 'forgotten industry', certainly compared with the high profile of new car sector. Quite why the used car industry has a relatively low profile is difficult to understand, considering the huge impact it has on the interests of the wider automotive market.

The new car industry relies heavily on the used vehicle sector to help pull-through new car sales and, as seen earlier in this report, used cars' contribution to the finance sector is immense – accounting for £6 billion of Point of Sale finance alone. The 20 million-plus 'second-hand' cars in the UK are also the bedrock for automotive core industries – vehicle maintenance, accident repair, fast-fit, tyres, parts manufacturing and supply, roadside assistance and motor insurance.

New cars are homogenous products that, barring interest and storage costs, do not depreciate while waiting to be sold – depreciation starts when the units are registered. Used cars on the other hand are heterogeneous – no two units are in exactly the same condition or mileage.

The rule of thumb is that a used car depreciates between £5 and £10 a day while it is waiting to be resold, thus demanding sophisticated and tightly-managed sales channels.\

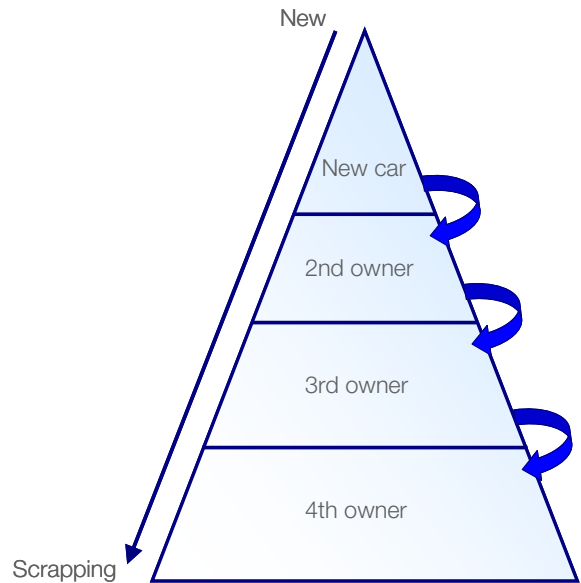
The paradigm in Figure 9.3 shows how the new car will be recirculated through several used car users until it is finally scrapped.

The used car sector is totally reliant on new car sales and recirculated used cars for its supply of vehicles.

While units may be refurbished and prepared for resale, the supply is fixed and so is the specification. There is an adage in the new car industry that 'to ensure the best residual value, specify a new car that will be attractive as a used car'.

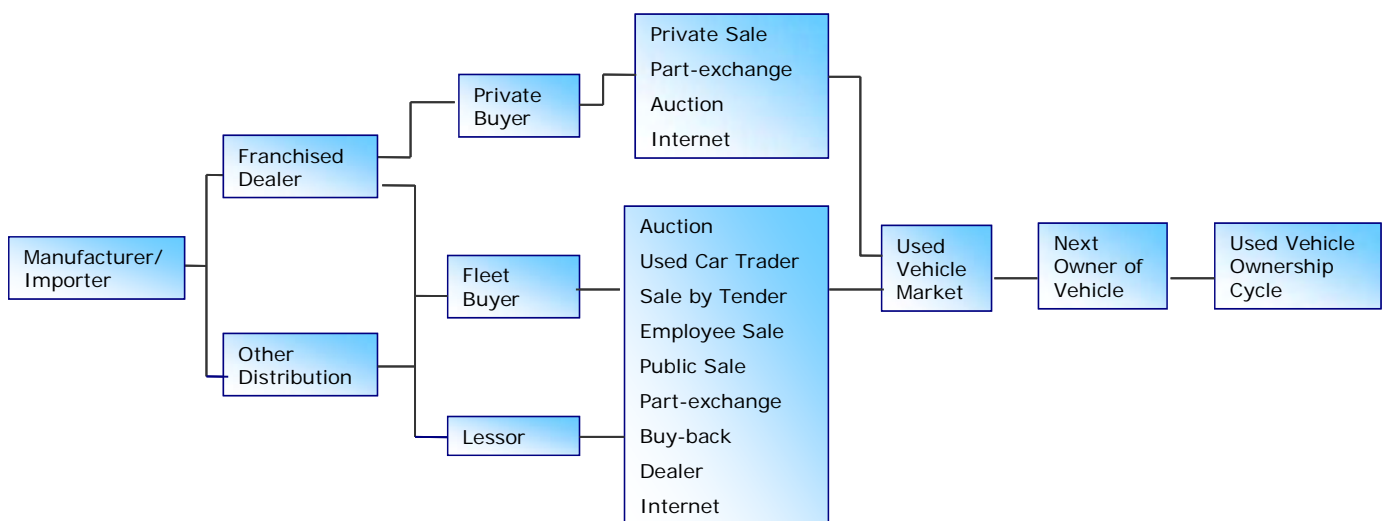
The paradigm in Figure 9.4 shows the different routes a new car might ultimately take to the used car lot. As they are likely to be replaced in multiple numbers, there are far more options for used business cars to reach used car retailers and buyers than privately-owned cars.

Figure 9.3; Used vehicle supply chain



Source; The University of Buckingham

Figure 9.4; Routes to used car market



Source: The University of Buckingham

Issues of concern regarding a healthy used car market

Elsewhere, this report has reflected on the importance of the health of the new car market and channels to market. While the new car industry has a widely-recognised series of requirements, those for the used car industry may be quite different as illustrated below.

- Used car sector supports the new car industry as it releases the equity in used vehicles to part fund new, replacement units.
- Steady supply of used units required from the first tier to support demand for used vehicles.
- The used car market is vital to ‘pull through’ new car sales and sustain demand for new vehicles.
- Used car market requires finance, sometimes with a higher level of risk management than the new car market.
- Used car pricing is heterogeneous, but offers sellers greater profit opportunities.
- Used car sourcing can be critical and requires vigilance on the part of sellers and used car buyers.
- Changing demographics are changing the used car market in terms of buyers – a greater proportion of older people and many more women are buying used cars.

Without a healthy used car market, the new car industry would suffer dearly

It is against these higher level issues that the success and health of the used car industry must be seen. Without a healthy used car market; the new car industry would suffer dearly.

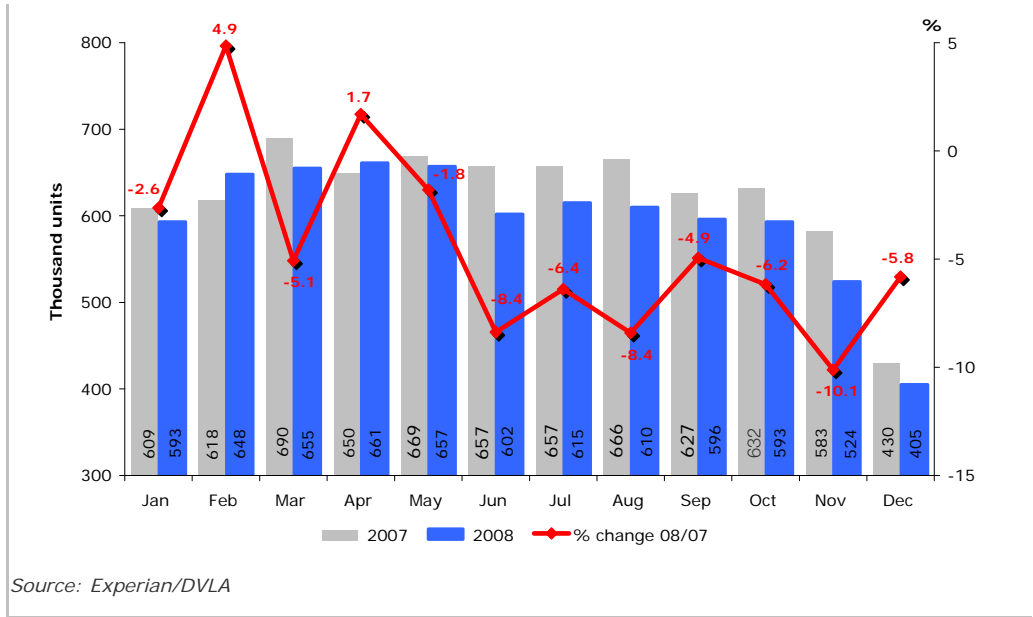
Implications of economic downturn

Used car sales volumes have held up quite well during the recession to date as is shown by the monthly figures in the Figure 9.5 overleaf.

As yet, it is difficult to make accurate predictions on what effect the government’s scrappage scheme for cars over 10 years old will have on the used car market.

Part of this strength might be attributed to some traditional new car buyers switching to used cars for the first time, while some encouragement might also have come from the attractive used car prices on offer.

Figure 9.5; Used car volumes 2008 vs. 2007



A analysis of used car prices at auction, shows how disposal prices slipped then started to recover during 2007-2008.

Figures 9.5 to 9.7 show average auction prices on a weekly basis from January 2007 through to December 2008.

