

France's manufacturing sector has improved its price competitiveness but non-price competitiveness still needs attention

Factors that influence the French manufacturing industry's price competitiveness, which had deteriorated in the 2000s, are currently improving. For example, increases in the hourly cost of labour have slowed over the past four years. Moreover, a favourable global context (lower oil prices and the depreciation of the euro), combined with the introduction of the Competitiveness and Employment Tax Credit (CICE), have helped boost manufacturers' margins, which have now reached their 2001 levels. Higher margins, an improved economic outlook and better financing conditions have helped manufacturers step up investments, which could be beneficial to their non-price competitiveness. Weaknesses in non-price competitiveness make the French manufacturing industry more vulnerable to changes in price competitiveness factors, and contributed to the performance gap between the French and German manufacturing industries starting in the early 2000s.

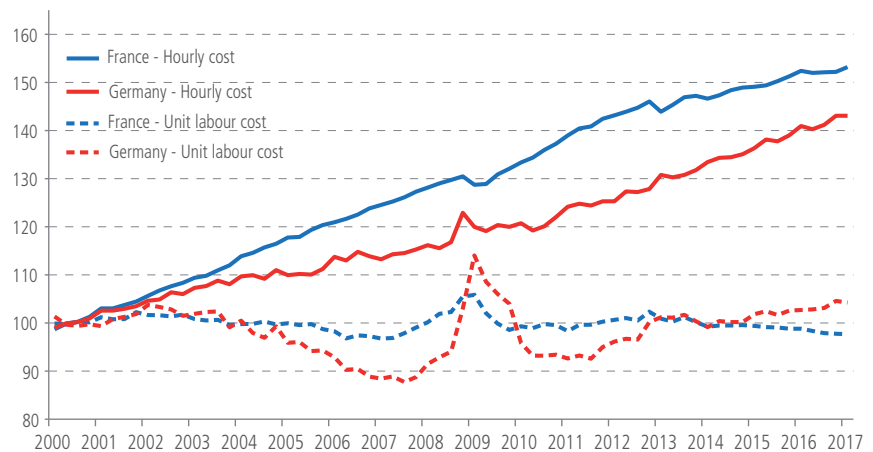
The French manufacturing industry's competitiveness with respect to its foreign counterparts has become a key issue since globalisation began to take hold in the 1990s. Competitiveness factors include cost-competitiveness determinants such as labour and intermediate consumption costs (services, energy). These determinants influence the manufacturing industry's price competitiveness, which also is influenced by the euro's exchange rate fluctuations and profit margins. Lastly, improving margins is a determinant when it comes to corporate investment, whose forward momentum improves the industrial sector's non-price competitiveness, particularly as companies move upmarket.

The hourly cost of labour is slowing after a sharp increase in the 2000s

In the 2000s, hourly labour costs rose sharply in the French manufacturing industry (by 35.2%, or an average of €0.90/h per

Chart 1: Hourly cost* of labour and unit labour cost* in the French and German manufacturing industry

Indices base 100 in 2000



* Wages, charges and taxes net of payroll or employment subsidies.

Sources: Eurostat 2012 Labour Cost Survey, Labour Cost Index and national accounts.

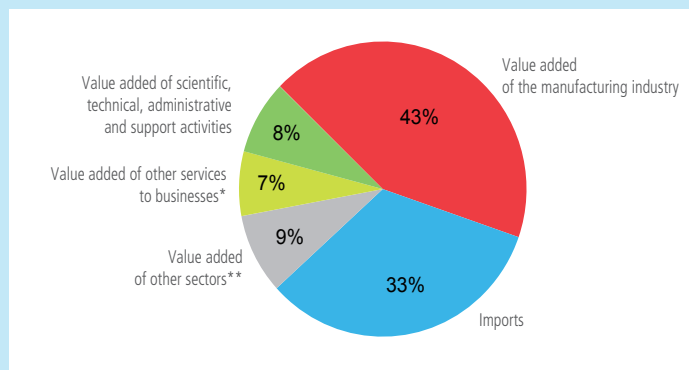
year – Chart 1), outstripping Germany (€0.70/h per year) and the rest of the euro area (also €0.70/h per year). Although they were lower than German hourly labour costs in 2000, the cost per hour in France was higher in 2010 (€33.40, against €33.20) and higher still in 2012 (€35.70 compared with €35).

