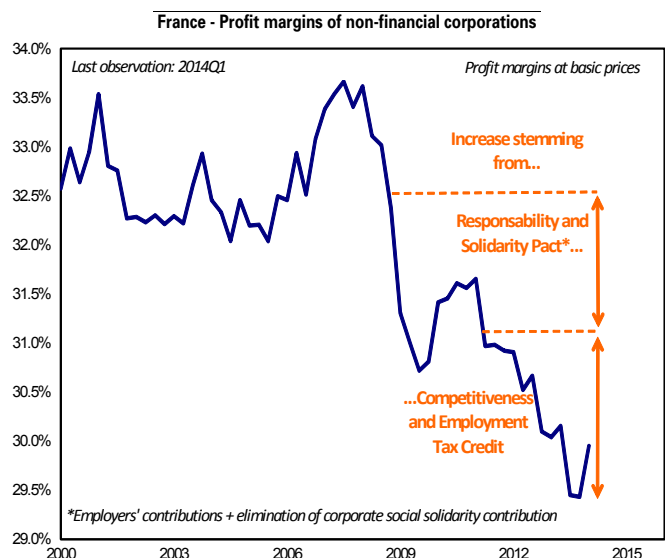


How do French unit labour costs compare to those of its euro area partners?

- Before the "Great Recession" in 2008, unit labour costs (ULCs) showed contrasting trends in the euro area. While they recorded particularly strong growth in Spain and, to a lesser extent, Italy, they fell in Germany. France's unit labour cost growth was slightly higher than the euro area average as a result of marginally stronger wage growth.
- The recession narrowed the differentials in ULC growth somewhat, particularly in the manufacturing sector. More specifically, Germany's ULCs rose as a period of wage restraint ended and Spanish ULCs dropped sharply in line with the productivity gains resulting from massive job destruction and, in part, from the changing structure of the country's economy. France's ULCs continued to rise, even though their growth was contained in the manufacturing sector, where significant productivity gains were achieved.
- The widely divergent trends between European countries since the early 2000s did not lead to any drastic changes in the hourly wage rankings. Spanish wages have remained significantly lower than German or French wages throughout the period. However, comparing levels of ULCs is a difficult exercise. Nevertheless, there are other major components of competitiveness that should be taken into account, such as exchange rates or non-price competitiveness.
- In countries like France, firms made major efforts to squeeze their margins and maintain their price competitiveness when the euro strengthened between 2001 and 2007 and as ULCs rose. They kept prices down by compressing their profit margins.
- Their margins collapsed between 2007 and 2012. To address this issue, France is implementing the Responsibility and Solidarity Pact, which supplements earlier measures, such as the Competitiveness and Employment Tax Credit (CICE), that aims to enhance economic competitiveness. Firms' labour costs will be reduced by a total of EUR30 billion, enough to restore their profit margins to pre-crisis levels.



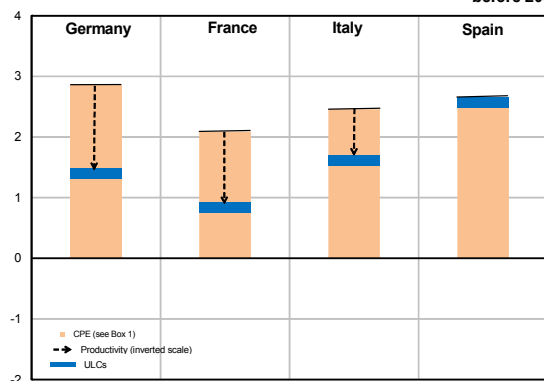
Source: Insee, DG Trésor calculations.

