

Diverging trajectories for European automotive industries

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This report analyses the almost continuous fall since 2007 of motor vehicle production¹ in France, a drop of around 40%, and compares it with trends in the other main European economies.

The decline is only partly linked to domestic demand: on the one hand, the market shares of French brands on the domestic market have remained stable since 2007, and on the other hand, the total number of vehicle registrations has fallen by only 15%. In contrast, in Spain and Italy, the drop in motor vehicle production since 2007, which is on a similar scale, is due mainly to the decline in domestic demand.

The scale of the fall in production in France is linked more to the serious decline in foreign trade. Since 2007, this has represented a loss in France of 800,000 motor vehicles, whereas in the United Kingdom, Italy and Spain, the balance of trade is improving and in Germany it has declined by less than 100,000 motor vehicles. This discrepancy from our main partners can be explained only partially by the economy outlook: the average decline in registrations in our main partners is 24% since 2007, no more than in France.

The reason for this poor performance, began in fact in 2005 when french exports declined. First, French motor vehicle manufacturers have outsourced most of their vehicle assembly work abroad: in 2013, only a quarter of French brand private vehicles and light commercial vehicles were produced in France, whereas this figure had been 54% in 2005. Second, despite this trend towards outsourcing, French brands have lost market share abroad, regardless of production location. Also, production in Asia by French manufacturers has increased by less than 100% since 2005, compared with +300% for German manufacturers.

Since the beginning of 2013, motor vehicle production has stabilised in France and Italy and has picked up in Spain. In France, vehicle registrations remain stable overall, and this sluggishness is set to continue for the next few quarters, given their relative resistance in recent years, and the slow expected rise in purchasing power. Thus any upturn in automobile production in France is likely to arise more from exports, especially to southern Europe, where there is a greater likelihood of potential recovery in domestic demand. ■

(1) Unless stipulated otherwise, this analysis covers only the production of private vehicles and light commercial vehicles: this is a more restricted field than that covered by the NAF C29-1 branch of activity which refers to all automotive vehicles, including heavy goods vehicles, and much more restricted than the NAF (29) branch of activity which designates the entire automotive industry, and thus also includes specialised equipment manufacturers.

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Still an important sector of the economy

In 2013 the value added of the automobile industry² represented no more than 0.4% of total value added (and a similar proportion of jobs, excluding temporary employment). And yet the economic weight of this industry remains important.

Considerable knock-on effects for the rest of the economy

Firstly, the automotive sector³ represents almost 10% of French exports of goods (€38.4bn in 2013) and is still a major employer. It supports many more jobs through knock-on effects in plastics processing industry, the rubber industry, the steel industry and services to businesses: when the automotive sector generates one unit of value added, it generates more than four further units across France through the resulting intermediate consumption (INSEE, 2012). Thus the automobile industry contributes more to national activity than its accounting weight would suggest.

Moreover, 16% of domestic expenditure on research and development by companies in France⁴ is made by the automotive industry and in 2011, 25% of investment in R&D in the European Union concerned the automotive sector.⁵ This is therefore still a strategic sector of the economy, both in France and more broadly in the major countries of Europe.

A highly volatile sector

Another factor is that activity in the automotive industry tends to overreact to phases of expansion or contraction in the economy, as can be seen from the changes it has undergone during the crisis (INSEE, 2009), and this is true for all the main European economies: in France between 1999 and 2012, the volatility of the value added produced by the automotive industry was three times greater than that of the manufacturing industry in general. And while employment in manufacturing has dropped by 16% since 2008, the fall in employment in the automotive industry reached 37%.

Motor vehicle consumption: Germany, the United Kingdom and France, are holding out; Spain and Italy lose ground

In France, the fall in production is only partly due to vehicle registrations

Domestic demand for motor vehicles has varied from one country to another since 2007. In Germany, the United Kingdom, and to a lesser degree in France, new vehicle registrations have now returned to a level close to their pre-crisis level (see *Tables 1 to 3*), which is in line with the relative resistance of domestic demand in these three countries over recent years (see *Graph 1*). Registrations in Spain and Italy, on the other hand, have deteriorated considerably (see *Tables 4 and 5*): they are now only half of what they were before the crisis, while the drop in domestic demand in general in these countries has been no more than 10%.

(2) In this introductory section, the field is therefore broader than that dealt with in the detailed analysis in the rest of the report: it includes all private vehicles, light commercial vehicles, heavy goods vehicles and automobile parts and accessories.

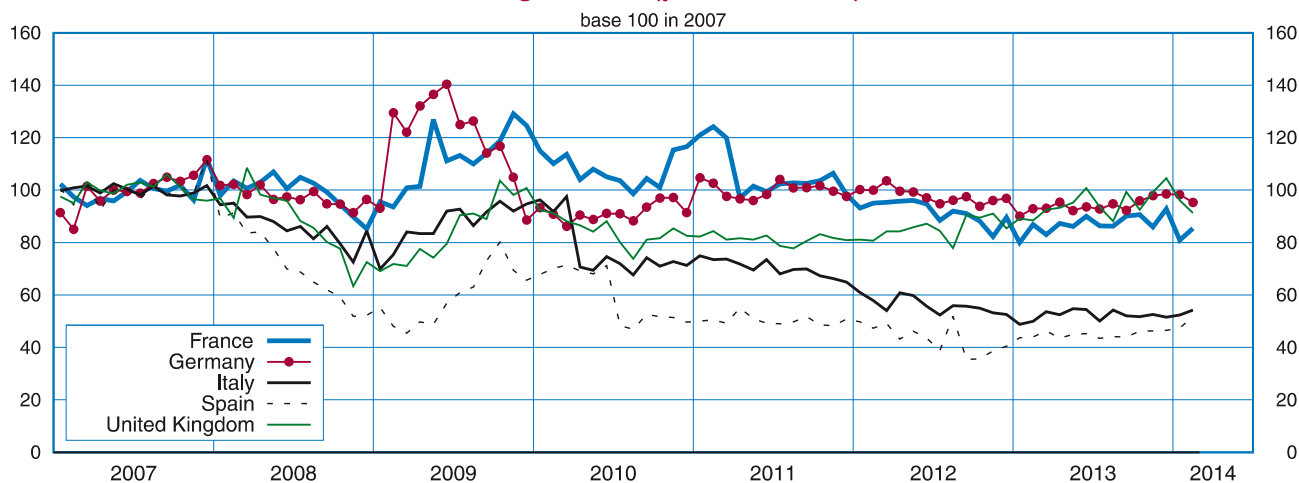
(3) Strictly speaking, we should call this the automotive branch, because in national accounting the automotive sector produces goods and services other than just motor vehicles.

