



CBI Product Factsheet: Brakes and Brake Parts in the EU5

'Practical market insights for your product'

The overall demand for brakes and brake systems in the EU5 seems to be fairly resistant to economic fluctuations. The region continues to be the largest import hub for brakes and brake systems globally. The share of imports from developing countries is significant and on the increase. In the OEM sector, the passenger car brakes and brake parts market is dominated by well-established Tier 1 brake system providers, which are constantly seeking more efficient sourcing. For DC suppliers, some opportunities exist in the Tier 1 segment, but the aftermarket sector for brake parts offers the most opportunities in the region. Opportunities also exist with the manufacturers of commercial vehicles, agricultural equipment and trailers.

Product definition

Brake systems are grouped under "Brakes and brake linings" (HS codes 87083010; 87083091; 87083099). This Product Factsheet analyses the market for brake calipers, brake mountings, brake discs, brake drums, brake parts and brake shoes in EU5 countries (i.e. the biggest EU economies: Germany, France, the UK, Italy and Spain).

Product specifications

Quality

Compliance with international standards and European standards on safety is required, as is conformity with existing EU and national legislation and practices. The ISO/TS 16949 standard is considered to be the highest level of quality. This standard is important for the European automotive industry, as it outlines best practices for the design, development, manufacture, installation and servicing of automotive products.

The quality of materials used in the manufacture of brakes and their parts for European vehicles is very high, so as to ensure their durability and safety, and so the supplied parts have to be carefully manufactured and inspected, as defective parts may be returned.

Materials

Traditional braking systems consist of the following parts and component materials:

- o Brake Pads: organic fibres, ceramic compounds, copper fibres, cellulose, glass and steel.
- o Brake Disks: cast iron, grey iron, ceramics, carbon fibre
- o Brake Calipers: aluminium or steel

Packaging & Labelling

In general, packaging is dependent on the buyer: either the OEM or end user (the aftermarket sector). In the aftermarket sector, the packaging is typically disposable, as it is discarded after being used just once. Returnable packaging is most often used by OEM suppliers, so as to reduce cost and to improve the efficiency of packaging operations. Returnable packaging is not discarded after use and the empty packaging is recycled by the OEM or by a designated packaging operator. In order to export to the EU, product packaging must comply with all EU standards. To reduce the harmful impact of packaging on the environment, the EU has instituted legislation concerning the management of packaging and packaging waste.

Considerations for action

- For more information on packaging and packing waste requirements, please refer to the [European Commission](#).

Figure 1: Brakes and brake parts and packaging



Source: Fotolia

Buyer Requirements

Legislative Requirements: The most important requirement for automotive components is that they comply with the technical standards set by EU legislation in order to guarantee vehicle and environmental safety.

Type-approval is a certification for various types of motor vehicles and their components, which includes agricultural and forestry tractors. The type-approval or certification is valid in all EU Member States and is required when selling any products in the EU. Many automotive components are not approved until the final assembly, in which case certification of individual

Considerations for action

- Check with your buyer, or with [the approval authority of the country you want to export to](#), what the specific standards are for the parts you are manufacturing.
- Read more about type approval at the [EU Export Helpdesk](#).

components is not necessary, although these components will still have to comply with type-approval requirements.

The End of Life Vehicles (ELV) Directive aims to avoid environmental pollution during the scrapping process through reducing the hazardous materials used in vehicle production. Vehicles must be designed to facilitate proper dismantling and recycling (by coding the components), and the use of heavy metals such as lead, mercury, cadmium and hexavalent chromium is prohibited (with the exception of a few applications).

Common buyer requirements: In addition to legislative approval, there are other common buyer requirements. While these are not obligatory in the legal sense, they are implemented by various competitors in the market and are thus necessary in order to compete effectively.

Quality Management: In order to apply for type-approval, production processes need to meet quality management criteria. ISO TS/16949 and ISO 9001 are accepted as standard requirements and EU buyers and manufacturers often insist on them.

Corporate social responsibility (CSR) and the extent to which buyers expect a certain level of social and environmental performance is becoming increasingly important. Bigger EU companies have developed their own CSR policies and require their suppliers (and their sub-suppliers) to conform to these. Signing a supplier code of conduct is often a prerequisite. These codes of conduct generally cover compliance with local laws, protection regarding workers' health and safety, respecting basic labour rights and also business ethics. The implementation of an environmental management system is often a requirement for core suppliers.