Figure 9.5; Prices at auction 2007-2008

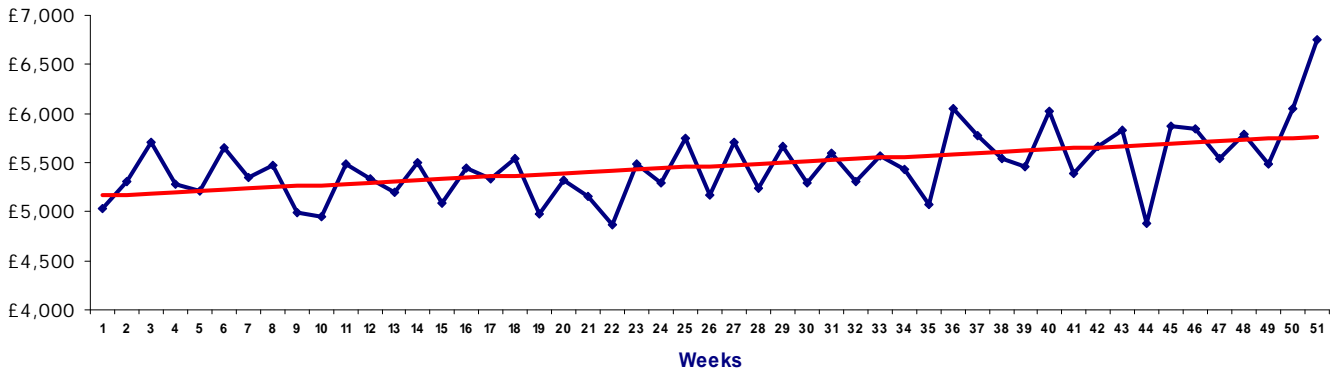


Figure 9.6; Prices at auction January to June 2008

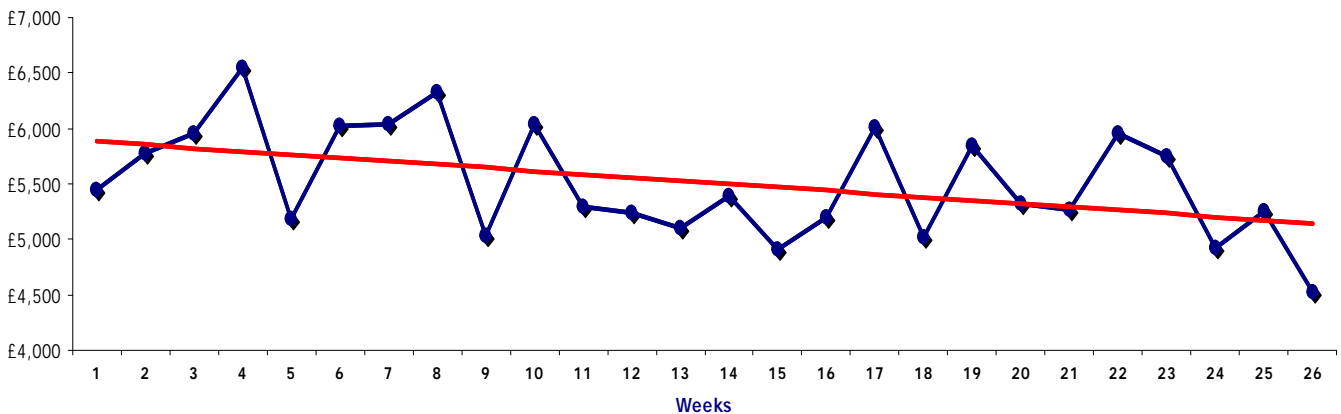
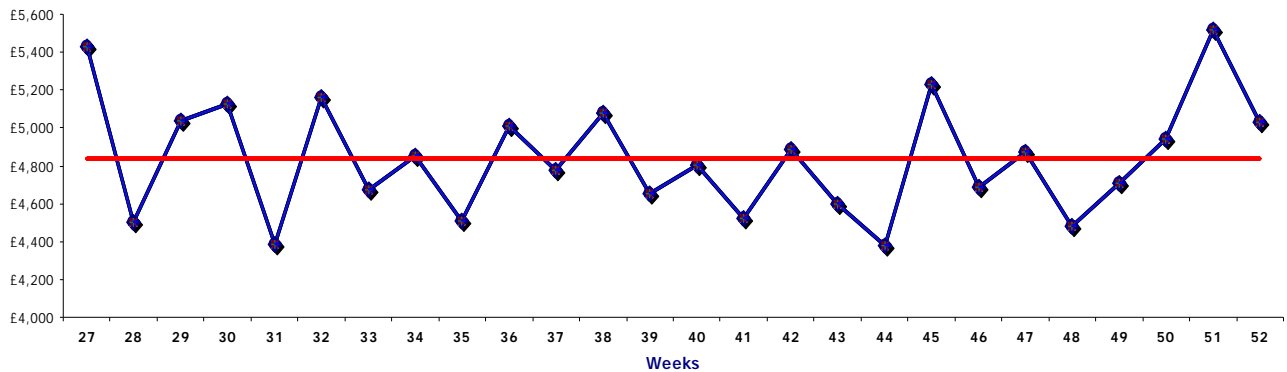


Figure 9.7; Prices at auction July to December 2008

Source; BCA

Figure 9.5 shows used car average prices at auction rose slightly during 2007. In the first half of 2008, however, there was a marked drop in average auction prices achieved which levelled off in the second half of the year prices plateaued and have since started to recover somewhat in early 2009..

The next two to three years may well see a rise in average residual values for quality used cars as the supply of such units will get tighter as private buyers and fleet operators hold back from replacing their existing cars.

The drop from around 2.5 million new cars sold for several years, to a predicted 1.7 million new car sales in 2009, could well create a formidable gap in the used car supply.

Industry sector employment

The IMI Automotive Skills Footprint report lists 22,500 companies involved in vehicle sales, employing 243,000 people. Of these companies, 5,300 are franchised new car sales outlets (Sewells Franchised Networks 2008), nearly all of which also sell used vehicles. The majority of the remaining 17,200 outlets are used car retailers; in addition to a number auction houses, used vehicle logistics; and other organisations associated with buying and selling used vehicles.

Industry support

From a used car industry viewpoint, its contribution to new car sales and growing economy could be assisted by government initiatives to enhance the industry and the appeal of used cars to potential buyers.

- Openly recognise the vital role the used car industry plays in the country's economy, and its crucial contribution to the well-being of the wider new car sector.

- Ensure that any programmes to encourage owners to scrap over nine year-old cars to allow those would-be buyers to acquire used cars of less than five years old. Such a move would ensure that further new cars would not be pulled into the UK and would also create employment among support services and dealers – some of the hardest hit industry sectors.
- Encourage banks to lend on acceptable commercial terms to buyers seeking to acquire a used car rather than a new car.
- Encourage investment in used vehicle specific resources and skills training.
- Ensure the particular interests of the used car industry are given due consideration when formulating government policy and tax systems that directly affect the automotive industry and car ownership.

Some initial conclusions

The UK retail used car industry is a multi-billion pound market with around four million customers each year. Strangely, it appears largely ignored at government level, arguably at the new car industry's and other automotive industries' peril.

The used car sector offers lower barriers of entry, a lower capital base, provides a wide range of employment opportunities – and few people will acquire a new vehicle until they have owned at least one used one.

Chapter 10

Motor Sport

Some purists might argue that Motor Sport is a separate entity to the mainstream UK automotive industry.

Nothing could be further from the truth. Many of the skills required in the Motor Sport industry are the same as more conventional components industries. There are also strong links between vehicle manufacturers, the Tier One players, and Motor Sport companies, whether they are the Grand Prix teams, specialist sports car builders or engineering and electronics companies providing services to the industry.

Given both the public's and industry's concerns with 'green footprints and environmental concerns', one must ask what future Motor Sport has in its current form. It has been suggested that such an innovative industry will be quite capable of reinventing itself whether that means using a single, common engine block or establishing draconian rules regarding emissions.

The economic downturn has hit the Motor Sport industry hard and quickly with the loss or significant paring back of some sponsors – particularly financial institutions and OEMs. While alternative sponsors appear to be emerging, there are still signs of significant cutbacks by the Grand Prix teams. Equally, there are moves afoot to limit the funds available for the individual teams.

A further strategic issue of the industry's own making is the future of the British Grand Prix and its planned move from Silverstone to Donnington, near Nottingham. It would be a shame if such a successful UK-based industry were to be put in jeopardy through a clash of egos. From the global position of the Motor Sport industry, the continuation of a British Grand Prix is far more important than the location of the circuit where it takes place.

British Grand Prix is far more important than the location of the circuit

Industry magnitude

The governing body of Formula One racing is fully aware of the strategic and current implications of the financial crisis and recession and is taking a range of bold steps to cut the costs of competing in the industry. While a leading GP team may have cost, historically, £300-£400 million a year to operate, moves are afoot to bring that figure down very substantially.

In an effort to protect the industry strategically, there appears to be moves afoot to cap the expenditure allowed by individual Grand Prix teams, although how this will be policed is still a matter of some conjecture.

Research undertaken by Cardiff University Business School suggests that the Motor Sport sector has an annual turnover of around £4.5 billion, employs some 38,000 people full time and a further 100,000 in part-time support activities – logistics, events management and hospitality for example.

The Motor Sport sector is essentially two closely-knit industries;

- Grand Prix and other Formula racing groups; the pinnacle of international competition and prestige, also providing vehicles down to relatively modest levels for competition.
- Performance sports cars; the UK appears to be the world leader in the production of lower-volume, high-performance cars whether used for racing, rallying or merely an adrenaline rush. Many of the sports/performance cars are exported, particularly to North America. Motor Sport is an industry of some 2,400 companies and specialist institutions running from software, through research and development to performance engineering; together with support activities such as PR, event management, creative services, merchandising, entertainment and hospitality.

A very high-value sector

The sector is very high value and technology based

The sector is very high value and technology based; employing around 24,000 engineers of all types, with an annual research budget in excess of £400 million.

A significant aspect of the research budget is absorbed by fuels, lubricants, telematics and tyres. However, the level of development and duplication is reaching such a level that there is talk, within Formula One, of standardising certain elements of cars to make events more of a driver-testing matter than a test of technology based on the deepest pockets.

There could also be significant implications for industry budgets as the principal sponsors move into or towards recession.

Although many Motor Sport companies are quite small, the sector has developed a specialist skill of networking successfully to offer rapid solutions to often complex issues.

Industry location

The Motor Sport industry is essentially gathered in a triangle centred on Oxford which makes it easier for companies to talk and work closely together on issues of mutual concern. Historical academic research has attributed part of the success of this sector to this tight-knit cluster.

In Formula One, the highest profile sector of the global motor racing industry, all of the constructors are based in the United Kingdom with the exception of BMW-Sauber, Ferrari, Toro Rosso and Toyota.

Over time, mainstream motor manufacturers have established partnerships in most forms of motorsport. In Formula One, many have secured stock options, with Renault, Honda and BMW taking over established teams, while Mercedes-Benz has links with McLaren. All players have links with other forms of Motor Sport – Honda in Indy car Racing, Toyota in NASCAR and Renault in several junior single-seat formulae. However, that is now changing rapidly at the beginning of the 2009-2010 season.

