

The Packaging
Manufacturing Industry
Annual Report –

Putting progress in perspective



The Packaging
Federation



Foreword

Welcome to the first of what is proposed to be an annual publication on the state of the UK Packaging Manufacturing Industry. This publication is aimed at the "opinion formers", i.e. the politicians, the civil servants, the media and the financial institutions, who quite often require a quick reference document to research the basic facts, statistics, trends and profile of the industry. Thus, the style of this document is very much geared towards presentation of the material in an easy digestible manner with the emphasis on visual presentations and bullet point format.

The other crucial factor in preparing this document was to use as much objective research as possible, which is why the main source of reference has been the Office of National Statistics (ONS). However, this has led to some delay due to their finalisation of the 1999 data and the further analysis by Landell Mills Marketpower, the consultants for this project, and The Packaging Federation. Using data from the ONS is prone to some misinterpretation as often the SIC (Standard Industry Classification) codes used do not equate to the packaging manufacturing sector definitions. It is intended to keep refining the data with each report.

In order to keep costs to a minimum, there will be a limited print run of this report. It is therefore only possible to provide a free hard copy to a selected audience. Any further copies may be extracted from our web-site – www.packagingfedn.co.uk.

Finally, as this is the first publication it is recognised that there may be areas for improvement. As a customer for this publication, we aim to ensure that it does meet your requirements, and therefore genuinely welcome any constructive feed-back, especially comments that will make this a more useful document to you in future years. A feed-back form is enclosed with each brochure for this purpose. If it is not included, please contact myself at the contact address shown below.

I do hope that you will find this useful and informative.

Ian Dent
Chief Executive
The Packaging Federation
Vigilant House
120 Wilton Road
London SW1V 1JZ
Tel +44 (0)20 7808 7217
Fax +44 (0)20 7808 7218
email iandent@packagingfedn.co.uk



Executive Summary

Filling a Gap

The need to generate this report on the state of the UK packaging manufacturing industry is paramount as the industry generally feels that its size, profile and issues are little understood or fully appreciated by many formulating regulations, which are governing the industry more and more. Since it is up to the industry itself to publicise this profile, it is intended that this document will meet those needs, and in coming years improve the data to ensure that it is both relevant and necessary for opinion formers in the UK.

The Importance of the UK Industry

There can be little doubt that this sector is one of the most prominent, and visible in society and integral to most manufacturing operations. Not many products today can be contained, transported or stored without some form of packaging. Since it is, above all else, a functional product integral to other product manufacture, it is also a barometer of the economy.

The sector remains one of the largest manufacturing sectors of the UK economy, and a significant employer of more than 125,000 people. As an integral part of manufacturing industry in the UK, it has seen a decline in its domestic sales like most of UK manufacturing due to the adverse effects of the relative strength of the pound v. the euro during 2000, which not only affected the sale of packaging for filling but also the sale of products packed outside of the UK and imported directly. The reduction in value is also due in part to the industry's own drive for more cost-efficiency in its production and use, having to respond especially to the major retailers with their increasing purchasing power. "More product for less packaging" is a call from the environmentalists, which is echoed by the retailers with the addition of "cheaper"! The Competition Commission report in 2000 and recommendations on a mandatory Code of Practice for selection procedures and dispute resolution with suppliers is a welcome move towards ensuring that UK packaging manufacturers receive a fair deal. The development of the Code of Practice will be watched with interest.

By international standards in the developed countries the UK is one of the most efficient as measured per capita consumption of packaging in volume terms. North America is the highest at approximately 250Kg/capita/annum, whilst the UK is estimated at 132Kg/capita/annum. In some less developed countries like Africa the consumption is as low as 10Kg/capita/annum, but against this must be set the economic burden of poverty with poor indigenous food production and distribution systems. Packaging is a measure of the economic prosperity and sophistication of a nation in many ways, but also a barometer of the changing social structure. The N. American consumption is undoubtedly a reflection of that country's trend towards more

convenience foods at home, work, school and play. Packaging has to respond to consumer demand and life-style patterns, mostly dominated by the food and drink sectors.

