The issues of Conjoncture in France along with a glossary of economic outlook terminology are available as soon as they are published on the INSEE web server, in the “INSEE conjoncture” section of the website www.insee.fr.
A laboured recovery

As forecast in Conjoncture in France in October, activity in Q3 2013 remained disappointing on the whole in emerging economies and dynamic in advanced economies. Foreign demand for French products decelerated, notably due to the marked slowdown in the imports of our European partners.

In Q4 2013, the business climate shown in the business tendency surveys continues to improve in all the advanced economies, suggesting that the upturn is likely to continue. In particular, activity in the Eurozone looks set to continue growing over the forecasting period (+0.3% each quarter), thanks to moderation in fiscal consolidation, an upturn in investment after a very marked adjustment and a fall in precautionary saving by households. In the emerging economies, situations vary but there is unlikely to be any clear improvement in growth on the whole.

Over the forecasting period, foreign demand for French products is likely to return to a sustained and regular rate of growth by mid-2014. However the profile of activity in France should be relatively uneven, with a progression in GDP of 0.4% in Q4 2013, then 0.2% in Q1 and Q2 2014.

The expected dynamism in Q4 should be driven by a combination of several effects. First of all, positive after-effects are expected in investment by companies in services and in exports of manufactured goods, which fell much more in Q3 than their determinants would have suggested. Households are also likely to bring some expenditure forward due to the release of employee-savings, the stricter terms on the automobile ecological “bonus/malus” system as of 1st January and the rise in VAT rates on 1st January 2014.

This expected rebound in Q4 is confirmed by the activity data available to the end of October and by the business tendency surveys: the business climate improved sharply in Q3 in all sectors. However, the standstill in balances of opinion over the last two months, notably due to the downturn in personal activity prospects declared by entrepreneurs, suggests a slowdown in early 2014 as a result of the lack of dynamism of the various components of demand:

- the upturn in activity prospects will support investment, but its progression is likely to be held back by the absence of a recovery in construction.

- despite improvements on the employment front in 2014, household purchasing power is likely to be lacking in impetus. On the one hand, the rise in total employment should remain weak: the CICE tax credit for businesses should drive growth in employment but the upturn in activity is unlikely to be sufficient to allow an upturn in market-sector employment. In addition to this, the gains in real wages observed in 2013 due to the unexpected fall in inflation are likely to fade out in 2014. The result is that household consumption should barely progress in H1 2014.

- in H1 2014, exports should be less dynamic than foreign demand, hit by the past rises in the Euro and by the downward trend in market share, although the latter has eased since the crisis.

This scenario is subject to a number of uncertainties. French exports could turn out to be more dynamic, in particular if the return of confidence is confirmed among our partners in Southern Europe. On the other hand, the scale in the upturn in investment by companies is always uncertain in recovery phases. Our scenario is based on that upturn being rather slow in France, but it could even be postponed altogether due to modest growth expectations.
General outlook

Activity remained dynamic in the advanced economies in Q3 2013

In Q3 2013, growth in the advanced economies was slightly stronger (+0.5% after +0.6%) than expected in Conjoncture in France in October 2013 (+0.4%). Activity remained dynamic in the United States (+0.9% after +0.6%) and in the United Kingdom (+0.8% after +0.7%). However, activity slowed down in Japan (+0.3% after +0.9%) and in the Eurozone (+0.1% after +0.3%).

The end of the recession confirmed in the Eurozone

In Q3 2013, GDP in the Eurozone progressed by 0.1%, confirming that it is emerging from recession. The slowdown compared to Q2 (+0.3%) was due to a fall in exports affecting all the countries in the zone. Private consumption also slipped, notably in Germany.

The emerging economies accelerated slightly

In the emerging economies, activity would appear to have accelerated, mainly in China and the CEEC. The rate of the progression in activity in emerging countries nonetheless remained below its pre-crisis level (+1.7% on average from 2000 to 2008).

French GDP fell slightly in Q3 2013

Activity fell back slightly in France in Q3 2013 (-0.1% after +0.5%). The fall was more pronounced in manufacturing industry (-1.0% after +2.0%), due to the sharp fall in its exports (-1.9% after +2.8%). Production of market-sector services also slipped (-0.1% after +0.7%), held back notably by the manufacturing branch. In addition to this, by a backlash after the first half of the year when lower-than-normal temperatures buoyed household spending on heating, production of energy showed a marked fall in Q3 (-1.5% after +2.1%). Finally, activity in construction continued to contract (-0.5% after -0.6%), in particular production of new buildings, while housing maintenance showed a slight upturn.

World trade set to be dynamic and oil prices high through to mid-2014

World trade in goods accelerated sharply in Q3 2013 (+1.1% after +0.3%). While trade in advanced countries slowed down distinctly, especially in the Eurozone, trade in Asia showed an upturn. Through to mid-2014, trade should progress by 1.5% per quarter, coming close to its average pre-crisis growth as the economic situation improves in the advanced economies, particularly in the Eurozone, and the emerging economies recover some of the dynamism that was on hold in H1 2013.

Despite a physical market low on tensions, the price of oil should remain high

In Q3 2013, the oil price increased markedly, driven by geopolitical tensions in the Middle East, which culminated at the end of August. These tensions have largely eased and the price of Brent has returned to its springtime plateau level ($110). In Q4, tensions should remain low on the physical market as demand declines in advanced countries. In H1 2014, despite the difficulties encountered by several OPEC countries, world oil supply should be dynamic, driven by continuing sustained production in the United States and stronger production in Russia, Central Asia and Latin America. The expected increase in oil supply (+1.3 million bpd year on year) should therefore cover the foreseeable increase in demand through to June 2014. The price per barrel is forecast to remain at $110.

The outlook should remain more positive in the advanced economies through to mid-2014

In the advanced economies, the global outlook improved markedly this summer, is still positive in November and activity should remain dynamic through to mid-2014 (+0.4% in Q4 2013, +0.5% in Q1 2014 and +0.3% in Q2). In the United States, household consumption and corporate investment should continue to buoy up activity, although the rise in interest rates could trigger a slowdown in the property market and public consumption is likely to contract in Q4 under the effect of the shutdown. The Japanese economy should grow quite clearly
at the end of 2013 and beginning of 2014, but slow down in Q2: the 3-points rise in VAT on 1st April is likely to cause a fall in consumption in Q2 2014, although it should encourage households to bring some purchases forward to earlier quarters. In the United Kingdom, the recovery should remain strong: investment and consumption should show a marked upturn, thanks notably to the recovery of the property market. In the Eurozone, the easing of fiscal consolidation, improved expectations and the need to renew production capacities should allow moderate growth, despite a labour market that remains weak.

**Divergences continue between the emerging economies**

Since August, according to the surveys in emerging economies, overall activity should see some impetus restored. Having said this, the divergence observed in H1 2013 is likely to continue (see Graph 1). In China, growth is set to hold up: in the short term, the easing of restrictions on lending is supporting the upturn in the property market and driving activity as a whole. The economies to the east of the Eurozone should benefit from the European recovery, meanwhile. Conversely, in the other emerging economies, according to the surveys, the outlook worsened considerably this summer and remains at a low level, in particular in manufacturing. In parallel, tighter monetary policies coupled with sharp falls in currencies in the countries with large current account deficits (India, Brazil, Indonesia, Turkey) are likely to weigh heavily on debtors who have a lot of debt in dollars, and activity should stall.

**The Eurozone should return to growth**

Financial terms remain accommodating in the advanced economies. The rise in long-term rates observed over summer 2013, a consequence of uncertainty as to the continuation of US quantitative easing, has even been partially erased. While those countries that are perceived as being financially sounder continue to enjoy excellent financing terms on their sovereign debt, interest rates are falling in other countries that have known greater difficulties since the beginning of the European sovereign debt crisis (Ireland and, to a lesser extent, Spain and Italy).

The ECB continues to support the money market

In the Eurozone, monetary policy remains expansionist in order to maintain access to liquidity for European banks. At the beginning of November, in particular in response to the low level of inflation in the Eurozone (+0.7% in October), the ECB decided to cut its main base rate by 0.25 points to 0.25%. The ECB also declared that it was ready to intervene if tensions should emerge in interbank financing, including by a further very long-term refinancing operation similar to those in December 2011 and February 2012.

### 1 - Divergences among emerging countries

**Last point: November 2013**

**Sources:** Markit, INSEE calculations
In the Eurozone, according to the surveys, the outlook has been improving since mid-2013. The business climate in industry has been in the expansion zone since October (see Graph 2), for the first time since 2011. Eurozone activity should therefore see some impetus restored through to mid-2014 (+0.3% per quarter), driven in particular by internal demand against a backdrop of easing fiscal consolidation. The divergences in outlooks within the Eurozone should be reduced somewhat: activity should be dynamic in Germany and, to a lesser extent, in France, while Spain should gradually catch up with their growth rate. In Italy, however, activity should progress only weakly.

In the Eurozone, fiscal consolidation should become less intense, the fall in employment should ease and nominal wages should progress again modestly through to mid-2014, with rises in Germany, stability in Italy and Spain (where the reintroduction of the fourteenth month of wages in the Spanish civil service is set to make wages increase sharply at the end of 2013, however). The fall in purchasing power in the Eurozone should therefore ease by mid-2014 and, as activity and employment prospects improve, households are likely to cut back their precautionary saving. All in all, consumption should increase slightly in the Eurozone.

Tightening of lending terms has come to an end in the Eurozone since the start of 2013, except in Italy. In Spain, terms even eased for the first time since 2010. This improvement should continue and spread to Italy. In addition, the gradual acceleration in activity expected by entrepreneurs in their answers to the outlook surveys and the need to renew production capacities after a marked phase of adjustment should support the acceleration in investment.

Through to mid-2014, world trade should return to a growth rate close to 1.5% per quarter. Buoyed by the advanced economies, world demand for French goods and services should also be dynamic at +1.3% per quarter on average (see Graph 3). After a sharp increase at the end of 2013 (+2.3%) linked to an expected return to normal of aeronautics exports, French exports should only grow moderately in early 2014 (+0.7% per quarter), again hit by the past rise in the Euro and by the downward trend in market share.

### General outlook

**Business tendency surveys show continued improvement in the Eurozone**

**Consumption set to increase slightly in the Eurozone**

**Corporate investment should accelerate in the Eurozone**

**The upturn in advanced economies should buoy up French exports**

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**2 - In the Eurozone, business tendency surveys have been improving since mid-2013**

*Last point: October for IPI and November for business climate*

![Graph showing IPI and business climate trends](Image)

*Source: European Commission*
In France, activity set to rebound at the end of 2013 and slow down in early 2014

After a marked rebound in all sectors, the business climate in France has been stable in October and November (at 95), 11 points above its level in May but still below its long-term average (see Graph 4). This pause in the outlook surveys can be seen in industry (at 98 since August), building (94 in November and October), wholesale trade (98 in November after 97 in September) and retail trade where the compound indicator even slipped back again (95 in November against 101 in September). The improvement continued, however, in services (96 in November after 93 in October).

Past activity judged more favourable than prospects

More precisely, in manufacturing industry, responses on activity prospects improved clearly in October and November, announcing a rebound in production in Q4 2013. This diagnosis is confirmed by the progression in October of the manufacturing production index, showing a growth overhang of +0.4% for Q4 2013. Conversely, entrepreneurs report a downturn in their personal production prospects and their opinion of their order book levels remains negative.

The French economy set to rebound in Q4 2013 and slow down in H1 2014

Manufacturing production should therefore rebound in Q4 2013 (+0.8% after -1.0%), before slowing down in H1 2014 (+0.2% per quarter). Activity in market-sector services should remain relatively dynamic (+0.5% then +0.3% and +0.4%), according to entrepreneurs in services surveyed in November. Energy production should fall back slightly in Q4 2013 (-0.3%), as household heating expenditure fell in October due to high temperatures. It should rebound by a backlash in Q1 2014 (+1.0%), before returning to an average rate in Q2 (+0.7%) if temperatures remain in line with seasonal norms. Finally, activity in construction should level out in Q4 2013 (0.0%). Housing starts rebounded strongly at the start of the year and some home maintenance expenditure is likely to be brought forward in anticipation of the rise in the VAT rate on 1st January 2014. The trend in building permits has been declining, however, since the start of 2013 and the number of starts fell again in Q3, suggesting a likely fall in production in H1 2014 (-0.3% then -0.5%). All in all, the French economy should rebound in Q4 (+0.4%), before slowing down in H1 (+0.2% per quarter).

GDP to show a growth overhang of +0.7% in mid-2014

In mid-2014, GDP is set to show a growth overhang of +0.7%, after annual growth of +0.2% in 2013 and 0.0% in 2012. The acceleration in activity expected in 2014 should be driven in particular by manufacturing industry (overhang of +1.0% in mid-2014 after +0.5% in 2013 and -2.8% in 2012).
General outlook

**Total employment should progress and unemployment be close to stable through to mid-2014**

Due to the past weakness of activity, employment in the non-agricultural market sectors fell again in Q3 (-16,000). Under the effect of the return of growth and the CICE Tax Credit for Encouraging Competitiveness and Jobs, the fall in market-sector employment should gradually ease through to mid-2014 (-7,000 in Q4 2013 then -4,000 in H1 2014, see Graph 5).

**Market-sector employment set to level out through to mid-2014**

After +80,000 jobs in 2013, non-market-sector employment should continue to progress in H1 2014 (+33,000 jobs), driven essentially by subsidised contracts. Despite a fall in the number of new contracts indicated in the draft Finance Law for 2014, the increase in the average duration of integration contracts should allow a further rise in the number of beneficiaries in H1 2014 (+40,000 after +116,000 in 2013). Total employment should thus progress in Q4 2013 (+52,000), and again in H1 2014 (+36,000).

**Total employment should progress through to mid-2014 due to subsidised jobs**

The unemployment rate was 10.9% of the active population on average in Q3 2013 (10.5% in Metropolitan France), up 0.1 points on the previous quarter (revised downwards). Through to mid-2014, the unemployment rate should increase by 0.1 points to 11.0%. Over the forecasting period, net job creations are unlikely to be sufficient to absorb the rise in the active population (+113,000).

**Unemployment should be almost stable through to mid-2014**

Headline inflation should increase progressively through to mid-2014 under the effect of several one-off factors. The year-on-year change in consumer prices should thus stand at +1.1% in June 2014, after +0.7% in November 2013. The rise in VAT rates on 1st January 2014, after deducting the effect of the CICE tax credit, should contribute 0.2 points to this acceleration in prices. The upturn in telecommunications prices, which have fallen exceptionally sharply since 2012, should contribute 0.1 points. In addition, year-on-year change in energy prices should increase due to a base effect and contribute 0.2 points.

**Inflation set to rise to mid-2014**

(1) The unemployment rate presented here is corrected for the effect of the new Labour Force Survey Questionnaire (see Informations Rapides n° 203). It is estimated that this should result in a 0.3-points reduction in the unemployment rate measured by the survey. In March 2014, new series will be published over long time periods.

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4 - The business climate marks a standstill in France

Last point: November 2013

![Graph showing business climate trends from 2005 to 2013](source: INSEE)
Purchasing power slightly up in early 2014

Real wages should slow down in early 2014

The average wage per head slowed down in Q3 (+0.4%), after the sharp rise in the previous quarter (+0.7%). On average in 2013, real wages should progress clearly (+1.1%), due to the unexpected fall in inflation. Through to mid-2014, based on the hypothesis of the minimum wage being increased without any additional boost (+1.1%), these gains in real wages should be cancelled out by the rise in inflation.

Purchasing power should progress slightly

In 2013, despite the slowdown in earned income (+1.5% after +1.9% in 2012), household purchasing power showed an upturn (+0.5% after -0.9% in 2012), mainly thanks to lower inflation (+0.6% after +1.9% in 2012). In addition, the social and fiscal burden was less dynamic (+4.5% after +7.4% in 2012), notably because the slowdown recorded in incomes in 2012 worked through into the income tax paid in 2013. Through to mid-2014, the profile in purchasing power is likely to be uneven, mainly due to the tax-collection calendar. It should therefore fall in H2 2013, then rise again in H1 2014. At the beginning of 2014, earned income should progress at a stable rate, while taxes, after the rises at the end of 2013 caused by income tax settlement payments, should fall back again at the very start of the year. In mid-2014, purchasing power should be 0.5% higher than one year previously.

Household consumption set to slow down in H1 2014

Consumption should be dynamic at the end of 2013...

In Q4 2013, consumption of manufactured goods should remain temporarily dynamic, buoyed by several one-off factors (release of profit-sharing schemes, bringing automobile purchases forward before the terms of the ecological ‘malus’ scheme are tightened on 1st January 2014). Consumption of services should also accelerate slightly, with the result that total consumption should increase by 0.3%.

... but should slow down in H1 2014

In H1 2014, household consumption should be more closely in line with the trend in purchasing power and should slow down again (+0.1% per quarter).

A new fall in construction

Household consumption should level out in Q4 2013, after falling for seven quarters. In H1 2014, it should then fall again more sharply (-0.3% and -0.6%), due to the new drop in housing starts in mid-2013. Over 2013 as a whole, household investment should fall significantly (-3.7%) and its growth overhang should stand at -1.4% in mid-2014.

5 - The fall in market-sector employment set to ease

Source: INSEE
Corporate investment should grow slightly in early 2014

Over the three quarters of the forecast, investment by business excluding construction should now progress at a moderate rate. Activity should improve only slowly and the margin rate of companies remain close to its low point. The CICE tax credit for businesses should represent the equivalent of 1.1 points of margin rate.

Due to the expected rebound in expenditure on services after the unusual fall in Q3 (-2.8%), corporate investment should be more dynamic in Q4 2013. Meanwhile, construction expenditure by companies should fall again through to mid-2014.

All in all, corporate investment should show a growth overhang of +0.7% at the end of June 2014.

Main uncertainties: dynamism of French exports, investment behaviour of French companies and oil prices

Dynamism of French exports...

In our scenario, French exports are expected to progress moderately in early 2014, at +0.7% per quarter. They could be more dynamic, notably if the return of confidence is confirmed in the Eurozone, heating up household consumption more than in our forecast.

... investment behaviour of French companies...

In our scenario, corporate investment should grow moderately in France. The fact that it has held up in relative terms in recent years suggests that we should not expect a particularly pronounced catch-up phenomenon. The upturn in corporate investment could be even more laboured given the modest expectations of growth.

... and oil prices

Our scenario is based on the hypothesis of oil prices being stable through to mid-2014 at around $110. Any further fall in OPEC production, when its additional capacities have recently been reduced by political instability in Iraq and Libya, could increase tension on the market again. Conversely, several emerging economies that are big petroleum product consumers are showing signs of fragility which, if these should be confirmed by a fall in activity, might limit their demand for oil.

6 - Fan chart for Conjoncture in France

How to read it: the fan chart plots 90% of the likely scenarios around the baseline forecast (red line). The first and darkest band covers the likeliest scenarios around the baseline, which have a combined probability of 10%. The second band, which is a shade lighter, comprises two sub-bands just above and just below the central band. It contains the next most likely scenarios, raising the total probability of the first two bands to 20%. We can repeat the process, moving from the centre outwards and from the darkest band to the lightest, up to a 90% probability (see INSEE Conjoncture in France for June 2008, pages 15 to 18). It can therefore be estimated that the first result published by the quarterly accounts for Q4 2013 has a 50% chance of being between 0.2% (lower limit of the fifth band from the bottom) and 0.6% (upper limit of the fifth band from the top). Likewise, it has a 90% chance of being between -0.1% and +0.9%. In Q1 2014, the 90% confidence intervals is [-0.3% ; +0.8%].

Source: INSEE
## Key figures: France and its international environment

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### France - supply and use

| GDP | 0.0 | -0.3 | 0.2 | -0.2 | -0.1 | 0.5 | -0.1 | 0.4 | 0.2 | 0.2 | 0.0 | 0.2 | 0.7 |
| Imports | 0.8 | 0.2 | -0.1 | -1.1 | 0.1 | 1.6 | 1.0 | 1.1 | 0.7 | 0.7 | -0.9 | 1.2 | 2.9 |
| Household consumption | 0.2 | -0.5 | 0.1 | 0.1 | -0.1 | 0.4 | 0.2 | 0.3 | 0.1 | 0.1 | -0.4 | 0.4 | 0.6 |
| Public and NPISH consumption | 0.5 | 0.3 | 0.3 | 0.3 | 0.3 | 0.8 | 0.1 | 0.3 | 0.3 | 0.3 | 1.4 | 1.5 | 1.0 |
| Total GFCF | -1.3 | -0.4 | -0.7 | -0.6 | -0.8 | -0.4 | -0.6 | 0.4 | 0.0 | -0.1 | -1.2 | -2.2 | -0.1 |
| of which: NFEs | -1.7 | -0.6 | -0.9 | -0.5 | -0.8 | 0.1 | -0.6 | 0.7 | 0.2 | 0.2 | -1.9 | -1.8 | 0.7 |
| Households | -0.7 | -0.1 | -0.4 | -1.0 | -1.3 | -1.7 | -0.6 | 0.0 | -0.3 | -0.6 | -0.4 | -3.7 | -1.4 |
| Exports | 0.4 | 0.3 | 0.2 | -0.6 | -0.4 | 1.9 | -1.5 | 2.3 | 0.7 | 0.7 | 2.5 | 0.6 | 2.7 |

### Contributions (in point)

| Domestic demand excluding change in inventories * | 0.0 | -0.3 | 0.0 | 0.0 | 0.0 | -1.0 | -0.1 | 0.4 | 0.0 | 0.3 | 0.2 | 0.2 | -0.1 | 0.2 | 0.6 |
| Change in inventories * | 0.1 | -0.1 | 0.1 | 0.0 | 0.4 | 0.2 | 0.1 | 0.5 | -0.2 | 0.0 | 0.0 | -0.8 | 0.2 | 0.2 |
| Net foreign trade | -0.1 | 0.0 | 0.1 | 0.2 | -0.1 | 0.0 | -0.7 | 0.3 | 0.0 | 0.0 | 1.0 | -0.2 | -0.1 |

### France - situation of households

| Total employment | 45 | -21 | -60 | -22 | -26 | -16 | 5 | 52 | 26 | 10 | -58 | 15 | - |
| Non-agricultural market sector employment | 3 | -15 | -48 | -52 | -27 | -38 | -16 | -7 | -3 | -1 | -112 | -87 | - |
| Metropolitan France ** | 9.5 | 9.8 | 9.9 | 10.1 | 10.4 | 10.4 | 10.5 | 10.5 | 10.5 | 10.6 | 10.1 | 10.5 | - |
| Unemployment rate France ** | 9.9 | 10.2 | 10.3 | 10.5 | 10.8 | 10.8 | 10.9 | 10.9 | 10.9 | 11.0 | 10.5 | 10.9 | - |
| Consumer price index *** | 2.3 | 2.0 | 2.0 | 1.5 | 1.1 | 0.8 | 0.9 | 0.7 | 0.9 | 1.1 | 2.0 | 0.9 | - |
| Core inflation *** | 1.6 | 1.4 | 1.4 | 0.8 | 0.7 | 0.4 | 0.6 | 0.8 | 0.6 | 0.8 | 1.3 | 0.6 | - |
| Household purchasing power | -0.4 | 0.2 | -0.3 | -0.9 | 0.9 | 0.5 | -0.1 | -0.1 | 0.6 | 0.1 | -0.9 | 0.5 | 0.6 | - |

### Forecast

| (*) Inventory changes include acquisitions net of sales of valuable
| (**) For annual data, unemployment rate is that of the last quarter of the year
| (***) Year-on-year on the last month of the quarter and annual averages

Source: INSEE
Will corporate investment take off again in France in 2014?

For 2014, an economic upswing seems likely across the Eurozone in general, and in France in particular, but the pace will depend mainly on the change in corporate investment. In France, however, this decreased in 2013 for the second year running (-1.8%, after -1.9% in 2012). Some analysts fear that investment will be slow in taking off in France for several reasons: they believe that France as a whole is no longer competitive, that companies do not have the means to invest because of the drop in their margin rate since 2008 and the tightening of bank credit and lastly, companies seem to be able to meet new demand with the capacity they already have and which is currently not required.

The purpose of this report is to assess how relevant these different arguments are, especially in view of corporate investment performance in France since the beginning of the 2000s. From the points presented here, the following conclusions can be drawn:

- in France, apart from cyclical variations, the corporate investment rate has increased slightly since the end of the 1990s. Today its level is above its average, although this is probably the low point of the cycle. This upward trend, which in volume is even more pronounced given the falling trend in prices in relation to investment, can be compared with the significant drop in the cost of corporate financing since the beginning of the 1990s;

- since 2008 in particular, corporate investment seems to have stayed aligned only to fluctuations in demand, as if the others unfavourable factors (fall in margin rate, credit squeeze, uncertainty over business prospects in the medium term) had been offset by favourable factors such as low cost of corporate financing and, to a lesser degree, investment support measures taken since 2008 (abolition of the professional tax, extension of the research tax credit, assistance with cash-flow for companies in difficulty at the peak of the crisis, credit mediation);

- furthermore, since the beginning of the 2000s, corporate investment in France has developed favourably compared with other European economies. In Germany, the United Kingdom, Italy, Spain, the investment rate (as a ratio of value added) is today between 2 and 7.5 points lower than the 2000 level, whereas in France it is the same;
- if we look only at investment excluding construction, the situation in France remains favourable. From 2000 to 2007, all trends in the major European economies were similar, apart from the United Kingdom, where there was a marked drop in investment rates. Since 2007 however, adjustment in France has been less pronounced, as the drop in the other economies was two to four times greater;

- how can we account for this improved French performance since the beginning of the Recession? Compared with Italy and Spain, the reason can be found quite naturally in the fact that the crisis was on a smaller scale, especially since 2011: investment overreacted in the short term to fluctuations in activity, this is the «accelerator» effect. Performance in relation to Germany is more surprising, where the economic outlook was more favourable, external competitiveness seemed better both in terms of level and of trend, and companies were in a much more favourable financial situation. The gradual divergence, since the end of the 1990s, between labour costs in France and Germany could have led to capital/labour substitution behaviour which favoured capital in France;

- for 2014, the most likely scenario seems to be an increase in French corporate investment but at a similar rhythm to that of GDP. On the one hand, the latest available data, and also analysis of previous recoveries, give credence to an upswing in investment in the wake of activity. On the other hand, the relative resistance of investment excluding construction in recent years is unlikely to lead to a particularly marked catch-up phenomenon, and investment in construction is still showing no signs of recovery. ■
In France, corporate investment has held up fairly well since 2008

**No downward break in corporate investment rates compared with the pre-crisis average**

The corporate investment rate (i.e. investment as a ratio of value added) moves cyclically: it increases in periods of expansion, and decreases during economic slowdowns. Since 1997 however, this cyclical dynamic has been accompanied by a slight growth trend, with the investment rate at the dip in the cycle increasing from 15.4% in 1997 to 16.3% in 2004 then to 16.9% in 2009. Thus in Q3 2013, when France was in all likelihood close to the low point in the cycle, the investment rate of non-financial enterprises (NFEs: non-financial corporations and unincorporated enterprises), calculated as the ratio of the gross fixed capital formation (GFCF) of NFEs in value to the value added of NFEs in value, reached 17.6%, higher than its pre-crisis average (see Graph 1).

If we consider the peaks, in 2007 the investment rate was 1.5 points higher than the 2000 level, even though economic growth was far less dynamic in 2007 than at the end of the 1990s. Although the 2011 peak was lower than that of 2007, it was nevertheless about 0.5 points higher than that of 2000.

Given the falling trend in the relative price of investment, this relative dynamism in investment as a ratio of value added since the end of the 1990s is even more marked if we look at variables in volume, deflated for prices: investment has grown by 52% since 1997, against 37% for value added. Analysis by product is modified, however.

In terms of value, this apparent trend can be attributed to the increase in rates of investment in construction and services (respectively +1.5 points and +1.0 points since 1997). Conversely, the rate of investment in manufactured goods, which is very cyclical, is today slightly lower than in 1997 (see Graph 2). In volume, on the other hand, investment in construction grew more slowly than value added over the period, and investment in manufactured goods increased more quickly than value added between 1997 and the present. In services, the trend in investment grew faster than value added, both in volume and in value.

The upward trend in the NFE investment rate seen since the beginning of the 2000s can also be analysed through branches of activity (see Graph 3): it was driven by the dynamism of investment rates in value in companies in the manufacturing and market services branches (respectively +0.6 points and +1.6 points between 2000 and 2008), whereas in the construction branch, investment rate in value remained remarkably stable during this same period, fluctuating around 8% (a much lower level than in the other two branches). However, this value analysis should be qualified in the light of changes observed in GFCF prices and the value added in each of these branches. Thus, given the increase in the relative price of investment in relation to value added in the construction branch since the end of the 1990s, the investment rate by volume, instead of being stable, has in fact proved to be dynamic since 2000. Furthermore, relative prices in the manufacturing and services branches have seen opposite trends during this period. The diagnosis for these two branches is therefore slightly modified: while investment in volume in the market services branch has accelerated considerably compared with value added since 2000, in the manufacturing branch, it appeared until 2007 to be cyclical around a level that was at best stable. In 2012, however, it is at a higher level than in 2007 (see Éudeline, Sklénard, Zakhartchouk, 2012).

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1. In this report the investment rate is defined by default with value variables.
2. 1980-2007
Will corporate investment take off again in France in 2014?

1- Changes in the investment rate of NFEs

Source: INSEE

2- Investment rate of NFEs by product type

Source: INSEE

3 - Investment rate by branch

Source: INSEE
The share of investment dedicated to renewal is also in an upward trend

There is no statistical source with which to measure directly the share of investment dedicated to renewal of capital. However, several indices suggest that it is in an upward trend. Firstly, according to the INSEE’s industrial investment survey, in which several thousand companies with more than 20 employees in the manufacturing branch are questioned every quarter, renewal has become the prime motivation to invest, ahead of the introduction of new products, whereas in 2000 the reverse was true (see Graph 4).