1. Unit Labour Cost trends diverged in the euro area pre-crisis, with France in an intermediate position

1.1 Euro area ULCs showed mixed trends pre-crisis

In the 1990s, growth in German unit labour costs outstripped that of France because of wage growth following Germany's reunification (see Chart 1). ULCs in the total German economy rose by an annual average of 1.4% between 1992 and 2000 compared to 0.8% in France. Between 1995 and 2000, ULCs rose by 1.6% in Italy, in line with the rise in Germany, while Spain's ULCs showed stronger growth on the back of weak productivity.

Chart 1: Contributions to annual average ULC growth in the total economy before 2000



Source: Eurostat, DG Trésor calculations.

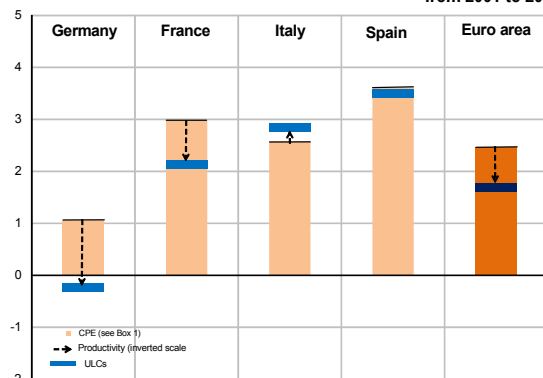
Key: German ULCs in the total economy increased by an annual average of 1.4% between 1992 and 2000 as a result of 2.9% wage growth, which outstripped productivity growth of 1.5%. Given the available data, annual growth rates are calculated for different time periods: 1992 to 2000 for Germany and France, 1995 to 2000 for Spain and Italy.

Between 2001 and 2008, French unit labour costs in the total economy saw intermediate growth compared to the strong rate posted in the southern euro area countries (especially Spain) and the restraint practiced by Germany. Wage growth was particularly strong in France, whereas productivity gains were in line with the average recorded in the euro area (see Chart 2).

Unit labour costs rose sharply in the southern countries during this period as a result of weak productivity gains (and even productivity losses in Italy). In Spain, weak productivity gains were combined with sustained wage growth, as a result, in part, of inflation-linked pay rises.

At the other end of the spectrum, Germany was the only euro area country to see falling unit labour costs pre-crisis, with wage restraint achieved through collective bargaining agreements and the Hartz reforms, while productivity gains were only slightly higher than the euro area average (see Chart 2). This trend marked a break with the strong ULC growth rates seen previously, particularly at the beginning of the 1990s.

Chart 2: Contributions to annual average ULC growth in the total economy from 2001 to 2008



Source: Eurostat, DG Trésor calculations.

Key: German ULCs in the total economy decreased by an annual average of 0.2% between 2001 and 2008 as a result of 1.1% wage growth, which was lower than productivity growth of 1.3%.

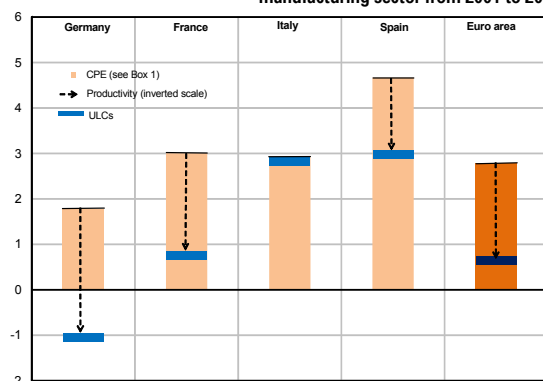
1.2 Productivity gains in the manufacturing sector enabled some countries, including France, to curb ULC growth

On the whole, ULC growth has been weaker in the manufacturing sector than in the total economy. Manufacturing is the sector with the most exposure to international competition, making it the most relevant when evaluating competitiveness. Structurally higher productivity gains in the manufacturing sector between 2001 and 2008 (see Box 2) helped offset strong wage growth. As productivity gains were comparable across the euro area, with the exception of Italy, ULC growth reflected wage trends (Chart 3).