The DTI sponsored report into everyday consumer products and the disabled focused heavily on packaging to which the Packaging Federation responded vigorously and constructively emphasising the good work done already by manufacturers, but acknowledging that much more needs to be done to accommodate this sector of the population – and the increasing age-profile of the UK population in general. As well as offering to work with the DTI consultants in this project, the Federation are also sponsoring in the 2001 Student StarPack Awards, a special prize to the college student who best addresses the needs of the elderly and infirm in their design submission.

Consolidation & Rationalisation

Consolidation in the industry has been most marked during 1999 and 2000 as the City continued to devalue the sector and allow predators, mainly from outside of Europe to see the UK as a useful stepping-stone to the rest of Europe. Thus, the packaging sector quoted on the London Stock Exchange dropped from 19 companies in January 2000 to 12 by January 2001. The consolidation and consequent globalisation of the industry has mirrored to a large degree the changes in the major customer sectors, i.e. the food and drink producers and major retailers. The continuing financial pressures both from customers and shareholders will continue to keep the industry under the spotlight. It is to be hoped however that the increasing focus towards a non-UK headquarter base due to the take-over and consolidation process will not adversely affect future investments in the UK manufacturing industry.

A sign of the commercial pressures and effects of consolidation and rationalisation in the industry is demonstrated by the fact that in the period 1998 – 2000 there were 20 major plant closures. The result can be seen in the drop from 130,000 employees in 1998 to approximately 125,000 in 2000. Despite this, and the adverse effects of currency, the industry has maintained its share of exports overall as a percentage of its UK manufacturing output, and increased its productivity levels.

Future Drivers

The future drivers for the industry were discussed in 2000 as part of the DTI Foresight Programme, and to which the Packaging Federation contributed. The Packaging Task Force Report was published on the Foresight web-site – www.foresight.gov.uk/servlet/DocViewer/doc=1380/ – with the intention of the Federation to develop the key themes further in 2001 with other sectors of the industry. The key drivers are

highlighted in more detail in this report, but in connection with the comments on rationalisation and consolidation above, a key driver was identified as a political driver towards globalisation and the potential for relocation of manufacture. It is to be hoped that the UK will be the beneficiary and not the loser in this development.

E-commerce is another factor, which is still to be felt strongly, but which is expected to have a major impact both in supply chain management and usage of packaging. In the latter context, the development of business to consumer e-trading will involve both an extra leg in the logistics chain, which will increase packaging usage, but also the advent of virtual shopping which will increase the marketing element of packaging as branding and brand loyalty will become more paramount. The development of e-commerce for virtual auctions is a concept which will damage the industry, and it is hoped will not be used by major producers and retailers for short-term profit only.

Regulatory Impact

Within the context of the regulations and the regulators, the packaging manufacturers are often ill-defined and can be referred to as manufacturers, converters, and producers. In order to clarify the definition as used in this report, the packaging manufacturing industry refers to those companies whose primary function is to take a raw material and convert it into a manufactured piece of packaging, according to a specification, ready to be used to contain, transport or store a product for onward sale into the market. Thus, the packaging manufacturing industry is solely reliant upon the producers of products, who generally specify their packaging as part of that product's image and functionality.

The sector has had to respond to regulatory pressure from many sources in recent times to meet various standards and targets. Hygiene is a crucial factor for those supplying the health-care and food sectors, whilst the environmental pressures have seen investment to meet the VOC reductions in the use of solvent printing inks, the need to meet recovery and recycling targets as part of the EU Packaging and Packaging Waste Directive, which also means for the sector, investment in the recycling processes as many form the backbone of the nation's recycling activity. On the horizon is now the UK's Climate Change Levy, which threatens to damage yet further the sector's competitiveness as their counterparts in Europe and elsewhere will not have to bear this energy tax, estimated to increase energy bills in 2001 by 15%, and due to the inability to offset against NIC, potentially 10% of the profits. The Packaging Federation will be monitoring the situation during 2001 and lobbying for change should the cost burden affect the industry as much as predicted.