Analysis of the responses provided by companies reveals three trends. First, the share of investment by industrial companies that is dedicated to renewal has grown regularly since 2000. It has increased by 12 points, and is now the main motivation for investment. Next, investment linked with the introduction of new products decreased regularly from 2000 to 2008 (-6 points) and now seems to have stabilised.

Investment in modernisation is cyclical, with two dips in 2004 and 2010. In particular, investment in the automation of existing production processes fell slightly in favour of investment in energy savings. These trends were fairly uniform, depending on company size and branch of activity.

In theory, this increase in the investment share devoted to renewal, although attributable to an accelerated ageing of companies’ productive capital, with an unchanged structure, may lead to a temporary rise in investment, and could help explain the slight upward trend in the investment rate since the end of the 1990s. However, there is insufficient data to validate this explanation empirically: in national accounting, the average age of assets excluding construction (approximated by the difference between amortisation and decommissioning) has shown no trend since the end of the 1990s.

In contrast, this increasing investment share devoted to renewal may be linked with the distortion over the last twenty years in the structure of NFE capital in favour of short-lived assets (see Graph 5). This trend of growth in the rate of investment in services is a result of the spectacular increase in investment in computers (+160%) and in software (+140%), which are amortised over an estimated five years. In contrast, investment in construction, where the amortisation period is estimated at between twenty-five and thirty years, has grown moderately, like value added (+33%).

Can the decrease in the average lifespan of assets account for the slight growth trend in the investment rate?

More and more short-lived assets

4 – Investment motivations according to the enterprises questioned in the INSEE Investment Survey

![Graph showing investment motivations]

Source: INSEE
The answer is somewhat negative. It is certainly true that for a given capital stock, a shorter lifespan implies a higher investment in renewal. On the other hand, however, the decrease in the lifespan of assets leads to an increase in the cost of capital, and hence modifies the production function to the disadvantage of capital and ultimately reduces the share of investment in value added. Moreover, the distortion of the structure of NFE capital towards investment in short-lived assets is also observed in our main partners (and even more so in the United Kingdom, which is closer to the United States in terms of investment in new technologies) whereas for them the dynamics of the investment rate were less favourable, as we shall see next.

The corporate investment trend since 2007 is more favourable in France than in the other major European economies

The rate of investment by non-financial companies in each of the five major European economies is governed first of all by the economic cycle: a drop at the beginning of the 2000s then an increase until 2007, a fall in 2008-2009, a fleeting upturn in 2010, and a drop once again until the present. Yet we can distinguish some idiosyncratic forms of behaviour: the investment rate was virtually stable in Italy from 2000 to 2007; the drop at the beginning of the 2000s was particularly marked in Germany, as was the upturn from 2004 to 2008 in Spain; the fall since 2008 in Spain has been spectacular, and less so in Italy and the United Kingdom.

Overall, from 2000 until the present, the drop in investment rate was between 2 and 7.5 points in Germany, Italy, the United Kingdom and Spain; it was 3 points in the Eurozone and nil in France.

The investment rate studied previously has the disadvantage of including investment in construction, which is often considered less productive than other assets and hence less relevant in terms of investment analysis. In this part, we therefore consider investment excluding construction.

The situation in France since 2007 remains favourable if we consider only investments excluding construction

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(3) European data are available only for non-financial companies, which are very similar in scope to non-financial enterprises.

5 - GFCF by asset type

Source: INSEE
The diagnosis remains for the most part unchanged when we consider the investment rate excluding construction (see Graph 7). Overall, the drop in the investment rate since 2000 is around 1 point in France, compared with over 2 points in Germany and Spain, over 3 points in Italy, and about 4 points in the United Kingdom.

The diagnosis is the same overall if we consider variables in volume. The only notable difference is in Germany, where investment dynamics were stronger before the crisis (especially in “other machines and equipment”), with the result that from 2000 to the present, trends are more in agreement between France and Germany.

Econometric modelling confirms the resistance of French corporate investment in recent years.

From the conclusions drawn in the first part, corporate investment as a ratio of the value added of companies seems to have enjoyed a fairly favourable dynamic over the last fifteen years, compared with our main European partners.
To confirm the robustness of this diagnosis, in this part we present the results from econometric estimates of investment which model its dynamic in the past based on its main determinants. Investment observed over the recent period is then compared to the simulations from the model, to assess whether this is "overinvestment" or "underinvestment" on the part of companies. The same exercise is then carried out for the Eurozone for comparison purposes.

When companies are not constrained either in their outlets or in their financing, the user cost of capital is the ultimate determinant of their capital ratio, in other words the relationship between their capital stock and their value added: when the yield from supplementary investment exceeds the cost of the capital, then it is profitable for the company to invest a supplementary unit of capital.

Another way of assessing investment profitability is to use Tobin’s $Q$, introduced by James Tobin. Tobin’s $Q$ is the ratio between a company’s stock market value and the value of its capital: if Tobin’s $Q$ is greater than 1, then the benefits that investment brings are greater than their cost, and it is the right time to invest. This is nevertheless a very imperfect indicator: it supposes that the stock market value is a good measure of the intrinsic value of a company, which is not always the case, especially when there is an economic “bubble” surrounding the share price, and it also assumes that the profitability of supplementary investment is indeed measured in terms of that of previous investments. For these reasons, its correlation with the level of investment is generally empirically low.

In the short term, when companies are constrained by their outlets, the main determinant of investment is demand: the stronger the demand, the more companies must invest to adapt their production capacity. However, as capital represents a large multiple of investment, if companies want to increase their capital by 1% they must increase their investment by a lot more than 1%. This is called the accelerator effect and implies that a small variation in demand leads to a larger variation in investment.

Corporate investment may also depend on constraints relating to access to finance. If a company’s own resources are insufficient, then it will borrow to invest. Because banks run a significant risk that they will not be repaid, and also because they do not have all the necessary information to assess the risk of not being repaid, they may refuse to lend or will lend at very high interest rates to companies that are already heavily indebted, or which have very low profit levels. There are different characteristics that can indicate a company’s state of financial health and which influence access to finance, although none is fully satisfactory: burden of debt, level of self-financing, profit level, level of margin rate.

In the estimated equation, it is the company margin rate (ratio between gross operating surplus and value added) that is used. This has the advantage of being a “proxy” both for financing constraints and for the average profitability of investments. Of course the decision to invest depends on marginal profitability, and not on average profitability of the capital installed. In addition, a low margin rate can also, in certain cases, encourage companies to increase their investment effort. For example, they may increase automation of production in order to reduce wages. Empirically, however, the result is that a drop in margin rate penalises investment in France, over the estimation period.

Investment depends on many constraints relating to the financial sector, demand and the health of a company. The uncertainty surrounding fluctuations in these factors also contributes to potential investment determinants. Once the decision to invest has been taken, it is often costly for a company to backtrack if the economic conditions change and make the investment unprofitable. For

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(4) Also, this variable is less fragile than variables in the bottom half of the balance sheet.
example, there may be underinvestment if demand is very volatile or uncertain. This last investment determinant is very difficult to measure, which is why it has not been tested here.

Macroeconomic modelling of investment is based on error correction using an equation which takes into account the short-term adjustment dynamic towards a long-term target (see Box 1). The idea is that the investment determinants mentioned above can have a different effect in the short term (after one or more quarters) and in the long term (several years). For example, the accelerator effect implies an elasticity of demand to investment that is very much greater than one in the short term, whereas in the long term it is one.

By focusing on the area of products "excluding construction", the resistance of investment identified in the first part is confirmed: today the level of investment seems overall to be in line with its determinants, and there was even a significant rise in investment observed from 2010 to 2012, which has not been completely eliminated (see Graph 8). This result may seem surprising, as some key variables are missing from our model which should have affected investment in recent years, such as the tightening of bank credit conditions and the extreme uncertainty surrounding economic prospects, and even the future of the Eurozone in its current form.

The analysis of the corporate investment rate carried out in the first part revealed an apparent upward trend since the 1990s, which may seem to contradict the result that shows that investment today conforms to its determinants. The answer, in fact, is to be found in the long-term investment determinants. If the long-term relationship of the equation is rewritten (see end of Box 1), then the investment is not supposed to evolve only like value added. It also depends negatively on the real cost of capital and positively on companies’ margin rate. Lastly, it depends either positively or negatively, depending on whether investment is considered in value or in volume, on the relative price of the investment in relation to value added. The evolution of the long-term target for the investment rate, by value and by volume, is shown below (see Graph 9).

From the beginning of the 1990s until the middle of the 2000s, the cost of financing companies dropped substantially, as did the relative cost of investment, while the margin rate overall remained stable. As a result, the long-term target of

(5) However, we should remember that the 2011 data (2012 respectively) will not become definitive until May 2014 (May 2015), with the publication of the definitive accounts.

**8- Investment in non-construction products**

Source: INSEE, Banque de France
Will corporate investment take off again in France in 2014?

Box 1 - Estimation of the "investment excluding construction" equation

We choose to model corporate investment exclusive of construction products, a choice also made in other studies\(^1\), because the construction (30% of total investment) investment cycle is not typical of the overall macroeconomic cycle. The behaviour of investment in construction is different from the other components of investment, particularly in the 1990s (see Graph 2). It thus disrupts the estimation of corporate investment behaviour, to the extent that the investment forecast is actually better when it distinguishes investment excluding construction from investment in construction.

The long-term investment balance is the result of profit maximising behaviour among producers. We use a neo-classical framework with two factors of production (capital and labour) and a CES (constant elasticity of substitution) production function. The intertemporal profit maximisation is written:

$$\max_{K_t} \sum_{t=0}^{\infty} \delta^t \left[ \frac{K_t^{\gamma} + (1-\sigma) L_t^{\gamma}}{r + \beta_t} \right]$$

under constraints:

$$K_{t+1} = (1 - \delta) K_t + I$$

$$Y_t = [\beta K_t + (1-\sigma) \bar{L}]^{\gamma}$$

where:
- \(I\), and \(Y\), are investment and production in volume,
- \(\beta\) is the price of value \(X\),
- \(\omega, L\), is the cost of payroll, \(K\), capital,
- \(\delta\) is the capital depreciation rate and \(\beta\) is the discount rate,
- \(\tau = 1 - \frac{1}{\sigma}\) where \(\sigma\) is the elasticity of substitution between capital and labour.

By writing, \(C_t = \beta^t \left[ \frac{1 - (1 - \delta) K_t / \bar{L}}{1 + \beta_t} \right] (1 + \beta_t)\) the user cost of capital, the resolution results in the equation:

$$\ln K_t = \ln Y_t - \sigma \ln \left( \frac{C_t^{\gamma}}{\bar{L}^{\gamma}} \right)$$

where

$$\ln I_t = \ln Y_t - \sigma \ln \left( \frac{C_t^{\gamma}}{\bar{L}^{\gamma}} \right) + t (\delta, K_t)$$

We verify that the last term of the previous expression is stationary, hence it does not influence long-term investment. Additionally, we assume that financing constraints, approximated by the margin rate, influence investment behaviour including in the long term\(^2\). In the short term\(^3\), variations in investment react to variations in value-added (accelerator effect) and to the distance from its long-term target (restoring force).

Formally, this is estimated by a two-step error correction model (ECM) with a DOLS estimation of the long-run equation (Stock and Watson 1993), which gives a less biased estimate at finite distance. As investment is a component of demand, there is an accounting relationship between investment and value-added. An instrumental variables estimation corrects the endogeneity bias. The instruments used are household consumption and exports of products from the non-agricultural market sector (NAMS).

The equation estimated over the period 1989Q4-2010Q4 is written\(^4\):

$$\Delta ln I_t = -0.3 + 2.1 \Delta ln Y_t$$

$$-0.07 \left( \ln (\frac{\bar{L}}{\bar{L}_{-1}}) + 0.6, \ln \left( \frac{C_t^{\gamma}}{\bar{L}^{\gamma}} \right) - 3.6, \Delta ln marge_{t-1} \right)$$

$$+ 0.3 \Delta ln Y_{-1} + \varepsilon_t$$

where:
- \(I\) is investment excluding construction by NFEs in volume,
- \(Y\) is the value-added of the NAS branches in volume,
- \(C_t^{\gamma}\) is the user cost of capital: \(C_t^{\gamma} = \beta_t (\delta_t + \beta_t - \rho_t)\),
- \(\rho_t\) is the GFCF deflator excluding construction, \(\beta_t\) its year-on-year value and \(\delta\) the amortisation rate of NFEs\(^5\),
- \(\bar{L}\) the value-added of capital,
- \(\Delta \bar{L}\) the margin rate of NFEs;

As the variables entering into the long-run equation are all order one integrated, we tested for the existence of a unique cointegration relationship between them. The Johansen test validates this hypothesis. Additionally, the Shin test validates our long-run relationship at the 5% threshold.

Note that the equation’s long-run relationship can be written as follows depending on whether we are interested in investment in value or in volume:

$$\ln \left( \frac{\bar{L}}{\bar{L}_{-1}} \right) = \ln \left( \rho_t \cdot Y_t \right) - 4.81 + 0.41 \ln \left( \frac{\bar{L}}{\bar{L}_{-1}} \right)$$

$$-0.59, \ln \left( \frac{C_t^{\gamma}}{\bar{L}^{\gamma}} \right) + 3.65, \Delta \bar{L}$$

$$\ln (1) = \ln (Y_t) - 4.81 - 0.59, \ln \left( \frac{\bar{L}}{\bar{L}_{-1}} \right) - 0.59, \ln \left( \frac{C_t^{\gamma}}{\bar{L}^{\gamma}} \right)$$

$$+ 3.65, \Delta \bar{L}$$

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\(^1\) see for example Bardaji and Ali (2006)
\(^2\) As the margin rate is non-stationary, its level cannot empirically affect investment in the short term only.
\(^3\) The cost of capital and the margin rate are not significant in the short term in our estimations.
\(^4\) The standard deviations are given in parenthesis.
\(^5\) As the amortisation of NFEs is not available, we aggregate the amortisation of the market branches excluding real-estate services and financial services.

Conjoncture in France
investment in volume saw a growth trend over the period, whereas this trend was barely perceptible in value, due to the drop in the relative price of investment. The long-term target has stabilised since the middle of the 2000s, both in value and in volume, because the continuing fall in interest rates offset the fall in the margin rate, while the relative price of investment stabilised. Today, the long-term target of investment in volume remains 1.5 points higher than in the middle of the 1990s, which explains why the investment rate was higher than at the beginning of the 2000s. Thus the apparent upward trend of the investment rate can be interpreted as simply the convergence towards a new regime of higher capitalist intensity, brought on by the drop in the cost of financing companies.

The deterioration in companies’ margin rate since 2007 seems to have been offset by the continuing drop in the cost of financing. On the face of it, this is a surprising result. The sharp drop in the margin rate in France in recent years, along with a drop in the equivalent savings ratio, is indicative of a deterioration in companies’ financial situation and their profitability. This is likely to impact on the volume of investment.

### 9 – Long-term investment target excluding construction

[Graph showing long-term investment target excluding construction]

Source: INSEE

### 10 – Factors influencing investment

[Graph showing factors influencing investment]

How to read it: the point for 2014 corresponds to the forecasts by industrialists surveyed in October 2013.

Source: INSEE outlook surveys
This result, although surprising, is nevertheless consistent with the replies companies gave to the industrial investment survey, mentioned in part one. In October every year companies are questioned on the factors that influence their decision to invest: for the current year they are asked to describe these factors as stimulative or restrictive. In 2013 the total relating to domestic demand was about 23 points lower than its 2004 level (with the difference being half this for foreign demand). However, totals for responses concerning self-financing, overall financing conditions and expected profits did not seem, initially, to be any more restrictive today than before the crisis (see Graph 10).

This result can perhaps be explained, although it is not possible to quantify their contribution, by the numerous government policy measures intended to stimulate corporate investment, directly or indirectly. First, the professional tax, which only affected capital, was abolished in 2010, and replaced by a tax on value added, which therefore not only affected capital but also labour. In addition, the research tax credit was extended significantly in 2008 (removal of the ceiling, increase in credit rates, suppression of the share calculated against increased expenditure), with its cost rising in just a few years by 5 billion euros. In addition, 'Investment for the Future' was launched in 2010, and the amounts contractualised reached 19 billion euros in Q1 2013.

Finally, when the financial crisis was at its height towards the end of 2008 and the banks were tightening their conditions for access to credit, several measures were taken to support company liquidity (support from Oséo, reimbursement of tax debts, credit mediation, etc.), which could be considered as indirect aid for investment. Studies on French data suggest that credit constraints played only a secondary role in France.
relatively minor role in France, and would only have affected investment a little (see Guinouard, Kremp and Randriamisaina and also Kremp and Sevestre). In particular, subsidiaries of groups experienced a larger drop in activity in 2008 and 2009 than independent companies, especially in manufacturing. It was the companies that are least likely to suffer financial constraints which made most adjustments to their volume of production in the short term, and also their levels of employment and investment. These points suggest that in France companies have suffered more from a demand shock than a credit shock (see Graph 11).

In the Eurozone, investment is rather weaker than the determinants forecast

Econometric modelling of the Eurozone produces conclusions that are rather more nuanced than the diagnosis made in part one. Underinvestment in the Eurozone in recent years is highly dependent on the specifications and estimation period selected, as it varies from 0 to 6% (see Graph 12 and Appendix).

The scale of underinvestment is reduced when the equation is applied up until the end of 2010, as the extended period of weak investment from 2008 tends to diminish the restoring force towards the long-term determinants, and hence to postpone a return to the long-term target. This difference therefore appears to be temporary. However we consider it, and whatever specification and estimation period are selected, we see underinvestment in the Eurozone in the last few years, while the opposite is the case for France. As we have seen in part one, this result stems mainly from Germany, where investment declined more than in France, although the economic situation there had deteriorated less (see Goldman Sachs Global Economics).

**Conclusion: what investment for 2014?**

From the results presented in this report, the corporate investment rate seems to have experienced a growth trend since the 1990s. The reason for this is the continuous drop in the cost of financing. Since the crisis in particular, investment in France has shown more resistance than that of its European partners.

Today, economic activity appears to be picking up, both in France and in the Eurozone: the business climate has greatly improved since the beginning of the year; and year-on-year GDP at the end of 2013 will probably settle at +0.7%, compared with -0.3% at the end of 2012. Corporate investment is also showing a better trend (-0.7% expected year-on-year at the end of 2013, against -3.1% at the end of 2012), but continues to contribute negatively to growth.

12 - Investments in assets excluding construction in the Eurozone

- **Observed investment**
- **Model estimated until 2007**
- **Model estimated until 2010**

Source: INSEE

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Box 2 - Investment behaviour in previous recovery periods

Over the last two decades the French economy has been hit by three recessive episodes: the 1993 recession, the slowdown following the bursting of the internet bubble in 2001 and the recession of 2008-2009. Each of them can be split into two phases: a first phase in which activity declines sharply (all the components of demand contract) then rebounds (but this rebound remains partial and fragile because investment does not really pick up), followed by a second more diffuse phase in which activity deteriorates again but on a lesser scale than in the first phase. At the end of this second phase a more robust and lasting upturn emerges, accompanied by a notable recovery of investment by non-financial enterprises.

Corporate investment, a very cyclical component of demand, amplifies the short-term fluctuations in value-added according to the accelerator principle. In the recession phase, the drop in investment is larger than that in demand. In the upturn phase investment rebounds, in response to both the past over-adjustment and the anticipated improvement in demand. The last three recessive episodes to have hit the French economy show that corporate investment tends to adjust to variations in demand with a time lag, to the extent that the upturn in investment comes later than that in value-added. Hence investment has rarely been a driver of recovery in France. Other components of demand like exports have genuinely driven the recovery phases.

The last known recessive episode (2008-2009) differs from the other two: it is remarkable for the unusually quick response by investment to the recovery of value-added in the third quarter of 2009. The investment rate grew rapidly as early as the first quarters of recovery, as did the production capacity utilisation rate and the margin rate (see Graph 5).

The two phases of the recession of 1993

1 - Phase 1 recovery in quarter Q (Q= 1993Q2)

2 - Phase 2 recovery in quarter Q (Q= 1997Q1)

Source: INSEE
Will corporate investment take off again in France in 2014?

The two phases of the post-internet bubble slowdown

3 - Phase 1 recovery in quarter Q (Q= 2002Q1)

4 - Phase 2 recovery in quarter Q (Q= 2003Q3)

The great recession in 2008

5 - Phase 1 recovery in quarter Q

How to read it: for the five graphs above, the three series have a base of 100 in quarter Q (Q being the first quarter with a positive GDP growth rate after each period of recession).

Source: INSEE
For 2014, the pace of economic recovery will depend mainly on what happens with corporate investment. There are three possible scenarios: "slow down" investment, which continues to fall; "follower" investment, which advances, but only moderately, in the wake of the recovery, and "driving" investment, with a strong rebound which will intensify the economic recovery. The "follower" investment scenario seems the most likely.

Using the scenario from Conjuncture in France, the equation estimated in the previous part forecasts an upswing in investment excluding construction over the forecasting period, albeit a moderate one (+0.8% then +0.6% and +0.3%). This dynamism should be governed for the most part by the accelerator effect: like GDP, investment is likely to rebound in Q4 before slowing.

The pointers to a downturn in outlook may be quite distinctive, especially because behaviours are less "mechanical" and are more in line with agents' expectations. To outline the prospects for an upturn in investment, it would be useful in addition to consider recoveries over the last twenty years (see Box 2). Briefly, there have been three recessionary phases (1993, 2001, 2008), each one followed by an interrupted upswing, before a more positive and more long-lasting recovery phase was installed (1997, 2003, and hence potentially 2013). The following conclusions can be drawn:

- The investment rate does not usually pick up during the quarters that follow recovery, in other words, investment increases at best with moderation, like GDP. The only exception to this rule was the 2009-2010 recovery, when the upturn in investment was very strong and very much faster than expected, given its determinants (see part 2). The idea that a rebound in investment is usually the driving force behind economic recoveries is not borne out in France.

- Contrary to what is commonly believed, a low level of capacity utilisation rate (CUR) does not prevent investment recovery (see Forestier). Indeed, during past recessions, recovery systematically occurred before the CUR picked up, and usually the upturn in the CUR and the investment rate were concomitant. This was particularly true at the end of 2009: a strong recovery in investment occurred when the CUR was still at its low point. There may be several explanations for this apparently counterintuitive result, which are not necessarily exclusive. First, obviously, the CUR is an average: the CUR may be low, but this does not prevent some under-capacities on occasions. Next, during recessions, the drop in investment is such that a rebound may be necessary, just to maintain productive capacities net of amortisation. And as capital is by its very nature much more inert than investment, a strong rebound in investment can be accompanied by an upturn in CUR.

Analysis of past recessions therefore shows us firstly that investment generally "follows", and secondly that an upturn in CUR is not a necessary precondition for investment to recover.

Other factors, which are difficult to quantify, could influence investment decisions, such as France’s continuing loss of attractiveness, as shown in international rankings, at a time when the drop in wage costs in countries such as Spain or Ireland is restoring their attractiveness in the eyes of international investors. These factors do not seem to have come into play for the moment, since French corporate investment appears, as we have seen, to be in line with its usual determinants (demand; margin rate; user cost of capital excluding taxation).

While we cannot exclude the possibility that they start to have an effect over the forecasting period, continuing with measures in favour of investment, such as the
national pact for competitiveness and employment, is pulling in the opposite
direction. At all events, the business tendency surveys do not suggest that
investment will fall away in the short term. The opposite is the case, as the most
recent data give credence to an upswing in investment in the short term.

From the conclusions in the first part, corporate investment can be broken down
into investment in manufactured goods, which have a very cyclical dynamic,
investment in services, where the dynamic follows more of a trend, and investment
in construction, which also follows cycles, but these are in principle distinct from
the GDP cycles.

Over the recent period, investment in manufactured products has picked up
strongly, after six quarters of marked decline, and now contributes positively to
activity (+0.4% expected year-on-year by the end of 2013, after -7.4% at the end
of 2012). This is a positive sign for 2014, because this variable usually follows
regular cycles. Investment in services, on the other hand, which resisted very well
during the crisis, was weaker in 2013, but this weakness is expected to be
temporary (-1.6% expected year-on-year by the end of 2013, after +1.9%).
Lastly, investment in construction should fall back less sharply in 2013 (-0.8%
expected, after -3.3%), but the housing starts and building permits trends show
that we cannot envisage a positive contribution in the first quarter of 2014.

In addition, the survey data are all in agreement on an improvement in the short
term in investment prospects, even though a positive contribution across 2014 is
not a certainty: according to the industrial investment survey, expenditure on
investment is likely to fall by 2% in 2014. However, by interpreting these results as
a trend, which is more reasonable given the imprecision inherent in surveys, this is
a significant improvement, as the same business leaders assessed the drop in
their investments in 2013 at -7%. In services, the survey is qualitative, and
questions on prospects for investment only cover the next three months. However,
the average total in the second half of 2013 was 5 points higher than the average
in the first half of 2013.

According to the model described here, corporate investment should grow at
a similar pace to GDP in 2014. Overall, for the forecast in this Conjoncture in France, it was decided to follow the
econometric equation simulations (see part 2). First, the level of investment
simulated in the equation corresponds today to the level of investment observed.
Second, the equation forecast for the fourth quarter of 2013 is consistent with
what the ratings announce, based on the survey data, and finally, the factors
mentioned earlier (uncertainty about the future of the Eurozone, credit conditions
tightening), which do not appear as explanatory variables in the equation, seem
to be much less significant today than they were in 2011 or 2012, which is no
encouragement to use a lower forecast than that in the equation.

Corporate investment seems set to increase moderately for the next three quarters
(+0.7%, +0.2% and +0.2% are the forecasts), which would represent an
overhang mid-2014 of +0.7% (same as for GDP). Investment dynamics should
be very diverse, however, spread over investment in manufactured products,
which is relatively dynamic (+2.4% overhang), investment in services, virtually
stable (+0.4% overhang), and investment in construction, which will continue to
fall (overhang -1.3%), and should therefore limit overall growth in investment.
Appendix - Estimation of the investment equation for the Eurozone and Germany

It is more complex to estimate an investment equation for the Eurozone than for France, because of the availability of data. First of all, the estimation period is necessarily shorter because the data start in 1995 (although they actually started earlier, the beginning of the 1990s with the reunification of Germany was an atypical period which would disrupt estimations). Next, the construction of a cost of capital, which is fragile for France, would be even more so for the Eurozone, mainly because of the absence of homogenous amortisation series. Lastly, for the Eurozone, corporate investment is not available quarterly and the classification is not of products but of assets. Therefore the scope in which we do the Eurozone estimation (investment all agents in tangible assets excluding construction) is similar but not equivalent to that of the France estimation.

For these reasons we selected two different specifications. The first is similar to that used for France, simply replacing the user cost of capital by the price of investment. As this specification may suffer from an omitted variable bias, we consolidate our results by means of a second model of the simple accelerator type. In the long run, investment in value adjusts to value-added with unit elasticity, i.e. a target investment rate in value which corresponds to a Cobb-Douglas production function. For both these specifications the margin rate is not significant either in the long term or the short term.

For each specification we selected two estimations which are difficult to choose between and which mainly differ by their estimation period. The first estimation ends in 2007Q4, which is both an advantage (the differential between observed and simulated in recent years can thus be interpreted as a different pre-crisis behaviour) and a drawback (the estimation is made over a shorter period). The second estimation stops in 2010Q4. Compared to the previous estimation, the restoring force towards the long-term target is weaker, so simulated investment is lower since the start of the crisis.

Depending on the specification and the estimation period used, forecast investment is between 0% and 6% higher than investment actually observed.

**Cobb-Douglas specification:**

\[
\Delta \ln I_t = -0.24 + 2.61 \Delta \ln Y_t - 0.09 (0.09) (0.45) \left( \ln (I_{t-1} - \ln Y_{t-1}) + \ln \left( \frac{R^*_{t-1} - Y_{t-1}}{R_{t-1}} \right) \right) \\
+ 1.18 \Delta \ln Y_{t-1} + \varepsilon_t
\]

The equation estimated over the period 1995Q1-2010Q4 is written:

\[
\Delta \ln I_t = -0.18 + 2.80 \Delta \ln Y_t - 0.06 (0.09) (0.36) \left( \ln (I_{t-1} - \ln Y_{t-1}) + 0.70 \ln \left( \frac{R^*_{t-1} - Y_{t-1}}{R_{t-1}} \right) \right) \\
+ 1.26 \Delta \ln Y_{t-1} + \varepsilon_t
\]

where:

- \(I_t\) is investment in assets, plant and transport equipment in volume,
- \(Y_t\) is the gross domestic product of the Eurozone,
- \(R^*\) and \(R\) the value-added and investment deflators

For each model the Elliott-Rothenberg-Stock test rejects the non-stationarity hypothesis of the long-term residual at the 5% threshold, and confirms that variables \(I\) and \(Y\) are order one integrated.

Our Eurozone investment models indicate that the zone has been in a situation of slight underinvestment since 2011. This underinvestment is mainly due to weak investment in Germany, as the models presented below demonstrate.

With German data the cost of capital does not feature significantly in the estimations, so we replace it by the price of investment, in the same way as with the Eurozone estimations. The long-term unconstrained estimation features a coefficient of the price ratio which is not significantly different from 1, in other words the production function would be of the Cobb-Douglas type. Unlike the overall Eurozone, the models estimated in this way until 2007 or 2010 provide an identical estimation of the scale of underinvestment (14%). This is as high as the accelerator coefficient is relatively low (1.45, against 2 for France and 3 for the Eurozone), to the extent that the simulated value is less affected by the deterioration in recent years. The equation estimated over the period 1995Q1-2007Q4 is written:

\[
\Delta \ln I_t = -0.16 + 1.45 \Delta \ln Y_t - 0.08 (0.09) (0.36) \left( \ln (I_{t-1} - \ln Y_{t-1}) + 0.88 \ln \left( \frac{R^*_{t-1} - Y_{t-1}}{R_{t-1}} \right) \right) \\
+ 0.13 \Delta \ln Y_{t-1} + \varepsilon_t
\]

The equation estimated over the period 1995Q1-2010Q4 is written:

\[
\Delta \ln I_t = -0.16 + 1.45 \Delta \ln Y_t - 0.08 (0.09) (0.36) \left( \ln (I_{t-1} - \ln Y_{t-1}) + 1.06 \ln \left( \frac{R^*_{t-1} - Y_{t-1}}{R_{t-1}} \right) \right) \\
+ 0.2 \Delta \ln Y_{t-1} + \varepsilon_t
\]
Will corporate investment take off again in France in 2014?