More specifically, France posted higher productivity gains, which meant that manufacturing sector ULC growth was significantly lower than in Spain and Italy. German ULCs dropped sharply as a result of even larger productivity gains.

On the other hand, France stands out in terms of wage trends in the market services sector, where pay rises matched those in manufacturing, but productivity gains lagged behind. This pattern was not seen in the other leading euro area countries (see Charts 4 and 5).

Chart 3: Contributions to annual average ULC growth in the manufacturing sector from 2001 to 2008



Source: Eurostat, DG Trésor calculations.

Key: Manufacturing ULCs in Germany decreased by an annual average of 1.0% between 2001 and 2008 as a result of 1.8% wage growth, which was lower than productivity growth of 2.9%.

Box 1: Unit labour costs, competitiveness and profit margins

The unit labour cost is the ratio of nominal labour costs^a in the national currency, including employers' social contributions, to the quantities produced (value added or output). In contrast to a simple labour cost indicator, such as the hourly wage, the advantage of the unit labour cost is that it factors in the efficiency of labour, which makes comparisons more meaningful.

$$\text{Unit labour cost (ULC)} = \frac{\text{Compensation per employee (CPE)}}{\text{Apparent labour productivity}}$$

This indicator applies to different areas of the economy: the total economy, providing a general overview, or to specific sectors, usually manufacturing, which is more exposed to international competition, and market services, which are more sheltered from competition. Analysing changes in manufacturing ULCs is more meaningful for international comparisons since the goods produced are more likely to be in direct competition with those from other countries. Changes in non-market sector ULCs are still important because they may affect input costs that are part of manufacturing ULCs.

ULCs are often used as competitiveness indicators, but international ULC comparisons must be handled with care, especially at the aggregate level, since export markets and sector diversification may vary from one country to another. Aggregate indicators may also reflect the effects of the output structure and obscure changes in ULCs within each sector, which can vary as a result of technological developments^b.

In the short and medium term, ULCs may seem disconnected from selling prices, as changes in output costs, such as wages, are not fully passed on in selling prices. In such cases, profit margins increase if the selling price rises faster than ULCs or decrease when ULCs rise faster than the selling price. The adjustment in the long term of labour income (compensation of employees) and capital (profits) shares only be achieved by calibrating ULCs and/or selling prices.

Unit labour cost growth is critical for a country's price competitiveness in export markets. Other influential factors are profit margins and exchange rate fluctuations.

- a. Under the system of national accounts, the cost of labour consists of all expenditure borne by an employer to employ a worker, including (i) direct costs, made up primarily of payroll expenditure (gross wages, bonuses, benefits in kind, severance pay, retirement benefits), along with employee savings plans (profit-sharing, incentives) and (ii) indirect costs, made up primarily of employers' mandatory social contributions, along with collectively agreed contractual or voluntary contributions (vocational training, transport subsidies and welfare services).
- b. See Felipe J. and Kumar U. (2011), "Unit Labour Costs in the Eurozone: The Competitiveness Debate Again," ADB.

Box 2: Productivity gains in the export sector

Sectors with export potential, particularly the manufactured goods sector, have seen the biggest productivity gains (see Chart 4). This is primarily attributable to the very capital-intensive nature of such goods, whereas output that is not tradable on the international market, such as services, is more labour-intensive on average, which restricts the opportunities to make productivity gains. Furthermore, the greater exposure of these sectors to international competition results in pressure to keep the prices of tradable goods low, giving producers an incentive to curb production costs (wages, return on capital) and achieve productivity gains.

ULC growth is thus weaker in the manufacturing sector than in the market services sector, especially in Germany and France, as a result of productivity gains that are structurally greater (see Chart 4). In France, the three market sectors saw comparable wage growth, whereas productivity growth varied greatly. ULC growth was for instance high in the market services and construction sectors.