Within the context of the UK Producer Responsibility Obligations (Packaging Waste) Regulations, the UK packaging manufacturers are classified not only as manufacturers, but also raw material suppliers if importing their raw material, and packer/fillers and sellers for the packaging they use to sell on their empty packaging to a third party. These Regulations continue to be a significant issue for the industry, especially as the UK Government has decided that due to the expectation that UK plc will not meet its packaging waste targets imposed by Brussels in 1994, it will have to substantially increase the targets for those companies who are already obligated in order to make up for those companies allowed not to participate in any recycling or recovery activity, now believed to be approximately 10% of the total. The Packaging Federation will continue to lobby for change whenever and wherever it is felt that the Regulations are inequitable, inefficient and impracticable both from an environmental and economic perspective.

Whilst the UK Packaging Waste Regulations are still being tried in many ways, and constantly modified as a result, the other major European Union Member States have established systems and are thus far better equipped to handle the next phase of the EU Packaging and Packaging Waste Directive now being debated and developed in Brussels. This will eventually meander its way through to the UK Statute Books and dictate the targets for the next 5 year period, i.e. 2001-2006.

It is to be hoped that the UK will be able to reassess its current system prior to the next phase to ensure that it is robust enough to cope with any significant increases. The Packaging Federation and its members will play its due part with the Government and the rest of industry to enable that reassessment to take place.

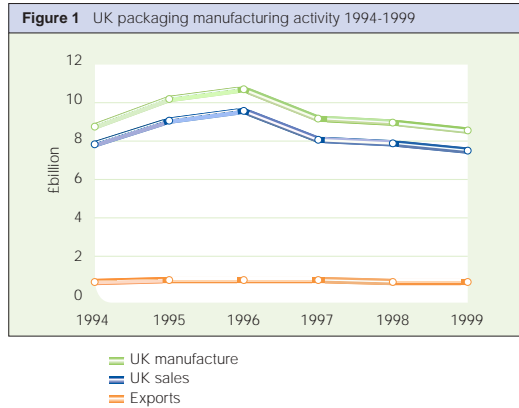
Conclusion

Overall, it is hoped that the reader can appreciate from this report that the sector is not only one of the most dynamic in having to respond to constant demographic, social and economic changes; but also a significant positive contributor to the environment through their recycling activities, own production waste usage and resource efficiency.

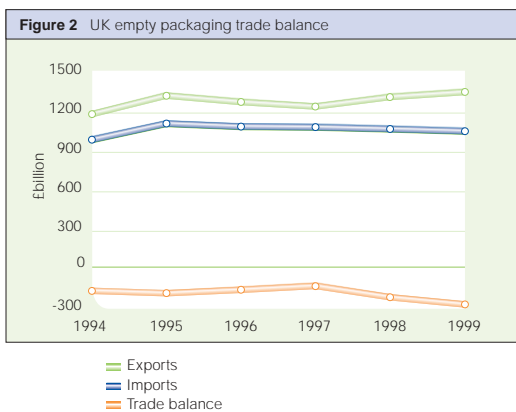
UK Packaging Industry

UK Trade

- National Statistics for 1999 indicate that the UK packaging materials market, i.e. manufacture and sale of empty packaging has fallen by 4.3% in value terms over the last three years (fig 1).
- Trade balance shift in last three years towards more imports, with 9.1% increase in value terms between 1998 and 1999. This relates to empty packaging only (fig 2).
- Despite the increased competition and adverse ratio of Esterling to the euro, exports remained fairly constant as ratio to UK manufacture, representing approx. £1Billion or 11/12% of UK production.



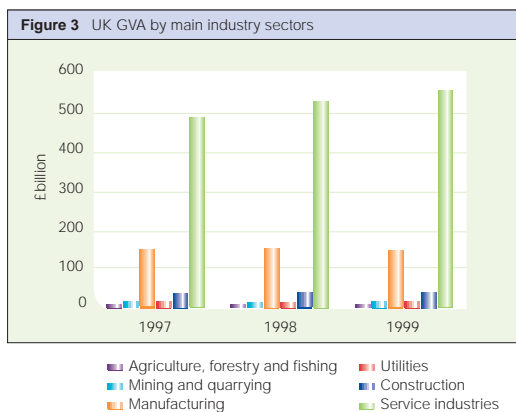
Source: Landell Mills Marketpower based on ONS data.