(4) Source: MESR - DGESIP/DGRI - SIES.

(5) Cf. «R&D scoreboard: despite crisis, top EU firms continue to invest in innovation», press release from the European Commission.

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1 - Registrations (private vehicles)



Note: the uneven profile of registrations after 2008 is due to measures put in place in the course of 2009 in the five countries to provide a scrappage bonus. These measures resulted in the early purchase of new vehicles which therefore skewed the profile of registrations in the medium term.
Source: BCE

Table 1

France: private vehicles and light commercial vehicles * (in thousands)

			2000-2007	2007-2013
Registrations	(1)	vehicles	-23	-368
		%	-1	-15
Foreign trade	(2)=(3)-(1)	vehicles	-323	-836
Contribution of the market share of French manufacturers in France	(a)	vehicles	-311	45
Contribution coverage of French manufacturers	(b)	vehicles	-290	-862
Contribution of coverage of foreign manufacturers	(c)	vehicles	215	-72
Contribution of the French domestic demand	(d)	vehicles	-7	-61
Others	(e)	vehicles	70	115
Total output	(3)	vehicles	-346	-1 204
		%	-11	-41

Sources: CCFA, OICA

Example: from 2000 to 2007, total registrations fell by 23,000, whereas from 2007 to 2013 they fell by 368,000.

* For France, it is not possible to separate the manufacture of private vehicles from the manufacture of light commercial vehicles with the data available.

How to read this chart: breakdown of the French trade balance where:

immat total registrations in France; immat FR registrations of French brands in France;
immat ETR registrations of foreign brands in France;
prod total production of motor vehicles in France; prodFR production of French brands in France;
prodETR production of foreign brands in France: hence prod = prodFR + prod ETR

$$\alpha_{FR} = \frac{\text{prod}_{FR}}{\text{immat}_{FR}} \text{ et } \alpha_{ETR} = \frac{\text{prod}_{ETR}}{\text{immat}_{ETR}} \text{ and respective "coverage rates" of French and foreign brands from France}$$

$$pdm_{fr} = \frac{\text{immat}_{FR}}{\text{immat}_{FR} + \text{immat}_{ETR}} \text{ market share of French brands in France}$$

Disregarding inventory change, we have the following equation:

$$\begin{aligned} &\text{Trade balance} \\ &= \text{Production} - \text{registrations;} \\ &= (\alpha_{FR} - 1) * \text{immat}_{FR} + (\alpha_{ETR} - 1) * \text{immat}_{ETR} \\ &= [(\alpha_{FR} - 1) * pdm_{FR} + (\alpha_{ETR} - 1) * (1 - pdm_{FR})] * \text{immat} \end{aligned}$$

By differentiating once, we obtain (the combined terms are in ϵ)

$$\begin{aligned} \Delta \text{Trade balance} &= (\alpha_{FR} - \alpha_{ETR}) * \text{immat} * \Delta pdm_{FR} && (a) \\ &+ pdm_{FR} * \text{immat} * \Delta \alpha_{FR} && (b) \\ &+ (1 - pdm_{FR}) * \text{immat} * \Delta \alpha_{ETR} && (c) \\ &+ [(\alpha_{FR} - 1) * pdm_{FR} + (\alpha_{ETR} - 1) * (1 - pdm_{FR})] * \Delta \text{immat} && (d) \\ &+ \epsilon && (e) \end{aligned}$$

(a) This term represents the variation in market shares for French brands compared with foreign brands in French vehicle registrations.

(b) This term represents the change in coverage rates for French manufacturers, i.e. the ratio of production in France to registrations of French brands.

(c) This term is equivalent to term b for foreign manufacturers.

(d) This term represents the effect on foreign trade of the variation in domestic demand, with market share and coverage rate unchanged.

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Table 2

Germany: private vehicles

			2000-2007	2007-2013
Registrations	(1)	vehicles	-229 329	-195 763
		%	-7	-6
Foreign trade	(2)=(3)-(1)	vehicles	806 550	-64 533
Contribution of the change of the market share of German brand	(a)	vehicles	-16 320*	69 860
Total output	(3)	vehicles	577 221	-260 296
		%	11	-5

* Comparison 2007/2004

Table 3

United Kingdom: private vehicles

			2000-2007	2007-2013
Registrations	(1)	vehicles	157 895	-125 387
		%	7	-5
Foreign trade	(2)=(3)-(1)	vehicles	-264 645	80 531
Total output	(3)	vehicles	-106 750	-44 856
		%	-7	-3

Table 4

Spain: private vehicles

			2000-2007	2007-2013
Registrations	(1)	vehicles	226 117	- 890 086
		%	16	-55
Foreign trade	(2)=(3)-(1)	vehicles	-396 696	414 006
Total output	(3)	vehicles	-170 579	-476 080
		%	-7	-22

Table 5

Italy: private vehicles

			2000-2007	2007-2013
Registrations	(1)	vehicles	70 084	-1 189 884
		%	3	-48
Foreign trade	(2)=(3)-(1)	vehicles	-581 508	667 489
Contribution of the change of the market share of Italian brand	(a)	vehicles	83 501*	-34 084
Total output	(3)	vehicles	-511 424	-522 395
		%	-36	-57

* Comparison 2007/2005
Sources: CCFA, OICA, ANFIA, VDA

Diverging trajectories for European automotive industries

Since 2007, carmakers' market share has stabilised in France

From 2003 to 2007, the growing presence in France of foreign manufacturers has accompanied the decrease in market share of national manufacturers

In France the drop in motor vehicle production before the 2008 crisis can be explained in part by French consumer behaviour, with more and more people opting for foreign cars, usually imported, than for cars by domestic manufacturers. Thus the market share of the national carmakers (see Box) fell by almost 10 points between 2003 and 2007 (see Graph 2). Since 2008, however, this market share has stabilised, and is no longer a contributory factor to the drop in output.