British companies have created a highly-regarded centre of excellence

'Motorsport Valley' has a high reputation across the automotive industry. Indeed, British companies in the valley have created a highly-regarded centre of excellence in high-performance automotive engineering which global motor manufacturers have not been slow to exploit.

A model for other industry sectors?

Elsewhere, the report has commented on the importance of support within the mainstream motor industry of the Tier One sector having close proximity of components suppliers and vehicle manufacturers.

A similar situation appears to have arisen in Motor Sport with a cluster of support players gathered around Oxford – supported by the nearby test-track at Silverstone, and by academic institutions – Cranfield and Warwick Universities, Oxford Brooks University – as well as excellent communications within the tight-knit area.

The order of magnitude between Motor Sport and mainstream automotive industries is totally different. However, one might ask if there is perhaps a potential model in terms of the ability to cooperate and work together, that might be transferred to the development of a major new and developing high-tech sector – even in the absence of a global vehicle manufacturer.

Maybe such a sector could be the sustainable automotive products industry sector discussed later in this report.

Implications of economic downturn

At the end of the 2008 season, the economic downturn was really felt by Grand Prix teams. Honda has withdrawn and a management buyout with new backers has led to the name of the team being changed.

Equally, the financial services industry has been heavily involved in the industry and RBS, one of the biggest sponsors, has slashed its financial involvement.

Economic downturn may be more likely to impact on the sub-contractors – the industry supply chain and the manufacturers of cars in the less elite classes, where they support very expensive hobbies rather than internationally funded clients.

Issues for further discussion

There are a number of issues of potential government concern

Despite the relatively small size of the Motor Sport industry there are a number of issues of potential government concern;

- Aid of the industry through government involvement in the location of the British Grand Prix.
- Ongoing support to ensure the Silverstone base remains for the engineering industry to use for testing.

- Support the necessary advanced technologies and engineering developments through both business and university support.

Some initial conclusions

The Motor Sport sector has been included in the report for completeness and already has its own highly-effective government Motor Sport unit. There is expertise and experience which might be considered when evaluating alternate models. The challenge is one of scale, moving from a fragile, trust-based boutique or cottage industry to a mainstream industry.

Chapter 11

The Environment, Sustainability and the Automotive Industry

'Sustainability' is about far more than managing and minimising CO₂ emissions

The previous chapters have sought to present, objectively, the principal elements that make up 'the automotive industry' and set it in context. In some quarters, there is considerable disquiet regarding the future sustainability of the automotive industry. However, much of the rhetoric levelled at the industry is either ill informed or out of touch with reality.

Perhaps the automotive industry attracts so much opprobrium because it is such a visible industry – a product of its own success. This chapter seeks to highlight some of the key, contentious issues and indicate, at a high level, how the industry has sought and continues to seek to handle such matters. To begin with, it is worthwhile issuing a caveat, 'a balance needs to be struck between what is possible in the short term – at an unacceptable cost from the consumer viewpoint – and what is possible and practical, over time, at an acceptable cost in a tight, acceptable timescale.

Lewis Carol would have defined 'Sustainability' as 'meaning whatever you want it to' – and therein rests the conundrum. It is about far more than managing and minimising CO₂ emissions; responsible stewardship of scarce resources, recycling and so on. Various lobbies appear to have hijacked these issues and added a further phrase 'changed and updated now' rather than the much more realistic approach, of the industry committed to 'rapid evolution' at a pace that is sustainable, achievable – and cost effective.

A few months of sub-optimal accelerated change may satisfy pressure groups. However, realists will not thank short-termists at a later date, when short-term fixes have to be replaced by more holistic measures that could have been introduced at the outset, if the industry had not succumbed to unreasonable external pressures.

Industry Reputation

The automotive industry does not intend to rest on its laurels

The automotive industry has a totally unjustifiable reputation for resource utilisation. However, it cannot, does not, and does not intend to rest on its laurels. Rather, it needs to keep a constant and continuing pressure on minimising use of scarce resources and maximising recycling of those its uses.

The automotive industries in the UK are in the vanguard of good husbandry of resources, which is seen as an area for significant future development.

The following paragraphs summarise some of the strategies and actions under way, highlighting the impact of the recession and government support to enhance existing and planned actions.

Carbon dioxide is the principal man-made contributor to climate change and accounted for about 85% of the United Kingdom's greenhouse gas emissions in 2006. That year, some 35% of CO₂ emissions arose from energy supply, a further 22% from road transport, 17% from business applications and 14% from residential fossil fuel.

The picture is complicated further when one examines the sources of CO₂ generated by, or in the process of building, vehicles. A relatively modest 10% of CO₂ is generated in the production, logistics and selling elements of the vehicle, and a further 5% in the managing the end-of-life recycling process. The remaining 85% of CO₂ emissions come from the distance driven plus the associated service and aftermarket functions.

Analytical observers will have noticed how, over the past two years, OEMs have announced substantial improvements in the fuel efficiency of their vehicles. Part of the challenge is to be able to cut vehicle use – an issue beyond the control of OEMs, but one that fleet operators and leasing companies are working hard at. Another aspect is road congestion, which is beyond the scope of this report.

Environmental and sustainability objectives

Environmental protection and sustainability have become emotive

Environmental protection and sustainability have become emotive words in the past decade, but they do point to policies pursued aggressively by the automotive industry, nowhere more so than in the United Kingdom.

The principal objectives of an environmental and sustainability programme might be summarised as;

- Seeking actively to minimise CO₂ and other noxious gases from the building, operating and disposal of motor vehicles.
- Protect, develop and sustain those reductions through total management of all inputs associated with the whole vehicle life.
- Maximise reuse of materials used in the manufacture and assembly of vehicles and support recycling of process materials and used vehicles as is economically practical.

Environmental, recycling and sustainability issues spread way beyond simple emissions – but that is the area where many comments stop.

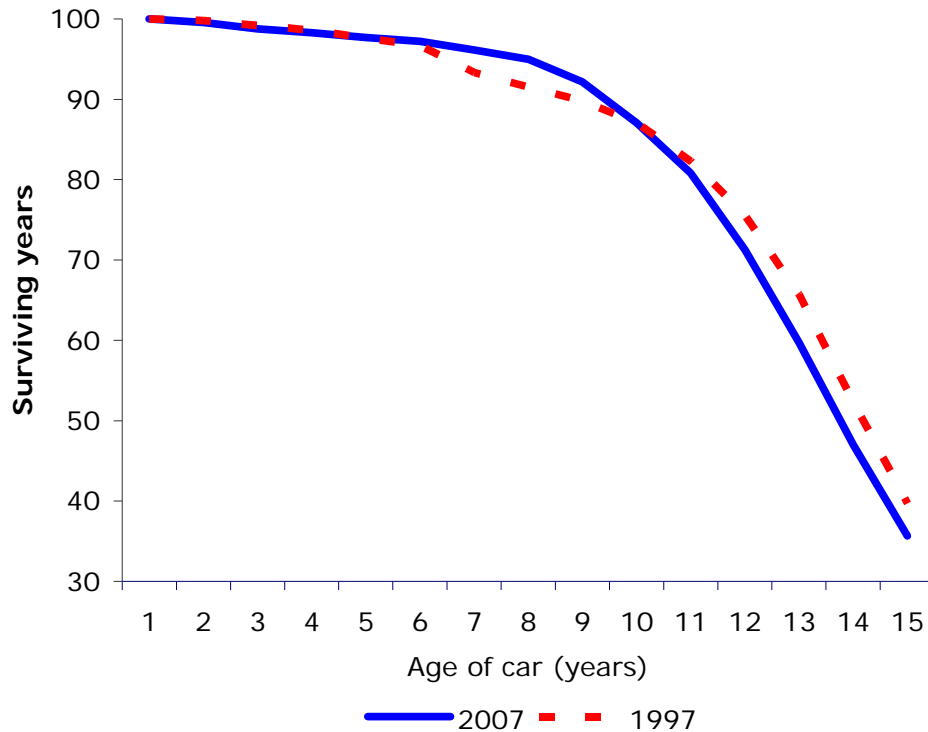
Emissions reduction – a caveat

While pressure groups and governments may demand a rapid reduction in CO₂ emissions from vehicles and commonly use the 'average CO₂ emission' as a stick to beat the alleged culprits with, it is all too easy to forget that there are two elements in the CO₂ reduction equation. First and most important is the historic vehicle parc and the second is the newer, fuel-efficient vehicle. There is a time lag while older vehicles are purged from the parc and newer, more emissions-effective vehicles come on stream.

Time lag while older vehicles are purged from the parc

Figure 11.1 highlights the rate of attrition of cars in the United Kingdom. It takes close to 15 years to eliminate two-thirds of vehicles from the parc.

Figure 11.1 UK car parc survival rate



Source: SMMT/BCA Used Car Market Report

A number of European countries have launched programmes to encourage scrappage of old vehicles

As has been reported earlier, that a number of European countries have successfully launched programmes to encourage the scrappage of old, typically nine year-old plus vehicles, to help kick start new car sales, downsize units and improve the carbon footprint.

The result of pressure to reduce CO₂ emissions is set out in Figure 11.2, showing the downward trend in average CO₂ emissions since 1997. However, the total savings from those improvements have to be spread over a number of years.

While every car owner would no doubt aspire to the lower-emission level of a newer car, there will be a significant cost –to either the motorist or government if the rate is accelerated artificially.

It is no defence to claim such changes take time to develop and implement. However, it is economic reality and is a ‘fast evolutionary change’ rather than ‘revolutionary’ development – with all of the industry and resource diseconomies the latter might introduce.