GFCF in active equipment and materials transport: Eurozone

GFCF in transport equipment and materials: Germany

Source: INSEE
Will corporate investment take off again in France in 2014?

Bibliography


In search of lost British productivity

After forty years of regular, stable growth in productivity averaging 2.4% per year, the British economy experienced a slump in average output per worker in 2008 and this output has only picked up slightly since. British productivity today is 16% lower than its pre-crisis trend. While this phenomenon can also be seen in many other European countries, including France and Germany, it is far more marked in the United Kingdom.

As in France and Germany, this abrupt halt in productivity in the United Kingdom is only marginally explained by the usual productivity cycle: the economic crisis was five years ago, far longer than the usual period for adjustments of employment. Nor does it stem from structural effects: calculated by breaking the economy down into nine sectors, the sectoral reallocation of jobs has made a negligible contribution to productivity gains. Additionally, the increase of self-employment and part-time contracts has a marginal effect on the productivity puzzle.

Three reasons can be isolated, and cumulatively they explain 50 to 75% of the slowdown in productivity in the United Kingdom:

- while the slowdown in productivity has been observed in each of the nine sectors of the economy, it is particularly sharp in the oil sector (due to the gradual exhaustion of reserves) and the financial sector (bursting of the bubble);

- corporate investment, particularly in capital goods, has seemed particularly weak since the start of the 2000s and this has probably taken its toll on the labor productivity;

- the adjustment of wages has been very swift and sharp since 2008, to the extent that real wages have fallen by 7% in five years, while they have actually grown in France and in Germany. This adjustment has been accelerated by an increase in the labour force induced by changes to the rules governing retirement and eligibility for minimum welfare benefits; it may have encouraged firms to adopt processes that are more capital effective and less labour effective.

A fourth reason is sometimes put forward: capital may have been insufficiently reallocated since the crisis. Indeed, on the one hand the massive stimulus measures to support companies in difficulty appear to have brought down the number of bankruptcies, and on the other hand there may have been insufficient financing for growth sectors. This explanation is theoretically attractive but has yet to be validated empirically. Additionally, it is not, a priori, specific to the United Kingdom while the decline of productivity is particularly significant.

Some of these factors are temporary by nature and should not affect British productivity in the long run (it is the case of the usual effect of the productivity cycle). Conversely, other shocks are affecting both the productivity level itself and the trends in productivity gains: British productivity was boosted by the oil sector in the 1990s then by the financial sector in the 2000s, against a backdrop of the credit bubble and thoses factors will stop influence in the coming years. However, the key explanations (rise in labour force participation rates, under-investment, poor capital allocation) point to a sense that the productivity puzzle is mainly a sharp drop in level but that the marked slowdown in productivity gains could appear for the most part to be temporary. And the upturn in activity since the start of 2013 has led to a clear pick-up in productivity (+0.4% on average per quarter).
In search of lost British productivity

British productivity has declined since the crisis

The British economy registered significant labor productivity gains (increase in output per employee or per hour worked) for several decades: from 1971 to 2007, productivity rose by around 2.4% per year. This rate was particularly sustained in comparison to the other developed economies. The trend was relatively linear from 1971 to 2007 (see Graph 1), so much so that estimates of the productivity trend were barely dependent on the sub-period selected.

From Q4 2007 to Q1 2009, labor productivity fell by 6% and, despite the pick-up in activity, it has stagnated ever since (+0.4% per year on average). At present British productivity is therefore 4% lower than its pre-crisis level, and 16% down on its pre-crisis trend.

A sharper fall than elsewhere in Europe

Productivity is sluggish in numerous European countries. For example, in France (respectively in Germany) productivity is 2% higher (respectively 1.5% lower) than its pre-crisis level (see Graph 2). As the United Kingdom’s pre-crisis productivity gains were far more dynamic than in France and in Germany, the scale of the differential with the trend is greater (16% against 8% in Germany and 6% in France).

1 - British productivity declining since 2008

Sources: ONS, INSEE calculations

2 - International comparison of productivities

Sources: National Statistical Institutes
In search of lost British productivity

Tepid recovery of activity... Growth in activity has been particularly weak over the last five years, particularly in comparison with the post-crisis periods after 1973, 1980 and 1990. Following previous recessions the British economy managed to return to its pre-recession level in one, two and three years respectively after 1990, 1980 and 1973. In Q2 2013, five years after the 2008 recession, GDP was still 3.3% below its level of Q1 2008. Although the accounts for the last three years are still not finalised and may therefore be revised, the hypothesis that the drop in productivity could mainly be explained by measurement errors appears unlikely given the scale of the phenomenon (see Box 1).

... while employment has been strong In parallel, employment has picked up rapidly (see Graph 3). After falling by 2.4% in the space of two years, employment recovered in two successive dynamic phases, one in early 2010 and the other in 2011. Employment is now almost 1.5% higher than its pre-crisis peak. The downward trend in productivity is thus the conjunction of modest growth and a surprisingly sharp rise in employment.

The classic phenomenon of job retention... Classically, a decline in productivity can be explained by the 'productivity cycle': around a stable trend, productivity slips back during the crisis phase (because employers hold on to their employees) and then picks up strongly during the recovery phase (as businesses use their spare capacities to meet demand before hiring again). In the short term the costs of hiring and laying off, along with the learning effects, encourage businesses to smooth the effects of demand shocks on their labour supply.

... does not explain the scale of the productivity puzzle Yet this does not explain the current British situation. Firstly, job retention is a short-term phenomenon and it seems unlikely that company chiefs have still not adjusted their workforce five years after the recession. During previous recessions, labor productivity returned to its pre-crisis trend after four years. According to econometric modelling, the total productivity cycle measured by the differential between the short-term simulation and the long-term target is around 3 points in Q2 2013 (see Box 2).

Additionally, the layoff rate has not been particularly low since the crisis: the dynamism of employment seems to have come from strong hiring trends rather than a low level of layoffs. Hence the job retention argument does not explain the dynamic hiring trends.

3 - Recovery of employment after different recessions

Sources: ONS, INSEE calculations
In search of lost British productivity

Box 1 - Measurement difficulties can only marginally explain the productivity puzzle.

As in France, British GDP as calculated by the Office for National Statistics (ONS) is based on methodological assumptions. Additionally, data posterior to 2010 are not yet definitive and are thus subject to potential revisions. However, any underestimation of GDP could only, a priori, provide a very partial explanation of the British productivity puzzle because between 1993 and 2009, the average annual revision of GDP was just 0.6%.

Probable influence of the difficulty measuring banking sector value-added

In 2012 the banking sector represented roughly 8% of value-added in the United Kingdom and employed over 1.1 million people. In the national accounts the value-added of the banking sector is mainly recorded as a Financial Intermediation Service Indirectly Measured (FISIM). FISIM and the volume-price breakdown are calculated as follows:

\[
FISIM_t = \frac{M_t}{P_t} \left( I_t - I_{\text{riskless}} \right)_t
\]

with \( M_t \), the total amount of loans granted,
\( P_t \), the prices of GDP in \( t \),
\( I_t \), the average interest rate on loans granted,
\( I_{\text{riskless}} \), the riskless interest rate in the economy.

Hence the value-added of the financial sector in volume contributes very positively to real GDP growth during the formation of a property bubble and very negatively when it bursts (Oulton, 2013). Additionally, Haldane et al. (2010) observe that the use of an interest rate, which is not adjusted for lending-related risks, leads to a rise in real production as the risks taken by banks increase.

Lastly, a third cause of possible misalignment stems from the data. The British banking sector’s production is derived from the accounts of banks, which include capital transactions that should not feature in GDP. It appears that the data from the statistical collection by the Bank of England may have resulted in the erroneous inclusion of certain capital transactions in the production of the financial sector in the 2000s (Weale, 2009).

The non-inclusion of intangible investments may also explain part of the puzzle

Apart from patents and software, intangible investments are not currently included in corporate investment. These intangible investments have grown strongly since 2008 after a relatively sluggish period from the start of the 2000s, according to Goodridge et al. (2013). Their inclusion would thus diminish GDP prior to 2008 and increase it since that date: Goodridge argues that this non-inclusion would explain 5 of the 16-point loss in productivity against its long-term trend. This effect has not been highlighted for R&D: according to Eurostat, the R&D rate was extremely stable in the United Kingdom from 1996 to 2011, at around 1.8% of GDP.

Even though surveys have captured the productivity drop well

Despite these potential measurement errors, their real contribution as an explanation of the productivity puzzle is probably modest. The slump in productivity has been faithfully tracked by the business tendency surveys, which have been barely revised and which are built orthogonally with the National Accounts: the “employment” components of the surveys (CBI and Markit’s PMI, in both manufacturing and services) have been at exceptionally high levels relative to the “activity” components since 2008 (see Graphs 1 and 2).

Sources: Markit, ONS, INSEE calculations

Sources: CBI, ONS, INSEE calculations
Box 2 - Modelling employment in the United Kingdom

A simple model accounted for employment growth until mid-2009

Up until the crisis, the linear trend of productivity gains in the British economy meant that employment growth could be modelled simply with an error-correction model using only GDP, a trend and any lags in employment and activity (see Table 1). However, while the model correctly accounts for job destructions until mid-2009, it does not explain the recovery of employment since then (see Graph). In mid-2013, the gap between the simulated and observed figures reached 14.6%. Nonetheless, this model can be used to get a first estimate of the productivity cycle. The gap between the long-term target and the simulated figure thus gives an approximation of the contribution by the productivity cycle to recent growth in employment. In Q2 2013, this gap was about 3 points.

Around two-thirds of the productivity gap can be explained

Among the various explanations put forward in this report, some cannot be integrated into the model due to a lack of long-term data or clearly identifiable variables: this is notably the case of the bad allocation of capital argument. To capture the other arguments advanced, several explanatory variables have been added to the equation: real value-added in the mining and financial sectors, the labour force participation rate, the part-time work rate, and manufacturing capacity measured against industrial output and the capacity utilisation rate. Given the small number of observations, the Johansen test on the number of cointegration relationships is not conclusive. Ericsson and MacKinnon test statistics show the existence of at least one cointegration relationship (at the 1% threshold) but the level of the variable coefficients cannot be interpreted easily because the model potentially estimates a linear combination of several cointegration relationships (see Table 2). In all, this model estimated over the period 1990-2007 brings down the unexplained productivity gap in Q2 2013 to around 6.5% (see Graph).

Table 1

<table>
<thead>
<tr>
<th>Explained variable: quarterly change (qc) employment in %</th>
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<tbody>
<tr>
<td>Estimation period: 1990 Q1-2007 Q4</td>
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<tr>
<td></td>
</tr>
<tr>
<td>Constant</td>
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<tr>
<td>Trend (-1)</td>
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<tr>
<td>qc of GDP (in %)</td>
</tr>
<tr>
<td>qc of employment (-2) (in %)</td>
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</table>

Adjusted $R^2 = 0.70$  RMSE = 0.20 points

Source: INSEE calculations

Table 2

<table>
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<th>Threshold cointegration test value</th>
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<tr>
<td>Ericsson MacKinnon (2002) à 5%</td>
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<tr>
<td>-3.8</td>
</tr>
</tbody>
</table>

Sources: CBI, ONS, INSEE calculations
Low degree of smoothing through hours worked

Traditionally, part of the drop in productivity during a crisis phase stems from a fall in working time per capita: businesses prefer to reduce their employees’ working time (short-time work, reduced overtime) rather than laying off.

The share of part-time employees rose from 25.5% to around 27.0% of total employment between 2008 and 2012 (see Graph 4). However, the average number of hours worked per person has now returned to its pre-crisis level (approximately 32 hours a week) despite the growth in part-time jobs. Indeed the working time of both full-time and part-time workers has risen sharply since 2008.

Productivity per hour worked following a parallel trend to that of per capita productivity

Productivity per hour worked has therefore fallen back sharply since the 2008 crisis. Over the period from 1993 to 2007, productivity per hour worked increased at a rate of +2.6% per year on average (+2.4% for per capita productivity). Since the crisis, its growth rate has been virtually nil.

### Table 2

<table>
<thead>
<tr>
<th>Explained variable: quarterly change (qc) employment in %</th>
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<tr>
<td>Estimation period: 1990 Q1-2007 Q4</td>
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<td>qc of GDP (in %)</td>
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<tr>
<td>qc of Part-time rate (in point)</td>
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* Threshold cointegration test value
Ericsson MacKinnon (2002) à 5% : -4.6
Adjusted $R^2 = 0.79$ RMSE = 0.17 points

Source: INSEE calculations

4 - Share of part-time work and number of hours worked

![Graph](image-url)
In search of lost British productivity

Despite this, these part-time work contracts could lead to weaker productivity caused by the issues of unlearning, training needs, or lower motivation levels. So the growth in the number of these contracts might explain part of the drop in per capita productivity, not because of a quantitative drop in the number of hours worked but because the hourly productivity of part-time workers may be lower. But this effect - if it exists - is likely marginal: as the increase in the share of these part-time contracts has been only 1.5 points since the start of the crisis, even assuming a productivity reduced by half, it would only explain 0.9 points of the lower level of productivity.

Another explanation often cited is the sharp rise in self-employment in the United Kingdom since the crisis (see Dezeure and Sobaihi, 2012). It is true that the creation of self-employed jobs has been particularly dynamic, most notably from mid-2011 to mid-2012 (between June 2011 and June 2012 the British economy created 253,000 self-employed jobs, or 60% of jobs created over the period) with the government programme New Enterprise Allowance, the aim of which was to help unemployed people create their own job. However, while this factor may explain part of the fall in productivity over this period, it does not appear to account for the halt in productivity since 2008. The share of self-employment has risen regularly since 2000 (from 11.8% in 2000 to 13.0% in 2007 and 14.0% in 2013) but this did not result in a significant slowdown in productivity before 2007.1

A particularly marked slump in productivity in the extractive industry and the financial sector

In terms of sector, two distinct effects have taken their toll on total productivity: productivity in each individual sector and the reallocation of labour between sectors. In concrete terms a negative shock on productivity can be explained both by the drop in productivity within certain sectors and by a reallocation of labour towards activities with a low level of productivity.

The extractive industry boosted productivity up to 1999

The British extractive industry has suffered from dwindling oil reserves in the North Sea since the end of the 1990s. The quantities extracted have diminished but the labour force required at production units is incompressible and has even risen due to the increase in maintenance work. So productivity has fallen quite sharply since 1999. In non-manufacturing industry as a whole productivity gains reached a figure of 7.7% on average in the 1990s. From 1999 to 2007 these productivity gains disappeared (see Table 1). Since the crisis the rapid exhaustion of oil resources in the North Sea has led to a slump in productivity (-8.6% per year on average since 2009).

(1) Furthermore, as with part-time work, even assuming a productivity reduced by half among the self-employed, the rise from 13% to 14% of their share in employment would only explain 0.5 points of the overall drop in productivity.

(2) See ‘In the UK, black gold no longer flowing so freely’, Conjoncture in France, June 2012.
In search of lost British productivity

The financial sector took over until 2007

Value-added in the financial sector soared between 2000 and 2007 (+55% from Q1 2000 to Q4 2007), partly due to the property bubble (see Box 1) and partly linked with the sharp rise in exports of financial services: between 2000 and 2007 the share of financial services in British exports rose from 6.3% to 12.5%. The financial and property crisis brought a sharp drop in household and foreign demand: the sector’s value-added collapsed (-15% from Q4 2008 to Q2 2013). After recording productivity gains of 5.4% per year on average between 1999 and 2007, productivity in the sector has declined since the crisis.

The extractive industry no longer sustained British productivity after 1999 but new productivity gains were provided by the financial sector. This support was interrupted in 2008 and productivity in the extractive industry collapsed because of the exhaustion of resources. Productivity gains increased by around 0.4 points per year from 1990 to 2007 thanks to the successive dynamics of these two atypical sectors. Conversely, they have fallen by around 0.4 points per year since the crisis for the same reasons.

The decline in extractive and financial industries explained 4 points of the productivity puzzle

To conclude, the inclusion of the highly specific non-manufacturing and financial services sectors should explain approximately 4 negative points registered on the British productivity puzzle since the beginning of the crisis. But productivity has nonetheless fallen in the rest of the British economy - which was dynamic before the crisis, in particular in service sectors such as distribution or transport (see Graph 6).

5 - Sectoral contributions to annual productivity gains

![Graph showing sectoral contributions to annual productivity gains]

Sources: ONS, INSEE calculations

Table 1

<table>
<thead>
<tr>
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<td>-0.4</td>
<td>-0.4</td>
</tr>
</tbody>
</table>

Sources: ONS, INSEE calculations
In search of lost British productivity

Under-investment has contributed to weaker productivity

The British corporate investment rate has declined markedly since the early 2000s. Standing at roughly 12% of GDP in the 1990s, it slid continuously from 2000 to 2005, settling at 8.4% on average between 2005 and 2013 (see Graph 7). Between 2000 and 2007, this decline did not lead to a drop in the overall investment rate as the property market boom offset the slide in productive investment. However, the bursting of the property bubble in 2008 brought with it a 4-point drop in the overall investment rate (from 18% to 14% of GDP).

...especially in industry.

The fall has been sharpest in investment in capital goods, which has represented a mere 5.5% of GDP since 2009 against 8.6% on average in the 1990s. While it grew vigorously from the start of the 1980s, the manufacturing capacity of the British economy (calculated as the ratio between manufacturing output and the production capacity utilisation rate) has fallen back by around 10% since 2000 (see Graph 8).

... impacts to productivity about 3 points...

The scale of the loss of this under-investment in terms of capital stock can be valued at 12% of total corporate capital stock (see Box 3). In all, under-investment by British enterprises since 2000 thus explains 2.8 points of the productivity puzzle.

(3) This measure gives an imperfect estimate of manufacturing capacity because the measure of the production capacity utilisation rate is subject to uncertainties in surveys.

6 - Productivity in the services sector

Sources: ONS, INSEE calculations

7 - Investment rate in the United Kingdom

How to read it: average of the first half of 2013
Source: ONS
In search of lost British productivity

... this impact which should ease in the future

Lower investment explains both the productivity level shock and the slowdown in productivity gains. However, there are several indications that British enterprises, particularly industrial companies, have started to develop their production capacities once again. The CBI Investment Intentions Survey correctly tracks the under-investment of the 2000s, with a clearly negative response balance over this period (see Graph 9). But the balance has picked up sharply since 2010, suggesting that manufacturing capacity may grow once more.

Supply shock on the labour market and spectacular adjustment of wages

Following the 2008 crisis the labour force participation rate fell by about 0.7 points: "discouraged worker" effects are traditionally strong in the United Kingdom. However, the labour force participation rate has been on the rise once again since mid-2011, even though the unemployment rate has remained stable at around 8% (see Graph 10). This participation rate is therefore now at a particularly high level (77.7% of the working-age population in Q2 2013). However, this effect can only explain 0.8 points at most of the drop in productivity.

A supply shock on the labour market...

This labour supply shock is directly tied to changes in the legislation. The 2007 pension reform provides for a gradual rise in the full pension retirement age (from 60 in 2010 to 65 in 2020 for women). Additionally, in 2010 the government abolished the option for companies to enforce automatic retirement once their employees reached 65. These measures have led to an increase in the average retirement age (62 in 2000, 64 in 2013), and hence a rise in labour force participation among people aged over 60. Furthermore, the eligibility conditions for welfare income have been considerably tightened in terms of job-seeking obligations: the minimum child’s age at which single parents are required to seek a job was progressively reduced from 16 to 5 between 2008 and 2012. The labour force participation rate has risen significantly (+10 points for single parents of children aged between 7 and 11). Lastly, the 2012 Welfare Reform Act once again tightened the job-seeking conditions for the awarding of unemployment benefit.

... linked with changes in legislation

This labour supply shock is directly tied to changes in the legislation. The 2007 pension reform provides for a gradual rise in the full pension retirement age (from 60 in 2010 to 65 in 2020 for women). Additionally, in 2010 the government abolished the option for companies to enforce automatic retirement once their employees reached 65. These measures have led to an increase in the average retirement age (62 in 2000, 64 in 2013), and hence a rise in labour force participation among people aged over 60. Furthermore, the eligibility conditions for welfare income have been considerably tightened in terms of job-seeking obligations: the minimum child’s age at which single parents are required to seek a job was progressively reduced from 16 to 5 between 2008 and 2012. The labour force participation rate has risen significantly (+10 points for single parents of children aged between 7 and 11). Lastly, the 2012 Welfare Reform Act once again tightened the job-seeking conditions for the awarding of unemployment benefit.

(4) The labour force participation rate rose from about 76.5% in Q1 2010 to 77.7% in Q2 2013, while the unemployment rate was stable between these two periods. Assuming that new entrants are half as productive as the others and normalising to one the productivity prior to the labour supply shock, productivity falls from 1 to 77.1/77.7, a drop of 0.8 point.

---

**Table**

<table>
<thead>
<tr>
<th>Manufacturing capacity (manufacturing output/capacity utilisation rate)</th>
</tr>
</thead>
<tbody>
<tr>
<td>80</td>
</tr>
<tr>
<td>70</td>
</tr>
</tbody>
</table>

*Sources: ONS, CBI*

**Graph**

**9 - Survey of investment intentions in the industry**

*Source: CBI*
In search of lost British productivity

Massive adjustment on real wages

The inertia of productivity has not led to a drop in the corporate margin rate, which is now close to that of 2007. The real wages of British employees have fallen by almost 7% in five years: the adjustment of the labour market to the productivity puzzle has been extremely swift and radical. This situation is very different to that observed in France, Germany and the United States, where real wages have actually progressed over the same period (between +2.4% and 5.0%, see Graph 11).

Box 3 - Calculations of the productivity loss linked to labour supply and to capital stock

If the economy is represented by means of a Cobb-Douglas production function:

\[ \text{VA} = K^\alpha L^{1-\alpha} \]

with \( \alpha \) representing the share of capital remuneration in GDP, that is, roughly 1/3.

Then the apparent labour productivity is written:

\[ \text{PDT} = \frac{\text{VA}}{L} = \left( \frac{K}{L} \right)^\alpha \]

And the rate of variation in productivity is:

\[ \frac{\Delta \text{PDT}}{\Delta t} = \frac{1}{3} \frac{\Delta K}{K} - \frac{1}{3} \frac{\Delta L}{L} \]

For capital stock, we restrict ourselves to the analysis of only the value-added of enterprises, which represents 2/3 of GDP in 2012. The ONS provides series of capital stocks and value-added for companies since 1990. The trend differential with capital stock is defined as:

\[ k_{t}^{\text{trend}} - k_{t}^{\text{observed}} = \sum_{t=1}^{T-1} \left( s_{t} - \bar{s} \right) \left( 1 - \left( 1 - t \right) \delta \right) \frac{\Delta \text{VA}_t}{\text{VA}_t} \]

where

\[ s_t = \frac{\text{INVEST}_t}{\text{VA}_t} \]

represents the investment rate in year \( t \),

\( \bar{s} \) represents the mean investment rate between 1990 and 2005 and \( \delta \) the derating factor evaluated at 5%.

Underinvestment since the early 2000s would thus lead to a loss in the order of 12.4% on the capital stock of enterprises. The contribution of this factor to the drop in productivity would be -2.8 points:

\[ \frac{\Delta \text{PDT}}{\Delta t} = \frac{1}{3} \frac{2}{3} \left( -12.4 \right) = -2.8 \text{ points} \]

(1) The results are not very sensitive to this parameter. With a rate of 10% instead of 5%, the contribution of underinvestment to the productivity puzzle falls from exactly -2.8 points to -2.1 points.
In search of lost British productivity

...both cause and consequence of the productivity puzzle

This reduction would be partially understandable, on one hand by the weakening of the employees’ bargaining power in line with activity rate increase, and on the other hand by the underinvestment which decreased the capital per employee. The effect of wages on employment is difficult to determine because the causality is twofold: while a drop in the cost of labour naturally favours employment, any fall in productivity - due to a technology shock, for example - ultimately results in lower wages. As regards the underinvestment, this one being clearly previous to the backward movement of salaries, the causality direction seems nevertheless strong. In models integrating a productivity-wages-employment loop, an exogenous drop in wages of 1% results in a rise in employment of roughly 0.5%. This is the case with France in the Mésange model and with The United Kingdom in the Nigem global model. In the United Kingdom the average wage per head as a ratio of the price of GDP has decline by approximately 14% from its pre-crisis trend, which is a maximum theoretical contribution in the order of 7 points.

Bad reallocation of capital

British productivity appears to have been temporarily weakened by a bad allocation of capital since the recession, according to Broadbent (2012, 2013). The difficulties encountered by British banks may have led to an unwillingness to finance company start-ups while, conversely, certain low-productivity companies have continued to receive financing. The financial system would appear not to have perceived credit risk correctly. A first indication of this error of assessment is the relatively weak rates of company creation and failure since the crisis (see Graph 12).

Additionally, the dispersion of output rates between sectors has increased since the crisis, according to Broadbent (2012, 2013). With perfect capital mobility, these rates should only reveal credit risks because the capital would tend to be rapidly reallocated to the high-output sectors. In other words, the dispersion of output rates indicates that capital is not being reallocated properly. However, as the aggregate-level (15 sectors) output rates used by Broadbent (2012, 2013) are highly dispersed, the author calculates the dispersion of standardised output rates. The ability to evidence the rise in dispersion depends very strongly on the reference period in which the author considers that capital is allocated correctly (2000-2007). In particular, the increase in dispersion cannot be evidenced

(5) On a gross basis, two sectors have continuously presented negative returns on capital for the last 15 years.

11 - International comparison of real wages

Source: National Statistical Institutes, INSEE calculations
In search of lost British productivity

directly with non-standard data. However, the details show a rise in the output rates in manufacturing and a fall in the construction and property sectors, a sign that capital has not been successfully reallocated from the latter to the former.

At macroeconomic level, according to the ONS (Field and Franklin, 2013) the dispersion of labour productivity also increased sharply between firms within the same sector between 2006 and 2010. According to the Bank of England (see Broadbent, 2013), the overall loss of productivity due to this incorrect allocation of capital is evaluated at 3 to 4 points. This effect is largely temporary: once the usual financing channels have been restored, reallocations should resume and the loss caused by the bad reallocation should gradually disappear, and hence productivity should increase faster than its potential for a few periods. Hysteresis effects are nonetheless likely to emerge if the reallocations are slow to come, as the business start-ups currently put on hold will ultimately never take place.

**Conclusion: the puzzle has mainly been a loss in level**

The British economy had enjoyed regular, stable growth in productivity since the Second World War, but this collapsed in 2008 and has not recovered since; it is now approximately 16% below its pre-crisis trend. Although the effects are not absolutely summable, the various explanations cited in the literature and examined here account for between half and three-quarters of the shock (see Table 2). Alternatively, the effects of the productivity cycle variables - under-investment, labour supply shock, and specifics of the financial and oil sectors - have been identified in an employment equation estimated over the period 1990-2007. Together they explain roughly 2/3 of the British productivity puzzle between 2008 and 2013.

The nature of the shocks points to a sense that British productivity should enjoy restored dynamism in the coming years: with an improvement in activity, the decline ascribable to the productivity cycle (3 points) should narrow and even be reversed in the medium term as the economic recovery gathers pace. Additionally, under-investment for innovative firms and the rise in the labour force participation rate are unlikely to continue indefinitely, while investment is showing signs of picking up again in industry, thus enabling the return of productivity gains even though the loss in level is unlikely to be offset. Overall, only the specific features of the support from the oil and financial sectors have led to both a 4-point fall in level and a slowdown in productivity gains in the order of 0.4% per year.■

**12 - Creation rate and bankruptcy**

![Graph](source: ONS)
In search of lost British productivity

Table 2

<table>
<thead>
<tr>
<th>Results synthesis</th>
<th>Partial estimates (not summable)</th>
<th>Econometric estimation on one step</th>
<th>Bibliographic references</th>
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</thead>
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<td>Productivity cycle</td>
<td>≈ 3 points</td>
<td></td>
<td>(Disney et al., 2013)</td>
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<tr>
<td>End of support and financial sectors of the extractive industry</td>
<td>≈ 4 points</td>
<td>≈ 7.5 points</td>
<td>3 points (FMI, 2013)</td>
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<tr>
<td>Adjustment of real wages per capita</td>
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<td></td>
<td>4.5 points (Daly et al., 2013)</td>
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<tr>
<td>including under-investment</td>
<td>≈ 3 points</td>
<td></td>
<td></td>
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<tr>
<td>including increase in part-time</td>
<td>&lt; 1 point</td>
<td></td>
<td>(Disney et al., 2013)</td>
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<td>including increase the activity rate</td>
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<tr>
<td>Increase self-employed</td>
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<td>between 0.2 and 0.5 points (Disney et al., 2013)</td>
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<tr>
<td>Bad allocation of capital and underfunding</td>
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<td>between 3 and 4 points (Broadbent, 2013)</td>
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<tr>
<td>Measurement errors</td>
<td>Excluding financial services marginal</td>
<td></td>
<td>5 points (Goodridge et al., 2013)</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>4 points (Daly, 2012)</td>
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FMI, 2013, “The productivity Puzzle in the UK”, Article 4, United Kingdom.


French developments
In Q3 2013 activity slipped back slightly, by 0.1%, whereas we had forecast a stabilisation in our Conjoncture in France of October 2013. The contribution of final domestic demand excluding inventory to GDP growth is nil in Q3, against +0.1 points forecast.

The contribution of foreign trade fell back sharply (-0.7 points against -0.1 points forecast). This development should be set against the positive contribution of inventory in Q3 (+0.5 points against 0.0 points forecast). Transport equipment added 0.3 GDP points to this contribution by inventory, largely offsetting the negative contribution of the balance of trade in these goods (-0.4 points).