Before the crisis, the increase in the market share of foreign manufacturers ultimately had little impact on the deterioration of external trade because it was accompanied by the arrival in France of more foreign manufacturers setting up their business (see Table 1, lines a and c).

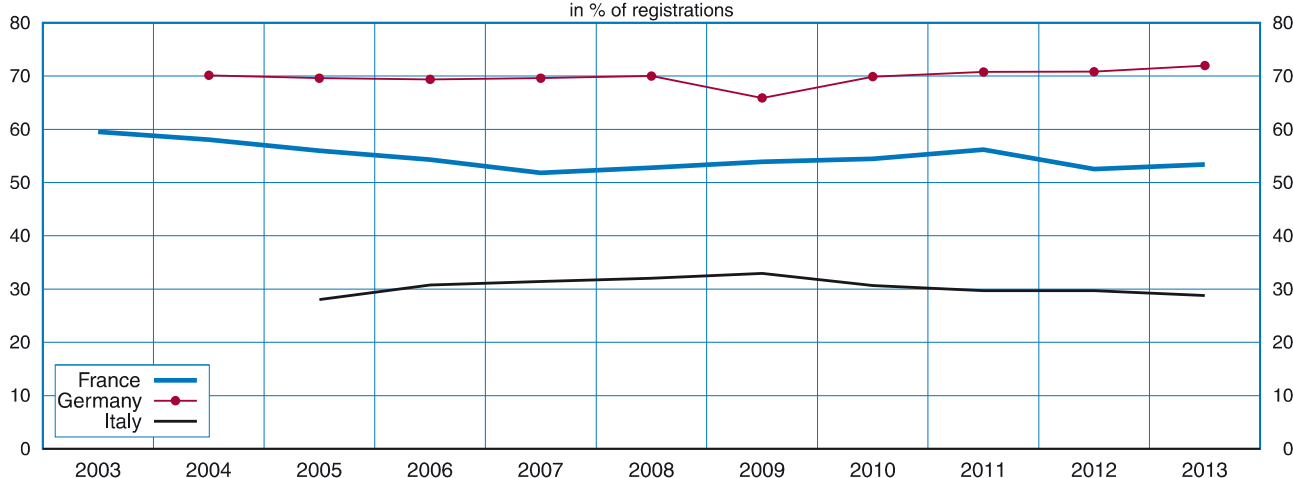
Since 2007, these two phenomena stopped

In contrast, since 2007, the stabilisation of the market shares of the national manufacturers has come with a slightly decrease in the share of registrations of foreign brand vehicles produced in France, so that ultimately, the net contribution of these two effects from 2007 to 2013 is very similar to that of the previous period (see Table 1, lines a and c).

Since 2007 in France, registrations have thus been fairly resistant and French manufacturers' market share has stabilised. The scale of the fall in production of vehicles in France since 2007 must therefore be the result of external trade.

2 - National manufacturers' market share

in % of registrations



Sources: ANFIA, CCF, VDA

Box - National production, national manufacturers

The globalisation of the motor vehicle market has weakened the ties that used to link a manufacturer to a specific country. In France, by the beginning of the 21st century, only Renault and PSA were producing vehicles in France itself. Since then, foreign manufacturers have established production in France (Toyota in Valenciennes and Daimler who produce the Smart brand in Hambach). At the same time, factories producing French brands have relocated to every continent. Thus motor vehicle

manufacture in France no longer depends exclusively on national manufacturers, and French manufacturers' results are less dependent on their activity in France.

Because carmakers have been bought out by foreign manufacturers, some countries that have their own well-developed automotive industry are no longer home to any of their own national manufacturers: this is the case for Spain and the United Kingdom, which produce only foreign cars. ■

Diverging trajectories for European automotive industries

French exports lose ground

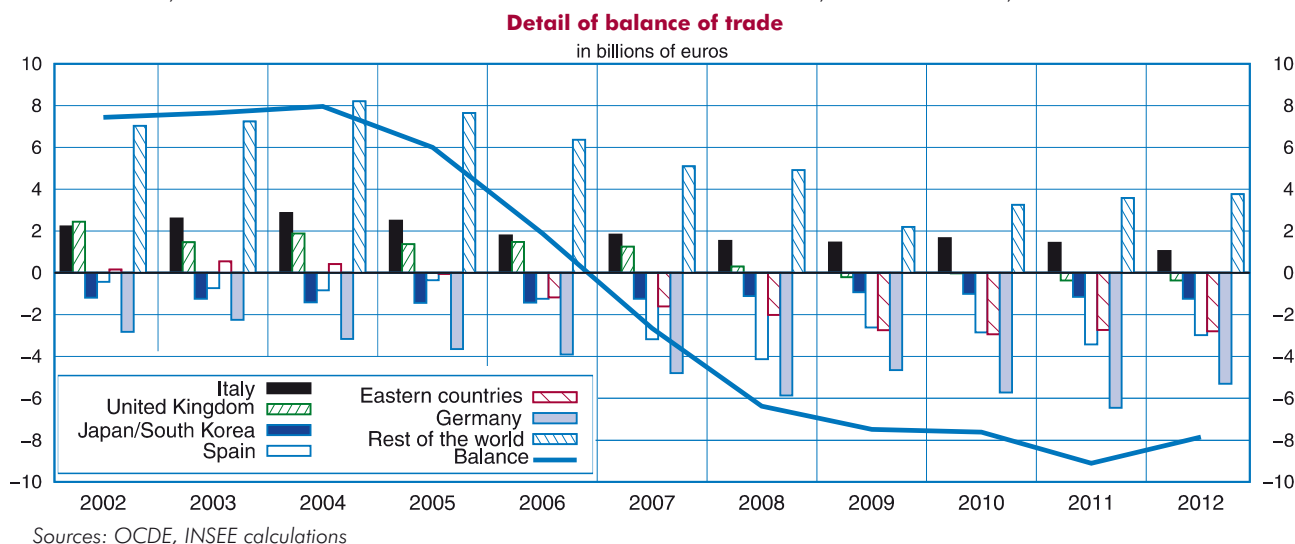
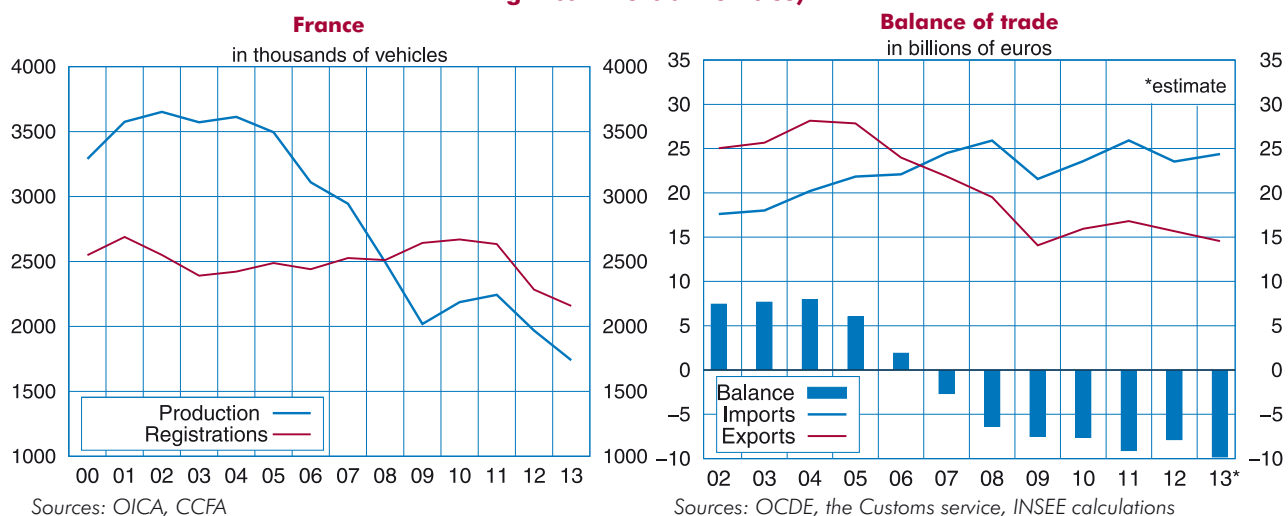
Motor vehicle manufacturing symbolic of the deterioration in the French balance of trade