Figure 11.2; Average CO₂ emissions 1997 – 2008

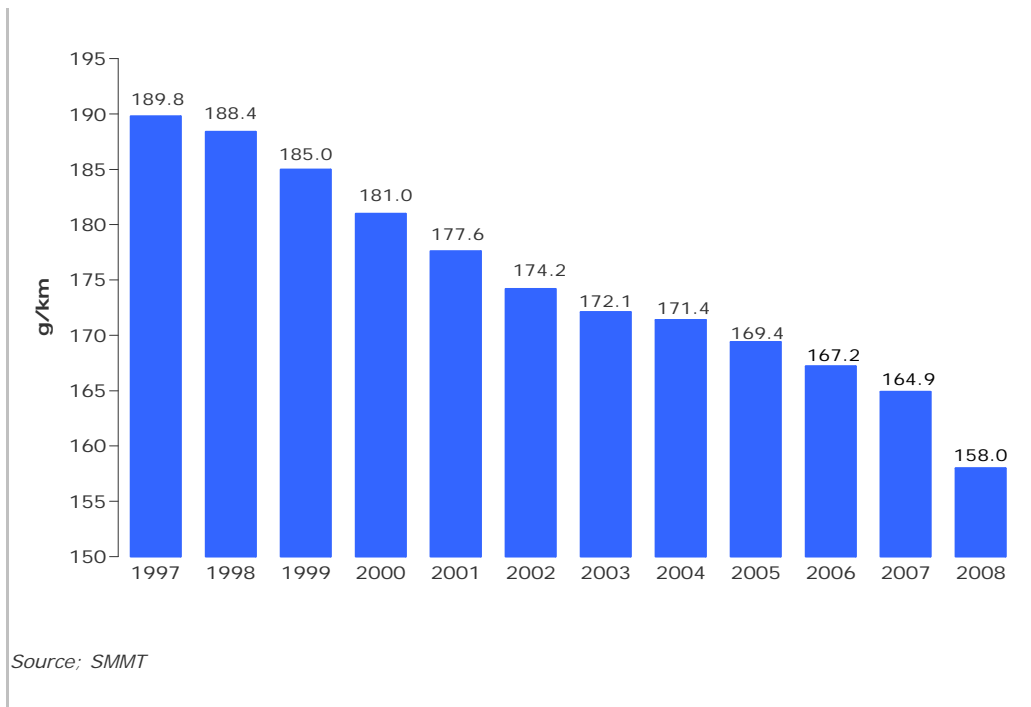


Figure 11.3, highlights the measurable impact, over time, of sustained pressure to move drivers to lower polluting, fuel-efficient new cars. This change is driven in part by the market’s sense of social responsibility, company attitudes to cost effectiveness and to higher fuel costs and higher taxes on vehicles and company car recipients.

Figure 11.3; New car market by VED band;

VED band	Volume	Market share		
	2008	2008	2007	1997
A(sub-100g/km)	3,917	0.2%	0.0%	0.0%
B(101-120g/km)	230,216	10.8%	5.3%	0.0%
C(121-150g/km)	803,756	37.7%	32.7%	7.8%
D(151-165g/km)	435,979	20.5%	24.6%	15.1%
E(166-185g/km)	331,588	15.6%	17.4%	32.0%
F(186-225g/km)	240,750	11.3%	13.7%	32.3%
G(over225g/km)	85,589	4.0%	6.2%	12.8%

Source: SMMT

It is against these steadily reducing CO₂ emissions that the following analysis and comments are offered.

CO₂ emissions and the vehicle life cycle

Emissions of CO₂ can be split into three prime sources as noted below;

Vehicle manufacturing	10%
Vehicle use	85%
Recycling	5%

With 85% of emissions emerging from vehicle use, it is critical drivers have the most appropriate vehicle, know to drive it fuel efficiently and maintain it correctly. As such, those issues are beyond the control of vehicle manufacturers and driver education becomes an important consideration for the country.

The concentration of CO₂ and other noxious emissions in the vehicle use of the life cycle highlights the importance of fuel choice and efficiency and the importance of developing alternative fuels and applications.

In the following sections each of the environmental/sustainability groups are examined in a little more detail.

Vehicle manufacture

Motor manufacturers have long since sought to minimise environmental imprints

Motor manufacturers have long sought to minimise the environmental and sustainability imprints of vehicle manufacture and assembly. The checklist below highlights the type of actions that OEMs commonly take to minimise environmental impact of manufacturing and assembly process;

- Adopt efficient and renewable energy sources – wind power; combined heat and power operations – CHP; minimise heat distribution loss. Create awareness and commitment through publically supporting the Climate Change Agreement.
- Create efficient water use facilities and recycling strategies to minimise use – and maximise grey water use, collection and use of rain water and clean outflows.
- Utilise water-based and low-solvent emission paint technologies.
- Reduce the use of hazardous substances through effective dialogue with the supply chain and register with the European Chemicals Agency. Supply chain solutions and protocols have been developed and implemented
- Continuous improvement in waste, energy efficiency through environmental management systems such as ISO 14001.
- Reduce waste to landfill and increase the amount of waste being recycled and recovered.

- Introduce smart logistics; minimise distances products have to be moved and ensure inputs and finished vehicles logistics are as effective as possible.

While many of these actions might be considered routine, it is also necessary to create awareness within the organisation, the supply chain, contractors – and the buying public, of the necessity to operate an environmentally-friendly production system.

Environmental and issues of sustainability have been at the heart of the automotive industries for many years. However, there are still opportunities for significant improvement through more effective materials and products, product design, weight reduction, material recycling and the use of alternative power trains and fuels.

The United Kingdom is a world leader in environmental and sustainability issues

The United Kingdom is a world leader in environmental and sustainability issues and further investment is critical to enhance and develop this expertise and its application.

Future investment in alternative power sources and fuels is likely to be a large and continuous process followed by the opportunity to develop and mass produce the ensuing technology and next generation of vehicles.

Vehicle operation

Much has been written about environmentally-friendly vehicle operation – whether based on fuel efficiency, appropriate vehicle management, driving or noise control. Equally important are the technologies that OEMs and specialist component producers have developed to minimise the carbon footprint. Whatever is undertaken by OEMs and government, one of the most critical issues has to be driver and user awareness of environmental and sustainable issues.

The short checklist below highlights some of the issues that might be considered to be part of user environmental and sustainability strategy;

- Weight minimisation – whether materials, engineering excellence or overall dimensions and weight of unit.
- Enhanced aerodynamics – the car to ‘slip through the air with minimum resistance’.
- Improved heating and cooling systems to minimise the amount of energy required to use the system.
- Choice of optimal transmission – manual; automatic; continuously variable.
- Enhanced technologies in terms of electric, hybrid, dual-fuel systems, bio fuel compatibility or diesel
- Engine downsizing, low rolling resistance tyres.

- Euro standards to reduce air quality pollutants; extended use of particulate filters.
- Driver assistance – on-board computers – econometers, speed limiters, tyre pressure monitoring.
- Smart navigation systems.
- Safety features for drivers, passengers and pedestrians.
- Consumer awareness.

Once again, there are a number of areas in such a list that British companies excel at, and it has to be an objective to build those businesses so they are able to compete in the international automotive scene.

Vehicle operation and mileage reduction are also being driven by changes in business patterns with companies embracing conference calls and use of video conferencing. The cynic might also suggest an 'obesity tax' to encourage people to walk and not use cars over short distances.

End of life

The third area that creates CO₂, noxious gases and waste material is the end of life exercise when the vehicle is finally scrapped. As shown earlier, such an act may not occur for many years but, like tax, is inevitable.

Manufacturers have responsibility for end of life disposal

Manufacturers have responsibility for end-of-life disposal and there are facilities across the country for the environmentally-friendly disposal of used vehicles and the subsequent recycling of materials and components, Regulations call for the proportion of cars being scrapped to be recycled.

Among the steps OEMs have taken to minimise the impact of end of life, the following might be highlighted;

- Initial product design for recycling whether that is choice of easily recycled materials or the structure of the unit.
- Maximising the proportion of the vehicle that can be recycled and simplifying the identity of materials used.
- Create a network of authorised treatment facilities (ATFs) to ensure appropriate depolluting and minimise distance to be taken.
- Ensure 85% of material in used vehicles is recycled and seek to increase the level.
- Create an infrastructure to facilitate correct and safe depollution and dismantling.
- Mark materials to enhance recovery.

Within the areas described above, OEMs and end users can begin to structure a sustainable environmentally-friendly operation.

Strategic development

A new highly-innovative industry is emerging

The clear message emerging from the exercise is that environmental and sustainability issues have been and continue to be of great importance – governments and the EU wish to be involved and seek to minimise the vehicle footprint as do the vehicle manufacturers. The result is that a new and highly-innovative sustainability industry, in which the UK is currently a leading player, is emerging.

Ideas and the very ethos of environmental and sustainability management have been part of the British psyche for many years. As important, so have been the ideas and starting points for significant development in the area.

While there is no doubt the global automotive industry will seek to enhance its overall sustainability strategies, these will also need to be pursued with governments. A critical issue will be for the international automotive community and governments to agree a concerted sustainability programme. This will ensure unnecessary cost and secondary focus is avoided by pursuing a single strategic objective rather than introducing a series of different, politically initiated short-term measures that merely detract from the longer-term objectives.

Implications of economic recession

Issues of enhancing sustainability and reducing the CO₂ footprint are already in place and developing. Recession will put pressure on manufacturers and vehicle users alike. Government has a role to protect business and the environment. A clear policy on differential VED to help clarify residual values as well as assisting individuals and companies to clarify their acquisition policies would be beneficial.

The key point is that sustainability cannot be accelerated economically

The key point to remember is that sustainability cannot be accelerated economically; certainly it can be encouraged, but complex technological programmes are not designed for rapid intervention. Instead, any potential assistance might be focused on the existing vehicle parc.

One opportunity, short term, might be for government to introduce some form of enhanced end-of-life support to remove older vehicles from the parc. The result should be removal of higher-polluting vehicles and, through the cash released, a reduction in used vehicle inventories held by dealers and used car retailers. That, in turn, may help new car sales if residuals are enhanced.

Issues for government

The United Kingdom is a world leader in automotive sustainability and environmental issues. These are two strategies that are being driven forward by manufacturers, drivers and governments and the need to save the planet.

As such, there are significant opportunities to develop the United Kingdom's expertise and competitiveness in this growing area and to roll out that expertise and technology on a global basis. Because it is new ideas, technology and applications, there is every opportunity for new global companies to develop which may not be subsidiaries of the mature Tier One and Two players.