Chart 4: Annual average productivity growth rates (2001-2008)

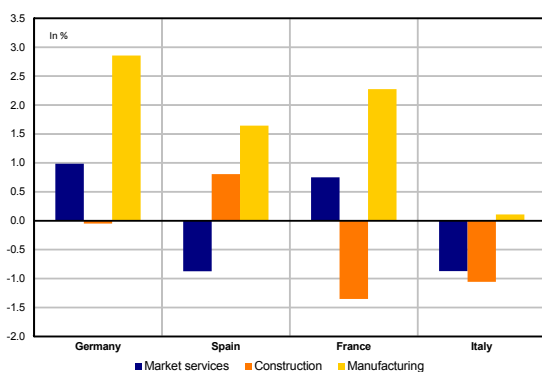


Chart 5: Annual average wage growth rates (2001-2008)

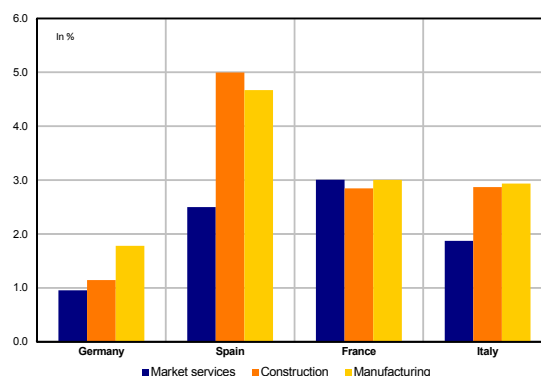


Chart 6: Unit labour costs in the manufacturing sector

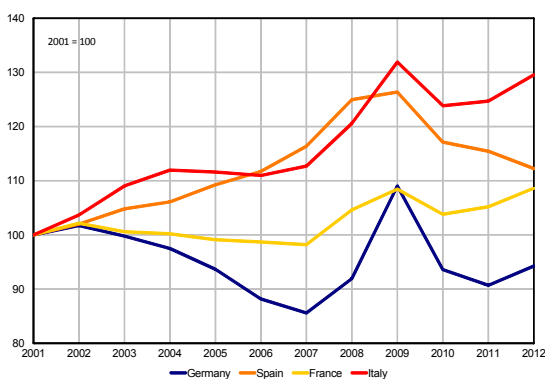
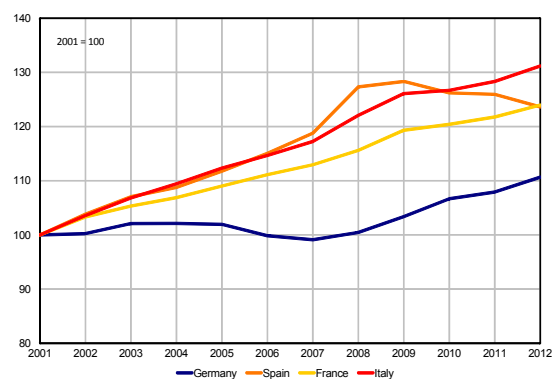


Chart 7: Unit labour costs in the market services sector

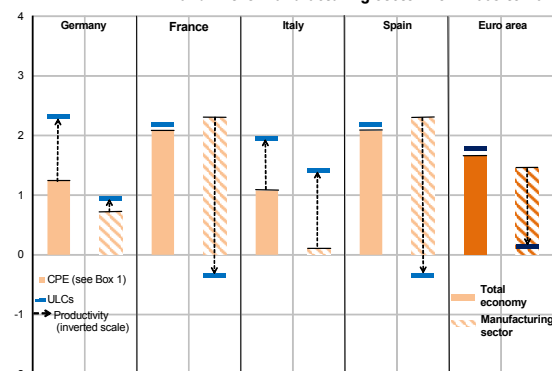


Source: Eurostat, DG Trésor calculations.