- To understand the specific requirements for replacement brake lining assemblies, drum brake linings and discs and drums, refer to the [regulation number 90 of the Economic Commission for Europe of the United Nations \(UN/ECE\)](#)
- Check if your buyer uses the International Material Data System (IMDS). This is a collective, computer-based data system developed by automotive OEMs to manage environmentally relevant aspects of the different parts used in vehicles. It has been adopted as the global standard for reporting on material content in the automotive industry.

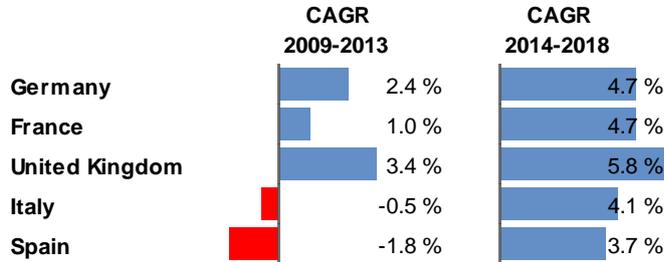
Considerations for action

- Implement ISO 9001 and ISO TS/16949, as it is a standard requirement of EU buyers. Click [here](#) for more information on ISO TS/16949 at the ISO website
- Most big car brands publish their CSR policies and supplier code of conduct on their websites. An internet search for these may give valuable insight into assessing your company's performance by comparison.
- Implement an environmental management system, such as [ISO 14001](#), as it is a common requirement.

Macroeconomic statistics

The GDPs of the EU5 countries have grown by only 1.3% on average between 2009 and 2013. However, the IMF predicts a considerable rise in the GDPs of all of the EU5 nations between 2014 and 2018. The estimated UK GDP CAGR for 2014-2018 is an impressive 5.8%, followed by solid increases in all other EU5 countries. Italy and Spain, in particular, went from negative growth in 2009-2013 to a predicted growth of close to 4% for 2014-2018.

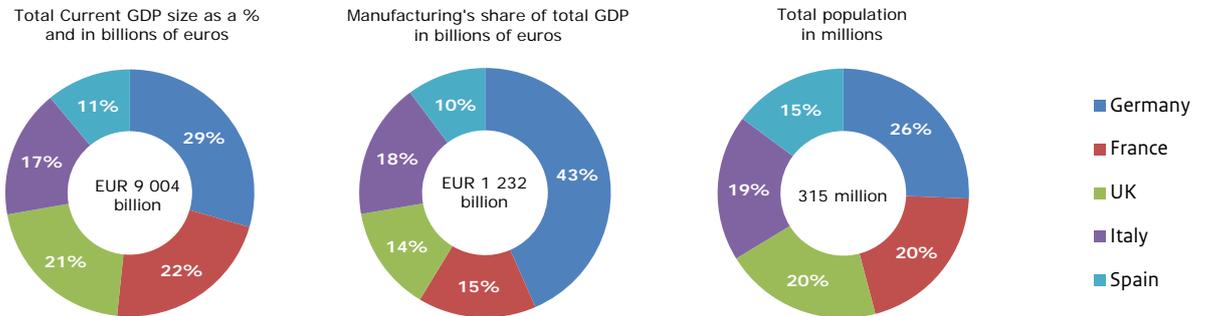
Figure 2: GDP Compound (current prices) Annual Growth Rate (CAGR) for 2009-2013 and 2014-2018 in EU5



Data source: IMF 2014, World Economic Outlook Database

The total GDP for the EU5 nations was estimated at more than €9 trillion in 2013. Germany is the largest market in the EU5, with a GDP of €2.65 trillion, accounting for almost one-third of the total GDP, and with by far the strongest manufacturing base of all the EU5 nations (€535 billion in 2013). Germany is followed by France and the UK, each of which represent roughly one-fifth of the GDP value and 15% of total manufacturing for the five countries. With its GDP in 2013 close to €1 trillion and manufacturing at €125 billion, Spain is the smallest of the five economies.