While automobile production and registrations have grown in parallel in Germany and Italy, in France, automobile production has decreased steadily since 2004, and it fell below vehicle registrations in 2008 (see Graph 3a). The difference between what is produced and what is purchased by domestic agents (registrations), the foreign trade balance⁶, decreased by €18bn between 2004 and 2013 (see Graph 3b), a deterioration which is similar in the French trade deficit in general (excluding energy). This deterioration is due to the fall in exports, although imports have held out. It mainly affects trade with Italy, Spain, the United Kingdom, Germany and Eastern Europe (see Graph 3c). However, the bilateral balance of trade with Japan and Korea has not deteriorated.

In the conclusion to the previous section, the deterioration in the balance of trade was attributed primarily to the deterioration in the «coverage rate» of French manufacturers in France (see line b in Table 1): in France, its production volume decreased significantly more than its sales.

(6) Excluding inventory change, which in accounting terms has to be added to the difference between manufacture and registrations.

3 (a, b, c) – Deterioration in balance of trade (private vehicles and light commercial vehicles)



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Exports penalised by loss of market share...

The decline in French automobile exports started in 2005, whereas exports by our European partners continued to be dynamic until 2007 (see *Graph 4a*). Since the crisis, foreign demand for French products has fallen back (as is also the case in other European countries) but it is in France that exports have fallen most. Indeed in Germany and the United Kingdom, exports are higher today than they were in 2007.

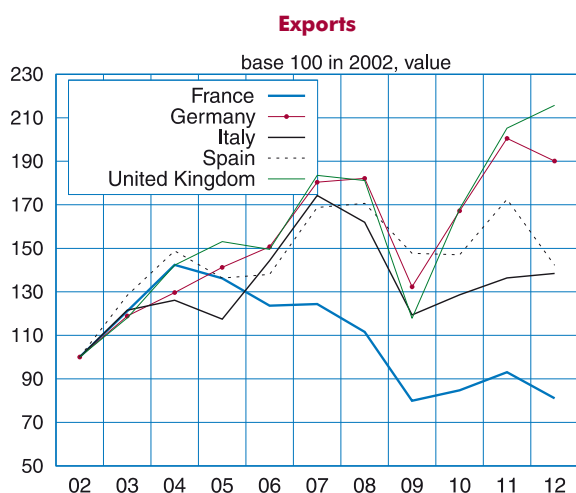
... especially due to manufacturing outsourcing by French carmakers

This drop in French exports is linked with the growing share of domestic car brands produced abroad: since 2004, French carmakers have reduced their domestic production in France by about 50%, although their production worldwide is holding out (the same trend started at the beginning of the 2000s for Italian manufacturers) (see *Graphs 5a and 5b*). Yet despite this trend towards outsourcing, French brands have lost market share abroad, regardless of production location. Thus in Asia, a market that is growing strongly, the increase in French exports and in French car manufacture has been fairly moderate on the whole since 2005. First of all, the share of exports to Asia out of total exports has increased by only 3 points in France since 2005 compared with more than 15 points in Germany and the United Kingdom (see *Graph 4b*). Also, production in Asia by French manufacturers has increased by less than 100% since 2005, compared with +300% for German manufacturers (see *Graph 5b and 5c*). This difference is due to the fact that French production in Asia was concentrated in Iran, where it collapsed, while production growth in China was the same for French and German manufacturers (300% over the period in question) but from a much weaker starting point for the French.

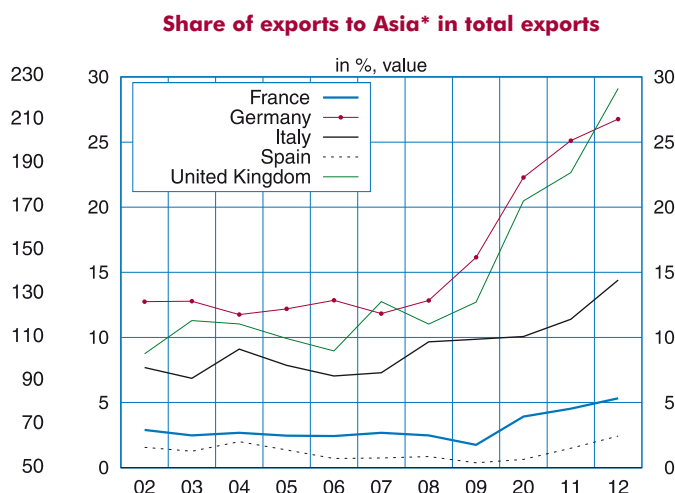
These phenomena have not been felt by manufacturers in Germany...