Despite weaker activity than forecast, job losses were lower than expected in Q3 (-16,000 jobs against -24,000 forecast). For Q4, our forecast remains virtually unchanged: GDP should grow by 0.4% and the fall in market-sector employment is likely to ease further.

Activity slipped back in Q3, whereas we had forecast stability

After strong growth in Q2 (+0.5%), activity fell back slightly in Q3 (-0.1%) whereas in the October Conjoncture in France we had expected it to remain stable (see Graph 1). Firstly, manufacturing output was surprisingly weak in August after a sharp drop in July. It thus fell back sharply over Q3 as a whole (-1.0%) whereas we had forecast a more moderate drop (-0.4%). While all the main manufacturing branches grew in Q2, they all declined in Q3 apart from the "transport equipment" branch which remained stable after taking off in Q2. The coking/refining branch fell back sharply (-8.8%).

The fall in manufacturing output made a contribution via a drop in corporate demand to the decline in activity in market services (-0.1% against +0.2% forecast). As expected, energy production declined in Q3 2013 (-1.5% against -0.8% forecast) due to a return to normal after two quarters in which temperatures had been lower than the seasonal norms. In construction, activity slipped back further than forecast (-0.5% against -0.1% expected). Lastly, production in the non-market branch slowed as forecast, in reaction to the previous quarter in which healthcare had been dynamic.

Slump in manufacturing exports

In Q3 2013 final domestic demand excluding inventory was slightly weaker than expected: its contribution to growth in activity was nil, against +0.1 points forecast in October. This differential can mainly be ascribed to investment, down 0.6% against 0.2% forecast. While investment in manufactured goods rebounded (+0.9% after falling for 6 quarters), corporate investment in services fell back sharply (-2.8%) whereas we had expected it to rise. Additionally, investment in construction declined slightly more than forecast.

As forecast in October, imports were dynamic in Q3 (+1.0% against +0.7% forecast). On the other hand, exports fell back by 1.5%, whereas we
expected an increase of 0.6%. Exports of transport equipment in particular declined sharply (-5.7%) due to the slump in exports of aeronautical equipment. All in all, the contribution of foreign trade to growth was -0.7 points, against -0.1 points forecast. This contribution can be linked with that of inventory change, which contributed +0.5 points to growth in activity, against 0.0 forecast. Although activity was surprisingly weak, job losses in the non-agricultural market branches were lower than expected, with -16,000 jobs against -24,000 forecast in October.

**Our growth forecast for Q4 2013 is unchanged**

Our growth forecast for Q4 2013 is maintained at +0.4%. In November the business climate as measured by the business tendency surveys was more or less at the same level as in September. On the supply side, our output forecasts for manufacturing, energy and market services excluding trade are thus virtually unchanged. In construction, we have however revised our activity forecast downwards (0.0% against +0.3% forecast), linked with the decline in housing starts in recent months. Growth in domestic demand excluding inventory is unchanged.

Foreign trade should make a positive contribution to growth in Q4 (+0.3 points) due to the strong recovery anticipated in exports (+2.3% against +0.9% forecast in October) in reaction to the one-off fall in Q3, most notably in the aeronautical industry. In the same way as in Q3 2013, inventory change should partly offset export trends, particularly in the transport equipment branch. The contribution of inventory change in Q4 should be -0.2 points, against +0.1 forecast in October. Non-agricultural market-sector employment should remain in line with our October scenario: 7,000 job losses in Q4, as expected.

Lastly, inflation at end 2013 should be lower than forecast in the October Conjoncture in France (+0.8% against +1.1% expected), with the differential concentrated in the prices of fuel and seasonal products.
French developments

Output

Production of goods and services fell in Q3 2013 (-0.3%) after rebounding in Q2 (+0.9%). The drop in GDP was slightly less pronounced (-0.1% after +0.5%). Activity in manufacturing industry fell back (-1.0% after +0.5% and +2.0% in the first two quarters of 2013). Production in market-sector services stagnated (-0.1% after +0.7%) and activity in construction continued to slip back (-0.5% after -0.7% and -0.6% in Q1 and Q2 2013).

In November, the improvement in the business climate observed since the end of the summer 2013 marked a pause. Production should show an upturn in Q4 (+0.5%, see Graph 2) and then slow down in H1 2014 (+0.2% then +0.3% in Q1 and Q2 2014), due to slow demand.

The production growth overhang for 2014 is set to be +0.9% after H1 (+0.7% for GDP), after a rise of 0.6% in 2013 (+0.2% for GDP).

**Manufacturing production should rebound in Q4 2013**

Manufacturing production fell back in Q3 2013 (-1.0%), after rebounding sharply in Q2 (+2.0%). All the main branches in manufacturing industry contributed to this fall, except for the transport equipment branch which was almost stable (+0.4% after +8.1%). The fall was particularly pronounced in coking and refining (-8.8%), after two very dynamic quarters. In the agrifood industries, capital goods and the other industrial branches, the fall was homogenous (-0.6%).

Industrialists surveyed in November 2013 (see Graph 3) report a marked improvement in their past activity, suggesting an upturn in manufacturing production in Q4 2013 (+0.8%). However, general and personal prospects for production deteriorated slightly again and industrialists’ opinions of order book levels remain poor, indicating that this upturn should ease considerably (+0.2% in Q1 and Q2 2014).

1 - Composite indicators in France: all sectors, in industry, services and building

*Last point: November 2013*

Source: INSEE
Manufacturing industry should progress by 0.5% in 2013 and the annual growth overhang for 2014 should stand at +1.0% at the end of H1.

In construction, activity should level out at the end of 2013 before falling back in early 2014.

In Q3 2013, production in the construction sector continued to worsen (-0.5%, after -0.6% in Q2 2013), due to a downturn in activity in new building. Public works activity improved, however.

Production in the construction sector should be stable in Q4 2013 (0.0%). Starts rebounded at the beginning of the year and some building maintenance expenditure is likely to be brought forward before VAT increases on 1st January. Opinions on expected activity among entrepreneurs in the building sector have been improving slightly since September 2013, in particular in home maintenance (see Graph 4). The building permit trend has been declining since the beginning of the year and the number of building starts fell in Q3, suggesting a likely fall in production in H1 2014 (-0.3% then -0.5% in Q1 and Q2).

Over 2013 as a whole, construction-sector production should fall by 2.3%. In mid-2014, its growth overhang should be -1.0%.

Market services excluding trade: activity set to rebound in Q4 2013

Production of market services excluding trade dipped in Q3 (-0.1%), after rebounding in Q2 (+0.7%). This fall in activity particularly concerned services to business (-0.5% after +1.4%), hit by the fall in manufacturing activity, and information-communication (-0.4% after +0.7%) driven by the fall in investment in services. Activity slowed down in financial services (+0.4% after +0.9%) and in accommodation-catering (0.0% after +0.7%). Real-estate services progressed at a rate close to that in the previous quarter (+0.2% after +0.3%).

2 - Sector contributions to growth in total production

Source: INSEE

3 - Opinion on production in manufacturing industry

Last point: November 2013

Source: INSEE
In Q4 2013, activity is set to show an upturn in market services excluding trade (+0.5% after -0.1%), driven by rises in investment in services (+1.0% after -2.9%) and in manufacturing production (+0.8% after -1.0%). Service-sector business chiefs surveyed in November thus report an improvement in the outlook. The compound business climate indicator gained three points in November, at 96 (up 13 points on May), although it remains below its long-term average (100).

Activity should continue to progress through H1 2014 (+0.3% in Q1 and +0.4% in Q2), although at a slower rate due to sluggish household consumption.

Over 2013 as a whole, production of market services excluding trade should grow by 1.0%, after a rise of 0.4% in 2012. At the end of Q2 2014, the growth overhang should be +1.1%.

**Mainly non-market services: progression in activity should remain moderate**

In mainly non-market services, production slowed down in Q3 2013 (+0.2%) as a backlash after the previous quarter (+0.7%) when demand for care was particularly dynamic. Growth should remain moderate in Q4 2013 and H1 2014 (+0.3% in Q4 2013 then +0.2% and +0.3% in Q1 and Q2 2014).

Production in this sector should increase by 1.5% in 2013, after a rise of 1.2% in 2012. At the end of Q2 2014, the growth overhang should be +0.9%.

**After a very dynamic Q4, commercial activity should increase slightly in early 2014.**

Commercial activity was stable in Q3 2013 (0.0% after +0.4% in Q2). It should show a clear upturn in Q4 2013 (+0.8%), driven by household consumption.

In wholesale trade, the compound business climate indicator continued to rise in November. Balances of opinion on past sales and exports were on a more positive trend than in September. Balances on overall order intentions remained at levels close to their average, while that on orders for delivery abroad showed a clear upturn.

In retail trade and automobile trade and repairs, business chiefs declare themselves to be less and less pessimistic as regards their past activity or their forecasts: the general trend in balances of opinion has been rising since H1 2013 and in November they were close to their long-term averages. The improvement in the short-term climate is visible not only in the retail trade, but also in the automobile trade, due to the expected growth in household consumption of manufactured goods in Q4 (+0.5%).

Commercial activity is set to slow down sharply in H1 2014 (+0.1% in Q1 2014 and +0.2% in Q2 2014), notably on account of sluggish consumption of manufactured goods.

All in all, the growth overhang in production in trade at the end of H1 2014 is set to stand at +1.0% after growth of +0.1% recorded in 2013.

**Energy production set to be almost stable in Q4 2013**

Energy production fell in Q3 2013 (-1.5%), due to a return to normal seasonal temperatures after a particularly cold H1. Energy production should fall in Q4 2013 (-0.3%), with the upturn in industrial activity being offset by more clement temperatures in October. If weather conditions are in line with seasonal norms, energy production should increase in H1 2014 (+1.0% then +0.7% in Q1 and Q2). In mid-2014, the growth overhang in energy production should stand at +1.1% after a rise of 1.8% recorded in 2013.
In Q3 2013, activity remained dynamic in the advanced economies (+0.5% after +0.6%), a little more than expected in October’s Conjoncture in France. In emerging economies, activity saw some impetus restored.

In the advanced economies, the outlook surveys which picked up clearly over the summer remain at a high level in November and activity here should remain dynamic through to early 2014 (+0.4%, +0.5% then +0.3%). The changing quarterly profile can probably be put down to the increase in VAT in Japan in April.

Divergences remain between the emerging economies: activity should progress again in China, driven by the rise in credit, and in the CEECs, buoyed by the European upturn. In the other emerging economies, meanwhile, central banks have tightened their monetary policies and activity should continue at a slowed rate. The growth in world trade should thus be buoyant (+1.5% per quarter), although slightly below its pre-crisis average.

An exit announced from quantitative easing

The central banks of the advanced economies have reduced room for manoeuvre, as their base rates have been at their lowest since 2009. They have been making use of unconventional instruments for several years: in the United States, the Fed is buying $85 billion in securities each month and in Japan, the aim of the central bank is to double the money base in the space of two years. However, the Fed is expected to slow down the rate of its purchases, probably in H1 2014. This prospect has already triggered a rise in interest rates in the United States this summer and a sharp fall in the emerging currencies, in particular in those countries with large current account deficits. Faced with this slide, the central banks of these countries have tightened their monetary policies against a backdrop of inflationary tensions.

Fiscal consolidation should ease on both sides of the Atlantic

In the United States, fiscal policy was very restrictive in 2013: tax rises since January, sequesters since March and the shutdown of all Federal services for 16 days in October. However, subject to an agreement being found between Congress and the President at the start of the year, fiscal policy should be distinctly less restrictive in 2014. In the Eurozone, fiscal policy has been making a very negative contribution to activity since 2011, but new measures for 2014 are more limited in scale than in 2013. However, after buoying up activity strongly over the past year, fiscal policy should take a more restrictive turn in Japan: fiscal stimulus plans are likely to become less intense and the VAT rate is set to rise by 3 points in April 2014.

1 - Inflation set to continue falling in the advanced economies

![Inflation chart](chart.png)

Source: National Statistical Institutes, INSEE calculations and forecasts
Inflation should remain low in the advanced economies

Since the end of 2011, inflation has eased thanks to the downturn in commodity prices. In Q3 2013, the rise in consumer prices in the advanced countries stood at +1.4% year on year. The stabilisation in the oil price at around $110 should contribute, in the light of the falls in H1 2013, to an upturn in year-on-year inflation, as should the rise in VAT in Japan in Q2. Inflation should thus stand at +1.6% year on year in Q2 2014 (see Graph 1).

The rise in industrial and energy commodities in 2010 worked through into core inflation in 2011 after a time-lag, but since the beginning of 2012, core inflation has been falling back as commodity prices have stopped increasing and the still-high level of unemployment weighs down on the bargaining power of employees. The core index stood at +1.2% in Q3 2013 and should remain at this level over the forecasting period, excluding the effect of the rise in VAT in Japan.

Differences between the emerging economies

The business climate deteriorated considerably from January through to July in the emerging economies (see Graph 2) and activity progressed modestly in H1 2013. Since August, the surveys have been improving slightly and activity accelerated in Q3 in the CEEC and China, although it remained at a slower rate in emerging Asia and Latin America. Through to mid-2014, these divergences should continue. The continuing rise in outstanding credit should boost the Chinese property sector and Chinese growth in the short term, against a backdrop of strong housing price rises. Eastern Europe and, to a lesser extent, Turkey, should benefit from the improvement in demand from Europe. Conversely, in Brazil and throughout emerging Asia, tighter monetary policies coupled with sharp falls in currencies are likely to weigh heavily on debtors who have extensive debts in dollars, and growth there is likely to be modest.

The upturn confirmed in the advanced economies

In Q3 2013, activity remained sound in the advanced economies (+0.5%), as in the previous quarter. The global outlook improved clearly this summer and remains at a high level in November: in services as in industry, it has returned to its early-2011 levels (see Graph 2). Activity should remain dynamic through to the start of 2014, driven in particular by household consumption (+0.4% in Q4 then +0.5% in Q1 2014). Under the effect of the rise in VAT in Japan, it should slow down in Q2 2014 (+0.3%).

The Eurozone returns to growth

This overall situation does hide some differing situations in terms of outlook. In the Eurozone, easing fiscal consolidation, improved expectations and the need to renew production capacities, after the marked adjustment in investment, should allow moderate growth, despite a labour market that remains weak. In the UK, the upturn should remain particularly strong: investment in consumption should show a marked rise, thanks notably to the upturn in the property market. In the United States, household consumption and corporate investment should continue to buoy up activity, but the past rise in interest rates is likely to trigger a slowdown in the property market and public-sector consumption should contract in Q4 under the effect of the shutdown. The Japanese economy is likely to be boosted for six months as people bring purchases

2 - The economic climate remains generally well oriented in advanced economies

Last point: November 2013

Sources: Markit, Institute for Supply Management

December 2013
forward, before contracting in Q2 in the wake of the rise in VAT on 1\textsuperscript{st} April 2014.

**Acceleration in world demand for French goods and services**

In Q3 2013, world trade accelerated (+1.1%). Imports of goods in the emerging economies progressed by 1.6% and those in advanced economies by 0.9% (see table).

For the world economy as a whole, the new export orders component in the PMI surveys has risen significantly since its low point in July 2012 and stood at 52.8 in November, its highest since early 2011 (see Graph 3). World trade should therefore accelerate over the forecasting period (+1.5% per quarter).

The acceleration in the imports of advanced countries, notably in Europe, allowed a clear upturn in world demand for French goods and services from Q2 2013. The latter should continue to progress at a rate close to that in world trade through to mid-2014 (+1.3%, then +1.3% and +1.4%).

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### International scenario summary

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<tr>
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</table>

**Reading note:** imports, exports and world trade data concern only goods.

*Sources: National statistical institutes, Centraal PlanBureau, International Monetary Fund, INSEE forecast*
French developments

Through to mid-2014, world demand for French products should be fairly dynamic (+1.3%, then +1.3% and +1.4%) after the slowdown of Q3 (+1.1%). However, the past appreciation of the euro (almost 10% in effective terms since summer 2012) is likely to take its toll on competitiveness, and although trend drops in market share have slowed since 2008, they should persist. After the expected return to normal of aeronautical exports in Q4, exports should grow moderately in H1 2014, by +0.7% per quarter.

Under the effect of the rebound in final demand, French imports should grow by +1.1% in Q4, then +0.7% per quarter in H1.

All in all, the contribution of foreign trade to growth should be positive in Q4 (+0.3 points), balanced by an equivalent destocking trend, then neutral over the forecasting period.

Exports set to rebound in Q4 2013

In Q3 2013 French exports of goods and services shrank (-1.5% after +1.9%, see Table). This decline is mainly ascribable to the slowdown in world demand for French products on the one hand (+1.1% after +1.6%, see Graph 1), and to the one-off slump in exports of aeronautical equipment on the other, counterbalanced by a trend to build up stocks equivalent to 1.1 points of exports.

Sales of transport equipment dropped sharply in Q4 (-5.7% after +4.2%). As exports of other products (coking and refining, capital goods and agrifood products) also contracted, exports of manufactured goods declined sharply in Q3 (-1.9% after +2.8%). Additionally, exports of services stagnated after rising for two quarters (+0.9% per quarter).

Conversely, exports of energy-water-waste picked up (+9.1% after +7.2%), and sales of agricultural products declined far less sharply than in the previous quarter (-1.5% after -8.3%).

In Q4 2013, world trade is likely to pick up somewhat (see Graph 2), as much thanks to the advanced economies, notably the Eurozone, as to the emerging economies. Due to the geographical distribution of French exports, it should be the advanced countries that do the most to sustain world demand for French products (see Graph 1).

Furthermore, total exports should progress far more swiftly (+2.3%) than world demand for French products due to the return to normal of aeronautical exports.

In H1 2014, exports likely to experience moderate growth

At the start of 2014, exports should grow by 0.7% per quarter, i.e. more slowly than the rise in foreign demand. The appreciation of the euro (almost 10% since mid-2012) is likely to penalise exports once again, and the trend drop in market share, which has nonetheless eased since 2008, should persist.

### Foreign trade growth forecast

<table>
<thead>
<tr>
<th></th>
<th>Quarterly changes</th>
<th>Annual changes</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2013</td>
<td>2014</td>
</tr>
<tr>
<td><strong>Exports</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All goods and</td>
<td>-0.4</td>
<td>1.9</td>
</tr>
<tr>
<td>services</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manufactured</td>
<td>-0.6</td>
<td>2.8</td>
</tr>
<tr>
<td>products (75%)</td>
<td></td>
<td></td>
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<tr>
<td><strong>Imports</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All goods and</td>
<td>0.1</td>
<td>1.6</td>
</tr>
<tr>
<td>services</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manufactured</td>
<td>0.0</td>
<td>1.6</td>
</tr>
<tr>
<td>products (77%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Contribution of foreign trade to GDP</strong></td>
<td>-0.1</td>
<td>0.0</td>
</tr>
</tbody>
</table>

**Forecast**

Reading note: part of exports (resp. imports) of non-energy industrial goods in exports (resp. imports) in a whole in 2012.

Source: INSEE
French developments

Exports are thus likely to grow only moderately, in both manufactured goods (+0.9% per quarter) and services (+0.3% then +0.8%).

As an average over 2013, exports should grow by 0.6% after +2.5% in 2012. The growth overhang for 2014 should be +2.7% at the end of H1. France’s market share should fall slightly in early 2014 after the ups and downs of H2 2013 (see Graph 3), in line with its downward trend, although this has slowed since the crisis (see the report in Conjoncture in France, June 2013, “How to explain the recent shift in balance-of-trade trends in Europe?”).

Imports set to slow in H1 2014

In Q3 2013, imports of goods and services slowed slightly (+1.0% after +1.6%). Purchases of manufactured goods held firm (+1.6% in the last two quarters). They slowed for capital goods, agrifood products and “other industrial goods”. However, the relatively good showing by imports stems from the acceleration in purchases of transport equipment and the recovery of coking/refining purchases. Raw energy purchases contracted slightly (-2.9% after +1.1%), while purchases of agricultural products picked up (+6.8% after +4.9%).

In Q4 2013 according to the business tendency surveys, imports should remain dynamic (+1.1%), due to the rebound in final demand.

Through to mid-2014, imports are likely to slow (+0.7% per quarter) in line with the profile of final demand (see Graph 4).

On average over 2013, imports are only likely to grow by 1.2% after -0.9% in 2012. The 2014 growth overhang for imports at the end of H1 should stand at +2.9%.

All in all, the contribution of foreign trade to growth should be positive in Q4 2013, counterbalanced by an equivalent destocking trend, but negative over 2013 as a whole (-0.2 points). It should be neutral in H1 2014.

1 - World demand for French products and contributions of the main partners

2 - World demand for French products and world trade
3 - Market share of France

Source: INSEE, Trésor

4 - Equation of imports (goods and services) and econometric contributions

Source: INSEE
Employment in the market sectors continued to fall in Q3 2013 (-16,000 jobs), particularly in the industrial sector. Over the forecasting period, an upturn in activity and the effects of the CICE, Tax Credit for Encouraging Competitiveness and Jobs, should allow employment in the market sectors to stabilise (-4,000 jobs in Q1 2014).

For 2013 as a whole, the decrease in employment levels in the non-agricultural market sectors (-87,000 jobs) should prove to be substantially smaller than that seen in 2012 (-112,000). This decrease is likely to be concentrated largely on the industrial sector (-54,000 jobs) and in construction (-23,000 jobs).

In the non-market sectors, employment should continue to rise in H1 2014, particularly due to the increase in the number of subsidised jobs. After an increase of 20,000 jobs in 2012, employment in the non-market sectors should increase by 80,000 in 2013 and 33,000 in H1 2014.

All in all, 14,000 new jobs should be created across the whole economy in 2013 (after a decrease of 58,000 in 2012) and 36,000 in H1 2014.

Number of market sector employees likely to stabilise in this forecasting period

In 2012, employment in the market sectors declined sharply (by 112,000 jobs), after rising in 2011. The evolution of employment levels over the year followed a dramatic curve: total payroll headcount dropped slightly in H1 2012 (-12,000 people) then severely in H2 (-100,000). In 2013, these job losses seemed to slow down (-80,000 total over the first three quarters).

This conformed relatively closely to the indications provided by the usual determinants of employment (see Graph 1). The slowdown in activity since early 2011, accentuated in 2012, was thus gradually reflected in the employment figures. Conversely, the improvement seen in the employment figures since the start of 2013 can be attributed to an upturn in activity.

Between now and 2014 the continuation of this upturn in activity, coupled with the effects of the CICE (see "Employment" Focus), should allow for a virtual stabilisation of employment in the market sectors: 7,000 jobs should be lost in Q4 2013 and 4,000 in H1 2014 (see Graph 2).

1- Employment observed in the non-agricultural market sector, simulated and residual employment

How to read it: The equation residual for employment is the spread between the observed employment growth rate and the simulated employment growth rate. A positive residual, such as that observed at the beginning of 2012, indicates that observed employment showed better growth than past behaviour would lead us to expect.

Source: INSEE

Conjoncture in France
### French developments

#### Table 1

**Change in employment**

<table>
<thead>
<tr>
<th>Job creations over the period</th>
<th>Change in employment over the period</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q1</td>
<td>Q2</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>-28</td>
<td>-33</td>
</tr>
<tr>
<td>-1</td>
<td>5</td>
</tr>
<tr>
<td>-27</td>
<td>-38</td>
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<td>-12</td>
<td>-19</td>
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<tr>
<td>-12</td>
<td>-19</td>
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<tr>
<td>-9</td>
<td>-4</td>
</tr>
<tr>
<td>-6</td>
<td>-15</td>
</tr>
<tr>
<td>0</td>
<td>-1</td>
</tr>
<tr>
<td>-27</td>
<td>-38</td>
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<tr>
<td>-6</td>
<td>-14</td>
</tr>
<tr>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>-27</td>
<td>-16</td>
</tr>
</tbody>
</table>

* level at the end of 2012 (in thousands)

**How to read it:** 8,000 jobs should be created in the market sector during H1 2014. This corresponds to a decrease of 0.0% over the half-year. This sector should employ 17,924,000 workers at December 31st 2013.

**Source:** INSEE

#### Table 2

**Change in subsidised employment in the non-market sector**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Q1</strong></td>
<td><strong>Q2</strong></td>
<td><strong>Q3</strong></td>
<td><strong>Q4</strong></td>
<td><strong>Q1</strong></td>
<td><strong>Q2</strong></td>
<td><strong>Q3</strong></td>
<td><strong>Q4</strong></td>
</tr>
<tr>
<td>&quot;Emplois d’Avenir&quot;</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>8</td>
<td>13</td>
<td>19</td>
</tr>
<tr>
<td>CUI-CAE (replaces CAE+CAV on 01/01/10)</td>
<td>18</td>
<td>7</td>
<td>-23</td>
<td>-4</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Contract to Support Employment (CAE)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<tr>
<td>Contract for the Future (CAV)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>18</td>
<td>7</td>
<td>-23</td>
<td>-3</td>
<td>8</td>
<td>13</td>
<td>19</td>
</tr>
</tbody>
</table>

* Forecast

**Reading note:** including renewal addenda

**Scope:** Metropolitan France

**Sources:** DARES, INSEE calculations
**French developments**

**Temporary employment should increase slightly, along with tertiary sector employment excluding temporary work**

In the employment statistics, temporary work is included in the figures for the tertiary sector, regardless of the sector in which the work is actually performed. For all sectors, the rate of temporary work has been on the up since Q1 2013 (see Graph 3). It should continue to rise over the forecasting period: temporary employment should thus add 8,000 jobs in H1 2014.

Employment in the market tertiary sector, excluding temporary work, was down in H1 2013 (-27,000 jobs). It should grow slightly in H2 2013 (+4,000 jobs), thus benefiting from the moderate resurgence in economic activity in H1 2014 (+15,000 jobs).

All in all, employment in the tertiary sector, including temporary work, should grow slightly in H2 2013 (+11,000 jobs), then more substantially in H1 2014 (+23,000 jobs).

**Employment in the industrial sector expected to continue its decline in 2013**

Since mid-2012, job losses in the industrial sector have been gradually intensifying. These losses should continue over the current forecasting period, albeit at a slower rate. Industrial employment (excluding temporary work) should shed 9,000 jobs in Q4 2013 (the sector has been losing an average of 13,000 jobs per quarter since mid-2012) then 19,000 in H1 2014 (see Graph 4).

All in all, industrial employment (including the adjustment for temporary work in this sector) should decrease by 20,000 jobs in H2 2013, then 16,000 in H1 2014. This decrease should be broadly comparable to the general trend observed since the turn of the millennium, despite a short-term outlook which is bleaker now than it was in the middle of the previous decade. This would appear to indicate a certain resilience in manufacturing employment, observed since 2009.

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**2- Employment change in non-agricultural market sectors**

![Graph 2: Employment change in non-agricultural market sectors](source: INSEE)

**3 - Temporary work resort ratio by sectors**

![Graph 3: Temporary work resort ratio by sectors](source: INSEE)
Employment in the construction sector expected to decline again in 2013

Paid employment in the construction sector has been falling almost continuously since 2008. The sector lost 13,000 jobs in H1 2013. Over the forecasting period, this decline is expected to continue: 10,000 jobs should be lost in H2 2013, then 8,000 in H1 2014.

Employment in the non-market sectors should increase thanks to subsidised jobs

Employment in the non-market sectors should add 80,000 jobs in 2013. It should continue to grow at a brisk rate in H1 2014 (+33,000 jobs).

What effects should we expect from the Tax Credit for Encouraging Competitiveness and Jobs (CICE) in 2014?

CICE is a tax credit comparable to a reduction in social security contributions

CICE is a tax credit which can, in certain respects, be compared to a reduction of the social security contributions levied on low and medium wages...

The Tax Credit for Encouraging Competitiveness and Jobs (CICE), announced in November 2012 and approved by parliament the following month, is a tax credit available to all businesses (except microenterprises and self-employed ‘auto-entrepreneurs’), irrespective of their legal status, sector of activity or the tax regime to which their profits are subject.

The CICE applies to all gross wages paid within the current year, up to a limit of 2.5 x the minimum wage. Wages falling within this bracket qualify for a 4% subsidy paid for 2013, and 6% for wages paid in the following years (representing 13 and 20 billion Euros respectively).

... but with several subtle differences

Starting on 1st January 2013, the impact of the CICE will be equivalent to reducing the cost of labour to businesses by 1.8%, and this reduction will increase to 2.7% on 1st January 2014. The CICE differs from a reduction in social security contributions in two respects: these contributions are not reduced, in fact businesses receive a tax cut proportional to their wage bill, deducted from their corporation tax or the tax on their profits; this tax reduction is not applied at the

[2] The CICE will mostly concern companies subject to corporation tax. However, companies subject to income tax will also benefit from the CICE.
[3] The figures given in the Conjuncture in France report on the financial situation of companies are thus based on the standard assumption that the CICE will be imputed in the same manner as other tax credits to businesses (such as the research tax credit, for example), i.e. on the taxes paid by companies in 2014; therefore neither the remuneration of labour nor the margin rate given are affected.
moment the wages are paid, but retrospectively. Unless businesses successfully apply for an advance (this should only account for about €1 billion of the reductions awarded in 2013, 7% of the total eligible sums), the CICE for wages paid in 2013 will not be paid until 2014. Indeed the CICE reduction, calculated on the basis of wages paid in 2013, will be applied to companies’ tax bills for the 2013 fiscal year, due for payment in 2014. Nonetheless, the total tax credit for the past year can only be claimed up to the value of the company’s annual tax bill, and the CICE for salaries paid in 2013 will thus be staggered between now and 2016 (see timetable of the CICE’s impact on the budget).

The estimate of the effects of the CICE on employment levels in 2014 is highly uncertain

It is not yet sure how this initiative will be received by businesses, which will determine its concrete impact

Various mechanisms are at work here (see Graph). Firstly, the CICE will improve the financial situation of businesses. €20 billion represents something like the equivalent of 1.8 margin rate points, compensating for half of the fall in the margin rate experienced between 2007 and 2013.

This improved financial situation may subsequently influence companies’ behaviour, allowing them to reduce prices or increase their payroll, creating new jobs or paying higher wages, or encouraging companies to increase their investment expenditure. In practice, companies will of course react very differently to these new circumstances, but at the macroeconomic level these are the four outcomes we can expect to see when the CICE comes into force.