The cost of labour in the French manufacturing industry has, however, slowed since 2012 (averaging +€0.50/hour per year). This slowdown is taking place against a backdrop of low consumer price inflation and the introduction of measures to bring down labour costs, such as the Competitiveness and Employment Tax Credit (CICE)¹. This tax credit, which is calculated on the basis of wages up to 2.5 times the statutory minimum wage, has eliminated more than a year's worth of labour cost increases in the manufacturing industry.

Hourly labour costs in the French manufacturing industry are once again lower than their German counterparts (€37.6/hour in 2016, against €39/hour), whose pace has quickened since 2012 (+€0.9/

¹ The CICE was included in the labour cost index as soon as it came into force in Q1 2013. This methodology is intended to comply with European statistical obligations to include in the index any and all measures that are deemed to lower labour costs.

Chart 2: Division of manufacturing industry output between imports and value added for various French industrial sectors



* Trade and repair; transport and storage; accommodation and catering; information and communication; financial and insurance activities; real estate activities.
 ** Agriculture, forestry and fishing; mining, energy, water, waste management and decontamination; construction; other service activities; mainly non-market services.
 Source: INSEE, 2015 national accounts.

The methodology used breaks down the output, good by good, of each manufacturing sector (using national accounts data) into three components: value added, imports and intermediate consumption. Intermediate consumption is in turn broken down, until the value of the manufacturing industry production is expressed solely in terms of the imports and the value added for each sector. Thus, for 100 euros of manufacturing production, only 43 euros comes from value added from the French manufacturing industry and 33 euros pays for intermediate consumption imports. 15 euros pays for value added in connection with service activities for industrial companies, including 8 euros for scientific, technical, administrative and support activities.

hour per year), particularly due to the introduction of a minimum wage in Germany in January 2015, but also to the signing of sector agreements² concerning wage adjustments. French hourly labour costs are on the same downward trend as in Italy and Spain, and remains one of the highest in the euro area, where the average is €32.40/hour.

Relatively high productivity gains have mitigated the effects of rising labour costs in France's manufacturing industry. Hourly productivity has risen by 3% per year since 2000, a faster pace than in Germany (+2.4% per year for the same period) and than the euro area as a whole (+2.5% per year). Despite a slowdown since the financial crisis, these gains have allowed for a slight drop in unit labour costs in the French manufacturing industry since 2000 (-1.8%, against +3.3% in Germany and +1.9% in the euro area as a whole). These unit costs had fallen off much more sharply in Germany between 2000 and 2007 (-11.6%), before surging back up (+16.8% between 2007 and 2016). They also rose significantly since 2000 in Spain (+10.7%) and Italy (+33.2%) due to sluggish productivity gains and sharply rising hourly costs in the 2000s.

A limited impact of the cost of services for the whole of the manufacturing industry

En Factoring in the intermediate consumption required to produce manufactured goods, including imported consumptions, only 43% of the value of manufacturing production corresponds to value added from the French manufacturing industry (Chart 2). Nearly 33% of the value of production comes from imports of goods and services, whereas 15% goes for business services carried out in France and 9% for other French sectors. The value of production from business service activities in France accounts for 61% of the wages of employees in these areas. Thus, 9% of the value of manufacturing output corresponds to wages paid by the business service sectors.

In the 2000s, hourly labour costs in business services in France moved at the same pace as in the manufacturing industry, and then slowed starting in 2010 (Chart 3). At its present level of €36.10/hour (2016), it remains above the

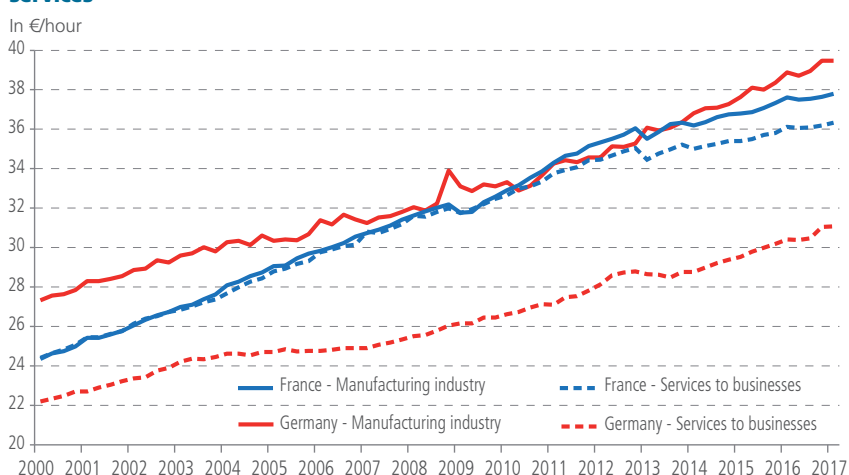
euro area average (€28.80/hour) and higher than Germany (€30.60/hour). These costs had fallen sharply in Germany in the 2000s, under the influence of the implementation of the Hartz reforms, which encouraged the use of temporary labour and spurred the growth of «mini-jobs» (part-time, low-wage jobs with lower social contributions).