2. ULC growth patterns adjusted in the euro area after the crisis

In the immediate post-crisis period (2009-2010), manufacturing sector ULC differentials between euro area countries narrowed. In Germany, the determination to protect jobs through the introduction of special measures¹, despite a decline in activity levels, led to lower productivity. This meant German ULC growth was much higher than the euro area average. Italian policies to promote short-time work (Cassa integrazione) also dampened productivity gains. In contrast, compensation per employee continued to rise in Spain, due in part to a composition effect resulting from layoffs of the least skilled workers, particularly in the construction sector. The nature of the jobs, which were primarily temporary, meant that employment adjustments in the manufacturing sector could be achieved more quickly than in other countries (see Chart 8).

Chart 8: Contributions to annual average ULC growth in the total economy and in the manufacturing sector from 2009 to 2010



Source: Eurostat, DG Trésor calculations.

Key: Manufacturing ULCs in Germany increased by an annual average of 0.9% between 2009 and 2010 as a result of 0.7% wage growth and negative productivity growth of -0.2%.

Box 3: Which factors explain wage trends during the crisis?

French wages took several years to reach a level in line with the productivity shock seen at the onset of the crisis. Several factors may explain this trend, even though there is nothing unusual about a gap between real wages and productivity when activity levels slow.

1. Firms' determination to smooth wage trends

Firms applied a cost-cutting strategy that focused primarily on reducing employment, by using temporary workers, and on cutting non-wage costs (see Table 1). Only in rare cases did firms cut base pay or, more surprisingly, the variable component of workers' pay. This pattern was not restricted to French firms, but was apparent in most European economies for which such data are available. However, the surveys available end in 2009: as the crisis persists, rigidity of nominal and/or real wages may have eased in some countries, such as Spain, where the average per capita wage has been falling in real terms since 2010 and in nominal terms since 2012.

Table 1: Firms' cost-cutting strategies in 2009*

	Base pay	Wage flexibility	Permanent employees	Temporary employees	Hours worked	Non-wage costs
Spain	1.0	5.5	23.2	41.6	5.9	22.8
France	0.1	9.9	17.1	33.9	12.4	26.2
Italy	1.3	8.9	16.6	21.1	18.4	33.7
Netherlands	1.4	5.0	8.1	40.5	6.2	38.8
Total	1.2	9.8	16.9	24.3	13.6	33.9

Source: Enquête Wage Dynamics Network (WDN), Fabiani S., Lamo A., Messina J. and Room T., (2013), "Firm Adjustment during Times of Crisis", mimeo, Novembre 2013.

* Percentage of employers opting for the strategy as their main adjustment strategy.

Besides the fact that it is not legally possible to cut employees' base pay in certain cases, firms explain their strategic choice as a way to keep employees motivated, and to prevent the best employees from leaving. This means firms seem to have problems recruiting competent employees and keeping them motivated. These problems could be a sign of a mismatch between labour needs and available skills, or a high degree of job protection by firms.

2. The effects of labour force composition are accentuated

When unemployment rises, as it has since the 2008 crisis, the employees that lose their jobs are those with the lowest wages on average. All other things being equal, average wages rise as a result (Verdugo, 2013)^a.

3. Hysteresis effects during the crisis

As the output structure changes, with fewer jobs in the manufacturing sector and more long-term unemployment, some job openings may not match unemployed workers' qualifications, leading to a growing mismatch between labour supply and demand. The withdrawal of some of the jobless from the labour market could then ease the downward pressure on wages^b.

a. Verdugo G. (2013), « Les salaires réels ont-ils été affectés par les évolutions du chômage en France avant et pendant la crise ? », *Bulletin de la Banque de France* n°192.