If we simulate a uniform reduction in social security contributions using the Mésange macro-econometric model, the result of a 2.7% decrease in the cost of labour would be a rise in employment, somewhere in the region of 250,000 jobs.

However, this simulation does not take into account the fact that the CICE is targeted at salaries below 2.5x the minimum wage. And yet the effects of cutting social security contributions are felt all the more strongly when the cut specifically targets wages in this lower bracket, particularly since the demand for labour at this lower end is more sensitive to questions of cost. Basing our calculations on the existing estimates of the distribution of the elasticity of demand for labour at wage level, we can predict that this specific targeting of wages below 2.5x the minimum wage would put the actual number of jobs created somewhere between 300,000 and 400,000, with the results generated by the Mésange model serving as a conservative lower estimate.

As we can see from the results of simulation models such as this one, the full effects of the CICE will be felt only gradually. According to the Mésange model, it will take five years for the effects on employment to be felt in full.

The annual average for 2014, derived from the Mésange model, would see 100,000 new jobs created as a result of this initiative (after 50,000 in 2013). This figure includes, in addition to the accelerated growth of employment, the additional impact of the increase in economic activity caused by the CICE. This is based on the assumption that companies will act as if the CICE was paid in 2013, in the manner of a direct reduction in social security contributions. In practice, the actual effect of the CICE will be less dramatic for a number of reasons.

Firstly, the CICE comes into effect in 2013 at a time when the margin rate is at its lowest, particularly since employment has not evolved as expected since 2008; financial constraints may therefore be felt more strongly than they were in the years leading up to the crisis, prompting businesses to use more of the money saved thanks to the CICE to improve their financial situation than our assessments based on the 1990s and 2000s would suggest. Furthermore, the fact that payment of the CICE credit may cause some companies to similarly defer their recruitment activities, due to cash flow constraints, lending difficulties or an unwillingness to raise debt levels. Finally, in terms of companies’ accounts, the effects of the CICE can be recorded in the balance sheet as current assets, and therefore may not appear in the operating statement; for companies choosing to record the CICE in their accounts in this manner, there is a risk that the link with wages will not be immediately obvious: as such, companies’ decisions regarding investment and recruitment may not take into account, at least not immediately, the impact of the CICE. These effects, which will reduce the impact of the CICE on employment, should be less important in the long term. Indeed, companies who heed the fact that from now on recruiting an employee on a salary below 2.5x the minimum wage will be less expensive than it was previously will ultimately possess, all other things being equal, a competitive advantage over those companies who fail to take these new circumstances into account. In the long term, the majority of businesses should adopt their behaviour to avoid conceding a competitive edge to their rivals.

15,000 new jobs per quarter in H1 2014, excluding feedback effects

In the long term, it seems likely that the effect of the CICE on employment will be somewhat less substantial than 300,000 new jobs.

(4) CGSP (2013). The report of the Monitoring Committee for the Tax Credit for Encouraging Competitiveness and Jobs.
(5) In certain cases, this reduction is the result of contracts index-linking sale prices to production costs.
(9) These figures take account of the fact that the CICE is a tax credit, and it therefore does not extend the tax base of the corresponding tax, which, all other things being equal, increases its impact on economic activity compared to a simple reduction in contributions.
(10) This could be particularly true of certain foreign businesses hoping to establish a presence in France, who are at a disadvantagae in terms of information compared to companies already present in France.
For the forecasts given in the Conjoncture in France quarterly outlook, we based our calculations on the assumption that the enhanced growth in employment figures will be reflected in the creation of 15,000 new jobs per quarter in H1 2014 (following an annual total of 30,000 in 2013). However we do not explicitly take account of the additional effects linked to the upturn in economic activity stimulated by the CICE, which, if it exists, should be detected by the business tendency surveys on which our forecasts are largely based. However we do explicitly integrate the effect on prices, which should partially offset the effects of the rise in VAT, to the tune of 0.2 points over this forecasting period.

### Ramp up of the CICE (in € billion)

<table>
<thead>
<tr>
<th>Year</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Related to the wages on which the tax credit is based</td>
<td>-13</td>
<td>-20</td>
<td>-20</td>
<td>-20</td>
<td>-20</td>
<td>-20</td>
</tr>
<tr>
<td>For corporate cash flow</td>
<td>-1</td>
<td>-9</td>
<td>-16</td>
<td>-17</td>
<td>-19</td>
<td>-20</td>
</tr>
</tbody>
</table>

*How to read it: For easier reading, the CICE tax base is considered constant*

*Source: INSEE*

Diagram showing the different economic mechanisms expected of a fall in the unit labour cost.
In Q3 2013, the unemployment rate stood at 10.9% of the active population (10.5% in Metropolitan France), 0.1 points up on Q2 (see Box for methodological precautions). Since mid-2011, the unemployment rate has increased by 1.4 points. It is likely to rise over the forecasting period, by 0.1 points. In mid-2014 it should stand at 11.0% (10.6% in Metropolitan France).

In Q3 2013, the unemployment rate stood at 10.9% of the labor force

In Q3 2013, the number of unemployed rose by 31,000 after virtual stabilisation in Q2 (+4,000). Employment fell less in Q3 (-6,000 after -21,000), and the labor force grew at a sustained rate in Q3 2013 (+26,000) after a one-off decline in Q2 (-17,000) (see Table). The unemployment rate thus rose by 0.1 points in Q3 after stability in Q2 2013 (see Graph 1).

The unemployment rate among young people fell slightly in 2013...

At the end of 2012, the unemployment rate among 15-24 year-olds stood at 25%. It then fell by a point through to Q3 2013 to stand at 24.5%. On the one hand, part of the drop in unemployment among young people, in the order of a tenth of a point per quarter since the start of the year, can be ascribed to the implementation in late 2012 of “future job” (Emplois d’avenir) contracts designed to allow unqualified or little-qualified young people to get a job. On the other hand and to a lesser extent, job creations in the temporary work sector also benefited young people, who more often have temporary jobs than their elders. The unemployment rate among young people is very high, but this population’s labour market behaviour is very specific. A large number of people aged 25 or less pursue their studies without working at the same time and are thus inactive. Hence when the number of young unemployed is set against the 15-24 year-old population, the resultant measure indicates a rate of unemployment among 15 to 24 year-olds of 9.0%, i.e. only 0.6 points above the share of unemployed in the 25-49 age bracket.

... while that of the over-50s rose sharply

The unemployment rate among active people aged 50 or over has increased by almost a point since the end of 2012, reaching 8.0% in Q3 2013.

1 - Unemployment rate in the sense of the ILO

Quarterly averages in % of the labor force, seasonally adjusted

Forecasts to right of dotted line

France = Metropolitan France + Overseas Departments
Scope: Population of households, people aged 15 or over
Source: INSEE, Employment Survey

Conjoncture in France
The unemployment rate among older people thus rose twice as fast as that of 25-49 year-olds (+0.4 points since end 2012, to 9.5% in Q3 2013).

**Over the forecasting period, unemployment should rise very slightly**

Between Q3 2013 and Q2 2014, the unemployment rate should increase by 0.1 points, settling at 11.0% at the end of H1 2014 (10.6% in Metropolitan France). Over the three quarters of the forecasting period, net job creations (+76,000) are unlikely to be sufficient to absorb the expected rise in the labor force (+113,000).

The trend labour force should indeed continue to rise at a sustained pace (+68,000 people in H1 2014, after +60,000 in H2 2013), mainly due to the rise in the labor force participation rates, while demography should contribute once again: since 2011, fewer people have entered the 15-64 age group than have left it.

Additionally, the active population should be slightly more dynamic than its trend, because the increase in the number of subsidised work contracts allows people outside the labour market to join it. However, we consider that the net effect of pension reforms prior to the trend labor force forecasts will be negligible over the forecasting period.

---

**Box - Renovation of the Employment Survey used to measure unemployment within the meaning of the ILO**

In Q1 2013 the questionnaire used in the Employment Survey was recast, among other things to facilitate the conduct of the survey on the ground. Additionally, new employment conditions for investigators were implemented on 1st January 2013, leading to organisational difficulties in the network of investigators and, as things stand, a drop in the response rate. A methodological assessment was carried out to quantify the impacts of these changes on the estimates derived from the Employment Survey data.

Certain rewordings in the new questionnaire have impacted the content of responses among a limited proportion of the surveyed population. This has had an impact on the measure in level form of the main indicators. The effects of the change of questionnaire and protocol have been neutralised so that the results presented in this file are directly comparable to those of Q4 2012 and to the long time series currently available. This treatment guarantees that indicator trends are relevant in short-term analysis terms. The detailed impact of the rewordings on the survey results is presented in the document titled "Compléments méthodologiques" associated with the Informations Rapides of 5 September 2013 presenting the results of the Employment Survey of Q2 2013.

Derived from the Q4 2013 results which will be published in March 2014, the main indicators of activity, employment and unemployment within the meaning of the ILO will be included in the impact of the renovation of the questionnaire, and new retrospoted long series (the values of which will be revised slightly downwards) will be produced.
## French developments

### Changes to the active population, employment and unemployment in Metropolitan France

<table>
<thead>
<tr>
<th></th>
<th>quarterly changes</th>
<th>annual variations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population of the 15-64 age group</td>
<td>-20 -22 -21 -21 -21 -21 -21 -12 -11 131 20 -84 -83 -24</td>
<td></td>
</tr>
<tr>
<td>Population of the 15-59 age group</td>
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<td></td>
</tr>
<tr>
<td><strong>Labor force</strong></td>
<td>81 82 2 46 37 -17 25 37 38 38 79 158 211 83 76</td>
<td></td>
</tr>
<tr>
<td>including:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(a) Contribution of the population and the trend participation rate</td>
<td>36 36 36 36 30 30 30 30 34 34 160 165 146 120 68</td>
<td></td>
</tr>
<tr>
<td>(b) Estimated bending effects</td>
<td>9 2 1 2 -4 5 5 7 4 4 -66 -6 14 13 8</td>
<td></td>
</tr>
<tr>
<td>(c) Other short-term fluctuations (residual)</td>
<td>36 44 -36 7 11 -52 -9 0 0 0 -15 -2 51 -50 0</td>
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</tr>
<tr>
<td><strong>Employment</strong></td>
<td>23 12 -41 -41 -24 -21 -6 29 30 18 169 117 -47 -22 48</td>
<td></td>
</tr>
<tr>
<td>Reminder: End-of-period employment (see “Employment” rate)</td>
<td>45 -21 -60 -22 -26 -16 5 52 26 10 132 100 -58 15 36</td>
<td></td>
</tr>
<tr>
<td><strong>ILO unemployment</strong></td>
<td>58 70 42 87 61 4 31 9 9 20 -89 40 258 106 28</td>
<td></td>
</tr>
</tbody>
</table>

#### How to read it:
- the Employment line presents variations in the number of people in employment as a quarterly average, for consistency with the other data in the table.
- employment and unemployment are not estimated here within strictly equivalent scopes: total population for employment, population of households (excluding collective) for unemployment. As the impact of this difference is very minor (the population outside of households represents less than 1% of the active population), it is neglected here for the unemployment forecasting exercise.

#### Source:
INSEE
French developments

Consumer prices

Headline inflation should rise gradually, from 0.7% in November 2013 to 1.1% in June 2014, under the effect of several one-off factors. In particular, the recovery of telecommunications prices should contribute +0.1 points, and the rise in the VAT rate on 1st January 2014 (net of the effect of the Tax Credit for Encouraging Competitiveness and Jobs CICE) +0.2 points. Additionally, year-on-year energy prices should rise due to the base effect, and contribute +0.2 point.

Rise in headline inflation

Over the forecasting period, headline inflation should increase from 0.7% at end November 2013 to 1.1% at end June 2014 (see Graph 1). Core inflation remains stable, to +0.8% year-on-year. This divergence essentially stems from the increase in the VAT rates on 1st January 2014: it should contribute (net of the CICE effect) +0.2 points to the rise in headline inflation, and -0.4 points to core inflation, which the INSEE calculates exclusive of taxes (see Focus). To a lesser extent, the 20-cent rise in the price of tobacco, only partially due to the VAT rise, and the increase in energy inflation through the base effect, should also contribute to the divergence between growth in headline inflation and that of core inflation.

Additionally, the base effect should increase inflation after the one-off drops in communication services prices in 2013 (+0.1 points on headline inflation, +0.2 points on core inflation).

Inflation in manufactured products slightly negative

Year-on-year inflation in prices of manufacturing goods, standing at -0.5% in November, should rise to -0.3% in June 2014. The changes to the VAT rates on 1st January 2014 should have an impact of +0.2 points on year-on-year prices of manufacturing goods over the forecasting period (see Box) while the introduction of the CICE should make an impact of -0.3 points in this sector. The low production capacity utilisation rate, sluggish price of imports, high unemployment rate and improved productivity gains are all likely to restrict inflationary pressure in manufacturing. Nonetheless, year-on-year prices of clothing and footwear should rise to +1.0%, after +0.8% in November, due to the recovery of cotton prices since the start of 2012. Additionally, year-on-year inflation in healthcare products, standing at -3.2% in November, should remain virtually stable over the forecasting period because, as in 2013, sharp drops are forecast in the 2014 Social Security Draft Financing Bill.

1 - Consumer prices in France

(1) Energy prices are assumed to be stable over the forecasting period, but due to the fall of these prices in H1 2013, year-on-year inflation at end June 2014 will be higher than year-on-year values at end 2013.
(2) See on insee.fr website “Economic outlook terminology”
French developments

Inflation in services set to rise

Year-on-year inflation in the prices of services, at +1.5% in November, should rise to +2.1% in June 2014. The rise in the prices of services should be driven by the increase in the VAT rate (0.4 points net of the CICE) and the stabilisation of telecoms services prices, after the sharp drops following the arrival of a new mobile phone operator in January 2012.

Energy prices set to rise through the base effect

After +0.1% in November, year-on-year energy prices should increase to reach +2.7% in June 2014. Assuming the price of Brent stabilises at €81.50 ($110) over the forecasting period, the exits of the sharp drops noted in spring 2013 from the year-on-year figures should mechanically contribute to the rise in energy inflation. The changes to the VAT rise in January 2014 are only likely to contribute +0.2 points to the rise in energy prices. Overall, energy should contribute 0.2 points to the rise in headline inflation through to June 2014 (see Graph 2).

Food prices likely to fall in 2014 via the base effect

Provided there is no shock on output of seasonal food products, year-on-year inflation in food prices should come down over the forecasting period, with -0.8% (see Table) due to the sharp rises in the prices of seasonal food products in H1 2013 and the very limited impact of VAT rises in this sector.

### Consumer prices

<table>
<thead>
<tr>
<th>CPI* groups (2012 weightings)</th>
<th>June 2013</th>
<th>November 2013</th>
<th>December 2013</th>
<th>June 2014</th>
<th>Annual averages</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>yoy</td>
<td>cyoy</td>
<td>yoy</td>
<td>cyoy</td>
<td>2012</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2013</td>
</tr>
<tr>
<td><strong>Food (16.6%)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>including: seasonal food products (2.1%)</td>
<td>1.8</td>
<td>0.3</td>
<td>0.3</td>
<td>0.0</td>
<td>0.4</td>
</tr>
<tr>
<td>excluding seasonal food products (14.5%)</td>
<td>7.3</td>
<td>0.2</td>
<td>-1.2</td>
<td>0.0</td>
<td>-0.7</td>
</tr>
<tr>
<td><strong>Tobacco (2.1%)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1.0</td>
<td>0.1</td>
<td>0.5</td>
<td>0.1</td>
<td>0.5</td>
</tr>
<tr>
<td><strong>Manufactured products (27.4%)</strong></td>
<td>7.0</td>
<td>0.1</td>
<td>3.5</td>
<td>0.1</td>
<td>3.5</td>
</tr>
<tr>
<td>including: oil products (5.0%)</td>
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<td>-0.1</td>
<td>-0.5</td>
<td>-0.1</td>
<td>-0.4</td>
</tr>
<tr>
<td><strong>Services (45.8%)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>including: rent-water (7.5%)</td>
<td>1.0</td>
<td>0.5</td>
<td>1.5</td>
<td>0.7</td>
<td>1.5</td>
</tr>
<tr>
<td>health services (5.4%)</td>
<td>1.1</td>
<td>0.1</td>
<td>0.4</td>
<td>0.0</td>
<td>0.3</td>
</tr>
<tr>
<td>transport-communications (5.1%)</td>
<td>-5.8</td>
<td>-0.3</td>
<td>0.5</td>
<td>0.0</td>
<td>-0.2</td>
</tr>
<tr>
<td>other services (27.8%)</td>
<td>2.1</td>
<td>0.6</td>
<td>1.9</td>
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<td>2.0</td>
</tr>
<tr>
<td><strong>All (100%)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>0.9</td>
<td>0.9</td>
<td>0.7</td>
<td>0.7</td>
<td>0.8</td>
</tr>
<tr>
<td>All excluding energy (91.8%)</td>
<td>0.8</td>
<td>0.8</td>
<td>0.7</td>
<td>0.7</td>
<td>0.8</td>
</tr>
<tr>
<td>All excluding tobacco (97.9%)</td>
<td>0.8</td>
<td>0.8</td>
<td>0.6</td>
<td>0.6</td>
<td>0.7</td>
</tr>
<tr>
<td><strong>Core inflation (60.8%)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.3</td>
<td>0.2</td>
<td>0.8</td>
<td>0.5</td>
<td>0.8</td>
</tr>
</tbody>
</table>

Forecast
yoy : year-on-year
cyoy : contribution to the year-on-year value of the overall index
*Consumer price index (CPI)
(1) Index excludes public tariffs and products with volatile prices, corrected for tax measures

Source: INSEE
Rise in VAT rates and effect of the CICE: opposite impacts on inflation

On 1st January 2014, the normal VAT rate will go up from 19.6% to 20% and the intermediate rate from 7% to 10%. The reduced rate (5.5%), the super-reduced rate (2.1%) and the zero rate are not expected to change. Lastly, the applicable rate in Corsica will rise from 8 to 10%. Prices of services will therefore be the most affected: accommodation and food services, housing maintenance (1), cultural services, transport (see Table).

If the VAT rise were to be passed on in full, the prices of products at the normal VAT rate would increase by 0.3% and the prices of products at the intermediate rate by 2.8%, hence a 0.5-point increase in headline inflation.

In practice, previous experience of variations in the VAT rate has shown that prices adjust gradually, so an impact in the order of 0.4% is expected by end June 2014 (see Graph). In economic terms this delayed transmission translates the behaviours of certain companies as regards their profit margins; they do not immediately pass on the VAT rise to consumer prices. In the short term certain enterprises lower their price exclusive of VAT, thus making an effort on their margins, in order not to cut their prices including VAT. These behaviours are however transitional: an observation of VAT rises or reductions in France and elsewhere shows that changes in legislation on indirect taxes are passed on to consumer prices (including VAT) after a certain time lag, suggesting that they ultimately have no effect on prices exclusive of VAT.

Additionally, as the VAT rise will be in 2014 concomitantly with the implementation of the CICE, the transmission is likely to be less significant than in previous VAT rises, and the effect on year-on-year inflation at end June 2014 should only be +0.2 points (see Table).

Core inflation is adjusted for tax measures. The theoretical impact of VAT rises would be a negative contribution to core inflation as early as January 2014 (0.6 points). As VAT variations are, in practice, only passed on gradually to prices, the rise on 1st January 2014 will reduce core inflation in accounting terms. ■

(1) Most housing maintenance expenditure is however considered in the national accounts as household investment.
### Impact on consumer price indexes of the VAT rises of 1st January 2014 and the introduction of the CICE

<table>
<thead>
<tr>
<th>Sector</th>
<th>Weight of the sector</th>
<th>Impact of VAT rate changes to consumer prices</th>
<th>Impact of the CICE on year-on-year consumer prices</th>
<th>Total impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food</td>
<td>1658</td>
<td>0.0</td>
<td>-0.1</td>
<td>-0.1</td>
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<tr>
<td>Seasonal food products</td>
<td>210</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Food excluding seasonal food products</td>
<td>1448</td>
<td>0.0</td>
<td>-0.2</td>
<td>-0.1</td>
</tr>
<tr>
<td>Tobacco</td>
<td>206</td>
<td>1.5</td>
<td>0.0</td>
<td>1.5</td>
</tr>
<tr>
<td>Manufactured products</td>
<td>2738</td>
<td>0.2</td>
<td>-0.3</td>
<td>0.0</td>
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<tr>
<td>Clothing and footwear</td>
<td>458</td>
<td>0.2</td>
<td>-0.3</td>
<td>-0.1</td>
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<tr>
<td>Medical products</td>
<td>455</td>
<td>0.2</td>
<td>0.0</td>
<td>0.2</td>
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<tr>
<td>Other manufactured products</td>
<td>1825</td>
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<td>-0.1</td>
</tr>
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<td>Energy</td>
<td>822</td>
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<td>Petroleum products</td>
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<td>Services</td>
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<td>Medical services</td>
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<td>0.0</td>
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<tr>
<td>Transport and communication services</td>
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<td>1.0</td>
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<tr>
<td>Other services</td>
<td>2780</td>
<td>0.7</td>
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<td>0.4</td>
</tr>
<tr>
<td>All items</td>
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<td>0.4</td>
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<td>0.2</td>
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<tr>
<td>All items &quot;Core inflation&quot;</td>
<td>6085</td>
<td>-0.1</td>
<td>-0.3</td>
<td>-0.4</td>
</tr>
</tbody>
</table>

**Impact of the VAT rise on year-on-year headline inflation between January and June 2014**

[Source: INSEE]
In 2013, the basic monthly wage and the average wage per head will have grown at the same rhythm as in 2012. Despite a smaller increase in the minimum wage on 1st January 2013, inflation, which was close to 2.0% in 2012, sustained nominal wages. Unless there is a one-off extra increase, the rise in the minimum wage should be limited in January 2014 (+1.1%), due to the low level of inflation observed over the last year or so. As the high rate of unemployment should continue to negatively affect the bargaining power of the workforce, nominal wages are likely to stay at a moderate growth rate in H1 2014 (+0.5% then +0.4% per quarter).

In real terms, thanks to the fall in inflation, wages in constant euros will have picked up in 2013: the basic monthly wage should increase by 1.1% after +0.3% in 2012 and the average wage per head by 1.3% after stagnating in 2012. In early 2014 however, the rise in inflation is likely to erode the gains in nominal wages: the real average wage per head is unlikely to grow in H1.

In general government, the drop in inflation should also result in a temporary acceleration in wages in constant euros in 2013 (+0.7% after +0.1% in 2012).

In 2013, the basic monthly wage has slowed while the average wage per head has picked up slightly

In 2013 the nominal basic monthly wage\(^1\) should be slightly less dynamic than in 2012 (+1.7% after +2.1%). The rising unemployment rate should continue to weigh down on the bargaining power of employees and limit the overall rise in wages. Additionally, the increase in the minimum wage was lower in 2013 (+0.3% at 1st January, i.e. +1.3% as an annual average) than in 2012 (+0.3% on 1st January 2012 and +2.0% on 1st July 2012, after +2.1% on 1st December 2011, i.e. +3.2% as an annual average in 2012).

The nominal average wage per head, which includes bonuses, incentives and overtime payments, should pick up slightly in 2013 (+2.0% after +1.8%), mainly under the effect of the one-off payment of bonuses in Q2.

The sharp drop in inflation in 2013 resulted in real wage gains

The sharp drop in inflation in 2013 (+0.6% after +1.9%) barely filtered through to nominal wages, probably because it had not been anticipated (it should be recalled that the inflation assumption in the 2013 Finance Law Draft was +1.8%). Therefore, the basic monthly wage in constant
French developments

Euros should accelerate over the year as a whole (+1.1% after +0.3%). The real average wage per head should pick up more sharply than the basic monthly wage (+1.3% after 0.0%) because bonuses were more dynamic (see Graph).

At the start of 2014, the rise in inflation should erode all gains in nominal wages. On 1st January 2014, the increase in the minimum wage, with no one-off extra rise, should be moderate (+1.1%) due to the low level of inflation observed in 2013. Wage negotiations should start to integrate the 2013 fall in inflation and the labour market situation should remain poor; wages are thus likely to increase at a moderate rate in nominal terms and the 2014 growth overhangs at the end of Q2 should be +1.3% for the basic monthly wage and +1.5% for the average wage per head.

The higher level of inflation than in 2013 should erode all these gains in nominal wages. So in real terms the basic monthly wage should fall slightly while the average wage per head is likely to stagnate (see Table). The 2014 growth overhangs at the end of Q2 should be +0.4% for the basic monthly wage and +0.6% for the average wage per head.

Real wages saw a temporary acceleration in 2013 in general government

Nominal wages are expected to slow in the civil service in 2013 (+1.3% after +2.0% in 2012). In the civil service the index point, which has been frozen since 1st July 2010, was not increased in 2013. Furthermore, the civil service minimum index was only raised by 0.3% on 1st January 2013, in line with the rise in the minimum wage. Civil servants should however continue to benefit from the individual purchasing power guarantee (GIPA) which was renewed in 2013 under the same conditions as in 2012. As in the market sector, the sharp drop in inflation should result in a rise in real wages of 0.7%, after +0.1% in 2012.

In early 2014, assuming the index point is frozen once again and the GIPA scheme is renewed, the nominal average wage per head in general government is likely to slow. The growth overhang after Q2 should be +0.8% (+0.1% in real terms).

Growth of the basic monthly wage and the average wage per head in the non-agricultural market sector and in general government

<table>
<thead>
<tr>
<th>Seasonally-corrected data</th>
<th>Quarterly growth rates</th>
<th>Annual averages</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2013</td>
<td>2014</td>
</tr>
<tr>
<td></td>
<td>Q1</td>
<td>Q2</td>
</tr>
<tr>
<td>Basic monthly wage</td>
<td>0.4</td>
<td>0.4</td>
</tr>
<tr>
<td>Average wage per head in the non-agricultural market sector (NAMS)</td>
<td>0.6</td>
<td>0.7</td>
</tr>
<tr>
<td>Average wage per head in general government (GG)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Household consumer price index (quarterly national accounts)</td>
<td>0.3</td>
<td>-0.1</td>
</tr>
<tr>
<td>Real basic monthly wage</td>
<td>0.1</td>
<td>0.5</td>
</tr>
<tr>
<td>Real average wage per head (NAMS)</td>
<td>0.3</td>
<td>0.8</td>
</tr>
<tr>
<td>Real average wage per head (GG)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Forecast
Source: INSEE

(2) The 2013 individual purchasing power guarantee is a compensation awarded to civil servants and certain State employees who suffered a loss in purchasing power between 2008 and 2012.
In 2013, household purchasing power should pick up (+0.5% after -0.9% in 2012), thanks largely to the slowdown in the rise of consumer prices (+0.6%, down from +1.9% in 2012). The gross disposable income of households should also grow at a slightly quicker rate (+1.1%, up from +0.9% in 2012) due to the deceleration in the rate of tax increases (+4.5%, down from +7.4% in 2012) and despite the slowdown in the growth of earned income (+1.3%, after +1.8% in 2012).

Over the forecasting period the half-yearly changes to purchasing power will be uneven, principally as a result of the tax collection calendar. Purchasing power is expected to decline in H2 2013, before rebounding in H1 2014. In early 2014 earned income should grow at a steadier rate, while taxes, after rising in late 2013 when the balance of the annual income tax fell due, should drop off again at the start of next year.

**After slowing down in 2013, earned income should grow at a steadier rate in early 2014**

The growth of earned income is expected to slow down in 2013 (+1.3%, after +1.8% in 2012, see Table 1). The expansion of wages received by households should be less rapid (+1.5%, after +1.9% in 2012, see Table 2), largely due to the decline in employment figures, a trend which looks set to continue in the non-agricultural market sectors (-0.7%, after -0.1%, see Graph). Furthermore, the gross operating surplus of sole proprietors should see its growth slow dramatically (-0.2% after +1.7% in 2012), due to the decline in earned income in the agricultural and construction sectors. Moreover, property income is expected to slow down markedly in 2013 (-0.2% after +0.6% in 2012), primarily due to the reduction in base interest rates. Finally, the gross operating surplus of pure households, stunted in 2012 by the fall in interest rates, should grow more rapidly (+2.2%, up from +1.4% in 2012).

---

(1) For the record, the decline of yoy employment would conversely be twice lower in 2013 than in 2012 (see Employment Note).

(2) The GOS of pure households corresponds to the production of housing services minus the intermediate consumptions required for this production (most notably financial services linked to loans and taxes (land tax). It corresponds to the rents that homeowners receive from their tenants or could receive if they put their dwelling up for rent ("imputed" rents). In 2012, the interbank lending rates saw a greater decrease than mortgage lending rates, and financial intermediation services thus became proportionally more expensive.

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**Breakdown of the total wages paid out to households in the competitive non-agricultural sector**

![Graph](source: INSEE)
Social benefits should continue to fall

Over 2013 as a whole, social benefits in cash should prove to be less dynamic than they were in 2012 (+3.3%, down from +4.0%, see Table 3). Social security benefits are expected to slow (+3.2%, down from +4.2%). On the one hand, supplementary pensions paid out by Agirc-Arrco should see only a slight increase, following an agreement reached in March 2013. Family benefits should return to a normal rate of growth, having risen substantially in 2012 due to the marked increase in the "back to school" allowance. However, social assistance benefits should continue to accelerate in 2013 (+5.5%, up from +4.2% in 2012): despite the slowdown in the adult disability allowance (AAH), these benefits should continue to grow due to the dynamism of the active solidarity income (RSA), particularly due to an increase on 1\textsuperscript{st} January, and the specific solidarity allocation (ASS).