Figure 3: Key 2013 macroeconomic indicators for EU5, in billions of euros (population in millions)



Data source: IMF and OECD 2014

Trade Statistics

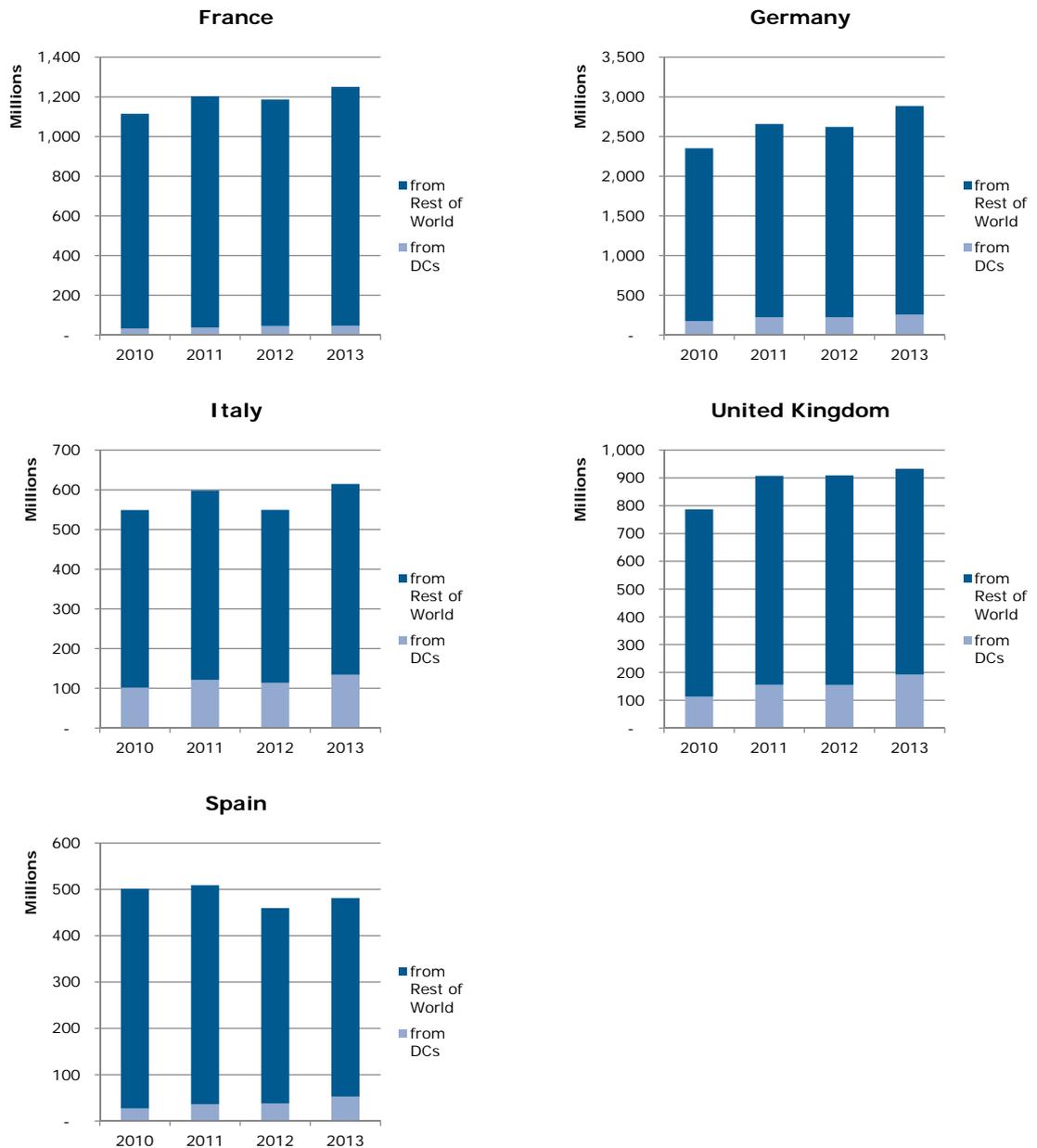
Imports and exports

The EU5 imported roughly €6.2 billion worth of brakes and brake parts in 2013. Germany alone represents nearly 47% of the imports, standing at €2.9 billion in 2013. It is followed by the France at €1.25 billion and the UK at €933 million. The imported brakes and brake parts are shipped mainly from Western and Eastern Europe as well as from other developed countries such as Japan and the United States.