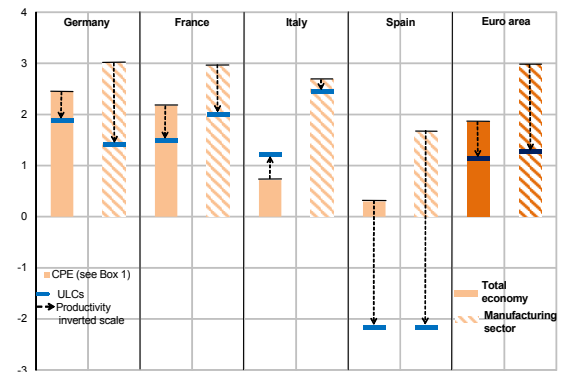
b. See for example, Laudes R. (2005), "The Phillips Curve and Long-term Unemployment", *Working paper* n°441, European Central Bank for a study on OECD countries before the crisis.

(1) Special short-time work schemes in Germany, as well as in France, dampened aggregate labour productivity growth as a result of a composition effect stemming from policies to protect jobs, the impact on hourly productivity being nevertheless weaker. In Germany, the determination to protect jobs despite a fall in activity levels through the introduction of policies to promote flexibility under the Kurzarbeit scheme (short-time work, individual time banks, extension of the maximum jobless benefit period, lower costs for firms and reduced job destruction) led to less favourable conditions for productivity growth. France introduced a new extended short-time working scheme (« activité partielle de longue durée », APLD), which provides better compensation for employees. The impact of these measures on the total economy was even greater, especially in Germany, where productivity growth was negative.

French wages were somewhat resilient after the onset of the crisis. The productivity shock of 2009 led to a gap between real wages and productivity, disparity that lasted for several years (see Box 3)².

ULCs have risen in the leading euro area countries, except Spain, since 2011. Despite renewed productivity gains, the end of wage restraint in Germany led to stronger ULC growth. Italy has been unable to boost productivity, which continues to decline. French compensation per employee is rising at the same rate as in Germany, but productivity gains in the French manufacturing sector are smaller. Consequently, French ULCs are growing slightly faster than in Germany. In Spain, on the other hand, major productivity gains, stemming primarily from massive job destruction and, in part, from restructuring of the Spanish economy, continued in the total economy, and compensation per employee growth slowed significantly, dragging ULCs lower (see Chart 9).

Chart 9: Contributions to annual average ULC growth in the total economy and in the manufacturing sector from 2011 to 2013



Source: Eurostat, DG Trésor calculations.

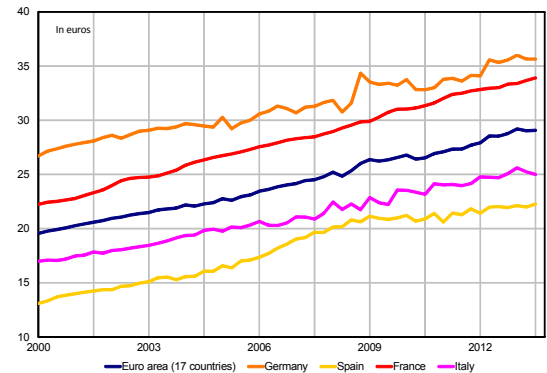
Key: Manufacturing ULCs in Germany increased by an annual average of 1.4% between 2011 and 2013 as a result of strong 3.0% wage growth outstripping productivity growth of 1.6%.

3. The pre-crisis divergent ULC trends did not lead to any drastic changes in the relative rankings of euro area hourly wages, including manufacturing sector wages

It is also critical to analyse the level of labour costs. ULC growth patterns are more easy to compare between countries over a given period, but the level data are more relevant for assessing the competitiveness of an economy at a given point with regard to both exports and business location choices. Because analysis relying on ULC level data is not robust (see Box 1), only hourly labour costs are analysed, without in consequence taking into account productivity gains or losses.

The levels of hourly labour costs in the southern euro area countries, especially Italy and Spain, were much lower³ than in Germany and France when the euro was introduced (see Chart 10). Despite faster growth of hourly labour costs in some countries before the crisis, especially Spain, the ranking of the leading euro area countries by level of hourly labour costs has not changed since 2000. More specifically, compensation per employee in the German manufacturing sector at the end of 2013 was greater than both the euro area and French averages. Meanwhile, compensation per hour worked in Italy and Spain is still lower than the euro area average (see Table 2).