Source: Landell Mills Marketpower based on ONS data.

Financial Ratios

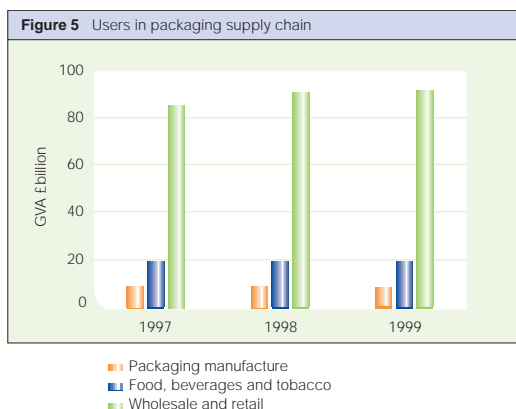
- Packaging manufacture remains a major component of the UK manufacturing sector, representing 6.1% GVA (Gross Value Added) of that sector. GVA is the revenue generated by any unit engaged in production minus purchases of raw materials and services.
- Although overshadowed by the services sector, the manufacturing sector is a significant employer and contributor to the UK economy compared to the other basic industries (fig 3 and 4).



Source: ONS data.

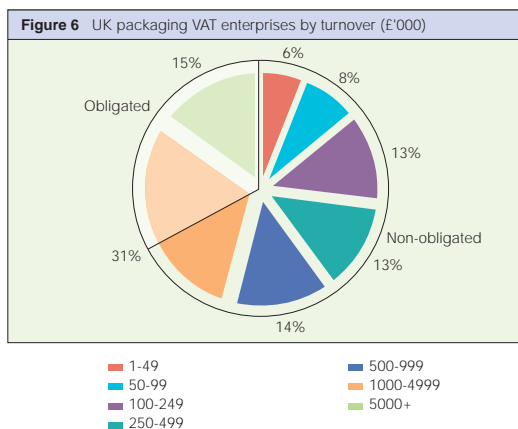


Source: Landell Mills Marketpower based on ONS data.

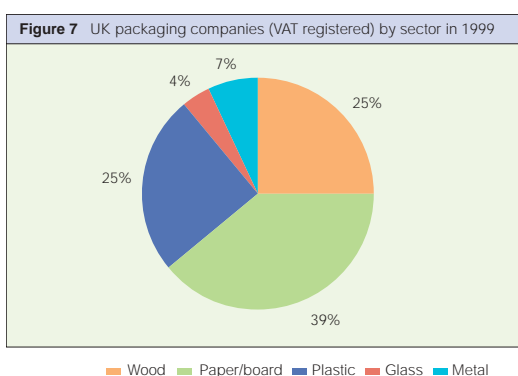


Source: ONS data.

Compared to the major users in the packaging supply chain, the manufacturers have the lowest margins (fig 5).



Source: ONS data.



Source: ONS/Landell Mills Marketpower.



Source: Landell Mills Marketpower estimates based on ONS data.

The sector is largely dominated by SMEs with estimated two-thirds below £2M. turnover – and hence probably exempt from being obligated under the UK Producer Responsibility Obligations (Packaging Waste) Regulations 1997 (fig 6).

- Total number of VAT registered enterprises in 1999 was 2220, including wood (fig 7).
- Employment in 1999 is estimated to be 125,525, which is a decline of approx. 5% from 1997 (fig 8).

Regional employment distribution is widely spread.