The increase in social benefits in cash should slow again in H1 2014. Indeed, social security benefits are expected to decelerate (+0.8% and +0.9% in the last two quarters of 2013, then +0.7% and +0.0% in the first two quarters of 2014). Most notably, in 2014 the programmed increases in the basic pensions (with the exception of the solidarity allocation for senior citizens (ASPA) and invalidity pensions) will not take place as usual on 1\textsuperscript{st} April, but will instead be pushed back to 1\textsuperscript{st} October. Furthermore, following an agreement reached in 2013, the increase in pension payments by Agirc-Arrco on 1\textsuperscript{st} April 2014 should be less substantial. Furthermore, social assistance benefits are expected to slow down slightly, largely because the dynamism of the active solidarity income (RSA) is expected to wane in H1 2014 as conditions on the labour market become less bleak.

Taxes still dynamic in 2013, should slow in early 2014

Over 2013 as a whole, the total tax burden on households is expected to increase by less than it did in 2012 (+4.5%, after +7.4%). New measures will be comparable in value to those implemented in 2012, but the spontaneous growth of tax revenue will be weaker than it was last year, due largely to the slowdown in the growth of earned income in 2012. In particular, revenue generated by income tax and tax on assets is expected to slow down across the whole year (+5.3%, down from +10.2%). Taxes on wages in 2013 should continue to grow at the same rate seen in 2012 (+3.3%, down slightly from +3.4%). Contributions by the self-employed should also continue to grow at a steady pace (+4.0% in 2013, after +5.9% in 2012), due notably to the removal of the cap on sickness contributions and the abolition of the special allowance for professional costs, both measures included in the Social Security Finance Law for 2013.

The new tax initiatives scheduled for 2013 (particularly the de-indexation of the income tax thresholds, the creation of a 45% bracket and the lowering of the family quotient ceiling) will mostly come into effect in the second half of the year, when the annual tax bills are sent out. This is reflected in the evolution of tax revenue across the year, with the usual rise expected in Q3 (+1.8%) followed by an acceleration in Q4 (+4.3%), and a subsequent drop in Q1 2014 (-2.8%). Furthermore, social security contributions by households should accelerate slightly in H1 2014. All in all, total tax revenue should decline in Q1 (-1.4%), then grow slightly in Q2 (+0.6%).

Purchasing power should return to growth in 2013

The nominal gross disposable income (GDI) of households is expected to accelerate its growth slightly in 2013 (+1.1%, after +0.9% in 2012). At the same time, consumer prices will slow down markedly (+0.6%, down from +1.9%). The purchasing power of GDI should thus increase at a faster rate, growing by 0.5% in 2013 after a -0.9% decrease in 2012. Purchasing power per unit of consumption, which takes demographic developments into account, will be practically stable in 2013 (-0.1%) after falling in 2012 (-1.5%, see Box).

In early 2014, as a result of the tax collection calendar, household GDI should pick up again (+1.1% in Q1 then +0.4% in Q2), whereas in 2013 it is expected to be more or less stable (+0.1% in Q3 then 0.0% in Q4). Purchasing power should grow more slowly (+0.6% then 0.1% in H1 2014, recovering from -0.1% in Q3 and Q4 2013), due to an expected acceleration in price rises. In mid-2014, purchasing power should be 0.5% greater than its mid-2013 level.
### Table 1  
**Household gross disposable income**

<table>
<thead>
<tr>
<th></th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gross disposable income (100%)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q1</td>
<td>0.3</td>
<td>0.4</td>
<td>-0.2</td>
</tr>
<tr>
<td>Q2</td>
<td>0.4</td>
<td>0.3</td>
<td>-0.7</td>
</tr>
<tr>
<td>Q3</td>
<td>1.2</td>
<td>0.4</td>
<td>0.1</td>
</tr>
<tr>
<td>Q4</td>
<td>0.5</td>
<td>0.3</td>
<td>0.0</td>
</tr>
<tr>
<td><strong>2012</strong></td>
<td>1.1</td>
<td>0.4</td>
<td>0.9</td>
</tr>
<tr>
<td><strong>2013</strong></td>
<td>1.5</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Including:

- **Earned income (69%)**
  - Q1: 0.6, Q2: 0.3, Q3: 0.5, Q4: 0.1
  - 2012: 1.8, 2013: 1.3

- **Gross wages (60%)**
  - Q1: 0.6, Q2: 0.3, Q3: 0.5, Q4: 0.2
  - 2012: 1.5, 2013: 1.3

- **GOS of sole proprietors (9%)**
  - Q1: 0.5, Q2: 0.4, Q3: 0.2, Q4: -0.4
  - 2012: 1.9, 2013: 0.4

- **Social benefits in cash (33%)**
  - Q1: 1.2, Q2: 1.1, Q3: 1.0, Q4: 0.8
  - 2012: 4.0, 2013: 3.3

- **Financial corporations (5%)**
  - Q1: 1.0, Q2: 0.3, Q3: 0.3, Q4: -0.5
  - 2012: 1.7, 2013: 1.2

- **General government (22%)**
  - Q1: 0.4, Q2: 0.3, Q3: 0.2, Q4: -0.4
  - 2012: 1.6, 2013: 1.3

- **Households excluding sole proprietors (2%)**
  - Q1: 0.2, Q2: 0.3, Q3: 0.6, Q4: 0.0
  - 2012: 1.3, 2013: 1.2

- **Total gross wages received by households (100%)**
  - Q1: 0.6, Q2: 0.3, Q3: 0.5, Q4: 0.2
  - 2012: 1.9, 2013: 1.5

**Forecast**

How to read it: The figures in parentheses give the structure of the year 2012.

(1) The gross operating surplus (GOS) of sole proprietors is the balance of the operating accounts of sole proprietorships. It is mixed income, because it remunerates the work performed by the sole proprietor, and possibly the members of his family, but also contains the profit achieved as an entrepreneur.

Source: INSEE

### Table 2  
**From the payroll of non-financial enterprises to that received by households**

<table>
<thead>
<tr>
<th></th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Non-financial enterprises (67%)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q1</td>
<td>0.5</td>
<td>0.2</td>
<td>0.4</td>
</tr>
<tr>
<td>Q2</td>
<td>0.4</td>
<td>0.6</td>
<td>0.3</td>
</tr>
<tr>
<td>Q3</td>
<td>0.3</td>
<td>0.3</td>
<td>0.0</td>
</tr>
<tr>
<td>Q4</td>
<td>0.5</td>
<td>0.4</td>
<td>0.1</td>
</tr>
<tr>
<td><strong>2012</strong></td>
<td>1.8</td>
<td>1.3</td>
<td>1.3</td>
</tr>
<tr>
<td><strong>2013</strong></td>
<td></td>
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</tbody>
</table>

Including:

- **Average wage per head**
  - Q1: 0.5, Q2: 0.3, Q3: 0.4, Q4: 0.0
  - 2012: 1.9, 2013: 2.0

- **Financial corporations (5%)**
  - Q1: 1.0, Q2: 0.3, Q3: -0.5, Q4: 1.2
  - 2012: 1.2, 2013: 1.7

- **General government (22%)**
  - Q1: 0.4, Q2: 0.2, Q3: 0.2, Q4: -0.8
  - 2012: 1.4, 2013: 1.3

- **Households excluding sole proprietors (2%)**
  - Q1: -0.2, Q2: 0.0, Q3: 0.3, Q4: 0.3
  - 2012: 1.6, 2013: 0.6

- **Total gross wages received by households (100%)**
  - Q1: 0.6, Q2: 0.3, Q3: 0.2, Q4: 0.0
  - 2012: 1.7, 2013: 1.3

**Forecast**

How to read it: The figures in parentheses give the structure of the year 2012.

Source: INSEE
Table 3

Social transfers received and paid by households

<table>
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</thead>
<tbody>
<tr>
<td>Social cash benefits received by households (100%)</td>
<td>1.2</td>
<td>1.1</td>
<td>1.0</td>
<td>0.8</td>
<td>0.6</td>
<td>0.8</td>
<td>0.8</td>
<td>0.9</td>
<td>0.7</td>
<td>0.2</td>
<td>4.0</td>
<td>3.3</td>
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<tr>
<td>Social Security benefits in cash (72%)</td>
<td>1.2</td>
<td>1.2</td>
<td>1.1</td>
<td>0.9</td>
<td>0.6</td>
<td>0.6</td>
<td>0.8</td>
<td>0.9</td>
<td>0.7</td>
<td>0.0</td>
<td>4.2</td>
<td>3.2</td>
<td>2.0</td>
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<td></td>
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<tr>
<td>Private funded social benefits (7%)</td>
<td>1.2</td>
<td>0.0</td>
<td>0.6</td>
<td>0.4</td>
<td>0.2</td>
<td>1.9</td>
<td>0.0</td>
<td>1.0</td>
<td>0.5</td>
<td>0.4</td>
<td>2.2</td>
<td>2.5</td>
<td>2.0</td>
<td></td>
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<tr>
<td>Unfunded employee social benefits (13%)</td>
<td>1.0</td>
<td>0.9</td>
<td>0.8</td>
<td>0.6</td>
<td>0.7</td>
<td>0.7</td>
<td>0.7</td>
<td>0.7</td>
<td>0.7</td>
<td>0.6</td>
<td>3.7</td>
<td>2.8</td>
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<tr>
<td>Social assistance benefits in cash (8%)</td>
<td>1.5</td>
<td>1.6</td>
<td>1.3</td>
<td>1.2</td>
<td>1.4</td>
<td>1.2</td>
<td>1.8</td>
<td>1.2</td>
<td>0.8</td>
<td>0.8</td>
<td>4.2</td>
<td>5.5</td>
<td>3.6</td>
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<tr>
<td><strong>Total social contribution burden</strong></td>
<td>0.9</td>
<td>0.6</td>
<td>0.7</td>
<td>1.1</td>
<td>0.2</td>
<td>0.7</td>
<td>0.4</td>
<td>0.5</td>
<td>0.5</td>
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<tr>
<td>Actual social contributions paid by households (100%)</td>
<td>0.9</td>
<td>0.5</td>
<td>0.7</td>
<td>1.2</td>
<td>0.1</td>
<td>0.7</td>
<td>0.4</td>
<td>0.4</td>
<td>0.5</td>
<td>0.4</td>
<td>3.0</td>
<td>2.4</td>
<td>1.6</td>
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<tr>
<td>Employers contributions (63%)</td>
<td>0.4</td>
<td>0.4</td>
<td>0.5</td>
<td>0.7</td>
<td>0.0</td>
<td>0.7</td>
<td>0.3</td>
<td>0.5</td>
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<td>0.5</td>
<td>2.5</td>
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</tr>
<tr>
<td>Employees contributions (29%)</td>
<td>1.1</td>
<td>0.5</td>
<td>0.9</td>
<td>2.0</td>
<td>0.5</td>
<td>0.6</td>
<td>0.4</td>
<td>0.4</td>
<td>0.5</td>
<td>0.4</td>
<td>3.4</td>
<td>3.3</td>
<td>1.3</td>
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<td></td>
</tr>
<tr>
<td>Self-employed contributions (8%)</td>
<td>4.7</td>
<td>1.5</td>
<td>1.7</td>
<td>2.4</td>
<td>-0.5</td>
<td>0.6</td>
<td>1.7</td>
<td>0.5</td>
<td>0.5</td>
<td>0.5</td>
<td>5.9</td>
<td>4.0</td>
<td>2.3</td>
<td></td>
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<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

**Forecast**

How to read it: The figures in parentheses give the structure of the year 2012.

(1) Employer contributions are both received and paid by households in the national accounts: they therefore have no effect on gross disposable income.

Source: INSEE

Different ways of measuring purchasing power

The household income that is presented and analysed in Conjoncture in France includes all the income received by all households. This is the relevant reference in macro-economic terms, for example when constructing the balance between resources (GDP and imports) and uses (consumption, investment, exports…) or forecasting GDP. The purchasing power of all households, which represents the quantity of goods and services that households can purchase with their income, is calculated as income corrected for the growth in consumer prices. In order to measure the average purchasing power of the French population, this value has to be corrected in order to account for both the growth in the number of households and their composition. The most relevant correction in this respect consists in dividing income by the number of consumption units in France, thereby taking account of demographic growth and also of the fact that some consumption may be shared within the household (for example, household appliances). A large household therefore makes certain “economies of scale” in relation to a smaller household. In 2012, growth in the number of consumption units was 0.6% (as a comparison, growth in the population was 0.5% and growth in the number of households 1.0%).

Therefore, purchasing power per consumption unit is set to fall in 2013 (-0.1% after -1.5% in 2012). Per household, the fall should be 0.5% and per inhabitant it should be stable. ■
In Q3 2013, household consumption slowed down slightly (+0.2% after +0.4%). In particular, energy expenditure fell back significantly and consumption of services slowed down. However, spending on foodstuffs rebounded and that on manufactured goods was dynamic again.

Consumption of manufactured goods should remain dynamic in Q4 2013, as households bring purchases forward in anticipation of the tighter terms on the automobile “malus” scheme at the beginning of 2014 and the release of employee saving schemes. Consumption of goods should therefore rebound. The profile of consumption in home maintenance services could also be affected by people anticipating the rise in VAT in January 2014. Consumption of services should therefore also increase, with total consumption rising by 0.3%. In the light of their purchasing power prospects, household consumption is likely to slow down again in H1 2014 (+0.1% per quarter). Households are likely to smooth out the shocks in their purchasing power and the savings ratio is therefore likely to show ups and downs (15.7% in Q3 2013 then 15.3% in Q4, before rebounding slightly in H1 2014 to stand at 15.6% in mid-2014).

In Q3 2013, energy expenditure fell back significantly.

In Q3 2013, household consumption slowed down slightly (+0.2% after +0.4%, see Table), due to the fall in expenditures on energy (-3.0%, see Graph 1), showing a return to normal after two dynamic quarters (+2.0% then +2.5%) due to temperatures below the seasonal norms. Expenditures on food returned to a growth rate closer to its trend (+0.4%), after falling in the spring (-1.1%) due notably to the effect of Easter weekend coming earlier than usual.

Engineered goods expenditures remained dynamic. On the one hand, purchases of automobiles continued to progress (+1.1% after +2.1%) after a fall at the start of the year (-5.5%) caused by the tighter terms on the “malus” system on 1st January 2013. Textile-clothing-leather consumption also rebounded (+1.6%) after falling for two consecutive quarters. Finally, consumption of services slowed down (+0.2% after +0.4%). In particular, spending on accommodation and food services was almost stable this summer, after rising in the spring.

1 - Contributions of the various items to quarterly household consumption

Source: INSEE
In Q4 2013, consumption of manufactured goods set to remain dynamic

Total household consumption should rise again in Q4 2013, at a rate similar to Q3 (+0.3% after +0.2%). If temperatures remain close to normal in December, after a milder-than-average month of October, energy consumption should fall sharply over Q4 as a whole (-2.2% after -3.0%). Consumption of engineered goods should also remain dynamic (+1.2%), buoyed in particular by the release of profit-sharing schemes and by automobile purchases being brought forward in anticipation of the tighter terms on the automobile ecological "malus" scheme as of 1st January 2014. However, textile-clothing-leather expenditure is likely to fall again, following the trend since 2006. Likewise, consumption of foodstuffs should return to a more moderate rise in Q4 2013 (+0.2% after +0.4%). Finally, consumption of services should continue to progress in Q4 2013, at a rate close to that in Q3 (+0.3% after +0.2%), as people anticipate the rise in VAT in construction from January 2014, boosting consumption of home maintenance services.

In H1 2014, consumption is likely to slow down

Through the gradual price rises they are likely to generate, the rises in the VAT rates that come into force on 1st January 2014 should continue to limit the increase in household consumption in H1 2014, which should slow down to +0.1% per quarter (after +0.3% in Q4 2013).

Consumption of goods should also be affected by the tighter terms on the automobile ecological "malus", which are likely to bring purchases of new automobiles down. In Q2 2014, the fall in spending on engineered goods should continue due to the fall in spending on clothing, but should be limited by the rebound in sales of televisions linked to the football World Cup (see focus in Conjoncture in France, June 2010). For services, those items that are the hardest hit by the rise in VAT (accommodation and food services, transport and home cleaning and maintenance), should show a sharper slowdown. Total consumption of services is thus likely to increase by 0.2% in Q1 and Q2 2014, after +0.3% in Q4 2013.

In mid-2014, the savings ratio is 0.3 points below its mid-2013 level

All in all, household consumption should increase in 2013 (+0.4%), slightly less than household purchasing power (+0.5%). The savings ratio should reach 15.7% on average over the year, after 15.6% in 2012 (see Graph 2). This near-stability in fact hides ups and downs from one quarter to another. Households do tend to smooth out any shocks in their purchasing power by adjusting their savings. In the light of the expected falls in purchasing power in H2 2013, linked to the new measures affecting households’ tax for 2013, the

### Household consumption and investment expenditure

<table>
<thead>
<tr>
<th></th>
<th>Quarterly changes in %</th>
<th>Annual changes in %</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2012</td>
<td>2013</td>
</tr>
<tr>
<td><strong>Total household consumption expenditures (B+S)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Services (S)</td>
<td>0.2</td>
<td>-0.5</td>
</tr>
<tr>
<td>Goods (G)</td>
<td>0.4</td>
<td>-0.7</td>
</tr>
<tr>
<td><strong>including</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Food (AZ-C1)</td>
<td>1.0</td>
<td>-0.7</td>
</tr>
<tr>
<td>Agriculture goods (AZ)</td>
<td>1.3</td>
<td>-0.8</td>
</tr>
<tr>
<td>Agri-food products (C1)</td>
<td>0.9</td>
<td>-0.7</td>
</tr>
<tr>
<td>Energy (DE-C2)</td>
<td>3.3</td>
<td>1.1</td>
</tr>
<tr>
<td>Energy, water, waste  (DE)</td>
<td>6.4</td>
<td>1.7</td>
</tr>
<tr>
<td>Coke and refined petroleum(C2)</td>
<td>0.5</td>
<td>0.5</td>
</tr>
<tr>
<td>Engineered goods (C3 à C5)</td>
<td>-1.1</td>
<td>-1.3</td>
</tr>
<tr>
<td>Manufactured products (C1 à C5)</td>
<td>-0.3</td>
<td>-0.9</td>
</tr>
<tr>
<td>Investment expenditure</td>
<td>-0.7</td>
<td>-0.1</td>
</tr>
</tbody>
</table>
savings ratio should fall slightly in Q3 (15.7% after 15.9% in mid-2013), then more sharply in Q4 (15.3%). For the same reasons, the upturn in purchasing power in Q1 2014 should lead to an upturn in the savings ratio by 0.4 points, before the latter slips again to stand at 15.6% in mid-2014, which is 0.3 points below its level in mid-2013. This fall will be down to a decrease in precautionary saving by households as activity prospects look better.

Household investment set to level out in Q4, before falling again

Household investment fell less sharply in Q3 2013 (-0.6%) than in previous quarters and should level out in Q4 2013, as housing starts rebounded at the start of the year (see Graph 3) and some spending on home maintenance is brought forward in anticipation of the rise in VAT on 1st January 2014.

Housing starts fell in Q3 2013 and the first data available on Q4 does not suggest any short-term improvement to be likely. Consequently, in H1 2014, household investment should fall again (-0.3% and -0.6%), also hit to a lesser extent by the rise in VAT on home maintenance. Over 2013 as a whole, household investment should fall clearly (-3.7%) after being almost stable in 2012 (-0.4%). The growth overhang in household investment should stand at -1.4% in mid-2014.

---

2 - Savings rate and consumption growth rate and the purchasing power of gross disposable income

3 - Housing starts for all dwellings per quarter
In 2013, the margin rate of non-financial companies is expected to continue falling: it should reach its lowest level since 1985, i.e. 28.1% on average over the year after 28.3% in 2012. Indeed the increase in the wage per head in real terms and the rise in social contributions should only be partly offset by the rise in productivity gains and the improved terms of trade.

At the end of H1 2014 the margin rate should stand at 28.1% (29.2% when adjusted to integrate the accounting impact of the Tax Credit for Encouraging Competitiveness and Jobs CICE tax credit).

The margin rate down to its lowest level since 1985

Falling continuously since mid-2010, the margin rate of non-financial companies picked up slightly in H1 2013 to reach 28.2% in mid-2013 (see Graph 1), thanks to the decrease in the prices of imports and hence a more favourable contribution from the terms of trade (+0.2 points).

The margin rate no longer deteriorating in H2 2013

In Q3 2013 the margin rate appears to have dropped (-0.3 points) and then picked up in Q4 to stand at 28.2% by the end of 2013. The quarterly profile of the margin rate should principally reflect the activity profile of non-financial companies: productivity gains should contribute +0.3 points in Q4 after -0.2 points in Q2 (see Graph 2). Over the half-year as a whole these effects should be fully offset by a rise in real wages per head: contribution of -0.2 points in Q4 after -0.1 points in Q3.

In 2014 the margin rate likely to be affected by the CICE and the rise in VAT

In H1 2014 progress in spontaneous productivity gains at the same time that real wages stagnate should contribute to a recovery of the margin rate. But it should also be affected by the introduction of the CICE and the VAT rise on 1st January. On the one hand, the CICE is likely to slow down the recovery of productivity gains (for a value of -0.2 points in H1, see Employment Focus). On the other hand it should contribute to postponing the repercussions on prices of the VAT rise of 1st January: companies should absorb 60% of it through to the end of June, i.e. a contribution of -0.3 points on their margin rate. All in all, the margin rate should stand at 28.1% in Q2 2014, after 28.2% in Q4 2013 (see Table). Adjusted in order to integrate the accounting impact of the CICE, the margin rate should come to 29.2% in Q2 2014, a rise of 1.0 points against the end of 2013.

Source: INSEE
2 - Contributions to the variation in the margin rate of non-financial companies

### Breakdown of the margin rate of non-financial companies (NFC)

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<td>Margin rate (in level)</td>
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<tr>
<td>Variation in margin rate</td>
<td>-0.2</td>
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<td>0.2</td>
<td>-0.5</td>
<td>0.0</td>
<td>0.2</td>
<td>-0.3</td>
<td>0.3</td>
<td>-0.2</td>
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<td>-0.7</td>
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<tr>
<td>Contributions to the variation margin rate</td>
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<tr>
<td>Productivity gains</td>
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<td>-0.2</td>
<td>0.3</td>
<td>-0.1</td>
<td>0.0</td>
<td>0.5</td>
<td>-0.2</td>
<td>0.3</td>
<td>0.2</td>
<td>0.2</td>
<td>0.3</td>
<td>0.4</td>
<td>0.6</td>
<td>0.6</td>
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<tr>
<td>Real wage per head</td>
<td>0.2</td>
<td>0.0</td>
<td>-0.3</td>
<td>-0.1</td>
<td>-0.1</td>
<td>-0.6</td>
<td>-0.1</td>
<td>-0.2</td>
<td>0.0</td>
<td>-0.1</td>
<td>-0.1</td>
<td>-0.9</td>
<td>-0.4</td>
<td>-0.4</td>
</tr>
<tr>
<td>Employer contribution ratio</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>-0.1</td>
<td>0.1</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.1</td>
<td>-0.1</td>
<td>-0.1</td>
</tr>
<tr>
<td>Ratio of the value-added price to the consumer price</td>
<td>-0.6</td>
<td>0.0</td>
<td>0.3</td>
<td>0.0</td>
<td>0.1</td>
<td>0.2</td>
<td>-0.1</td>
<td>0.2</td>
<td>-0.3</td>
<td>0.1</td>
<td>-0.6</td>
<td>0.4</td>
<td>-0.1</td>
<td>-0.1</td>
</tr>
<tr>
<td>Others factors</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>-0.2</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.2</td>
<td>-0.2</td>
<td>-0.1</td>
</tr>
<tr>
<td>Margin rate corrected to include CICE effect (in level)</td>
<td>28.5</td>
<td>28.3</td>
<td>28.5</td>
<td>28.0</td>
<td>28.1</td>
<td>28.2</td>
<td>27.9</td>
<td>28.2</td>
<td>28.0</td>
<td>28.1</td>
<td>28.3</td>
<td>28.1</td>
<td>29.1</td>
<td>28.3</td>
</tr>
<tr>
<td>Variation in margin rate corrected to include CICE effect</td>
<td>-0.2</td>
<td>-0.3</td>
<td>0.2</td>
<td>-0.5</td>
<td>0.0</td>
<td>0.2</td>
<td>-0.3</td>
<td>0.3</td>
<td>0.9</td>
<td>0.1</td>
<td>-0.7</td>
<td>-0.2</td>
<td>1.1</td>
<td>1.1</td>
</tr>
</tbody>
</table>

### Forecast

(1) The margin rate measures the share of value-added which remunerates capital. Its variation is broken down in accounting terms between:
- productivity changes ($Y/L$), with $Y$ value-added and $L$ employment, and the ratio of the value-added price to the consumer price, or terms of trade ($P_{va}/P_{c}$), which play a positive role;
- changes to the real average wage per head ($SMPT/P_{c}$) and the employer contribution ratio ($W/SMPT$, where $W$ represents all compensation), which play a negative role.
- others factors: including taxes on production net of operating subsidies.

\[
TM = \frac{EBE}{VA} = 1 - \frac{W}{Y} \frac{L}{P_{va}} + \text{others factors} = 1 - \frac{L}{Y} \frac{SMPT}{P_{c}} + \frac{SMPT}{P_{va}} + \text{others factors}
\]

Source: INSEE
**French developments**

**Corporate investment and inventory**

In Q3 2013, corporate investment fell by 0.6% (after +0.1% in Q2). Investment in manufactured goods grew (+0.9%) after shrinking for six consecutive quarters. Conversely, corporate expenditure on construction fell once again (-0.5%) and investment in services slumped unusually sharply (-2.8%). The expected reaction by this latter item should see corporate investment rebound in Q4 2013, a rise that is then likely to continue at a slower rate in H1 2014, linked to the activity profile.

In H1 2014, corporate investment should show a growth overhang of +0.7% at end June.

In Q3 2013 the destocking trend slowed sharply (0.5 GDP points), mainly due to a strong trend towards building up stocks in the aeronautical industry (accounting for +0.3 points), with an expected reaction effect in Q4 2013: destocking should accelerate once again (for a contribution to GDP of -0.2 points). The contribution of inventory should be nil in H1 2014.

**In Q3 2013, corporate investment fell once again**

Investment by non-financial enterprises (NFEs) declined in Q3 2013 by 0.6% (see Table 1), after stabilising in Q2 (+0.1%). This fall was essentially due to the slump in investment in services, which was unusually sharp (-2.8%). The decline in construction expenditure, which had been uninterrupted since the end of 2011 but which came to a halt in Q2 2013 (0.0%), resumed in Q3 (-0.5%). However, investment in manufactured goods progressed by 0.9%, mainly in transport equipment (+2.4%). Capital goods expenditures rose (+0.6%). All in all, the investment rate remained stable at 17.6% in Q3 2013 (see Graph 1).

**In Q4 2013, investment set to resume**

The business tendency surveys suggest an increase in investment at the end of the year. The industrialists surveyed in October 2013 predict a rise in their investments in H2 2013. In services, business leaders consider that their investment expenditure has risen in recent months. They are less optimistic about their future investments, however. Furthermore, tensions on production capacity (see Graph 2) are still low. In October the production capacity utilisation rate in manufacturing stood at 81%, well below its long-term average of 85%.

Financing conditions should improve over the forecasting period. Firstly, the margin rate of non-financial companies, which dropped once again in Q3 2013, should pick up in Q4 2013 then stabilise in H1 2014, while the cash-flow of enterprises should benefit from the favourable effect of the new Tax Credit for Encouraging Competitiveness and Jobs (CICE). After increasing sharply in 2013 under the effect of the large drop in inflation, the real lending rate should fall back over

**Table 1**

Investment by non-financial enterprises (NFE)

<table>
<thead>
<tr>
<th>Variations at previous year’s chain-linked prices, as a %</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Manufactured products (43%)</td>
</tr>
<tr>
<td>Building and public works (28%)</td>
</tr>
<tr>
<td>Other (29%)</td>
</tr>
<tr>
<td><strong>All non-financial enterprises (100%)</strong></td>
</tr>
</tbody>
</table>

Forecast

Source: INSEE
the forecasting period. Additionally, according to the available data bank lending conditions have stopped tightening (see Graph 3).

The increase in investment by NFEs should gather pace in Q4 2013 (+0.7%) with a rebound in investment in the service sector in reaction to the slump in Q3. It is then likely to weaken in H1 2014 (+0.2% per quarter) due to the slowdown in activity. The investment rate, which has fallen slightly since the start of 2011, should stabilise at around 17.6% by mid-2014.

**Investments in manufactured goods should continue to grow**

After a rise in Q3 (+0.9%), investment by NFEs in manufactured goods should accelerate in Q4 2013 (+1.2%), then slow over the coming quarters (+0.6% and +0.6%). Company vehicle registration data up to November give rise to expectations of sharp growth in automobile purchases in Q4. The rise in capital goods expenditures - which account for almost 40% of investment in manufactured goods - is likely to continue: in November, the wholesalers questioned in the business tendency survey indicated that both sales and order intentions in capital goods were progressing.

**In construction, investment likely to decline once again**

In the building sector the entrepreneurs surveyed in November expect the contraction in their activity to continue over the coming months. Bearing in mind the slump in building permits since Q2 2013, housing starts are likely to remain in a downward trend. Corporate expenditure on construction should therefore decline through to Q2 2014 (-0.2% in Q4 2013, -0.4% in Q1 2014 and -0.6% in Q2 2014).

**Investments in services set to rebound in Q4 2013**

Other investments, mainly in IT services and specialised, scientific and technical activities, should rise by 1.0% in Q4 2013. The business leaders in these sectors surveyed in November predict a stabilisation of their activity, but the unusual drop in investments in services in Q3 2013 points to an adjustment at the end of the year, followed by more moderate growth in the following quarters (+0.5% in Q1 and Q2 2014).

**Halt in the slide in the investment rate**

Over the year 2013 as a whole, investment expenditures by NFEs should be lower than in 2012 (-1.8%). The decline in investment in manufactured goods (-2.5%) is likely to be offset by a lesser drop in spending on services (-0.7%) and construction (-0.8%). The investment rate of NFEs should reach 17.6% at end 2013 and remain at this level over the forecasting period.