Chart 10: Hourly labour costs in the manufacturing sector in the leading euro area countries



Source: Eurostat, national accounts, DG Trésor calculations.

The significantly faster rise in hourly labour costs in the southern countries pre-crisis must be put into perspective since it may be a partial reflection of convergence between euro area countries, starting from very different wage levels.

Table 2: Compensation of employees per hour worked in 2013

	Euro area	Germany	Spain	France	Italy
Total economy	25.8	28.7	19.5	32.3	22.5
Manufacturing sector	29.1	35.7	22.2	3.7	25.2

Source: Eurostat, national accounts, DG Trésor calculations.

- (2) The gap between real wages from the employers' point of view (deflated by the value added price index) and productivity has not yet been closed and the gap between real wages from the employees' point of view (deflated by the consumer price index) appears to have been closed just recently.
- (3) Comparisons of hourly labour costs must be handled with care, since the efficiency of an hour of labour may differ from one country to the next, and average wages are not comparable because of variations in individual workers' positions, skills and experience.

4. ULCs are only one aspect of competitiveness, however they seem to have special significance in France in the context of shrinking margins

4.1 Beside labour costs, competitiveness depends on other factors that affect both price competitiveness and non-price competitiveness

ULC trends are not a direct indicator of price competitiveness, which also depends greatly on exchange rates and profit margins. As the euro gained strength following its introduction, European firms made two types of adjustment to maintain their price competitiveness. In countries where ULCs posted strong growth, firms in sectors exposed to international competition had to squeeze their margins to maintain their price competitiveness (see Chart 11 and Box 1). The decline in cost competitiveness in Italy and, to a lesser extent, in France, as ULCs rose, spurred companies to compress their margins to offset the loss of price competitiveness.

Firms in France made a clear effort to squeeze their margins, thus enabling them to enhance their price competitiveness, which has improved since 2000, despite the negative impact of the stronger euro. The impact of the strong euro on price competitiveness is greater than the very modest impact of higher ULCs. The value added price of French firms in the manufacturing sector saw the slowest growth after 2000 compared to the other leading euro area countries. It actually declined by 0.6% per year between 2001 and 2008 compared to 0.0% growth in Germany and increases of 2.8% in Italy and 3.0% in Spain. This seems to stem from French firms' median position in terms of sensitivity to price competition and the non-price positioning of its exports⁴. Italian companies also squeezed their margins, but did not improve their price competitiveness, since their ULCs rose in relative terms.

In contrast, firms in countries that curbed the growth of unit labour costs were able to increase their profit margins and improve their price competitiveness at the same time by passing on much of the lower cost of labour in their prices. More specifically, the big drop in ULCs in Germany between 2001 and 2008 led to a clear improvement in price competitiveness, which was slightly eroded by larger profit margins. In contrast, Spanish price competitiveness deteriorated, since the favourable trend in ULCs was used to increase profit margins.

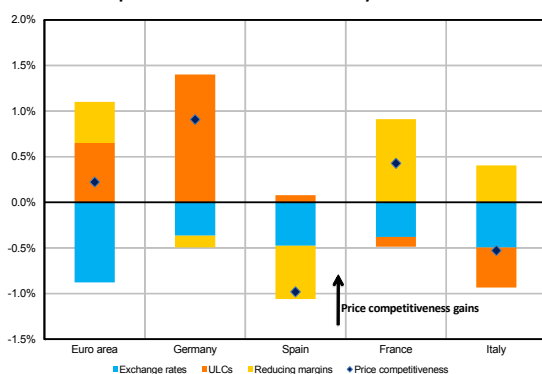
Labour costs are only one of the costs that firms incur. The cost of intermediate consumption, capital, and taxes and contributions also determine firms' production costs and competitiveness.