German brands have therefore been able to meet the increased demand from Asian countries with a strong increase in exports and production in Asia. As a result, production levels of vehicles in Germany are higher today than before the crisis (see *Graph 5c*). Of course, upstream production prior to assembly has been partly outsourced abroad, especially to Central European and Eastern European countries. Even so, according to national accounting data, comparing the German motor vehicle industry to a «bazaar economy» seems doubtful (see *Appendix 1*).

4 (a and b) – Export performance (private vehicles and light commercial vehicles)



Sources: OCDE, INSEE calculations



* The Middle East (and particularly Iran) is not included here in Asia. If it were included it would only serve to strengthen the argument, as French exports to the Middle East have fallen sharply since 2004.

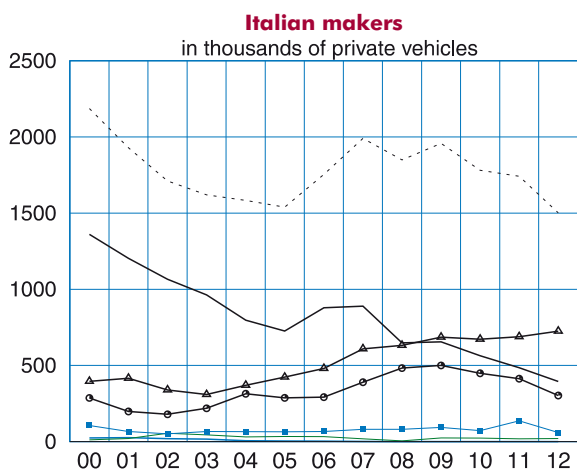
Sources: OCDE, INSEE calculations

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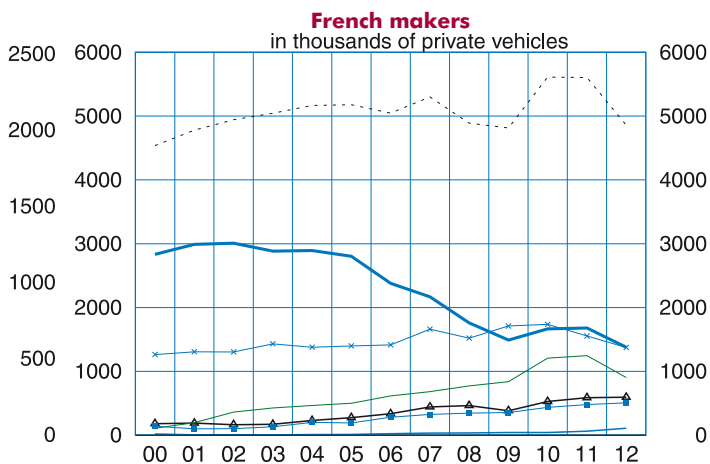
... nor by specialised equipment manufacturers in France

The scale of the drop in motor vehicle production in France since 2007 is therefore due primarily to foreign trade, and to a lesser extent to domestic demand. It would be interesting to examine whether the same phenomena are at work in the manufacture of specialised equipment for the automotive industry. This cannot be done, however, as we do not have the data as exhaustive. Nevertheless, from an analysis of the various data available (see Appendix 2) we can conclude that the drop in automotive equipment manufacture was on a smaller scale than the drop in vehicle production, and that this stemmed mainly from domestic demand, because the balance of trade has not declined since 2007 (exports and imports in 2013 were very close to their 2007 level). Thus outsourcing production abroad seems to have been on a much smaller scale for the specialised equipment manufacturers than for the vehicle manufacturers.

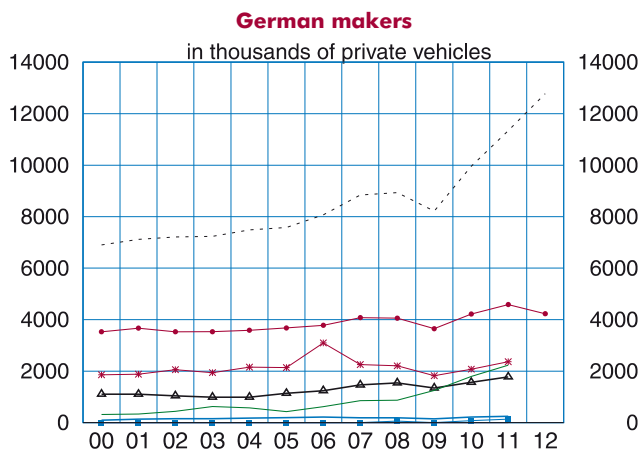
5 (a, b and c) – Changes in production location of large automotive groups



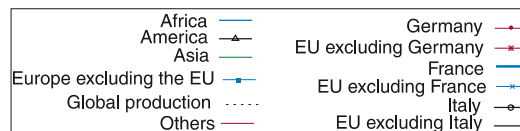
Source: OICA



Source: OICA



Source: OICA



Diverging trajectories for European automotive industries

The fall in French motor vehicle production ended in 2013

Better news everywhere in Europe since the end of 2012

Unlike motor vehicle manufacture, which is expressed in units produced, the industrial production index (IPI) takes into account the quality of the vehicles (in constant prices), and more generally the effects of structure.⁷ These effects seem secondary, however: since 2007, the IPI has evolved in parallel to the number of vehicles produced.

Today the economic climate in the Eurozone is favourable for the automotive sector. In Germany and the United Kingdom, production stabilised at a high level in 2012, but is now increasing once again (see Graph 6). In Spain, Italy and France, where production had reached a low point at the end of 2012, the industrial production index has stabilised and is even picking up. Registrations have stabilised in Germany, France and Italy, and they are dynamic in Spain and the United Kingdom, an indication, in the former case, of the start of a catch-up after the heavy fall during the crisis, and in the latter case, of the strength of the economic recovery.