Major markets

The retail sectors dominate packaging:

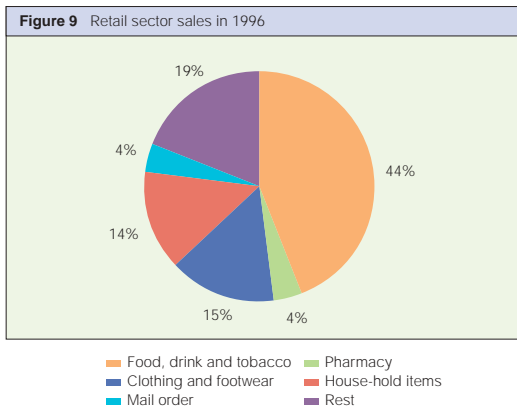
- The food, drink and tobacco sector accounts for nearly half the retail sales, and where the packaging has to perform its maximum number of functions – advertising and marketing, protection, storage and transport for both store and home, plus essential vehicle for carrying food, hygiene and safety data (fig 9).
- It was estimated by PIRA that in 1998 two-thirds of packaging value was in the food & drink sector.
- Private (own-label) packed goods now dominate the retail sector with approx. 45% by volume and value in 1999 according to the Private Labels Manufacturers Association.
- Private label retailing is larger in the UK than in most other countries (fig 10).

Material Sectors

- The importance of packaging as a major market sector to each material stream is show below based on UK consumption patterns (fig 11).

The packaging sectors are under constant reorganisation and consolidation at present. The shape of the major material sectors can be divided between paper and plastics, who both share a common feature of a few large players and a myriad of smaller players; whilst the glass and metals sectors have a concentrated profile. The general shape of each sector is as follows:

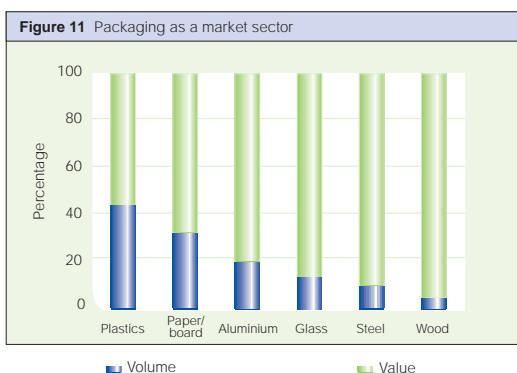
- **Paper/Board:** The largest sub-sector of the packaging market is corrugated packaging accounting for approx. 62%; the second largest sub-sector is carton board accounting for approx. 28%; with the third sector referred to as wrappings accounting for 10%.



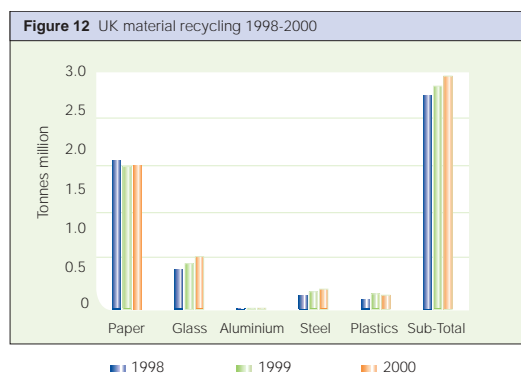
Source: Nielson Retail Pocket Book 1999.



Source: Private Labels Manufacturers Association.



Source: Trade Associations.



Source: DETR.

- Plastics:** Packaging accounts for approx. 35% of the total UK consumption. The market is usually defined by rigid, e.g. bottles, trays etc. and film/flexibles, e.g. carrier bags, pouches etc. The ratio split between these two sub-sectors is approx. 45:55 rigids:flexibles.
- Glass:** Packaging, in the form of containers, represents approx. 14% of the total UK glass consumption.
- Metals:** Packaging accounts for approx. 14% overall of the ferrous and non-ferrous UK consumption with Aluminium as a packaging market sector being 20% as opposed to Steel at 10%.

Volumes

Since the ONS data is based on values rather than volumes, it has only been possible to estimate the volumes, especially as the import/export data is imprecise. The data on wood data requires further investigation, and is not estimated here; but excluding wood, the estimates of the market volumes would indicate the following:

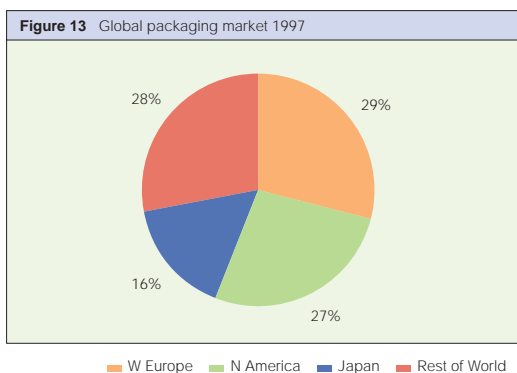
Sector	Million Tes.	%
Paper & Board	4.4	53
Plastic	1.3	16
Metals	0.8	10
Glass	1.8	22
Total	8.3	100

Source: ONS/Landell Mills

This data compares favourably with that estimated by the DETR and Material Organisations.