Short-term, government support, now being offered across a growing part of Europe, is aimed at removing the oldest, most-polluting vehicles from the road through some form of accelerated scrapping scheme. Given the parlous state of UK government finances, it could be claimed that its scheme might well be less generous than those being offered elsewhere in Europe. Nevertheless, a holistic scheme that links eligible vehicles, replacement units and accelerated access to consumer credit may well be an attractive option. Government support offered through the 2009 budget will take time to impact on the industry.

The electric vehicle objective has the objective of fast tracking hybrid and battery-powered cars

The electric vehicle initiative of £250 million in 2011-2014 will be an interesting initiative to observe. It has the objective of fast tracking hybrid and battery powered cars into the UK car parc, but also seeks to create a new technology-based industry in terms of developing and manufacturing zero-polluting vehicles.

Longer term, from a UK strategic automotive industry development point of view, there are a number of actions to be evaluated;

- Support in developing foundations of new environmental and sustainable technologies for the industry including electric vehicles.
- Support and encouragement to new light vehicle/specialist products based on environmental/electric technology.
- Support for ongoing academic and business research and development in the areas.
- Promotion and support of university programmes at under-graduate and post-graduate research levels.

To regain a significant place in a developing market will demand follow through in terms of support systems for the new technology –that again would bring further employment, revenue streams and taxes.

Some initial conclusions

This chapter has outlined a series of steps most of which the industry is already taking to reduce CO₂ emissions and manage the carbon footprint as well as maximise recycling of vehicles, components and liquids.

Economic recession is a threat to such development at least short term, but pressure must be maintained on these changes. Importantly, government must maintain pressure on other countries to ensure they continue to press for improvement rather than use the economic recession as an opportunity to 'suspend environmental concerns' – and drive ahead regardless of anything beyond their short-term political and business agendas.

Chapter 12

A Future for the UK Automotive Industry?

The foregoing chapters have sought to consider the negative impact from aspects of government policies and the current status of an industry which, globally, is probably in the greatest turmoil it has ever witnessed. Without exaggeration, 2009 represents the culmination of a tectonic shift in the focus of the future of the automotive industry that is fast moving to the East.

That shift is typified by Toyota becoming the industry's biggest vehicle manufacturer, the demand for a complete restructuring of General Motors in North America and the possibility of it sharing its European operations; the challenges to Chrysler and restructuring of the European industry. Furthermore, ownership of Land Rover Jaguar has moved to India, a Chinese manufacturer is in advanced negotiations with Ford regarding the future of Volvo and ownership of tier one and tier two players are changing too.

To economic historians, such tectonic shifts are not uncommon; maybe the current industry restructuring is just closer to home and has happened more quickly than the past. But then, the current recession is the first one that could be claimed to be man-made, in large part, through lack of government supervision.

It might well be argued that the United Kingdom is pretty helpless in the current situation, owing to historic government policy of using the motor industry as a lever of economic management – then walking away from the industry in its time of need. Despite government's negative impact, the UK automotive industries still employ close to a million people and are the largest single exporter of manufactured goods.

While it is improbable that medium, or even longer term, the UK is likely to return to its predominant position in the global automotive field, it still has a viable industry with a global future. However, it will need to regroup and restructure to achieve and retain a new position of industry leadership.

Industry moves forward more rapidly during a recession

It is an accepted management mantra that 'industry moves forward more rapidly during a period of recession than it does during a period of prosperity'. Perhaps that is because of the heightened awareness of competition, the need for survival or because the industry is forced out of its comfort zone to look for better ways of doing things, to look for new and changing markets – and, of course, because the weak will go to the wall.

The underlying challenge for the United Kingdom's automotive assembly and its components and business support industry is that key players are foreign owned. They use the United Kingdom because it is currently convenient – although new markets and manufacturing are moving east. The dominant players have no absolute loyalty to the UK, and are undoubtedly susceptible to lots of tempting offers and incentives from other developing, ambitious, often low-cost economies.

The current chapter has some very clear focused objectives;

- To review in the light of the findings of this report, and background work associated with it, a feasible strategy for successful sustainable industry development.
- Present, at a high level, some objective issues for consideration with regard to successful industry development – both for the globally competitive sector and for the UK domestic sectors.
- Indicate as appropriate issues of recession that may impact upon industry migration or significant consolidation and restructuring.

Automotive assembly, components and R&D

Given that UK automotive assembly is largely in the hands of overseas businesses that make their critical technology, product development and supply decisions elsewhere in Europe or further afield, the United Kingdom is at an distinct disadvantage.

The industry's current business model and locational strategy create immediate barriers for success as it means breaking into an existing, if flawed, modus operandi. However, a country that offers something new and innovative can reverse that situation. Was it not Ralph Waldo Emerson who claimed 'If a man write a better book...make a better mousetrap than his neighbour...the world will make a beaten path to his door'.

It will need to be a sustainable skills-based strategy

It appears this could be the way forward for the indigenous automotive industry in terms of developing and building on existing centres of excellence.

Any such development will need to be seen against a backdrop of global excellence, in terms of technology, investment and the personnel associated with it. In essence, it will need to be a sustainable skills-based strategy that can exploit the existing strengths of UK Automotive plc and focus and drive the development forward.

New products – new technologies

While existing technologies, products and practices within the automotive sector will continue for some time, new technologies and product concepts will offer real opportunity for a rejuvenated sector based on emerging technologies and reductions in the carbon footprint.

Tectonic changes in ownership and the product concepts now emerging would suggest mind-blowing changes must be expected to handle the new industry.

Next generation vehicles, with alternative power sources, materials and technologies, will offer the opportunity to rethink the whole format of cars and light commercials – and it is highly likely there will be a new generation of vehicle manufacturers and assemblers arising to develop this new market niche.

The type of specialist opportunities that might be included in a successful and sustainable innovation strategy may well include some or the entire list below;

- In-vehicle communications and management systems – driver communications; congestion warning systems; navigation; telematics
- Safety; driver; passenger pedestrian protection
- Fuel cells/powertrain/electric vehicles
- Materials; composites and alternative materials technology
- Environmental protection/emissions; sound and vibration technology
- Vehicle and engine management; monitoring technology
- Control and electronics and associated software
- Rapid prototyping and manufacturing process improvement.

How many of these technologies one country can pursue, or even aspire to, is beyond the scope of this paper. The critical issue is to agree a concerted strategy that government, companies and individuals can sign up and aspire to, which can then attract genuine value-added investment, rather than just 'more of the same' in which there would be cost-minimisation competition.

A further issue to be considered, sooner rather than later, will be whether the UK will become a supplier of technology – and then build the relevant products for inclusion in finished vehicles assembled elsewhere in the world.

A critical issue will be to develop the concerted skills base

A critical aspect will be the availability and development of a technological and a managerially trained workforce capable of sustained development.

Personnel development

The bullet points below highlight the principal actions that need to be considered in developing a sustainable strategy for the automotive assembly and components sector;

- The first 'given' is that the industry cannot expect to power its way ahead through competing as the lowest-cost supplier. Sustainable competitiveness must come through innovation and technology. The prospects will be international businesses and, as such, need to be treated as organisations constantly looking for improvement, with no loyalty to their existing suppliers beyond the current success.
- The fragmented nature of the UK components industry – some 2,600 companies with a greater or lesser interest in the sector – would suggest a period of serious consolidation may be anticipated.

The recession will already encourage that and some businesses will be lost. However, the critical ones for a longer-term consolidation strategy are likely to be successful businesses that would not necessarily need to consolidate. The objective of the exercise will be to create a critical mass. Critical in terms of being able to research and develop new ideas and have the in-depth expertise to develop them further – with access to appropriate capital – whether bank, or venture funded or government underwritten. The high technology models of California spring to mind as a parallel.

It may need academic skills as well as original research

- The critical mass for such developments is likely to demand more than just a group of companies working together. It may need academic skills and original research as well as government backing, either through grants or underwritten loans – whichever way the funding is most appropriate.

Whether nationalised banks would be willing to take measured risks in such areas as distinct to sub-prime mortgages, would be an issue beyond the current brief. However, it is likely that under the tightened economic constraints, during and after the recession, specific gambles may need to be taken on promising projects – and could refer to corporate teams working well together on specific, promising projects – ready for economic recovery.

- Policy may well seek to bring focus into a small number of areas in which global excellence can be generated – better to have a small number of successful projects than a broad range of mediocre ones. Assuming government is associated with such projects, it will be important that the hoops organisations have to jump through for support is not more daunting than the projects themselves. There is a global market for sustainable, potentially profitable ideas.
- ‘Time waits for no man’ – and the return of a successful and sustainable automotive sector is no exception. Based on the Ricardo report alluded to previously, as well as other strategic development studies there are a number of skills that would need to be brought together to move the industry forward. Perhaps the most important of these would be the recruitment and development of appropriate engineering graduates of every type. The collapse of the financial services sector may mean that more would be willing to pursue engineering interests than seek a desk in the City.
- Creating engineers, like babies, takes time and any serious development strategy needs to be put in place during recession. While to fully recover the numbers, motivation and ethos of engineering may take a generation, a start has to be made sooner rather than later. It may be possible to make small incentives for good quality candidates to join the profession. Those engineers must equally see a career path ahead that would give them an opportunity to develop beyond the bench should they so wish.

It will be important to develop ‘career engineers’

It will be important to develop the ethos of ‘career engineers’ rather than ‘itinerant engineers’ who have, in the components sector, frequently been recruited to develop a certain widget. They then move on because the company cannot afford them, or did not have further plans to develop the super widget that would take the automotive world by storm.

Consolidation of components players into groups may alleviate this journeyman ethos and allow newer businesses to develop and retain real expertise with the support it requires.

- The relevant engineering and project management skills the Ricardo report and others have identified as being required include;
 - Leadership and management
 - Programme management and capabilities awareness
 - Production and process engineering
 - Continuous improvement/Lean/Kaisan
 - Logistics skills and supply management
 - New product innovation
 - Technical skills especially for emerging technologies
 - Multi-disciplined/team working
 - Customer service and management skills
 - Basic skills and skills for life.

Almost any managing director could develop a similar wish-list. However, it can no longer be seen as a wish list. Rather, it must be seen as the bare necessities for the sector to flourish.