**Destocking of manufactured goods slowed sharply in Q3 2013**

In Q3 2013, the destocking trend in manufactured goods slowed sharply, to the extent that the contribution of inventory was +0.5 GDP points, after +0.1 points in the previous quarter (see Table 2). Added to this slower destocking of manufactured goods (+0.4 points) is that of...
energy, water and waste products (+0.1 point) and the pick-up in the building up of stocks in agricultural products (+0.1 point). In transport equipment, enterprises built up stock extensively in Q3 2013, mainly due to the sharp fall in aeronautical exports. Aeronautical deliveries declined against Q2 and, in the business tendency survey in industry, industrialists in the other transport equipment sector indicate that their stocks are high.

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In Q4 2013 the contribution of inventory to growth should be negative (-0.2 points): aeronautical exports should see a positive reaction after the downturn in Q3, leading to a lesser tendency to build up stocks.

In H1 2014 the rate at which stocks are built up should stabilise (zero contribution to growth in Q1 and Q2).

Table 2

<table>
<thead>
<tr>
<th>Contribution of inventory changes to growth</th>
<th>Quarterly changes</th>
<th>Annual changes</th>
</tr>
</thead>
<tbody>
<tr>
<td>in points of GDP</td>
<td>2012</td>
<td>2013</td>
</tr>
<tr>
<td>Agricultural and agrifood products</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Q1</td>
<td>Q2</td>
</tr>
<tr>
<td>Manufactured products</td>
<td></td>
<td></td>
</tr>
<tr>
<td>including:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agro-food products</td>
<td>-0.1</td>
<td>0.0</td>
</tr>
<tr>
<td>Coke and petroleum products</td>
<td>-0.1</td>
<td>0.1</td>
</tr>
<tr>
<td>Machinery and equipment goods</td>
<td>-0.1</td>
<td>0.0</td>
</tr>
<tr>
<td>Transport equipment</td>
<td>0.1</td>
<td>0.1</td>
</tr>
<tr>
<td>Others industrial goods</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Energy, water and waste</td>
<td>0.1</td>
<td>-0.2</td>
</tr>
<tr>
<td>Other (construction, services)</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>TOTAL</td>
<td>0.1</td>
<td>-0.1</td>
</tr>
</tbody>
</table>

Forecast
(1) Inventory changes include acquisitions net of sales of valuables.
Source: INSEE
3 – Criterion for granting credit to businesses\(^1\) and long-term actual borrowing rates\(^2\)


(2) Here, the real rate denotes the interest rate on new loans to non-financial companies, the rate of which is revisable at a frequency of more than one year, i.e. at a fixed rate for an initial period of more than one year. This rate is deflated by the producer price index of all goods and services.
International developments
International developments

Oil and raw materials

Sustained level of prices, supply and demand on the up

In Q3 2013, the oil price increased considerably, driven by Middle-East geopolitical tensions. These tensions have now eased in part and the price of Brent is around $110 today.

In H1 2014, world oil supply is set to be dynamic, driven by production that remains sustained in the United States and stronger supply from the non-OPEC emerging countries. Demand, meanwhile, should be at a standstill in Q1 but then increase in Q2, buoyed by the emerging economies.

All in all, the spontaneous increase in oil supply through to June 2014 (+1.3 million bpd year on year) should be enough to cope with the foreseeable rise in demand. The price per barrel should therefore fluctuate around its present level ($110) over the forecast period. However, the recent easing of geopolitical tensions at a time when OECD stock levels are high, could bring oil prices down over the forecasting period. On the other hand, any additional drop in production by OPEC countries could push oil prices up very quickly, given the recent weakness of the cartel’s additional capacities.

In Q3 2013, geopolitical tensions caused a rise in crude prices

The price of Brent increased in Q3 2013 against a backdrop of intensifying geopolitical tensions in the Middle East (see Graph 1). It reached a high at the end of August 2013 ($115.8 per barrel), when fears of western military operation in Syria were high, before returning to a lower level in September when those tensions partly eased.

World demand for oil increased clearly in Q3 (+1.2 million bpd), driven by the rise in demand from the emerging countries (+700,000 bpd, of which +500,000 in the Middle East where consumption rises in summer with increased use of air conditioning). The rise in the consumption of OECD countries was also sustained (+400,000 bpd), on the one hand in Europe (+200,000 bpd) where activity has been improving since Q2, and also in the US (+200,000 bpd), where consumption by manufacturing industry proved to be dynamic.

Oil supply increased by 530,000 bpd, due to the increase in production in OECD member countries (+600,000 bpd), in particular the United States. European production fell back slightly, meanwhile (-100,000 bpd), on account of seasonal maintenance. In contrast with the dynamism observed in the OECD, production in OPEC countries fell markedly (-270,000 bpd), with the difficulties encountered by several of its members (Libya, Iraq, Iran) being only partially offset by the rise in production in Saudi Arabia (see Graph 2).

In Q4, the physical market should ease

In Q4 2013, the price of Brent will have stayed fairly stable at around $110. On the physical market, world demand should fall (-140,000 bpd), essentially due to OECD member countries except...
International developments

Japan where consumption should increase with the arrival of winter.

Demand should fall in Europe (-470,000 bpd) and in the United States (-210,000 bpd), where the shutdown had a negative impact on consumption. Likewise, demand should fall seasonally in the Middle East (-600,000 bpd). Chinese consumption should be dynamic, however (+330,000 bpd).

Supply should be stable compared to the previous quarter. It is set to increase in the non-OPEC members (+600,000 bpd), in particular North America (+600,000 bpd). However, production should decrease sharply in the OPEC member countries (-600,000 bpd), notably driven by the seasonal fall in Saudi supply (-370,000 bpd between September and October).

In H1 2014, demand and supply should gain in dynamism

In Q1 2014, supply should be dynamic again (+400,000 bpd) thanks to still-strong US output (+300,000 bpd) and a rise in production of non-OPEC emerging countries. OPEC production should remain around the low level observed in October, as Libyan production is set to resume only slowly, while the rise in Iranian production remains reliant on international sanctions being lifted. In Q2, dynamic supply should be driven by world biofuels production (+400,000 bpd), while crude production in the OPEC countries should remain at a low level.

Oil demand should fall in Q1 2014 following the usual seasonal profile in Europe. World demand should increase from Q2 (+500,000 bpd), driven by the emerging countries (+1.2 million bpd) and by Europe (+270,000 bpd). In contrast, demand should fall sharply in the OECD countries (-700,000 bpd), essentially due to the seasonal falls in consumption in Japan (-900,000 bpd).

The price of oil should fluctuate around $110 per barrel through to mid-2014

Over the forecasting period, the parallel trends in supply and demand would suggest the price should remain stable at around $110 per barrel. This level seems compatible with a tense geopolitical environment that could weigh down on OPEC production at a time when its additional capacities are already small.

Industrial commodity prices fall

The prices of industrial metals rose in Q3, after falling sharply in Q2. Copper prices rebounded (see Graph 3), benefitting in particular from the recovery of Chinese demand, while aluminium prices levelled out. The rise in Chinese production and uncertainties surrounding the continued support of the Fed for the US economy, the world’s second-biggest copper consumer, have brought prices down again in Q4, however.

Fluctuations in the volume of world supply of several commodities generated large movements in prices, notably in those of cereals. In particular, favourable climate conditions announcing a particularly abundant harvest triggered a sharp slide in prices in July.

2 - Oil production in Saudi Arabia, Libya, Iran and Iraq

Last point: October 2013

The price of oil should fluctuate around $110 per barrel through to mid-2014

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Source: AIE
3 - Prices of industrial metals
Last point: 6 December 2013

Source: London Metal Market
International developments

Financial markets

Tighter monetary policies can wait

With the sovereign debt market no longer showing any signs of tension, monetary authorities in the advanced countries are continuing to provide strong support for financing of the real economy by keeping their base rates very low and via unconventional strategies. While the European Central Bank (ECB) brought its base rate down in November to step up its support for the economy, the Fed has been talking since Q2 2013 of an upcoming reduction in its monthly securities buying as the US economy recovers.

On the money market, the role of the central banks remains important, in particular in the Eurozone where the banks of Southern Europe are still carrying out a large part of their refinancing thanks to the long-term loans granted by the ECB. The interbank market remains fragmented and the interest rates granted by banks remain distinctly less favourable in these countries.

The rise in long-term rates on bonds observed over summer 2013 stopped in September. The United States, Germany and France are the countries perceived as being the soundest financially and are still enjoying excellent refinancing conditions on their sovereign debt, while certain countries that have known greater difficulties (Ireland and, to a lesser extent, Spain and Italy) have seen a return to low interest rates in Q4.

On the equity market, stock market indices in the advanced countries continued their rise in Q3 2013, still profiting from the low level of bond and money rates. After a fall in Q3, stock market indices in emerging countries returned to the same levels as at the start of the year, profiting from a return of foreign capital.

On the foreign exchange market, the Euro rose against the Dollar from September 2013, driven notably by the continuation of monetary easing in the US. Over the forecasting period, the conventional hypothesis taken for exchange rates are $1.35 dollar, 137 yen and £0.85 to one Euro.

Monetary policies still supporting the economy

The central banks of the advanced countries continue to apply accommodating monetary policies, although their prospects diverge. Against the backdrop of a continuing decline in the credit market and low inflation, the ECB cut its main base rate in early November by 25 base points to 0.25%. It also declared itself to be ready to intervene if interbank market rates should rise again, including via a long-term refinancing operation (LTRO).

In the United States, the Fed is still applying a base rate of 0.25% and maintaining its securities purchasing programme under which it is acquiring...
$85 billion in securities each month. However, the improvement in prospects for activity has led it since Q2 2013 to outline a strategy to stop these purchases gradually (see Focus). Before the end of 2014, but more probably in H1 2014, the Fed could therefore begin to reduce the level of its buying.

In line with the quantitative easing programme it started in early 2013, the Bank of Japan is still conducting an aggressive monetary policy, expanding the money base at an annual rate of around 15% of GDP.

**Imbalances continue on the European money market**

The working of the Eurozone interbank market remains marked by the important role of the ECB, which is providing the banks with access to low-cost refinancing via the cut in its base rate and by continuing its fixed-rate tender procedure for main refinancing operations. Consequently, interbank market rates remain low and not very volatile, but the volumes traded there overnight are low. The market has therefore not returned to normal operation and the banks of the peripheral countries still have a substantial part of the liquidities the ECB supplied to them in the two LTROs in December 2011 and February 2012.

**Lending continues to fall back in the Eurozone**

In the Eurozone, financing terms by bank lending remained difficult in Q3 2013 and at the beginning of Q4, and outstanding bank lending to non-financial enterprises fell in all the Eurozone countries, except for France where it progressed slightly (see Graph 1). This negative trend is visible in the surveys, which indicate a slight tightening of lending terms for businesses and a further fall in demand for bank lending. In Q4, these conditions should ease.

In France, outstanding lending to non-financial enterprises stabilised at the end of Q3 2013 with a year-on-year change of -0.1% in October. Investment lending continued to grow (+1.9% in October) and was more dynamic than short-term liquidity credit, which fell back again (-6.1%).

For households, outstanding consumer credit also fell on an annual basis in October for the 16th consecutive month. However, this fall masks a certain dynamism in new consumer loans. Regarding property lending, the rate of growth in new loans remained sustained in October.

**Bond market normalisation continues**

The declarations of the Fed Chairman as to a possible reduction in the institution’s monthly security purchases by by the end of 2013 caused a rise in uncertainty and in sovereign rates before the summer. By the end of Q3 2013 these concerns had eased with the more accommodating messages put out by the Fed and the decision made at its meeting in September, surprising the markets, not to reduce its purchases. Financing terms on the sovereign debt of the States that are soundest financially (United States, Germany and France) remain most advantageous. Meanwhile, the financing terms on Spanish and Italian sovereign debt are improving. In Greece, interest rates on the secondary market in government debt have fallen considerably, although the country is still not issuing any long-term sovereign debt. However, interest rates are barely falling any more in Portugal in Q4 2013. Its exit from the Troika aid programme it has benefited from since 2011, and which expires in 2014, therefore seems uncertain.

**Share prices remain high in the advanced countries**

Driven by better growth prospects in the United States and Eurozone, the stock market indices in advanced economies progressed again in H2. The rate of this rise has eased, however, due to uncertainty as to the Fed’s attitude in coming months.

The stock market indices of the emerging countries had fallen sharply in Q3 2013, but the announcement of continued monetary easing in the US led to a rise in stock markets from September onwards.

**The Euro at a high level against the Dollar**

The continuation of US monetary easing announced back in September, combined with the impact of the shutdown, strengthened the Euro against the Dollar from September onwards. At the beginning of October, the exchange rate hit $1.38 to 1 Euro, its highest since November 2011. In early December, the Euro stood at $1.36 (see Graph 2).
International developments

Since 2008, the Fed has been implementing monetary policies never seen before in the United States.

In response to the 2008 crisis, the Fed cut its base rate sharply between August 2007 and December 2008, from 5.25% to 0.25%. Since then, to continue easing its monetary policy further, it has applied a policy never seen before in the United States: large-scale assets purchases, referred to as quantitative easing (QE). These successive operations, consisting mainly in buying US Treasury bonds and mortgage-backed securities (MBS), are summarised below.

All in all, the Fed now holds around $3,500 billion in securities (of which close to 40% of mortgage-backed securities, see Graph 1), against less than $800 billion in 2007 (US Treasury bonds only). In addition to this, the average maturity of the securities held has increased sharply: while those with residual maturity exceeding 5 years represented 20% of the Fed’s securities portfolio in 2007, they count for 68% today.

These large-scale assets purchases have contributed to reducing interest rates

The Fed’s objective is to keep long-term interest rates low to support consumption and investment. While the base rate, that is the traditional tool of the central banks, influences short-term interest rates first, quantitative easing acts directly on long-term interest rates formation, via two channels that are not mutually exclusive, as well as directly on the mortgage market.

Lowering interest rates via the portfolio channel

The securities purchases are financed by the Fed by increasing the reserves the banks hold in central bank currency, which can only be used in interbank relations. Contrary to what many say, quantitative easing therefore is not just creating money without backing: there is no immediate increase in the volume of the financial assets of private agents, just a modification in structure.

However, quantitative easing does have a mechanical effect on the yield of the securities that are purchased: as quantities of US Treasury bonds and MBS on markets have decreased, their prices increase and their yields therefore fall. Some investors may also seek to balance their portfolios by acquiring other securities, whose prices then rise in turn.

By its intervention, the Fed is also endorsing a part of the various risks to which holders of securities are exposed, thereby amplifying the reduction in their yield via a decrease in the term premium (the premium agents demand in return for the uncertainty of the real yield on long-maturity securities). This additional effect is weak, by definition, for risk-free assets such as US treasury bonds, but potentially high in the case of MBS in 2009, which were very illiquid.

Lowering interest rates via the monetary policy signal channel

Large-scale assets purchases boosts the credibility of the Fed’s low-rate policy over the long term. First of all, the purchases act on investors as a sign of the institution’s opinion of the economic situation. Also, a rise in the base rate would result not only in a reduction in the value of the securities held by the Fed, but also in a rise in remuneration of the banks’ reserves, which are very large today.

A fall of 15 to 25 base points for $600 billion in securities purchases due to QE2

The long-term interest rates, whether on US Treasury bonds, mortgage-backed securities (MBS), or even corporate bonds, have fallen significantly since the end of 2008 (see Graph 2), while the Fed base rate has remained unchanged at 0.25%. Many researchers have attempted to quantify the contribution of quantitative easing to the fall observed in long-term rates and to distinguish between the respective roles of the two channels mentioned previously. These studies have mainly looked into QE1 and QE2, as QE3 is still too recent. Several empirical studies have concluded that the monetary policy signal channel exists, using the so-called “event studies” method: they measure the change in interest rates...
immediately after the announcement of a monetary policy event, before the said measure has been implemented (see, for example, Bauer and Rudebusch (2013) or Krishnamurthy and Vissing-Jorgensen (2011)). In addition to this, the (upwards) movement in interest rates observed in May 2013 when the Fed announced an upcoming reduction in the rate of securities acquisitions, then the (downwards) movement in September 2013 on the announcement that securities acquisitions would be continuing at the same rate, confirm the importance of the monetary policy signal channel. The importance of the portfolio channel in the fall in interest rates is more open to debate. On the one hand, no matter how large they may be, the sovereign bond acquisitions by the Fed only represent a small proportion of the debt issued by the Federal State on the US bond market, which has increased sharply since the beginning of the crisis. In addition to this, the purchases have concerned very specific market segments in which the Fed has been a dominant buyer.

All in all, the downward impact of quantitative easing on long-term rates is fairly beyond doubt, but it does seem to have been more pronounced in the beginning, when the aim was to counter the sharp deterioration in financing conditions. While consensus in the studies conducted on the first programme of securities buying considers that it allowed a reduction in long-term rates by about 50 base points, Williams (2013) estimates, based on a review of all the studies collected on the subject, that the purchase of $600 billion in securities in the second operation produced a fall in the long-term interest rate of 15 to 25 base points, which corresponds to the effect generally produced by a 75- to 100-points cut in the base rate.

### The effect on the real economy is a subject of debate

Most of the research so far has focused on the impact of quantitative easing on interest rates, and few studies have focused on the impact of these measures on the real economy, for several reasons: for lack of a longer-term view of phenomena that are likely to work through to the economy slowly, and also because it is difficult to construct the trajectory the economy would have taken without these measures (a “counterfactual” scenario), notably in the absence of historic precedents to provide statistical regularities.

#### A reduction in corporate financing costs, but what impact on corporate investment?

The drop in interest rates has allowed corporate financing costs to be reduced, all the more so in the US where the share of bond debt in financing is higher than in Europe. Smaller companies with less access to capital markets may have been able to benefit from a second-round effect, via an increase in demand from large corporations for their products and services, when they are suppliers of such corporations, or via a rise in commercial credit when they buy supplies from them.

However, this reduction in financing costs has come at a time when the financial situation of US companies is excellent on the whole, whether it is measured in terms of margin rate, profit ratios or free cash flow. The fall in interest rates generated by quantitative easing therefore probably made little contribution to the upturn in corporate investment, which remains subdued anyway. The investment rate has not increased since mid-2011 and remains below its long-term average.

### Table: Securities purchased by the Fed

<table>
<thead>
<tr>
<th>Opération</th>
<th>Operation Period</th>
<th>Securities purchased by the Fed</th>
</tr>
</thead>
<tbody>
<tr>
<td>QE1</td>
<td>From December 2008 to March 2010</td>
<td>MBS ($1,250 billion) + government agency debt ($175 billion) + Treasury bonds ($300 billion)</td>
</tr>
<tr>
<td>QE2</td>
<td>From November 2010 to June 2011</td>
<td>Long-maturity Treasury bonds only ($600 billion)</td>
</tr>
<tr>
<td>MEP (twist operation)</td>
<td>From September 2011 to December 2012</td>
<td>Swap ($667 billion) of Treasury bonds to increase the residual maturity of the securities held</td>
</tr>
<tr>
<td>QE3</td>
<td>Until September 2012</td>
<td>MBS ($40 billion per month, still underway)</td>
</tr>
<tr>
<td>QE3 expanded</td>
<td>Until January 2013</td>
<td>Treasury bonds ($45 billion per month, still underway)</td>
</tr>
</tbody>
</table>

### Figure: Amount of securities held outright by the Federal Reserve

- US Treasury securities
- Mortgage backed securities (MBS)
- Federal agency debt–securities

*Source: Board of Federal Reserve*
International developments

Share prices buoyed by quantitative easing
The fall in interest rates on bonds has made shares more profitable in relative terms, thereby increasing demand for them among investors. Consequently, their prices have increased simultaneously with the securities purchases made by the central bank (see Graph 3). It remains difficult, however, to quantify the impact of quantitative easing on the rise that has been observed. On the one hand, the average price-to-earnings ratio of US companies does not seem to be at a particularly high level, although it has risen from its low point during the crisis: it is now at its average level for 2004-2006. On the other hand, the rise in bond rates further to the announcement of the Fed’s exit strategy in May and June 2013 has not resulted in a downwards adjustment in share prices, thereby placing the impact on them of the central bank’s policy in perspective.

The fall in mortgage rates has contributed to the upturn in real estate
The purchases of mortgage securities have brought a reduction in property lending rates. This did not have an immediate effect on activity, as the real-estate crisis had generated a large stock of homes for sale from foreclosures on households that had defaulted on their loans, thereby postponing the upturn in prices to the end of 2011. This upturn coincided with that in housing starts (after falling 59% between 2007 and 2009 then levelling out, they increased by 28% in 2012) and with the recovery in new mortgage contract signatures (see Graph 4). The impact of quantitative easing on the property market recovery seems all the clearer in that the rise in mortgage rates in summer 2013 went hand-in-hand with a fall in housing starts.

The rise in asset prices seems to have contributed to a fall in the household savings ratio
In the United States, unlike in mainland Europe, there is empirical evidence of a causal link in the past between variations in asset prices and the savings ratio; this is what is called the ‘wealth effect’. It can be observed that the increase in households’ net assets since 2009 has gone hand-in-hand with a downward trend in the US household savings ratio (see Graph 5).

What has been the overall macro-economic impact?
The only studies evaluating the overall impact of quantitative easing on the US economy are in fact simulations based on macro-economic models, rather than actual evaluations. Chung et al. (2012) take a forecasting model used by the Fed

![Graph 3: Impact of quantitative easing policies on US public and private long-term rate]

![Graph 4: Impact of quantitative easing policies on share prices]

(1) The price-to-earnings ratio is equal to the market capitalisation of an enterprise divided by its net profit. It is a measure of the discount rate of future profits by investors.
International developments

and modified to include the possibility of transmission via the portfolio channel, and estimate the impact of the first programme to have been a rise of 2 points in GDP and the cumulative effect of the first two programmes to have been a rise of 3 points in GDP. According to Chen et al. (2012), the $600 billion in securities acquisitions in the second programme generated a rise in US GDP of between 0.2% and 1.0% depending on the method used, as compared to a situation in which the Fed had not conducted any such operations. Their model also finds a much smaller impact of the securities purchases if the Fed had not committed over the long term to keep long-term rates at low levels, illustrating the importance of the monetary policy signal channel. However, the fact that the specifications of these models are based on the hypothesis of the effective working of quantitative easing transmission channels suggests that their conclusions should be read with caution.

Conclusion: the effects are difficult to measure, the exit strategy perilous

Effects on the real economy difficult to measure and limited in any case

According to the empirical studies, quantitative easing therefore seems to have had an impact on reducing interest rates. The effect is probably limited, however, at between 15 and 25 base points for $600 billion in securities purchases. It is difficult to estimate the effect of this reduction in financing costs on corporate investment. However, the effect on household expenditure (on consumption via the wealth effect and on housing via the fall in rates) seems more visible.

In addition to this, the increase in the price of all assets driven by quantitative easing has had major anti-distribution effects, as these assets are mainly held by the wealthiest households (see report by the Bank of England (2012)).

A complex exit route to be managed

Quantitative easing was introduced against a backdrop of acute economic crisis and deflation concerns. As the upturn takes shape with the rise in credit that should result from it, a need is also emerging to ease the expansion in the monetary base, at the risk of asset price expectations (real estate, financial assets) to be disanchored.

By a series of successive announcements since Q2 2013, the Fed has been attempting to provide insights into its 'exit strategy'. On 22 May 2013, the Fed set out its doctrine:

- stage 1: if the economic situation allows, the Fed could begin to scale back the monthly volume of its purchases before the end of 2013,
- stage 2: monthly purchases could end around mid-2014,
- stage 3: the base rate will remain at a low level "for a long time" after the end of the monthly acquisitions.

**4 - The US mortgage market**

![Graph](image)

Source: BEA

**5 - US household assets and savings ratio**

![Graph](image)

Sources: Mortgage Bankers Association, Board of Federal Reserve, Census Bureau, Standart and Poor’s
International developments

This timeline has become more uncertain since then, however, and has probably been postponed, as the announcement of this strategy led to a pronounced rise in sovereign and mortgage rates, by almost 100 base points, even though it was only a gradual stop to securities purchases and not a reduction in the stock of securities held. In fact, it is highly likely that the markets interpret any reduction in QE as a sign that the date of the rise in short-term rates is approaching. The exit route from this system will therefore remain perilous, as long as the Fed has not managed to disconnect agents’ long-term base-rate expectations from the monthly volumes of securities purchases.

Forward guidance seems to generate considerable results

In order to hold interest rates down, the Fed has also provided forward-looking indications of its future base-rate policy (forward guidance). This new communication does seem to have had immediate and pronounced effects. For example, in August 2011, when the Fed announced that it would “probably guarantee low base rates at least until mid-2013”, interest rates immediately dropped by 20 base points and market expectations of the period of time before any change in rates increased from 4 to 7 quarters. This type of effect was observed once again in January 2012 and September 2012 (when that timescale was pushed back to the end of 2014 and mid-2015 respectively).
International developments

**Eurozone**

An upturn, but a moderate one

In Q3 2013, activity in the Eurozone slowed (+0.1% after +0.3% in Q2). Exports slowed sharply in all countries of the Eurozone.

Business tendency surveys have continued to recover and the business climate in industry is now in the expansion zone. Activity in the Eurozone is therefore likely to grow moderately again from Q4 2013 (+0.3% per quarter). The decline in purchasing power should ease due to a lesser fall in employment. With business and employment prospects improving, households should bring down their precautionary savings and consumption should therefore rise slightly. The gradual pick-up in activity and the need to renew production capacities after a marked adjustment phase should sustain the recovery of investment in equipment. In construction, the drop in investment should ease. The contribution of foreign trade to growth is likely to be virtually nil, with the recovery of imports cancelling out the rise in exports.

All in all in 2013, activity should slip back by 0.4%, after -0.6% in 2012. The 2014 growth overhang at end June should however be positive, at +0.9%.

**Weak growth in Q3 2013**

In Q3 2013 GDP grew by 0.1%, confirming the end of the recession in the Eurozone. This slower growth than in Q2 (+0.3%) is due to a very sharp slowdown in exports across all countries of the Eurozone (+0.2% after +2.1%). The contribution of foreign trade was -0.3% against +0.3% in Q2 2013.

**Moderate upswing in activity**

The business tendency surveys have picked up since mid-2013, despite a dip in October. The business climate is now in the expansion zone for the first time since 2011.

Activity in the Eurozone should grow moderately once again through to mid-2014 (+0.3% per quarter), mainly driven by domestic demand against a backdrop of less extensive fiscal consolidation.

The short-term divergence within the Eurozone should partially subside. Activity is likely to be dynamic in Germany and to a lesser extent in France, while Spain should catch up with these two countries’ growth rate over the forecasting period. In Italy however, activity should grow only slightly in H1 2014.

**Sluggish consumption**

Employment should fall at an increasingly moderate pace and stabilise in Q2 2014. After stagnating in 2011 and 2012, productivity should continue to pick up as it has done since the start of 2013. The unemployment rate should rise again slightly and reach 12.4% in Q2 2014, against 12.1% in October 2013.

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1 - Precautionary savings should be reduced allowing consumption to rise slightly

Sources: Eurostat, INSEE calculations
International developments

Nominal wages are once again likely to progress moderately over the forecasting period, with marked rises in Germany and stability in Spain and Italy. In Q4 2013, the reinstatement of the fourteenth month in the Spanish civil service should raise wages significantly before they decline in the following quarter. All in all, the fall in purchasing power should ease over the forecasting period (year-on-year, 0.0% in Q2 2014 after -1.3% in Q2 2013).

With business and employment prospects improving, households should bring down their precautionary savings. Consumption should therefore rise slightly (+0.2% per quarter).

Investment in equipment recovering

Bank lending conditions have stopped tightening in the Eurozone since the start of 2013, except in Italy. In Spain they have even eased for the first time since 2010. This improvement is likely to continue and extend to Italy. Additionally, the gradual upswing in activity as currently anticipated by entrepreneurs in their responses to the business tendency surveys, and the need to renew production capacities after a marked phase of adjustment should sustain the recovery of investment in production, which should be strong in Spain and to a lesser extent in Italy.

In construction, the drop in investment should slow. Confidence is improving slightly in the sector, although it is still very low.

Foreign trade providing more moderate support for growth through to mid-2014

Exports should continue to grow over the forecasting period, sustained by the rise in world demand for Eurozone products. Imports should increase sharply, in line with the dynamism of exports and the recovery of domestic demand.

The contribution of foreign trade should therefore remain slightly positive until the end of 2013 and in Q1 2014 before becoming neutral in Q2 2014. Growth in the Eurozone should therefore gradually be rebalanced.

Inflation set to remain low

In November headline inflation stood at +0.9%. It should rise to +1.1% year-on-year by June 2014, sustained by energy prices. Assuming the Brent price remains stable at $110 and under the effect of the exit from year-on-year figures of the drop that occurred in spring 2013, year-on-year prices of energy products should rise to +2.3% in June 2014.

Additionally, in the absence of inflationary pressures, which are limited by high unemployment rates in most Eurozone countries, core inflation should also fall slightly, to +0.8%.

Eurozone inflation differentials gradually coming back in line with the fundamentals

From 2009 to 2012 the inflation differentials within the Eurozone ran counter to economic fundamentals

The main Eurozone economies have been running along divergent paths since 2009: while the recovery has been lasting (although modest) in Germany, France showed virtually zero growth from mid-2011 to mid-2013, and Italy and Spain have been in deep recession since 2011. The labour market situation has been similarly contrasting from one country to the next, in terms of both unemployment level (low in Germany, very high in Spain) and unemployment trend. Yet this divergence between European economies was not reflected in inflation in 2011 and 2012, with a bigger increase in prices in Italy and Spain (2.5 to 3%) than in France and Germany (below 2.5%).

In 2013, inflation differentials have gradually got back in line with economic activity

The short-term differentials have continued in 2013 in the Eurozone. Although unemployment rates are more or less stabilising, the activity growth rate in Germany is still likely to be higher than in France, with activity in Italy and Spain still very weak. However, the inflation differentials between the four economies conform far better to their respective positions in the economic cycle in 2013 than in the previous four years. As forecast, the temporary effects of indirect taxation and the high level of energy inflation have stopped fuelling inflation. Spain’s headline inflation should therefore be close to zero at end 2013 and this headline inflation should fall back more sharply in Italy and Spain than in France and Germany (see Graph 1).