The influence of the hourly labour costs in business services on the competitiveness of French industry should, however, be considered in light of their limited share in manufacturing production costs. The effect of rising labour costs in services in the 2000s on the industry's costs of production represents the equivalent of one-third of the effect of rising labour costs in the industry. manufacturing industry over the same period.

French industry spent €15bn on energy in 2014³, or 7% of its value added. This share varies widely depending on the sector; energy prices are a key issue for the metallurgy sector and for manufacturing metal goods (25% of industry energy consumption) and for the chemical industry (24%). On average, the French manufacturing industry enjoys lower electricity prices than in Germany and comparable gas prices. However, Germany provides significant rate reductions to large companies that are intensive energy users, for whom energy prices are a major competitiveness factor.

³ Source: Insee (Annual survey of energy consumption in industry).

Chart 3: Hourly cost* of labour in French and German manufacturing and business services



* Wages, charges and taxes net of payroll or employment subsidies.
 Sources: Eurostat 2012 Labour Cost Survey, Labour Cost Index and national accounts.

² For example, the IG Metall union and the employers' federation Gesamtmetall signed an agreement in May 2016 concerning a 4.8% wage increase for metallurgical workers over 21 months.

Manufacturing industry margins are back to their 2001 levels

Le Profit margins in the French manufacturing industry rose by 4.6 points between 2012 and 2016, and by 3.3 points in 2015 alone. At 36.9%, they are now at their 2001 levels, after a steep decline throughout the 2000s (-5.8% between 2000 and 2010).

The recent upswing in margins can particularly be attributed to the introduction of the CICE, which, according to data from the national accounts, was responsible for a 1.2 point increase between 2013 and 2015⁴. It is also due to an improvement in the international business climate, in particular lower oil prices (which fell 49% in euros between July 2014 and July 2017) and the depreciation of the euro against the dollar (-24% between March 2014 and its December 2016 low point), which in turn led to a fall-off in France's nominal effective exchange rate⁵ (-4% between March 2014 and December 2016). The euro's depreciation was particularly reflected in improved margins for companies that export outside the euro area; these firms took advantage of the depreciation of the single currency to maintain their prices outside the euro area despite lower oil prices (Chart 4).

The effects of an improved international climate and companies trimming their margins can be assessed by the contribution of «domestic terms of trade», which is the ratio of industry's value added to consumer prices. For example, the recent depreciation of the euro led industrial firms to increase their value-added prices (outside the euro area), leading to an increase in the domestic terms of trade in 2015. The fall in oil prices has, for its part, reduced inflation over the same period. The contribution of domestic terms of trade has been an average of zero since 2013, after a sharply negative period (-1.6 points) between 2000 and 2008, followed by -1.0 points per year between 2008 and 2013 (Chart 5). Manufacturing companies had previously cut back their margins in a difficult climate, marked by the rise of the euro against the dollar and higher oil prices (up to 2008), as well as the economic and financial crisis (2008–2009) and increased international competition.

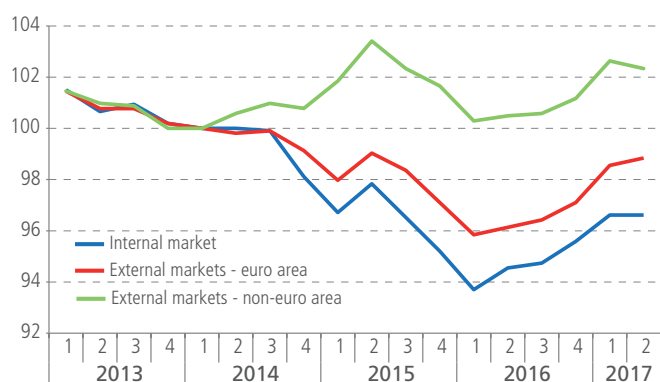
Lower social security contributions brought about by the CICE should help sustain the recent upswing in margins. On the other

⁴ More specifically, it concerns the contribution of operating subsidies, of which CICE is the primary cause of variation. The effect of the CICE on margin rates in the manufacturing industry even reached 1.6 points according to data from Acoess taken from payrolls declarations by companies (calculations by DGE).