There is critical cultural and political change required

Even with the fullest acceptance of such a list there is a critical cultural and political change required. Engineering must become accepted as exciting and sexy – and government needs to support it wholeheartedly and continuously. Both the Chinese and Indian political leaderships have a generous scattering of engineers in their ranks...do we?

- It has been pointed out on many occasions that the UK's Motor Sport sector is made up of a fraternity of SME's – but they have developed the skills of being able to work together to tackle specific issues. Maybe there could be lessons to be learned in terms of industry focus and, as important, in terms of bringing together groups to cooperate on projects for rapid and cost-effective solutions?
- Such a vision is not impossible. Given the government's new-found Keynesianism, the forthcoming recession could well be the ideal time to kick start a programme of automotive rejuvenation such as the one outlined above. It may sound ambitious, but so is the competition and globalisation takes no prisoners.

The programme outlined above would, should, over a relatively few years lead to rejuvenation in the UK's automotive components industry.

The industry is driven, and will continue to be driven, by innovation and technological advantage. Central and Eastern Europe are developing specialist programmes for automotive management and engineering as are the Chinese and Indians. Unless the United Kingdom is able to match them skill for skill, the UK sub-systems industry will evaporate further and will slip further down the skills league.

There is no reason why a major player should not emerge

While it is unlikely the UK will in the foreseeable future be able to develop into the home of a major OEM assembling conventionally-powered cars, there is no reason why a major player should not emerge manufacturing electric cars or specialist ultra light-weight products. India has developed the ultra low-price car. Could we?

Car market developments – other routes ahead?

It is ironic there is one automotive market sector where the United Kingdom is the most competitive in Europe and probably in the world – that is essentially a domestic industry and difficult to export.

That sector is vehicle sales, operations, management and disposal.

As with vehicle assembly and the components sector, the whole field of market and aftermarket services is likely to have a hard time during credit crunch and the predicted recession. The sector, as defined by the Automotive Skills Footprint – consists of more than 69,000 firms employing some 594,000 staff.

The Sector Skills analysis suggests that of the population of companies in the sector around three-quarters employ less than 10 staff. Given banks' attitudes to anything to do with cars – especially credit and investments – this could be a sector facing a bleak future in 2009.

The way ahead for such a diverse industry (the Sector Skills Council has identified 14 different categories) from fast-fit through rental to motorcycle maintenance to vehicle sales, and beyond – is both challenging and a matter of some concern.

It may be argued there are 'too many businesses in the sector' – but it is a service sector and one rarely requires a clutch of experts to advise on a particular issue.

Global, European and UK motor industries are at a watershed

Without wishing to sound too dramatic, the global, European and UK motor industries are at a watershed. The major players are changing, technology is changing and it is quite possible the industry is on the tipping point of a bigger change than at any point in the past century of the industry.

The United Kingdom has the capability, the technical know how and expertise to be able to take a lead in that next revolution. What it requires however, is to reorganise in terms of consolidation, training and direction. To make those changes will be both painful and take time. Government support is essential to support those changes – other automotive manufacturing and development nations have sought funding for development. If UK Automotive plc does not have that support, then it may well miss out on the biggest changes in memory – and have to stand by helplessly as other nations surge ahead.

Whether a revitalised automotive industry is the answer to the demise of financial services industry is open to question, but it does have a strong record that can be built upon as the industry moves through a period of rapid evolution.

The UK has let its position slip from being the second automotive nation in the world. Without support, history could repeat itself.

Implications of economic recession

Economic recession will probably favour lower-cost developing markets, in that cost minimisation will become even more important and there will be a lowering of the specification of vehicle acquired or sought by the buying public.

'A great leap forward'

If it follows previous patterns, economic recession will lead to industry making 'a great leap forward' with inefficiencies being eliminated and new technologies and thinking being introduced.

At the same time, there may well be a collapse of some SMEs caused, at least in part, by players higher up the supply chain cutting orders at short notice to protect their cash flows and minimise inventories, with scant concern for their suppliers. While it might be argued such an exercise will weed out the weakest players, some of those players may be critical in terms of raw material provision or unique manufacturers of critical components or sub-assemblies.

It is all too easy for larger organisation to postpone or cancel orders at the drop of a hat. OEMs, if put in the same position, would bite back.

Recession could, however, be used, with bank, political and trade unions support as a period of skills updating and training for the workforces now being laid off for several weeks at a time. Positive training – both skills and wider – could yield many benefits to an organisation. Skills and other developmental training are not expensive and will bring organisations benefits when the recovery returns, as well as protecting short-term morale.

Some initial conclusions

This chapter has examined some of the developments that might be adopted in future in the UK automotive industries. The nation is unlikely to return to its post-war predominance as the world's largest car exporter – that mantle has long gone east to developing low-cost economies. However, there is still scope for a re-engineered automotive industry with sufficient investment and consolidation – and government support – to build a new automotive industry based on emerging technologies and global demand for them.

Chapter 13

Short, Medium and Longer-term Industry Recovery and Success

The amount of financial support offered to UK automotive industries in the current economic recession has been relatively modest, not just in absolute terms, but also in the spread of that support and the difficulty in accessing it.

The serious downturn is not of the industry's own making

The serious industry downturn is not of the industry's own making and, elsewhere in the world, government support has been made available to kick start and reform the automotive industry in the short and longer term. There is a real concern that the UK automotive industry will lose out through lack of support – or that it will be much too late and too little.

Recession and economic crises offer the industry the opportunity to move forward; or as one eminent commentator put it recently 'don't waste a good crisis – use it to do what you might not dare to do otherwise'. While such a sentiment may be somewhat misdirected, in the UK, automotive industries alone represent nearly one million jobs and genuine wealth creation.

It is important for government to understand that any support falls into three distinct categories;

- Short/medium-term support – principally loans and loan guarantees to support the industry until the automotive market recovers.
- Medium term 'realpolitik finance', principally through loans, to support the retention of manufacturing and assembly employment.
- Longer-term support; again principally loans and guarantees, to assist restructuring, so there is still a viable UK automotive industry in 5-10 years time – albeit the industry may be a different shape to that today.

Funding needs in the UK are totally unlike North America

Funding needs in the United Kingdom and much of the EU are totally unlike requirements in North America.

In North America, the three indigenous players' product ranges have been overtaken by customer demands. Equally, these three players have a capacity out of line with their realistic short and medium-term market opportunities, so a full-scale industry restructuring and downsizing is required for a viable future. At the same time, to be fully competitive with vehicles from elsewhere in the world, future models need to have low emissions and less reliance on fossil fuels.

President Obama has firmly stated that federal funds will only be available for a radical 'pain inducing shake-up of the industry'. He has rejected a GM business recovery and restructuring plan as being too timid and demanded a revised plan within two months. Chrysler, on the other hand, has been granted but a month to conclude its negotiations with Fiat.

The concepts of the two plans are not at issue, neither is the content. The critical concern is that the United States, the arch-free, enterprise market-driven economy, is willing to offer double digit billions of dollars – as well as asking overseas governments, including the UK, to support the restructuring of its indigenous industry and overseas subsidiaries.

It would be hard to find, globally, a stronger wakeup call to an industry and the jurisdictions in which it operates.

'Globalisation' may not be to everybody's taste

'Globalisation' may not be to everybody's taste. However, it is the elephant in the room and if the United Kingdom and Europe do not respond positively, comprehensively and quickly, the manufacturing industry and its supply chain could migrate all too quickly.

As has been noted earlier, while there is perhaps 25% excess installed manufacturing capacity and more being built, there are significant elements in the wrong location compared to the incremental market demand as distinct to the replacement market. As important, the UK and EU automotive manufacturing industry is highly competitive, flexible and state of the art.

Short and medium-term, UK and EU funding requirements are to support the industry until the economy recovers and, as such, are principally in the form of loans and loan guarantees. As discussed in the next chapter, longer-term requirements are different and more attuned to government and EU policy.

Chapter objectives

The current chapter has the following principal objectives;

- To identify the type of support required by the United Kingdom automotive industry to ensure there is a viable automotive industry in the country at the end of the recession.
- To split those projected support requirements by the principal sectors of the United Kingdom automotive industries.
- Split the support required into short/medium term and the funding required longer term to support the introduction of new business and technology.

This chapter is essentially qualitative. Individual elements and players in the industry know their specific requirements – and it would be both difficult, and dangerous, to seek to provide a single overall figure and single 'support package to fit all cases'. Different sectors of the industry have quite different short and medium-term support requirements to protect current employment and secure their future.

Each of the principal industry sectors is dealt with separately in the following paragraphs.

Vehicle assembly; OEMs and Tier One players

Many Tier One and vehicle assemblers are working restricted weeks

Many Tier One component and sub-system suppliers and vehicle assemblers are, at the time of writing, working either restricted weeks or have shut for complete weeks or months as demand across the EU has slumped.

The large stocks of vehicles seen around the country are as often as not for export. It is important to remember that some 80% of new cars built in the United Kingdom are for export, principally to the EU, although a growing proportion is sold further afield. Around 80% of new cars sold in the UK are imported.

Such a pattern has developed because OEMs and Tier One suppliers have developed sophisticated logistics networks, so it is more cost effective to focus assembly on specific model lines and ship them to specific markets.

The support required by Tier One suppliers and the OEMs might be summarised as follows;

- Short-term loans or loan guarantees to enable players to sustain an appropriate degree of liquidity and, in turn, be able to provide similar loans and guarantees to their suppliers in the highly-developed, sophisticated and symbiotic supply chain.
- The Realpolitik of the situation may be that OEMs are, at the same time, reviewing their pan-European capacity and may seek support to enable them to restructure short term, so they can emerge with a viable business as recession lifts.
- An extended period of shutdown may be used to progress updating programmes or introducing new models, so customary grants and loans/loan guarantees may be sought so this work can be undertaken.
- Additional support will be required to minimise cash outflow for staff wages laid off for varying periods. While such staff may be on reduced wages, it is critical they are retained wherever possible to protect the skills base, so manufacturing plants can move to full production quickly when recovery does come, without having to train new staff. Such support might be achieved through withholding National Insurance and employee tax payments.