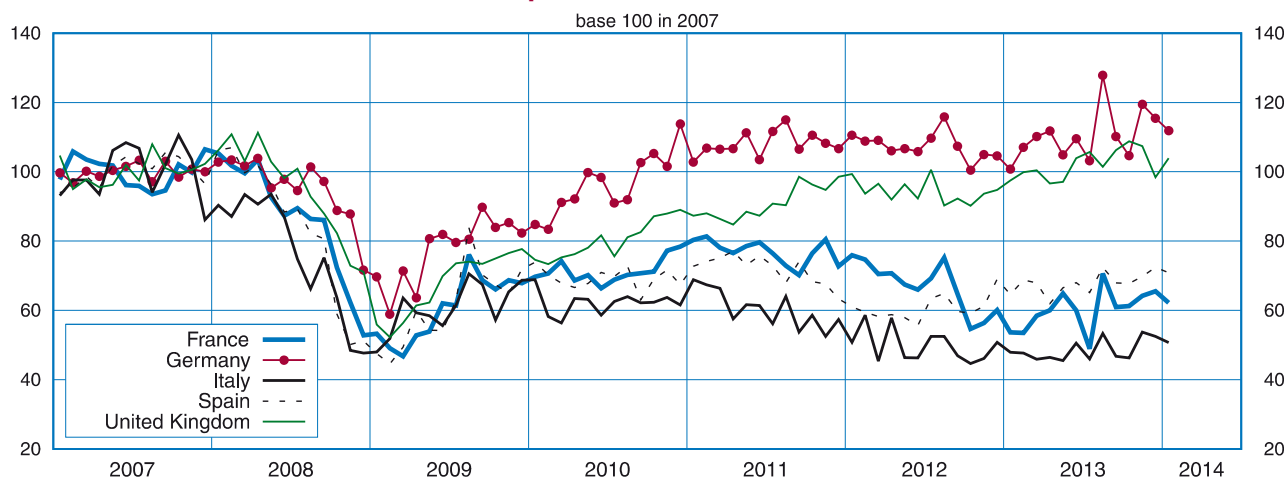
In France the relative resistance of registrations since 2008 limits any potential rebound

In France, according to INSEE's business tendency survey for motor vehicle industry, the economic climate is improving and personal production perspectives stand at +27 in March 2014, having stood at around an average of -50 in 2012. However, there have been several jolts which make an assessment of the recent trend more complex. In particular, registrations increased strongly in December (+6.6%) before dropping in January (-13.2%), due to the stricter conditions for the ecological «malus» system on January 1, 2014 (see Focus in the Consumption note). From February onwards, registrations picked up once again (+4.3%).

This change in the regulations did not appear to alter market shares: in February 2014, French brands accounted for a little under 50% of registrations in France, or almost as many as in autumn 2013. However, consumer anticipation was clearly to the advantage of foreign brands, which had a 55% market share in December. The motor vehicle consumption backlash in January barely affected French production, which remained virtually stable (-0.3%).

(7) Additionally, although we have so far discussed only the manufacture of private vehicles and light commercial vehicles, since the appropriate data is not available, we are now looking at the IPI for motor vehicle manufacture which also includes the production of heavy duty vehicles. It can be seen from these French data that changes are comparable in the two areas.

6 – Industrial production index of motor vehicle



* For United Kingdom, index represent the production index of motor vehicle industry (with motor vehicle equipments)
Source : Eurostat

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The upswing in consumption and the fact that French brands maintained their market share in registrations helped strengthen the demand for domestic production, even though the scale of the catch-up was not of the same intensity in France as in Italy and Spain, given the relative resistance of registrations in recent years, and the low level of increase expected in purchasing power. However, the recovery being felt in these countries should benefit production in France to some extent and help improve the French balance of trade via automotive exports. ■

Appendix 1 - German motor vehicle industry: a «bazaar economy»?

While Germany has retained a sizeable amount of domestic production, a gap began to open up in the middle of the 1990s between production and value added, linked with a growing proportion of imported intermediate goods, both for production and exports. Thus Germany began to resemble a model along the lines of a «bazaar economy», according to the expression used by the director-general of IFO, the German institute for economic research (Sinn 2006). The proportion of imports in German production was set to increase and growth in value added (and hence in job creations) would therefore be limited. In particular, it was suggested that German production processes would rely on a wealth of intermediate consumption from abroad. This externalisation of the upstream production chain would mainly take place in central European countries (Nunnenkamp 2006). In the case of the motor vehicle industry, the result of this «model» would be that only vehicle assembly was carried out in Germany.

From the middle of the 1990s until the middle of the 2000s, this observation did indeed hold true across all of the German economy (Cancé et al. 2006): the increase in value added was less dynamic than the increase in production. In the motor vehicle industry, a decrease in the proportion of value added in production was also observed (see Graph 1). In concrete terms, the share of intermediate consumption in production increased until 2000, which indicates an increasing degree of outsourcing.

Nevertheless, the share of value added in production has remained stable, and has even increased slightly, since the beginning of the 2000s.

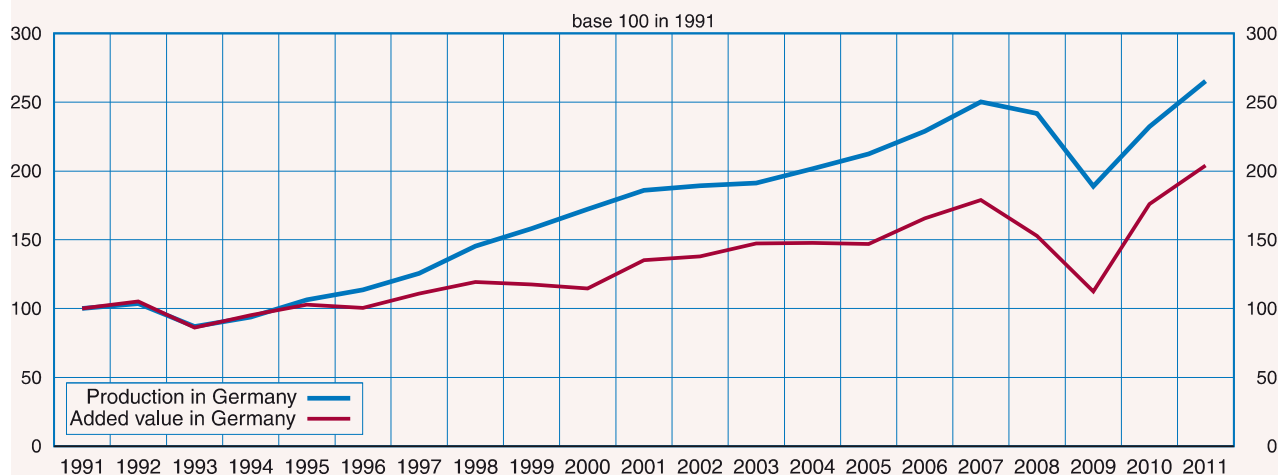
In addition, while the proportion of intermediate goods from abroad has increased since 90's in both countries in motor vehicle manufacturing, it is greater in France (see Table). In 2011, this share had risen to 40% for France compared with 34% for Germany. According to these figures, the German motor vehicle industry is no more of a «bazaar economy» than its French counterpart.