⁵ The nominal effective exchange rate takes into account the fluctuations of the euro in relation to all foreign currencies and the intensity of trade with all trading partners. It differs depending on the euro area country.

Chart 4: Production price of French manufactured goods

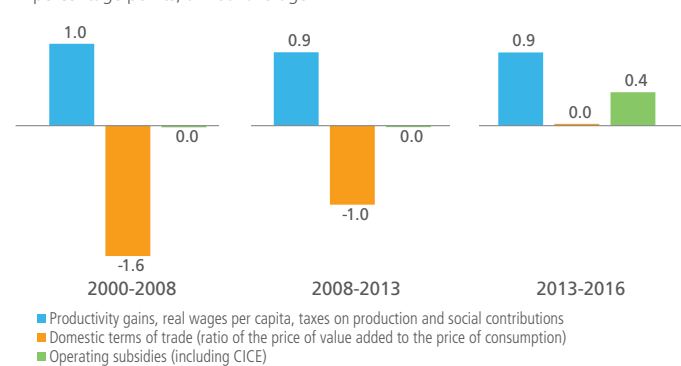
Indices: base 100 Q1 2014



Source: Insee.

Chart 5: Contribution to changes in margin rates in the French manufacturing industry

In percentage points, annual average



Source: Insee, quarterly national accounts, DGE calculations.

hand, a potential increase in oil prices and continued gains of the euro against the dollar (+12% since December 2016) could dampen companies' price competitiveness and reduce their margins as a result of negative changes in domestic terms of trade.

Since 2013, stepped-up investments by manufacturing sectors

Recent margin increases have contributed to an upswing in investment by manufacturing sectors. Investments increased by an average of 2.2% per year in real terms between 2013 and 2016, after being sluggish for a large portion of the 2000s and again between 2011 and 2013. Growth was also fuelled by improved financing conditions, economic recovery (an annual increase in manufacturing value added of 1.4% in real terms between 2013 and 2016) and the higher depreciation allowance measure introduced in April 2015. By 2014, the investment rate (ratio of capital expenditure to value added) thus returned to its pre-crisis level, at more than 26% (Chart 6).

The investment structure of the manufacturing industry by asset type varies widely depending on the main euro area countries (Chart 7). German manufacturing investment is evenly divided between spending on R&D, software and databases on the one hand, and purchases of machinery and equipment on the other. Conversely, the French manufacturing industry stands out by its significant share of investments in R&D, software and databases, while investments by the Italian manufacturing industry are predominantly in machinery and equipment.

The relative stability of French manufacturing investment in real terms over the long term (between 2000 and 2016) conceals lower investment in machinery and equipment and a steady increase in investment in R&D. In fact, investments in machinery and equipment fell by 30% in real terms between 2000 and 2015 (against a 1% drop in Germany) across all sectors, with the exception of the chemical and coking-refining industries. Conversely, R&D investments rose 49% in real terms between 2000 and 2015, far higher than in Germany (+24%).

R&D investment – mainly by the transport equipment sector (36% of manufacturing R&D), computer, electronic and optical goods manufacturers (18%) and the pharmaceutical industry (14%) – represents 11% of the French manufacturing industry's value added, against 8% in Germany. This elevated rate of investment is particularly notable because of France's relatively high share of low and medium-low technology sectors. If the French manufacturing industry had the same sectoral structure as its German counterpart, its level of R&D spending would reach 16% of its value added, double that of Germany.

The French manufacturing industry's low non-price competitiveness may have contributed to performance discrepancies with German industry

Non-price competitiveness reflects businesses' ability to sell regardless of price and the rhythm of foreign demand. Its level depends on a product's characteristics (innovation content, positioning, design, reliability) and those of the producers and sellers (image, reputation, after-sales service). Improved non-price competitiveness may enable manufacturing firms to reduce their sensitivity to sometimes exogenous changes in price competitiveness factors. In particular, moving upmarket protects against competition from emerging or developing countries that is based on low input prices. In addition, niche market positioning can help companies target market segments where low competitive intensity and volatile demand ensure high profitability.