Recycling Activity

- The UK Packaging Regulations have been in operation since 1998 with the PRN (Packaging Recovery Note) system being used as the financial mechanism. Growth in overall recycling activity between 1998 and 2000 appears to be 9%, with growth most marked in glass at 30+%, despite the problems with green glass imbalance; plastics at 60% and steel at 20+%. The Regulations with their complex bureaucracy, and uncertainty over both data and free riders have compounded the unease over equity. The PRN system has had patchy success and operated in the period 1998 – 2000 in a mainly supply surplus market, which has kept funding lower than anticipated, and increased the level of waste going to exports (fig 12).
- The packaging manufacturers, except for metals, are the main reprocessors in the UK.



Source: MTI/RTS Associates/APME.



Source: MTI/RTS Associates/APME in terms.

Key Industry Drivers

- As part of the Government's Foresight programme, a Task Force was established in 2000 by the Materials and Chemicals Panels to review the opportunities for the packaging sector. The main conclusions were to identify 5 main areas which will impact the sector in the next decade, and the responses which the industry is expected to take:

Driver	Response
Social – Adding Customer Value	Enhanced ease of use Intelligent consumer systems Intelligent drug delivery systems
Technological	e-Shopping, e-Commerce
Economic	Materials reduction Supply chain management "Virtual" design systems
Environmental	Increased recycling
Political	Alliances/mergers Relocation of manufacture

- The above factors show that the packaging manufacturing sector is expected to be at the forefront of technological and technical developments. Ensuring that there is the right balance of economic stability, investment support and appropriate skill base will be key tenets to encouraging that development to be UK based. Over-regulation and an uncompetitive environment due to the financial burden of regulations is of concern in this scenario.
- From the above, the UK packaging usage is seen to be one of the most efficient in the developed world (fig 14).

Major Acquisitions in 1999/2000

Year	Purchaser	Acquisition	Type
1999	MY Holdings (S. Africa)	S & D Cartons (UK)	A
1999	Danisco (Denmark)	Sidlaw Packaging (UK)	A
1999	Ardagh (Ireland)	Rockware (UK)	A
1999	Nampak (S. Africa)	Plysu (UK)	A
1999	Chesapeake (USA)	Field Group (UK)	A
1999	SCA (Sweden)	Rexam Corrugated (UK)	A
1999	Rexam (UK)	PLM AB (Sweden)	B
1999	RPC (UK)	Montonate (Italy)	B
2000	Chesapeake (USA)	Boxmore Intl. (UK)	A
2000	Smurfit (Ireland)	Norcor (UK)	A
2000	MY Holdings (S. Africa)	Low & Bonar Cartons (UK)	A
2000	Rexam (UK)	American National Can (USA)	B
2000	RPC (UK)	Wiko Group (Germany & USA)	B

Type A = non-UK acquisition
Type B = UK acquisition

Global Perspective

Region	Value US \$million	%	Spend per Capita US \$
UK	13,566	3.5	238.0
France	19,677	5.1	351.4
Germany	26,765	6.9	338.8
W. Europe	111,858	29.0	290.4
N. America	105,004	27.2	352.2
Japan	60,250	15.6	479.1
Rest of World	108,688	28.2	17-26
TOTAL	385,800	100.0	69.3

Photographs courtesy of: BP, Field Group, MPMA (Metal Packaging Manufacturers Association), Rockware Glass, United Glass, Van Leer.

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Suite 2.9, Vigilant House, 120 Wilton Road, London SW1V 1JZ
Telephone 020 7808 7217 Fax 020 7808 7218
www.packagingfedn.co.uk