In addition to these support payments, most of which could be treated as loans and guarantees, direct support in training and retraining would be considered important. Such actions would not only protect the skills base but also discourage skilled workers from irrevocably leaving the industry and creating skills gaps that would need filled before full recovery could start.

Tier Two and Three providers

The most vulnerable part of the automotive supply chain

Regarded by many as the most vulnerable part of the automotive supply chain, these suppliers are often small but highly-sophisticated companies providing a tight range of products and services to a number of Tier One suppliers and OEMs.

Given they may commonly have small workforces of a few dozen staff, and be totally focused on the automotive industry; their loss could have a significant impact on the supply chain when demand picks up.

The loss of one or two key players could create a significant gap

The loss of even one or two of these key players could create a significant gap that could well be plugged by businesses from south east Asia or elsewhere. Such an opening may equally offer a higher player in the supply chain the opportunity to 'rationalise' or move other activities out of the United Kingdom as it cannot satisfy its own requirements here.

Specific short-term requirements of Tier Two and Three providers, and other SMEs supporting the automotive supply chain, might be summarised as follows;

- Loan guarantees for orders granted by OEMs and higher-tier players. Such loan guarantees could come from government or from players higher up the chain – provided they have government/bank backing to support this.
- Protection from banks calling in overdrafts and credit facilities if they are viable businesses – such viability monitored externally to ensure transparency.
- Cash flow protection from HMRC and NI payments against future payments.
- Access to government-backed loans through banks for specific business protection – availability of those loans to be practical and fast, but within the rules of banking prudence.

A common and growing concern is that hard-pressed companies are reporting increasing aggression by banks calling in loans and overdrafts, and the lengthy processing of increasingly demanding documentation.

While players, fortunate enough to have alternative markets to automotive, may be changing their focus to cope with the recession, this is generally the exception rather than the rule. Many companies take the view that this may not be an appropriate time to develop new products for new markets.

Additional government-backed support would be extremely beneficial to help selected companies rationalise and amalgamate to form larger industry units, capable of providing more competitive, integrated services to customers higher up the supply chain.

Vehicle distribution

Losing members at the rate for two or three a week

At the time of writing, the retail motor industry is believed to be losing members at the rate of two to three a week. There is a distinct risk that parts of the country could become denuded of aftermarket support for cars and commercial vehicles.

OEMs are seeking to protect their retail networks as far as possible through changing payment requirements and credit terms, but there is a limit as to how far a manufacturer is able to grant additional support.

Specific assistance for dealers is required in the following areas;

- Credit through banks and other financial sources to help would-be car buyers acquire new and used cars. Around four out of five cars bought in the United Kingdom are funded through some form of credit. Government needs to bring pressure on banks and other financial institutions to start lending to car buyers, subject to acceptable commercial rules. While there may be over two million people unemployed, there is still in excess of 20 million who have fairly secure jobs.
- Pressure also needs to be brought to bear to ensure finance is readily available to acquire not just new cars but vehicles up to say five years old – many of which have a relatively low carbon footprint. Realistically, many owners of the oldest, most-polluting cars cannot afford, nor want to buy, a new vehicle even if there was an incentive to scrap their old car. The practical working of the new scrappage scheme will be interesting to observe.
- Offer encouragement or instruction to banks and other financial services providers to develop new Point of Sale finance packages at attractive interest rates for would be car buyers.
- Protection as with Tier Two players, through easing the terms of payment of HMRC and NI charges to assist dealer cash flow management – even if some form of evidence has to be provided to show businesses are fundamentally sound.
- Additional professional training may be supported for sales and finance personnel to lift the quality of training and expertise in assisting their clients to achieve the best possible outcomes.

Pressure needs to be brought to bear

Vehicle buyers

All too often overlooked, is that the critical element in the automotive supply chain is car buyers; without them, there is no market for new or used cars. The challenge for the industry and government is to create credit availability so motorists can acquire new and used vehicles. Specifically the following are required;

- Access to credit at acceptable rates and conditions to buy new and used vehicles.
- Funds to be specifically available to buy used cars up to say five years old on the assumption these units would be acquired through dealers and used car specialists. These would already have been imported, so would not create further political issues regarding ‘supporting overseas business’.
- Create a voucher system for owners of the oldest units – set perhaps at nine years old. A £2,000 voucher would probably be sufficient to kick start the market. Encourage banks to lend on commercial terms to enhance the down payments for approved replacement cars – but not necessarily a new car.

Without them, there is no market for new or used cars

While these are basic steps, they should be sufficient to help restart the new and used car market. The key issue is to create a multiplier effect and rebuild confidence within the marketplace.

Strategic and restructuring investment

Beyond the immediate and shorter term loans and guarantees discussed earlier, the automotive industries require support, investment, loans and guarantees to support their survival and restructuring.

It was suggested previously that government policy has allowed the UK to become a 'supplier only' industry with no indigenous assembler. However, changing technologies and rethinking of motor vehicles offers a potential, 'once in a generation opportunity' to become a major player in the new technology sector – and regain a place at the top table in terms of new vehicle development, planning and component supply.

Government support is vital to be at the forefront of the next generation of investments

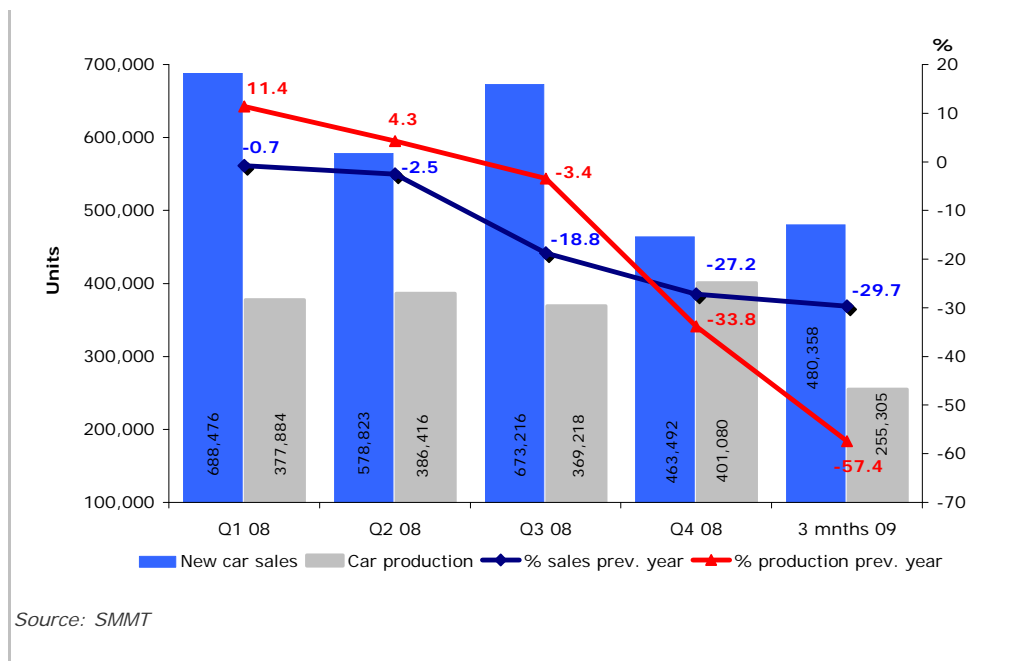
Essentially, government support over the medium to longer term is vital to encourage developments to be at the forefront of the next generation of vehicle investments.

- Research and development – probably on a federal basis with a number of organisations working together to develop new technologies for next generation vehicles. Such development will be at Tier One and Tier Two levels. While the UK currently has maybe two or three Tier One players, support for organisations to consolidate so they can offer one-stop shopping for technology, research, development and production could help to redress the balance – even if some activities have to be located close to decision-making locations.
- Support for such reorganisation, as President Obama has indicated for GM, may be painful and take some time. However, it will be essential to generate a relatively small number of true 'centres/groups of excellence' which have the critical mass to be able to generate and maintain global state of the art research, development and design facilities – with appropriate manufacturing capability.
- Such restructuring must be seen as a two-stage exercise with new groups being formed to target specific growing areas of technology where they can be competitive globally. These restructuring exercises will need to be carefully planned, free of excessive government interference, with access to funds and able to focus on a relatively small area of expertise that can be sold world wide – or across Europe. A critical issue will be access to funds to move from prototype/batch production to volume production.
- Expertise and funding as well as employee ethos and industry demand may lead to the creation of perhaps half a dozen such super-businesses, but, as they will be part of the global scene, they will create employment further down the supply chain.

These new generation activities which may target electric-powered vehicles, new instrumentation and control, or a plethora of other new and emerging technologies, will also require appropriate HR support and training as identified elsewhere in the report.

Without wishing to be over dramatic, Figure 13.1 shows the change in production and sales of vehicles in the United Kingdom post 2007. While the UK automotive industry is highly efficient, it has to compete in a global market and, as has been noted elsewhere, support within internationally agreed rules is being offered to the industry in other countries.

Figure 13.1; UK new vehicle manufacturing and sales 2008 vs. 2007 (Jan/March 09)



For the UK to be in a position to create employment and generate positive revenues in a future, low-carbon market, short and medium-term support is critical – or there will be no critical mass of an industry on which to build – with all of the political, economic and social consequences that might entail.

Some initial conclusions

The UK automotive industries are, in the short term, suffering from the recession. Given even relatively modest investment and holistic support, the industry can be recovered and restructured. Returns will not be immediate – neither will they be politically high profile and spectacular. However, the automotive industry has globalised and the genie cannot be pushed back in the bottle.

For the UK to be a successful player, it will need to focus on a small part of the world wide automotive sector where it can build a strong reputation and supply the world with ground-breaking equipment. For the country to develop a longer-term strategy for its automotive industries, it is critical that short-term support is readily available – or there may be nothing left on which to build in the future.

Chapter 14

Implications and Conclusions

The report has reviewed the historic, current and potential position of the automotive industries in the United Kingdom. The most immediate actions must be to support industry's efforts to protect its viability and reorganise itself in response to the current economic recession and the hoped for recovery. But, further down the line, the automotive industry needs to reposition itself for future profitable economic success in an increasingly competitive global industry with as much as 20% excess installed manufacturing capacity – and a crisis of global warming to which it is regarded as being an crucial contributor.