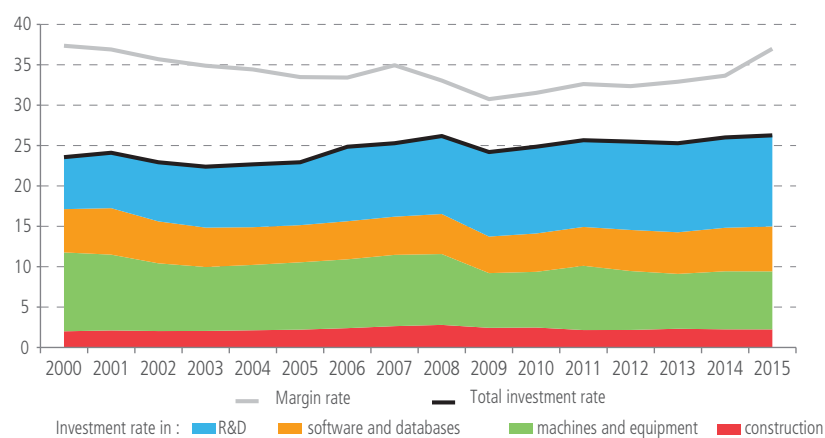
Non-price competitiveness can be assessed by regression analysis of export performance on external demand and prices, then extracting the share not explained by these observable characteristics⁶. Overall, sectors with the highest non-price competitiveness correspond to the French economy's strengths (aeronautics, leather goods, wine). Non-price competitiveness of French industry has fallen off since 2008 due to tighter margins and sluggish investment in the 2000s. Its low level⁷ offers insufficient protection from international competition and makes French industry more sensitive to changes in price competitiveness factors. Conversely, the appreciation of the euro in the 2000s did not keep the German manufacturing industry from increasing its margins (+ 1.7 points per year on average between 2002 and 2007). Thus, non-price competitiveness may have contributed to the performance discrepancies between French and German industry since the early 2000s. Improved margins and the upswing in investment in France could restore non-price competitiveness, although some phenomena (improvement of a company's brand image or reputation) are more long-term in nature.

In addition to increased investment, other factors could improve the manufacturing industry's non-price competitiveness

Non-price competitiveness depends on many factors that are difficult to quantify. The quality of productive capital (level of modernisation of the means of production), of human capital (workforce qualification, development of digital skills) and of R&D (to produce competitive goods) are factors that determine an economy's competitiveness. For example, with regard to human capital, training content could be more flexible to more rapidly meet companies' evolving needs⁸.

Chart 6: Margin and investment rate in the French manufacturing industry

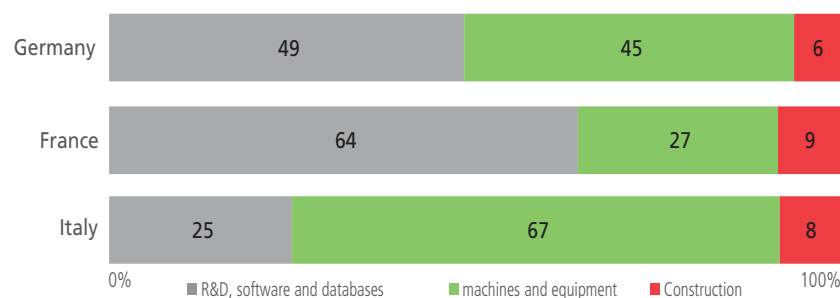
In % of manufacturing value added



Source: Insee (margin rate) and Eurostat (investment rate), national accounts.

Chart 7: Breakdown of manufacturing industry investment

In % of total investment, 2015 current prices (except Italy – 2014).



Sources: Eurostat, national accounts

Improving the manufacturing industry's performance through companies focusing on markets where customers are less price-sensitive (high-end or niche markets) is based on the development of a company's reputation, the quality of its goods and the ability to adapt to customers' needs. Efforts in these areas can be made by medium-sized companies that can also bear the costs associated with export and innovation activities.

⁶ Le Bas M., Fontagné L., Martin P., Mayer T., «À la recherche des parts de marché perdues», note by the Economic Analysis Council, no. 23, 2013.

⁷ The share of upmarket goods in German exports reached 48% between 2011 and 2013, compared with 41% in France - Bas M., Fontagné L., Martin P. & Mayer T., «La France en mal de qualité ?», La Lettre du CEPII no. 355, 2015.

⁸ Artus P., Garcia-Penalosa C., Mohnen P., «Redresser la croissance potentielle de la France», note by the Economic Analysis Council, no. 16, 2014.

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Find out more:

«Globalisation has forced French industry to play to its strengths», Les 4 Pages de la DGE, no. 76, October 2017.

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