Imports of brakes and brake parts from the DCs to the EU5 represented almost €684 million (11% of total imports) in 2013 and grew at a CAGR of 15.2% between 2010 and 2013. Germany, Italy and the UK together represent nearly 86% of DC brakes and brake parts imports.

The biggest DC exporters of brakes and brake parts to the EU5 are China (€443 million), Turkey (€94 million) and India (€66 million), together accounting for approximately 88% of brake and brake parts imports from the DCs to the EU5. Italy and the United Kingdom are the biggest brake importers from the DCs, with a 22% and 21% share respectively, which indicates a willingness to source components from developing countries. The share of DC imports as part of total imports has also been growing for all other EU5 countries. Based on the current trends, the future outlook is that imports from the DCs will continue to grow at a faster rate than the total imports, effectively increasing the share of DC exporters in the market.

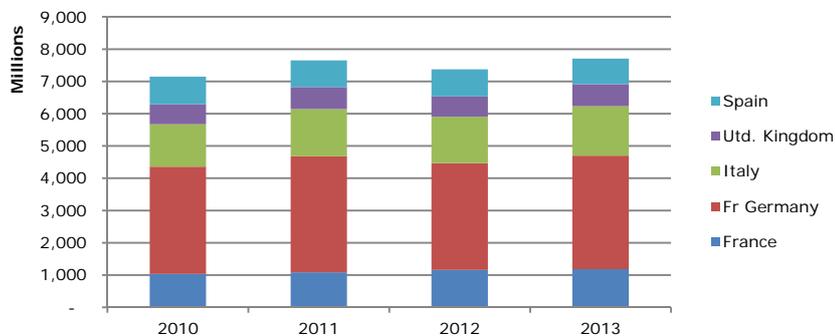
Figure 4: Import of brakes and brake parts in the EU5, in millions of euros (the range of the y-axis varies by country due to different import levels)



Data source: Eurostat 2014

The EU5 is a net exporter of automotive brakes and brake parts, and in 2013 it exported close to €7.7 billion worth of those parts. Germany is by far the largest exporter of brakes and brake parts among the EU5 countries, with nearly €3.5 billion in exports (a 46% share of all EU5 brakes and brake parts exports). It is followed by Italy with €1.5 billion (a 20% share of the total). EU5 brake part exports have grown at a 2.5% CAGR between 2010 and 2013. The export market is subject to demand in the developed countries, as roughly 86% of the exports are eventually sold in Western and Eastern Europe and in other developed countries. However, it must be noted that exports to the DCs have been growing at a much higher rate than exports to the Rest of the World. Between 2010 and 2013, they grew at a CAGR of 8%. China, Turkey, Brazil and South Africa are the largest importers and together account for roughly €670 million or 62% of the DC exports.

Figure 5: Export of brakes and brake parts, in millions of Euros



Data source: Eurostat (Prodcorn) 2014

Market trends and opportunities

Although the European market is expected to stagnate over the short/medium term, there are still opportunities to be explored by DC exporters within the EU5. In particular, opportunities exist outside of the conventional passenger car industry. Companies active in truck, bus, tractor and earth moving equipment manufacturing are on a smaller scale and have fewer requirements for components than the passenger car industry. Here, the Tier 1 system suppliers for the OEMs should be primarily targeted. There is less potential in the aftermarket sector for the same equipment. The easiest way to market these components is to approach the local automotive parts wholesalers or the OEMs and/or component/systems suppliers with a subcontracting offer. Contact can be made at trade fairs, which generally are good places to network with the OEMs and parts and components suppliers. In the OEM sector, the passenger car brake- and brake parts market is dominated by well-established Tier 1 brake system providers, which are constantly seeking a more efficient way to source components. For DC suppliers some opportunities exist in the Tier 1 segment, but the aftermarket sector for brake parts offers the best opportunities in the region. Relevant opportunities also exist in respect of the manufacturers of commercial vehicles, agricultural equipment and trailers.