In addition to price competitiveness, export performance depends on non-price factors, such as product quality, innovation, design and brand image, as well as the development of distribution networks and international presence. Germany has a strong non-price competitive position, whereas Spain is more sensitive to price competition. France and Italy have intermediate positions in terms of sensitivity to price competition and non-price competitiveness.

4.2 However, French firms' major efforts to reduce their margins may have hampered non-price competitiveness gains

As a result of the relatively strong growth of ULCs, profit margins of French non-financial corporations reached their lowest level since 1985, standing at 29.7% in 2013⁵. Although French firms managed to improve their price competitiveness pre-crisis, tighter margins hampered quality improvements and non-price competitiveness gains. Their capital expenditure rate remained high, but expenditure went towards renovating existing output capacities, with relatively little going towards capacity expansion, innovation or new products. These trends have shown little change since the crisis, whereas Spanish firms, for example, have greatly increased the share of capital expenditure used to expand capacity.

Chart 11: Contributions to the annual average variation in price competitiveness of the total economy between 2001 and 2012



Source: Eurostat, DG Trésor calculations.

(4) Sautard R., Tazi A., Thubin C. (2014), "What is the "non-price" positioning of France among advanced economies?," *Trésor-Economics* No. 122.
 (5) Base-2010 National Accounts data published by INSEE in May 2014.

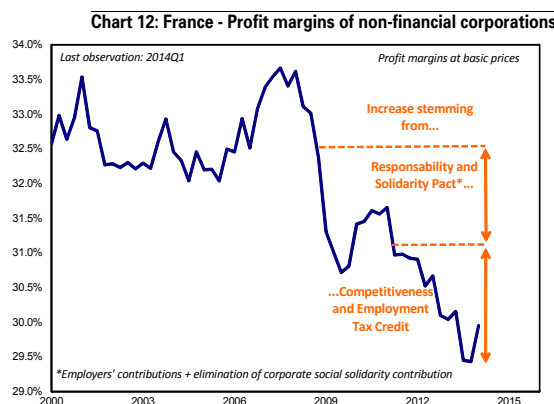
5. France is implementing the Responsibility and Solidarity Pact to improve its economic competitiveness

Curbing unit labour costs through productivity gains and/or control of labour costs is a key macroeconomic issue for both price and non-price competitiveness. Favourable production cost trends, achieved by curbing unit labour costs, could simultaneously enhance price competitiveness and/or increase profit margins to sustain capital expenditure, research and development, and innovation, thus improving non-price competitiveness.

Firstly, France introduced the National Pact for Growth, Competitiveness and Employment, that aims to improve the cost-competitiveness of the French economy and to ease the financial constraints on firms. The Competitiveness and Employment Tax Credit (CICE) was introduced on 1 January 2013. The tax credit corresponds to 6% of total payroll costs on wages up to 2.5 times the statutory minimum wage, for a total reduction of labour costs of nearly EUR20 billion. This translates into a 3% reduction in the labour costs of the firms eligible for the tax credit. The tax credit amount corresponds to the erosion of profit margins over the last three years (see Chart 12).

Secondly, the Responsibility and Solidarity Pact reduced labour costs further by cutting employers' social contributions. This will result in a reduction of EUR30 billion in labour costs by 2017, equal to the reduction in profit margins over the last five years.

These labour cost cutting measures should have a positive impact on employment and help firms contain their prices, thus enhancing their price competitiveness while boosting their margins. This will foster more capital expenditure and innovation, thus resulting in non-price competitiveness gains.



Key: The amount of the Competitiveness and Employment Tax Credit (« crédit d'impôt pour la compétitivité et l'emploi », CICE) and reduction in employers' social contributions under the Responsibility and Solidarity Pact correspond to the reductions in profit margins over the last five years. In other words, if firms used the entire amount to increase their profit margins, these margins would return to the same level as five years ago.

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