The automotive industry is facing migration to the east

Globally, the automotive industry is facing up to a migration to the east, Not only are new markets emerging in the east, but manufacturing there is much less expensive than it has become in North America and Western Europe. Add to that the impact of a near collapse in the global banking system, and one moves to a situation of industrial brinksmanship.

The early chapters of the report suggested the automotive industries in the United Kingdom had suffered by not responding to changing markets and product needs as well as suffering from a degree of government indifference to manufacturing industry. The United Kingdom lost out on its pre-eminent position of the biggest exporter of cars because two of the three giants were American owned and they had European, if not initially, global visions.

The UK industry was, at the time, a collection of iconic brands capable even today of bringing tears to the eyes of any middle-aged red blooded male. These were abandoned by government in its policy of moving away from making things to lending other peoples' money. The starvation of funds to the domestic motor industry has the makings of a latter day Whitehall farce, if it were not so serious.

The upshot of the historic abandonment was the collapse of a once dominant industry and it being passed around among reluctant suitors, each cherry picking a choice element or two on the way to selling it to potential asset stripper. At the time of writing, the LEX column of the Financial Times was forthright on this very topic.

The result is that Tier One suppliers abandoned the UK as a research and development base and manufacturing headquarters and moved to Europe – or further afield so they could be close to the real decision-makers. As such, many UK Tier Two components companies have become hollowed out. They may have huge potential for development, but without the funds to do it, they have been forced to focus on 'problem and issue fixing' rather than have the critical mass to be able to exploit their developments.

Such is the status of UK manufacturing, or rather automotive assembly today. A supremely efficient off-shore assembly operation for three global Japanese manufacturers and a pan-European, indeed international engine manufacturer for another global player, yet still the home to some of the world's iconic brands.

Will government support the restructuring of the industry?

The challenge now is 'will UK Automotive plc and HM Government ignore history and let the industry look after itself – or will government support the restructuring of the industry in line with the new products and technologies starting to emerge?'

As noted earlier, the issue breaks down into a short-term, bailout situation essentially to protect the industry – manufacturing and distribution – until the economy comes back – thereafter to support the sector as it restructures and repositions for a move towards a carbon emissions free and efficient hydrocarbon using industry.

Where next – for manufacturing?

Conventional automotive manufacture has long gone east and is, short to medium-term, unlikely to return. The future for the UK automotive industry is likely to be based on the development and exploitation of new and emerging technologies able to deal with global warming, CO₂ emissions and the growth of new power sources and vehicle concepts.

The short term demand from OEMs and assemblers will be to help tide the industry over the drop in sales and to provide assistance while it reforms. In effect, it is an industry looking for a soft landing – but that soft landing has to be seen as across the whole of Europe with the political and protectionist issues involved.

In the medium and longer term, UK Automotive plc needs to bring together Tier Two players into groups of specialist companies and expertise to create critical masses, with access to the necessary capital bases, to sustain the development of new technologies and their profitable exploitation – world wide. The industry can probably become self sustaining and profitable again. In these days of the rediscovery of Keynesian economics, 'pump priming may be necessary' but the rewards could be substantial.

The industry can probably become self-sustaining and profitable again

Such actions, as discussed at length in the report, will require government support as well as a change in attitude towards engineering and manufacturing. As a nation, the UK track record has not been good

In the space of a few years, government managed to destroy the UK's pre-eminent position as the top car manufacturer and exporter, by indecision and lack of strategic insight.

Perhaps the government needs to heed Sir James Mackintosh's dictum of 1791 – 'The Commons, faithful in their system, remained in a wise and masterly inactivity' – but he was probably not aware of globalisation.

A plea for support

The motor vehicle, the car, is in the process of being reinvented in terms of material, manufacturing and propulsion as well as re-assessing its environmental impact. To achieve a sea-change in terms of the industry, a number of basic actions are required. Consider the following;

- Support to identify a number of significant industry opportunities for development in the emerging automotive industry.
- Identification of the available skills base in the UK to support and develop those new technologies.
- Support in bringing together the most suitable organisations, institutions universities and technologies to create the basis for world-class problem solving – and exploitation of the issues identified.
- A promise of continued support for those selected industry sectors until they are well able to fund themselves.
- Support – financial where necessary – to enable nominated universities and institutions to support new, post-graduate, world-class engineering, management and project management programmes focused on the industry.
- Overt and continuing support of manufacturing industry – and the automotive sector in particular – in governmental statements and policies.

Such support will not be cheap or short term – but without it, one might expect another industry, in which the United Kingdom once led the world, to be written off.

Some readers may remember when the UK automotive industry was the largest exporter in the world

While some readers may remember the days when the UK automotive industry was the largest exporter in the world, one hopes it may, with appropriate support, be able to regenerate at least a significant position as a supplier of world-class industry technology – if not vehicle assembly.

Retail and distribution support

A second set of requests for support are for the distribution and retailing elements of the UK automotive industry. In terms of retailing and support services, ironically, the UK is probably the most competitive country in Europe – and probably in the world.

Short term, there are a number of critical areas of support required if the United Kingdom is to continue to have a viable and effective sales and support industry once normality returns to the economy.

These might be summarised as follows;

- Overt encouragement of banks and other financial institutions to urgently release credit for new and used vehicle acquisition.
- Encouragement of banks and financial institutions to provide companies in the distribution and service sector with funds to ensure there is a support industry in place when the economy emerges from its recession.
- Encouragement, and by finance if necessary, to support the development of the skills base across the whole industry.

- Not treat the motorist as a cash cow through escalating VED and fuel rates – which may mean finding other, more focused and sophisticated methods of reducing mileage.

Personal mobility, whether for private pleasure or as a business requirement, is a long-held right of individuals. That mobility is supported by a global industry which, in turn of employment and conservation needs to be treated with a high degree of respect and support.

A conclusion

*UK Automotive plc
will require support
to achieve its full
potential*

UK Automotive plc could, in the second century of the industry, have an exciting and productive future – but will require support to achieve its full potential.

The United Kingdom automotive industries have been hit simultaneously by both the credit crunch and recession. To recover, restructure and continue to grow they require support – finance availability for the retail markets and significant backing to restructure and reposition in terms of vehicle assembly.

Professor Peter N C Cooke
KPMG Professor of Automotive Management
The University of Buckingham

May 2009

SMMT Automotive Industry Review

This survey of key players in the automotive industry is being undertaken by KPMG on behalf of the Society of Motor Manufacturers and Traders. The responses will be used to reflect the current status of the industry.

To add to the value of the report to the industry in its representations to government, we would like to be able to use quotes from some of the responses gathered. Any quotes used will be cleared formally with the appropriate person concerned once the report has been completed.

We will send you the draft of the appropriate chapter in which your quote has been used for approval, so you can see the context in which it has been presented.

Mike Steventon
Partner - KPMG

SMMT/KPMG Review of UK Automotive Industry - Questionnaire

Company Details	
Contact/Position	

Question	Response
<p><i>The current business and economic context & outlook</i></p> <ul style="list-style-type: none"> - impact on your business and the sector - considering restructuring in response - what response – adjust, delay, postpone, shelve, reconsider, relocate? 	

<p><i>The UK as a flexible, stable and competitive location</i></p> <ul style="list-style-type: none"> - the benefits for your business of operating in the UK – strong/weak - perception of UK operations by global decision-takers in your business - the competition – other brands; other plants in your group elsewhere - restructuring in the sector since 1997 – drivers, impact on your business 	
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Question	Response
<p><i>Your business strategy to 2010: 2012</i></p> <ul style="list-style-type: none"> - stable, expanding, contracting, refocusing - value added and productivity in UK assembly and sales - opportunities in low carbon vehicle and transport initiatives 	
<p><i>Investment – plant, machinery, buildings, acquisitions & disposals</i></p> <ul style="list-style-type: none"> • investment plans for what & how much - committed or on hold • key future dates for more investment & potential to change UK sourcing • key investment drivers – change in demand types and markets, group and process restructuring, environmental regulations, other? 	

Question	Response
<p><i>Skills – manufacturing assembly, engineering, support, professionals</i></p> <ul style="list-style-type: none"> • your staff in the UK, retention, relative skill competence and content • depth and flexibility of skills in the UK – available, gaps, quality, turnover • your own training schemes and spend • plans for employment and skill levels to 2010; 2012 	

<p><i>Research & Development</i></p> <ul style="list-style-type: none"> • your R&D activities in the UK – the focus, jobs, value, compares globally • the form to activities – partnerships, innovation, development, application • R&D and the low carbon economy – doing what, plans, barriers to take-off 	
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Question	Response
<p>Trade</p> <ul style="list-style-type: none"> • export and import flows in your business – values, where to • the UK transport network working for you – issues, costs, benefits • accessibility to developing markets – trade barriers • EC and enlargement, impacts on your business – threats or benefits • awareness of opportunities and need for countertrade in globalisation 	
<p>Cost competitiveness</p> <ul style="list-style-type: none"> • value added aspects of UK business – lean processes, engineering, brand • unique strength of UK business • legacy of past UK macroeconomic performance; the future; exporting benefit to lower £ vis a vis higher import costs? 	

Question	Response
<p><i>Government's business and economic strategy and support</i></p> <ul style="list-style-type: none"> • Manufacturing Strategy (Sept 2008) – right focus, supportive, effective • AIGT & Sakomoto Report – focused cooperation and process improvement • grants, credits, Departments and agencies – clear, focused, valuable? 	

<p><i>Environmental Agenda – governments, ngo and the industry</i></p> <ul style="list-style-type: none"> • Tough on CO2 and emissions – achievable cost competitiveness • Global solutions and Integrated Approach (Cars21) a higher priority • Governments' action Climate Change Bill – major investment to meet high expectations and likely costs for households and business 	
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Question	Response
<p data-bbox="188 193 869 256"><i>UK Sector image – opportunities to work and invest in the sector</i></p> <ul data-bbox="237 264 819 389" style="list-style-type: none"><li data-bbox="237 264 819 325">• Scale and nature of the sectors' image and perception issue<li data-bbox="237 328 819 389">• Potential for transformation in a greener, low carbon economy	