For the manufacture of transport equipment, German companies, mainly because of their geographic location, are more likely to turn towards the countries of central Europe, whereas France is traditionally more oriented towards the countries of southern Europe (see Graph 2). This difference in the direction in which the countries look for their outsourcing could account for some of the competitiveness gap between the two motor vehicle industries, as the costs of these factors are higher in the countries of southern Europe than in the CEEC¹ (Aichele et al. 2013). ■

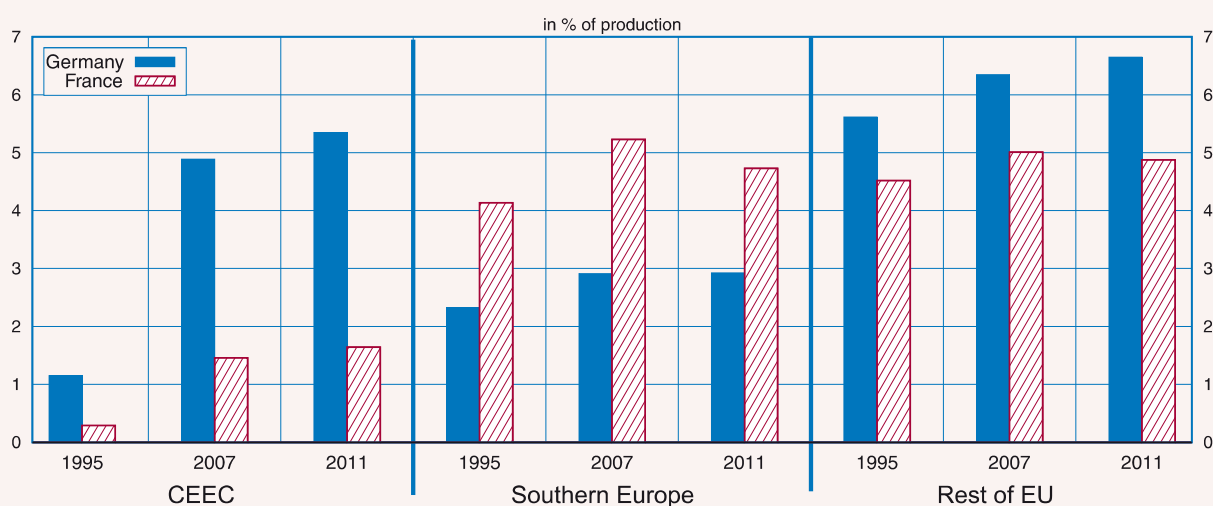
(1) Central and Eastern European Countries: Bulgaria, Hungary, Poland, Czech Republic, Romania, Slovakia and Slovenia.

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1 - Germany, a «bazaar economy» in the motor vehicle industry?



2 - Share of foreign intermediate goods in production of transport equipment



3 - Share in car production, in %

		1995	2000	2007	2011
Germany	Added value	32	22	24	26
	Intermediate consumption	68	78	76	74
	including: German	52	57	51	49
	including: foreign	16	21	25	25
France	Added value	nd	17	14	14
	Intermediate consumption	nd	83	86	86
	including: German	nd	58	57	52
	including: foreign	nd	25	28	34

Note: to obtain total production, add taxes net of subsidies on products to the sum of value added and intermediate goods.

Sources : National accounts for added value and intermediate consumption, the World Input-Output Database, INSEE calculations for separations of domestic and foreign intermediate consumptions in the transport equipment field

Appendix 2 - What about the producers of equipment for motor vehicles?

The motor manufacturing industry does not consist only of the production of motor vehicles: in 2010, 45% of the industry's value added was derived from specialised automotive equipment.¹

It is not possible to replicate the analysis of motor vehicle production carried out in the report and apply it to specialised equipment manufacturers. This is because available information is not so exhaustive.

However, partial data on motor vehicle equipment are available, from which certain stylised facts can be drawn.

Firstly, both the industrial production index and customs data cover the field of specialised motor vehicle equipment.

Concerning the industrial production index (see Graph 1), two differences can be observed: first of all, it fell by only 27% between 2007 and 2013 for motor vehicle equipment manufacture, compared with 40% for motor vehicle manufacture. Second, the recovery in recent months has been more pronounced, since in January 2014 the equipment index was 12% higher than the 2013 average, compared with only 3% for motor vehicle manufacture.

Concerning customs data (by value, see Graph 2), the difference between the two fields is more marked: today, the trade balance for motor vehicle equipment still shows a surplus, and it has not dropped since 2007. This resilience is mainly the result of exports, which have fallen much less than motor vehicle exports (-8% compared with -33%); in addition, the fall in vehicle sales began in 2005. As for the reduction in imports (-10%) this can be considered as limited, given the prevailing economic situation since 2007.

(1) Source: INSEE, weighting of industrial production indices from section C29.3 of NAF rev.2.

(2) This is not published at a more detailed level, which would enable us to differentiate between vehicle and equipment manufacturers. In addition, there are no provisional results, thus data is only currently available as far as 2011.

Thus, contrary to what we see for motor vehicle manufacture, the drop in the production of specialised equipment is due exclusively to domestic demand (which, for motor vehicle equipment, consists partially of goods for intermediate consumption by carmakers).

Lastly, the input-output balance for the motor vehicle industry² has to be weighed against that analysed in the report, relating to motor vehicle manufacturers (see Table). This comparison provides implicit information on equipment for motor vehicles.