The overall demand for brakes and brake systems in the EU5 seems to be quite resistant to economic fluctuations. The region continues to be the largest import hub for brakes and brake systems globally. Germany is the biggest European market for brakes and brake parts with imports in 2013 estimated at €2.9 billion (up from €2.4 billion in 2009). With an average compound growth of 7% per year and a 9% share of imports originating from the DCs, Germany is an excellent market for DC exporters of brakes and brake parts. France and the UK are the second and the third largest EU5 markets for brakes and brake parts, with 2013 import values of €1.25 billion and €933

million, respectively. Italy and the United Kingdom have the highest shares of DC imports for brakes and brake parts with 22% and 21%, respectively, while the share of DC imports have been increasing in all other EU5 countries. This indicates that the EU5 is open to sourcing its brake parts from developing countries.

For more information on automotive market trends and opportunities, please refer to [CBI Trend Mapping for Automotive Parts and Components](#).

Price

Apart from the distribution of new parts, the aftermarket for automotive parts also encompasses the vigorous distribution of used or overhauled parts and components. Pricing depends on supply chain positioning. The aftermarket sector, in particular, is very discount-driven and has varied mark-ups at each distribution step for different parts and components. Due to the large variation in parts types and models, it is difficult to provide a general overview of brakes and brakes parts prices, but it is possible to provide some insight into the margins imposed by different players in the supply chain. Based on the margin ranges, DC suppliers selling to a tier 3 supplier in the OEM supply chain could price their products at between 64% and 81% of the OEM delivery price. In order to better ascertain prices of specific products and models, check the internet to determine the appropriate range, or talk directly to wholesalers and/or retailers. The price of branded spare parts will not differ greatly among the various countries. Those players who are present in several European countries have largely harmonised their prices, and any differences in pricing may be because of different logistical and local costs. In the Original Equipment sector, the price is set by contracts of four years or more, which usually include a 3-5% price reduction each year after the first year. In the aftermarket sector, the prices are negotiated every year.

OEM supply chain	Margin
Tier 1 supplier delivering to OEM	6-8%
Tier 2 supplier delivering to tier 1	6-15%
Tier 3 supplier delivering to tier 2	10-25%
Aftermarket OES supply chain	Margin
Tier 1 delivering to OEM for OES sales through approved service chain	10-30%
Tier 1 delivering to OEM for OES sales through independent outlets	10-25%
OEM delivering OES parts through its approved service chain	25-65%
OEM delivering OES parts through independent outlets	30-40%

Main sources

- [European Commission's macroeconomic publications](#)
- [IMF](#) – a good source for macroeconomic information
- [OECD](#) – a good source for macroeconomic and industry-specific information
- [European Commission's Directives and Regulations pertaining to motor vehicles, their trailers, systems and components](#)
- [CLEPA](#) - the European Association of Automotive Suppliers
- [ACEA](#) - the European Automobile Manufacturers Association
- [Ernst & Young's Automotive information](#) - Automotive information – a good source of automotive information
- [Ernst & Young's European Automotive Survey 2013](#) – interviews mostly with automotive suppliers
- [Inovev](#) - Worldwide automotive knowledge platform that offers free-of-charge and fee-based content
- Trade fairs are a good place to network, to meet buyers and to promote your company. The most prominent automotive trade fairs in Western Europe are: [Hannover Messe](#) - the world's leading trade fair for industrial technology taking place in Germany; [Internationale Automobil-Ausstellung](#) (annual) – German automotive trade fair; the [Barcelona Motor Show](#) (biennial) – Spanish automotive trade fair; the [British International Motor Show](#) (organized by SMMT once every two years); the [Paris Motor Show](#) (biennial) – French

automotive trade fair and the [Bologna Motor Show](#) (annual) – Italian automotive trade fair.

More information

CBI market information:

- [CBI Buyer Requirements: Automotive Parts and Components](#)
- [CBI Buyers' Black Box: Automotive Parts and Components](#)
- [CBI Market Channels and Segments Automotive Parts and Components](#)
- [CBI Market Competitiveness Automotive Parts and Components](#)

This survey was compiled for CBI by the Global Intelligence Alliance

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