Analysis of this table provides the following information:

- the drop in production (compared with the contribution of foreign trade) in the automotive industry as a whole is less (less negative) than the drop in vehicle manufacture, and this is consistent with the results from the IPI and the customs data on motor vehicle equipment.

- intermediate uses in the motor vehicle industry, which include in particular motor vehicle equipment (and not vehicles, when they are bought by firms, that are counted as investment), dropped very sharply, much more than production.

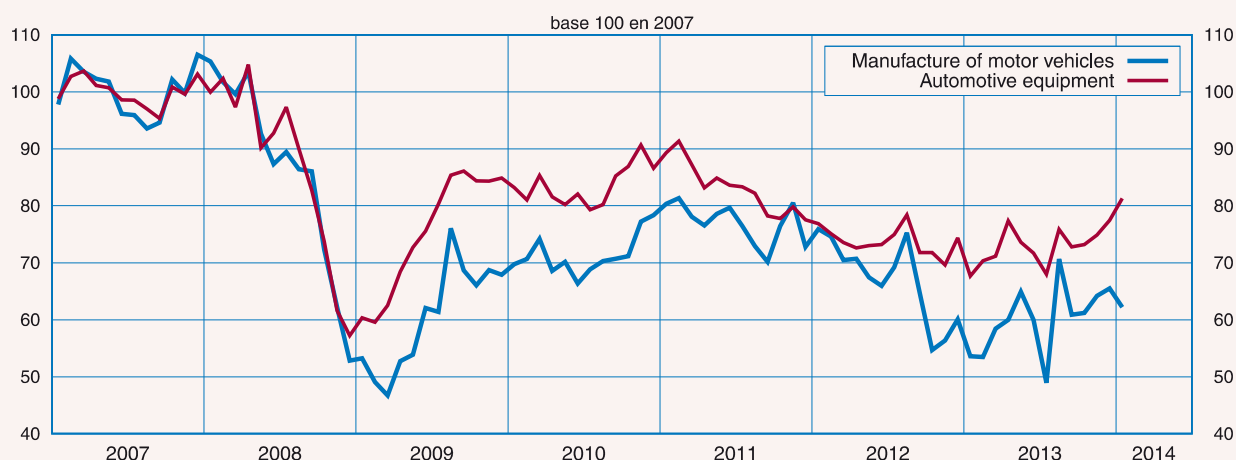
Overall, even though the data are incomplete, everything points to the fact that, in France, the specialised equipment suppliers had to cope with a much steeper drop in domestic demand than the vehicle manufacturers, but they ultimately managed to limit the fall in their production through the resilience of their exports. Of course, equipment suppliers and manufacturers are very much interdependent: thus the drop in domestic demand experienced by the equipment manufacturers, mirrors the drop in production (and hence in intermediate consumption) by the vehicle manufacturers; the resilience of exports by the equipment manufacturers could have been due partly to demand from French manufacturers abroad. ■

Simplified Input - Output Table (variation from 2007 to 2011)

	Motor manufacturing industry 2007-2011	production of véhicules 2007-2011
Output (en %)	-19	-24
Final demand (en %)	-3	4
Intermediate uses (en %)	-18	nd
Exports (en %)	-18	nd
Imports (en %)	-2	nd
Contribution of foreign trade to the production (in points)	-14	-27

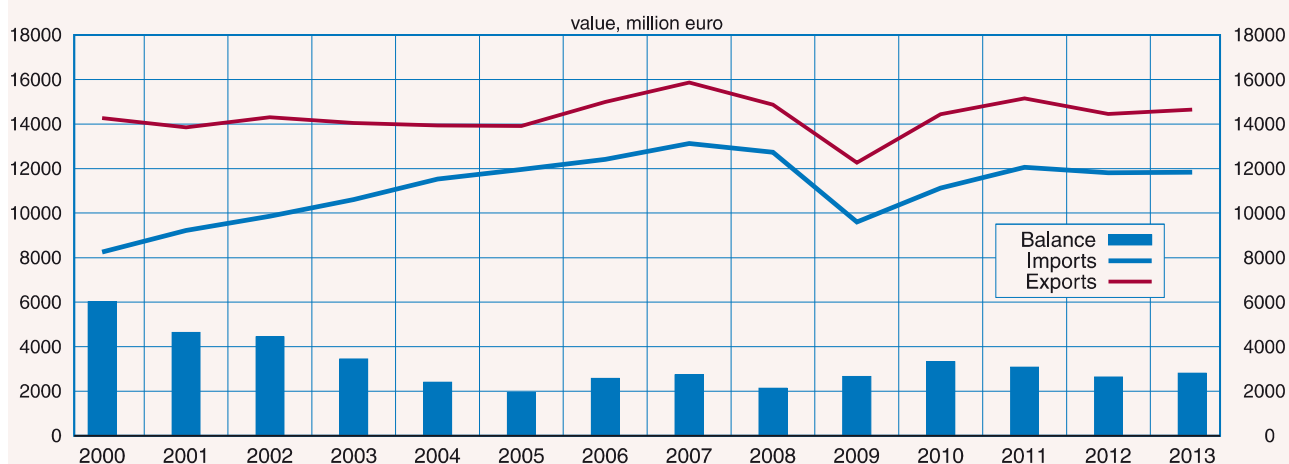
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1 - Industrial production index



Source: Eurostat

2 - Exchange of motor vehicle equipments



Source: the Customs service

Bibliography

- Aichele R., Felbermayr G., Heiland I., 2013, "Neues aux Basarökonomie", Ifo Schnelldienst 6/2013, pp 17-28.
- Cancé R., Montornes J., Ourliac B., 2006, « Zoom sur l'économie allemande : l'Allemagne se qualifie pour la reprise », Insee, juin 2006.
- Insee, 2009, « Le coup de frein à la production automobile : sa part dans la récession », *Note de conjoncture* de mars 2009.
- Insee, 2012, « Construction aéronautique et construction automobile, deux secteurs qui ont un effet d'entraînement marqué sur l'économie », *Note de conjoncture* de mars 2012.
- Nunnenkamp, P., 2006, "Relocation, offshoring and labour market repercussions: the case of the German automobile industry in Central Europe", IfW Kiel.
- Sinn H.-W., 2005, "Die Basar-Ökonomie, Deutschland: Exportweltmeister oder Schlusslicht?", Ifo Schnelldienst vol. 58 issue 06, pp 3-42. ■