This drop in inflation can be broken down by product (see Table 1).

The fall in energy prices has contributed to the drop in inflation in all countries, although more markedly in Italy and Spain. In this latter country the exit of the VAT rise of 1st September 2012 from the year-on-year figures has had an even greater effect.

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[1] See the report in Conjoncture in France, March 2013, “In the Eurozone, why isn’t inflation lower in the countries most affected by the crisis?”
[2] This breakdown of prices is performed at constant taxation rates or, where applicable, adjusted for variations at indirect taxation rates.
In 2011 and 2012, food inflation was higher in Germany and France than in Italy and Spain. In October 2013, food prices have fallen more sharply in France than in Italy, while they have risen slightly in Spain and in Germany, with year-on-year food inflation contributing 0.1 points to growth in inflation between October 2012 and October 2013.

In October 2013, energy prices are lower than a year previously in each of the countries considered, particularly Spain and Italy. The energy sector should therefore make the biggest contribution to falls in prices, to the tune of -1.2 points in these two countries.

Inflation in services is likely to diminish in Spain and Italy, accounting for a 0.2-points fall in headline inflation in both countries. It should thus come back in line with the positions in the business cycle of the Spanish and Italian economies.

Lastly, inflation in manufactured goods has shown a downward trend since the start of 2012 in all four countries. Year-on-year at end October, it is however stable in Spain as it fell more sharply beforehand (see Graph 2).

The price formation mechanisms in the four countries still restricting inflation divergences

As an annual average, core inflation in Germany, Spain and Italy should be virtually identical in 2013 (+1.0%), while in France it should be significantly lower (+0.6%). It should be recalled that on average in 2011-2012, Italy stood out for its much higher core inflation, while in France it was identical to that in Spain and Germany.

Firstly, the persistent divergences in the labour market situation between Germany and Spain have continued to filter through to wage costs, which have slowed sharply in 2013 against 2011-2012 in both countries, but the growth rate differential is still 2% (+1.9% against -0.1%). While the slowdown has also been marked in France (from +2.6% in 2011-2012 to +1.7% in 2013), Italy has seen a slight acceleration in wage costs (from +1.0% to +1.3%).

The divergence in wage costs between Germany and Spain has combined with a divergence in productivity gains, which are negative in Germany in 2013 (-0.3%) and still just as dynamic in Spain (+2.9%), to the extent that the two countries’ unit wage costs are poles apart: +2.2% against -2.9%. Conversely, wage costs have grown moderately in France (+1.1%) and Italy (+1.2%) where productivity has stopped decreasing.

(3) Core inflation as harmonised for the Eurozone by Eurostat, the source of the figures given here for the four countries, is not adjusted for tax measures, unlike the definition used in France by the INSEE in its publications.

(4) The variations in margin rate given in the table correspond to the differential between variations in the price of value added and those in unit wage costs.
International developments

In Italy, France and Germany, the corporate margin rate has stabilised in 2013 after declining over the last two years. In Spain however it has continued to grow strongly, so much so that core inflation has risen again slightly despite the fall in unit wage costs. In all four countries the drop in the prices of imports in 2013 has contributed to a slowdown in core inflation as set against the price of value added. In Spain, and to a lesser extent in Italy, this effect has been offset by the increase in indirect taxes. (5)

(5) And headline inflation even more so, bearing in mind the drop in oil prices.

Table 2

<table>
<thead>
<tr>
<th>Country</th>
<th>Germany</th>
<th>Spain</th>
<th>France</th>
<th>Italy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core inflation</td>
<td>1.0 1.3 1.0</td>
<td>2.7 1.2 1.1</td>
<td>1.3 1.3 0.6</td>
<td>2.2 2.0 1.1</td>
</tr>
<tr>
<td>Variation in the ratio between the core price index and the price of value added</td>
<td>0.7 0.4 -1.2</td>
<td>-0.9 0.9 0.4</td>
<td>-0.2 0.4 -0.7</td>
<td>-0.1 0.6 -0.2</td>
</tr>
<tr>
<td>Variation in the ratio between the price of VA and the unit wage cost</td>
<td>1.1 -1.0 0.0</td>
<td>0.1 2.8 3.7</td>
<td>0.2 -0.5 0.2</td>
<td>0.0 -0.8 0.0</td>
</tr>
<tr>
<td>Variation in the unit wage cost including contribution:</td>
<td>-0.7 1.9 2.2</td>
<td>3.5 -2.4 -2.9</td>
<td>1.3 1.4 1.1</td>
<td>2.3 2.3 1.2</td>
</tr>
<tr>
<td>of the per capita wage cost</td>
<td>1.0 2.9 1.9</td>
<td>2.7 1.4 -0.1</td>
<td>2.5 2.6 1.7</td>
<td>1.8 1.0 1.3</td>
</tr>
<tr>
<td>of productivity gains</td>
<td>-1.7 -1.0 0.3</td>
<td>0.8 -3.9 -2.9</td>
<td>-1.2 -1.1 -0.6</td>
<td>0.4 1.2 -0.1</td>
</tr>
</tbody>
</table>

Scope: non-agricultural market sectors

Source: INSEE
In Q3 2013 activity slowed in Germany (+0.3% after +0.7%). Household consumption only grew slightly (+0.1%) after a very dynamic Q2. Furthermore, exports stagnated while imports held up, and trade contributed negatively to growth. On the other hand, investment sustained growth for the second consecutive quarter. Activity is likely to grow at the same rhythm in Q4 (+0.3%) and then pick up in H1 2014 (+0.4% in Q1, +0.5% in Q2). Therefore, household consumption should become stronger, in line with the dynamism of purchasing power, and investment should continue its recovery. Lastly, exports are expected to remain strong and foreign trade should return to a positive contribution to growth, albeit a small one.

**Household consumption set to pick up**

The labour market situation is still very favourable to German households: never have there been so many people in employment in Germany, and the unemployment rate was just 5.2% in October. Over the forecasting period employment should progress further and unemployment should stabilise. Similarly, wage rises are likely to contribute positively to household purchasing power; hence households are likely to increase their consumption expenditures (+0.3% in Q4 2013 and +0.4% per quarter in H1 2014). The savings ratio of households should also fall, against a backdrop of lesser uncertainty in the Eurozone.

**Timid recovery of investment in capital goods**

The rate of investment in capital goods is now very low in Germany, at the same level as its low point in 2009 (see Graph). After falling for six consecutive quarters, it recovered slightly in Q2 and Q3 2013 (+1.2% then +0.5%). Over the forecasting period it should continue to grow moderately (+0.6% in Q4 2013, +0.7% in Q1 and +0.9% in Q2 2014), in line with the pick-up in activity, assuming that the underinvestment observed since 2011 is not made up for.

In construction, investment should recover sustainably in H1 2014, thanks to new government investments and the dynamism of residential construction, in line with the increase in building permits since 2011.

**Exports set to rebound**

In Q3 2013 sluggish exports (+0.1%) resulted in a negative contribution by foreign trade to growth, for a value of 0.4 GDP points. However, due to the rebound in world demand for German products, exports should return to a higher growth rate in Q4 (+1.6%). Imports are also likely to gain in dynamism thanks to robust domestic demand, to the extent that trade should no longer be the main driver of German growth, as it had been until 2013.

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**The rate of investment in capital goods at the level of its low point of 2009**

Source: Destatis
International developments

Italy

A soft recovery

In Q3 2013 Italian activity stabilised (0.0%) and should remain stable before picking up slowly over the forecasting period. Where foreign trade sustained activity over the last two years, domestic demand should now take over, sustained by the gradual recovery of investment in capital goods.

The business tendency surveys have improved over the last few months and indicate a slow upturn in activity over the forecasting period (0.0% in Q4 2013 and Q1 2014, then +0.1% in Q2 2014). The business climate derived from the national surveys has been improving strongly in manufacturing for several months. The composite purchasing managers index (PMI) is also in the expansion zone. In construction, although the surveys show improvement, the indicators are still low.

Business prospects and order books in manufacturing have clearly improved. In addition, the interest rates offered to large enterprises have returned to a low level since 2012 and the rates granted to small companies have continued to fall. Furthermore, the production capacity utilisation rate has picked up since the start of the summer and is now close to the level observed before the country went into recession (see Graph). In order to rebuild their production capacities, enterprises are therefore likely to develop their investments significantly (+0.8% in Q4 then +1.4% per quarter in H1 2014). However, exports are likely to be far less dynamic than world demand for Italian products, while imports should increase in the wake of the recovery of domestic demand.

Private consumption virtually stable

The labour market situation is still poor in Italy. The rate of unemployment stood at 12.3% in Q3 2013 and is still taking its toll on the bargaining power of employees. The drop in purchasing power has nonetheless eased (-2.5% year-on-year in Q2 2013 after -5.3% one year previously) under the effect of the drop in inflation. Over the forecasting period, due to weak activity and further productivity gains, employment should fall back once more. However, the fall in purchasing power should continue to ease (-0.8% year-on-year in Q2 2014), as fiscal tightening eases, while the VAT rise in Q4 2013 should only have a marginal impact on inflation, which should remain low. All in all, households are still likely to reduce their consumption expenditure but less markedly than previously.

Production capacity utilisation rate and productive investment

Sources: European Commission, ISTAT, INSEE calculations
Spain came out of recession in Q3 2013. Spanish activity is likely to grow again over the forecasting period: +0.2% in Q4 2013 then +0.2% and +0.3% in H1 2014. Exports should continue to sustain activity. But the stabilisation of the labour market and of household purchasing power should also allow a recovery of household consumption over the forecasting period. Investment in capital goods should rise again, clearly sustained by the need to renew production capacities after a marked phase of adjustment. All in all, domestic demand should contribute positively to Spanish growth in 2014.

**Consumption on the brink**

Household purchasing power should stabilise over the forecasting period in a context of falling inflation. It should benefit from the smaller drop in employment and the slower pace of fiscal consolidation, with, among other things, the reinstatement of the fourteenth month of wages in the civil service. The gradual improvement in business and employment prospects should also encourage Spanish households to bring down their precautionary savings. The savings ratio should thus fall, although only slightly, over the forecasting period, and private consumption should rise slightly through to mid-2014 (see Graph).

**Spanish exports holding firm**

Spanish exports should continue to sustain activity with growth of 1.2% per quarter through to mid-2014, with Spain profiting from the renewed dynamism of world trade and the improved economic outlook in the Eurozone. Imports are also likely to rebound over the forecasting period, driven by the good performances of exports and the rebound in domestic demand. All in all, the contribution of foreign trade to growth should fall, although it will remain positive.

**Investment in equipment picking up**

The construction sector is likely to continue suffering due to the adjustment of the property market and the measures to bring down public investment. However, according to the short-term indicators, the drop in output in this sector should be smaller.

Investment in capital goods should grow sharply, sustained by a need to renew production capacities after a marked phase of adjustment since 2008. This investment effort should also be spurred on by the continuing recovery of the profit margins of Spanish entrepreneurs over the last few years and the easing of financial tensions in Spain. 

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**Household consumption (observed and simulated)**

![Graph showing household consumption changes](source)

*Sources: INE, INSEE calculations*
United Kingdom

Activity in the United Kingdom has progressed strongly since the start of the year and growth should reach +1.4% in 2013. Through to mid-2014 activity is likely to remain solid, driven by all sectors, particularly construction. Investment is likely to be boosted by government programmes and encouraging business prospects. Wealth effects and the fall in unemployment should lead to a drop in the savings ratio, although the support for consumption is likely to slow in early 2014. All in all, growth should stand at +0.8% in Q4 2013 then +0.5% per quarter in H1 2014.

The improvement confirmed

In Q3 2013 British activity accelerated: +0.8% after +0.7% in Q2. It looks likely to remain very dynamic in Q4 2013 (+0.8%). The composite indicator of European surveys and the composite PMI took off in summer and were still very high in November (see Graph). Activity should remain dynamic in construction, helped by the upturn in credit, the «Help to Buy» governmental programme and the pick-up in government investment. Additionally, mortgage rates are likely to remain at a very low level. All in all, British GDP should grow by 1.4% over the year 2013 as a whole. In H1 2014 activity looks likely to slow slightly (+0.5% per quarter): purchasing power gains should remain modest and consumption is likely to weaken somewhat.

Stimulus for consumption set to slow in H1 2014

In Q3 household consumption accelerated, sustained by the sharp rise in employment (+0.6%) and the upswing in the property market generating wealth effects. In Q4 the drop in the rate of unemployment (7.3% after 7.6%) and the rise in house prices should continue, so much so that consumption should remain buoyant. However, social benefits are likely to be penalised by fiscal consolidation and, without actually falling, real wages should remain sluggish: in H1 2014, consumption should slow. All in all, the drop in the unemployment rate and the wealth effects should account for a drop in the savings ratio from 5.5% in Q3 2013 to 5.1% by mid-2014.

Rebound in exports, and dynamic corporate investment

After slipping back in summer, British exports are likely to rebound in Q4, driven by the acceleration in world demand, particularly from Europe. Company orders are currently at a high level and capacity constraints are starting to reappear, notably in industry; this should keep corporate investment expenditure buoyant.

Survey indicators taking off in the United Kingdom

Sources: ONS, Markit, European Commission
International developments

United States

Activity holding firm against a backdrop of fiscal and monetary uncertainties

In the United States activity was very buoyant in Q3 (+0.9% including a 0.4-points contribution from inventory). It is expected to slow in Q4 2013: the property market looks set to run out of steam and government spending is likely to contract due to the government shutdown in October. In H1 2014, activity should get back on track: as long as the December deal is validated, fiscal stimulus should be far less unfavourable in 2014.

Activity holding firm despite budget cuts

2013 has been marked by very restrictive fiscal policy: the increases in the tax burden have represented around 1.6 points of gross disposable income, automatic cuts came into force on 1st March, and in October the Federal government went through a 16-day shutdown. However, provided that the December bipartisan deal is validated, fiscal policy should be far less restrictive in 2014 than in 2013.

The October business tendency surveys were still very positive, suggesting that private-sector activity should remain robust. Federal spending is set to decline in Q4 2013 due to the shutdown and should rebound in reaction in early 2014. Activity is likely to grow by 0.4% in Q4 then 0.6% per quarter in H1 2014.

Employment still buoyant

The dynamic job-creation trend is likely to continue over the forecasting period and the unemployment rate (7.0% in November) should once again fall back slightly through to mid-2014. Wages should pick up somewhat, although the level of unemployment is likely to continue to negatively affect the bargaining power of employees. Lastly, inflation should stay low, at 1.4% year-on-year in Q2 2014. All in all, household purchasing power should rise sharply. Household consumption is unlikely to increase quite as strongly because it will continue to adjust to the effect of the fiscal shock at the start of the year: the savings ratio should thus pick up and reach 5.2% by mid-2014.

Hiatus in the recovery of the residential property market

Since summer 2011, the construction sector has experienced a sharp upswing. Unsold housing stocks have diminished sharply and building permits have recovered. However, over the last few months housing starts and building permits have stagnated (see Graph). The sharp rise in interest rates due to the announced reduction in monetary stimulus by the Fed is likely to slow the ongoing recovery somewhat.

American exports remained dynamic in Q3 2013 and should progress at the same pace as world trade through to mid-2014. Lastly, against a backdrop of good business prospects, enterprises should be making the most of their high margins and the favourable financing conditions to develop their production capacities.

Residential investment at a standstill

Last point: October 2013

Source: US Census Bureau
International developments

Japan

Advance consumption

Activity in Japan slowed in Q3 2013 (+0.3% after +0.9%), affected by the stagnation of consumption and the decline in exports. Activity was nonetheless sustained by the dynamism of public investment. Over the forecasting period, fiscal policy is likely to become more restrictive: the stimulus plans should lose intensity and VAT is set to rise from 5% to 8% on 1st April 2014, leading to advance purchases of durables. Activity should therefore accelerate in Q4 2013 (+0.7%) and Q1 2014 (+0.8%), before contracting sharply in Q2 (-0.8%).

The business climate still very positive in Q4 2013

In power since the end of 2012, the Shinzo Abe government has engaged in a macroeconomic stimulus policy combining three levers: a very expansionist monetary policy in order to put an end to deflation, a new stimulus plan, and a programme of structural reforms aiming to improve growth potential. The announcement of these measures led to a sharp improvement in the business climate and activity has rebounded strongly for the last three quarters. Additionally, the depreciation of the yen has led to a rise in prices and Japanese inflation reached +1.1% in October, its highest level for four years (see Graph). For Q4 2013, the business tendency surveys available up to November are still positively oriented and activity is likely to keep up its sustained pace (+0.7%).

VAT rise in 2014

Over the forecasting period, fiscal policy is however likely to become more restrictive. On the one hand, the stimulus plans should lose intensity and public investment is likely to slow. On the other hand, VAT is set to increase from 5% to 8% on 1st April 2014, leading certain households to bring forward their purchases of durables and their property investments. Activity should therefore have a volatile profile in H1. The effect of the VAT rise on consumption should be less marked than in the previous rise in 1997 (from 2% to 5%), as the government has voted in measures to support the more modest households (0.2 points of gross disposable income) and above all, the share in consumption of durables, which are more likely to be purchased early, has fallen significantly since 1997.

Corporate investment and exports set to rebound

Despite the upturn in activity, corporate investment has grown weakly since the start of the year. Through to mid-2014, investment is likely to rebound sharply, driven both by improved business prospects and by the increase in tax credits, as suggested by the improvement in private orders for capital goods over the last six months (+4.9% in Q3 after +5.0% in Q2). Japanese exports are likely to increase through to mid-2014, again sustained by the sharp depreciation of the yen in early 2013 and driven by demand from Asia.

Inflation positive once again

Source: Statistics Bureau of Japan
After a very disappointing H1, activity seems to have picked up in the emerging countries in Q3 2013. This overall situation masks some sharp divergences: activity accelerated in China and the CEE countries but remains globally sluggish in the other emerging economies. This divergence is likely to continue over the forecasting period. The currencies of countries with a high current deficit (India, Brazil, Indonesia, Turkey) depreciated sharply this summer due to the anticipated end to American Quantitative Easing, and their central banks have tightened monetary policy. China, boosted by the increase in credit, and Eastern Europe, driven by the European recovery, should remain fairly dynamic over the forecasting period. Globally, imports should return to their usual behaviour in respect of activity, contributing 0.4 points per quarter to growth in world demand for French products.

Activity picks up in China

In Q3 2013 activity accelerated in China (+2.2% after +1.9%). According to the business tendency surveys (see Graph 1) and the industrial output data in October (+10.3% over one year), activity is set to remain quite dynamic in Q4 2013. Outstanding loans have continued to climb and in the short term this has favoured the recovery of the property market (see Graph 2) with a rise in house prices in particular: in October the prices of old homes grew by 19.0% over one year in Beijing and 13.2% in Shanghai (respectively 16.4% and 17.6% for new housing). Additionally, the new stimulus measures announced in late July (tax cuts for SMEs and subsidies for exporting businesses) should generate favourable effects on investment. Over the forecasting period, the contribution of foreign trade is likely to remain negative in China as suggested by the customs data available up to October as well as the sourcing surveys, which indicate that imports are likely to experience strong growth.

Weak growth for the other main emerging economies

The prospect of a reduction in money creation in the United States led to the repatriation of capital by private investors, a stock market dip in most emerging countries and a sharp depreciation of currencies in summer, particularly in the countries with a high current deficit (India, Brazil, Indonesia, Turkey). The Brazilian real and the Indian rupee respectively lost 17% and 22% against the dollar between April and September. To halt this slide, the central banks have sometimes intervened on the foreign exchange market (most notably in India and Brazil) and tightened their monetary policies (Turkey, Indonesia, Russia, Brazil, India), against a backdrop of inflationary tensions.

So after improving significantly through to the start of 2013, the business climate deteriorated in these economies in summer, particularly in the manufacturing sector, and is now at a very low level compared with the average level of the 2000s (see Graph 1). In India and Brazil, the slowdown in activity is likely to be particularly sharp, with
International developments

monetary tightening coupled with the sharp depreciation of currencies taking their toll on borrowers heavily indebted in dollars.

Eastern Europe driven by the recovery of the Eurozone

In Russia, year-on-year GDP is at its lowest point for three years, at +1.2% in Q3 2013, and industrial output has stagnated. Activity has been generally sluggish for a year now and the surveys are showing no signs of a notable acceleration. Despite the budget support measures announced, growth through to the end of the year in the Russian economy is likely to remain well below its pre-crisis level (+1.5% per quarter), although the improvement in the Chinese economy, particularly its imports of commodities, should sustain activity somewhat.

Eastern Europe should experience an upswing, driven by the recovery of activity in the Eurozone. According to the European Commission surveys the business climate is favourable once again, above its long-term average in Hungary and improving sharply in Poland and the Czech Republic (see Graph 3). In Turkey, after the downturn in mid-2012, activity has picked up strongly since Q4 2012. Despite a dip since the start of the year due to monetary tightening and the demonstrations in summer, the business climate is still above its long-term average. The depreciation of the Turkish lira and improved European demand should stimulate exports and, all in all, activity should hold firm in Turkey through to mid-2014.

2 - The Chinese real estate market boosted by the increase in credit

3 - Eastern Europe and Turkey driven by the recovery in the Eurozone

Last point: November 2013

Source: National Bureau of Statistics of China

Source: European Commission
### Eurozone

<table>
<thead>
<tr>
<th>Supply and use table (in real terms)</th>
<th>2012</th>
<th>Quarterly change in %</th>
<th>2013</th>
<th>Quarterly change in %</th>
<th>2014</th>
<th>Quarterly change in %</th>
<th>2012</th>
<th>Annual change in %</th>
<th>2013</th>
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<tr>
<td>Public consumption (21%)</td>
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#### Consumer prices in Eurozone

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<th>December 2013</th>
<th>June 2013</th>
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<tr>
<td>Food (incl. Alc. and Tobacco) (19.4%)</td>
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<td>1.6</td>
<td>0.3</td>
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<td>including:</td>
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<tr>
<td>food (15.4%)</td>
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<tr>
<td>alcoholic beverages and tobacco (4.0%)</td>
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<td>0.1</td>
<td>3.7</td>
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<td>3.9</td>
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<td></td>
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<td>Energy (11.0%)</td>
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<td>&quot;Core&quot; inflation (69.7%)</td>
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<td>0.7</td>
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<td>manufactured goods (27.4%)</td>
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<td>services (42.3%)</td>
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### France (21%)<sup>1</sup>

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<thead>
<tr>
<th>Supply and use table (in real terms)</th>
<th>2012</th>
<th>Quarterly change in %</th>
<th>2013</th>
<th>Quarterly change in %</th>
<th>2014</th>
<th>Quarterly change in %</th>
<th>2012</th>
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<th>Annual change in %</th>
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<tr>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>Private consumption (56%)</td>
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<tr>
<td>Investment (20%)</td>
<td>-1.3</td>
<td>-0.4</td>
<td>-0.7</td>
<td>-0.6</td>
<td>-0.8</td>
<td>-0.4</td>
<td>-0.6</td>
<td>0.4</td>
<td>0.0</td>
<td>-0.1</td>
<td>-1.2</td>
<td>-2.2</td>
</tr>
<tr>
<td>Public consumption (27%)</td>
<td>0.5</td>
<td>0.4</td>
<td>0.4</td>
<td>0.4</td>
<td>0.2</td>
<td>0.7</td>
<td>0.2</td>
<td>0.3</td>
<td>0.3</td>
<td>1.5</td>
<td>1.7</td>
<td>1.0</td>
</tr>
<tr>
<td>Exports (27%)</td>
<td>0.4</td>
<td>0.3</td>
<td>0.2</td>
<td>-0.6</td>
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<td>1.9</td>
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<td>0.7</td>
<td>0.7</td>
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<tr>
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</tr>
<tr>
<td>Domestic demand excluding inventories</td>
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<td>0.0</td>
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<tr>
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<td>0.1</td>
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<tr>
<td>Foreign trade</td>
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<td>0.0</td>
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<td>-0.2</td>
</tr>
</tbody>
</table>

Forecast: % in brackets represent the weight in the nominal GDP in 2012
yoy: year-on-year
cyoy: contributions year-on-year
<sup>1</sup> Share in Eurozone GDP
Sources: Eurostat, INSEE forecasts
### Germany (27%)¹

<table>
<thead>
<tr>
<th>Supply and use table (in real terms)</th>
<th>Quarterly change in %</th>
<th>Annual change in %</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>ovhg</th>
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</thead>
<tbody>
<tr>
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<td></td>
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<td>-0.1</td>
<td>0.2</td>
<td>-0.5</td>
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<td>0.3</td>
</tr>
<tr>
<td>Private consumption (57%)</td>
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<td>0.0</td>
<td>0.3</td>
<td>0.1</td>
<td>0.3</td>
<td>0.6</td>
<td>0.1</td>
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<tr>
<td>Investment (18%)</td>
<td></td>
<td></td>
<td>-0.4</td>
<td>-1.9</td>
<td>0.1</td>
<td>-0.6</td>
<td>-1.9</td>
<td>1.6</td>
<td>1.6</td>
</tr>
<tr>
<td>Public consumption (19%)</td>
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<td>-0.5</td>
<td>0.6</td>
<td>0.1</td>
<td>0.1</td>
<td>-0.2</td>
<td>0.5</td>
</tr>
<tr>
<td>Exports (52%)</td>
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<td></td>
<td>1.7</td>
<td>1.4</td>
<td>0.5</td>
<td>-1.6</td>
<td>-1.0</td>
<td>2.4</td>
<td>0.1</td>
</tr>
<tr>
<td>Imports (46%)</td>
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<td>0.7</td>
<td>0.1</td>
<td>-0.9</td>
<td>-0.6</td>
<td>1.9</td>
<td>0.8</td>
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</table>

**Contributions to GDP growth**

| Domestic demand excluding inventories | 0.0 | -0.4 | 0.3 | -0.1 | -0.2 | 0.6 | 0.4 | 0.2 | 0.4 | 0.4 | 0.4 | 0.6 | 1.3 |
| Inventories                          | -0.1 | -0.1 | -0.3 | 0.1 | 0.4 | -0.3 | 0.2 | -0.1 | 0.0 | 0.0 | -0.6 | 0.2 | -0.1 |
| Foreign trade                         | 0.8 | 0.4 | 0.3 | -0.5 | -0.2 | 0.3 | -0.4 | 0.2 | 0.1 | 0.1 | 1.1 | -0.2 | 0.2 |

### Italy (17%)¹

<table>
<thead>
<tr>
<th>Supply and use table (in real terms)</th>
<th>Quarterly change in %</th>
<th>Annual change in %</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2012</th>
<th>2013</th>
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<th>ovhg</th>
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<tbody>
<tr>
<td>GDP</td>
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<td></td>
<td>-1.1</td>
<td>-0.6</td>
<td>-0.5</td>
<td>-0.9</td>
<td>-0.6</td>
<td>-0.3</td>
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<td>Private consumption (61%)</td>
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<td>-0.5</td>
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<td>-0.8</td>
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<td>Investment (18%)</td>
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<td>-3.8</td>
<td>-1.6</td>
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<td>-1.7</td>
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<td>Public consumption (21%)</td>
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<td>-0.3</td>
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<tr>
<td>Exports (30%)</td>
<td></td>
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<td>0.2</td>
<td>-0.1</td>
<td>0.8</td>
<td>-0.1</td>
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</tr>
<tr>
<td>Imports (29%)</td>
<td></td>
<td></td>
<td>-2.7</td>
<td>-0.8</td>
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<td>-2.0</td>
<td>-0.5</td>
<td>-0.7</td>
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</table>

**Contributions to GDP growth**

| Domestic demand excluding inventories | -2.2 | -0.7 | -1.2 | -0.8 | -0.8 | -0.3 | -0.2 | -0.1 | 0.0  | 0.0  | -4.7 | -2.5 | -0.3 |
| Inventories                          | 0.2  | -0.1 | 0.0  | -0.7 | 0.5  | -0.4 | 0.6  | 0.0  | 0.0  | 0.1  | -0.7 | -0.1 | 0.3  |
| Foreign trade                         | 0.9  | 0.2  | 0.7  | 0.6  | -0.2 | 0.4  | -0.4 | 0.0  | -0.1 | -0.1 | 2.8  | 0.7  | -0.2 |

### Spain (11%)¹

<table>
<thead>
<tr>
<th>Supply and use table (in real terms)</th>
<th>Quarterly change in %</th>
<th>Annual change in %</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>ovhg</th>
</tr>
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<tbody>
<tr>
<td>GDP</td>
<td></td>
<td></td>
<td>-0.4</td>
<td>-0.5</td>
<td>-0.4</td>
<td>-0.8</td>
<td>-0.4</td>
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<tr>
<td>Private consumption (59%)</td>
<td></td>
<td></td>
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<td>-1.2</td>
<td>-0.7</td>
<td>-2.0</td>
<td>-0.6</td>
<td>-0.1</td>
<td>0.4</td>
</tr>
<tr>
<td>Investment (19%)</td>
<td></td>
<td></td>
<td>-1.7</td>
<td>-3.3</td>
<td>0.2</td>
<td>-3.0</td>
<td>-1.6</td>
<td>-2.0</td>
<td>0.2</td>
</tr>
<tr>
<td>Public consumption (20%)</td>
<td></td>
<td></td>
<td>-1.8</td>
<td>0.0</td>
<td>-3.0</td>
<td>-0.3</td>
<td>1.3</td>
<td>-0.9</td>
<td>0.1</td>
</tr>
<tr>
<td>Exports (32%)</td>
<td></td>
<td></td>
<td>-3.1</td>
<td>0.6</td>
<td>6.5</td>
<td>0.6</td>
<td>-4.3</td>
<td>6.4</td>
<td>2.2</td>
</tr>
<tr>
<td>Imports (31%)</td>
<td></td>
<td></td>
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<td>-4.5</td>
<td>5.2</td>
<td>2.8</td>
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</table>

**Contributions to GDP growth**

| Domestic demand excluding inventories | -0.6 | -1.4 | -1.0 | -1.8 | -0.4 | -0.6 | 0.3 | -0.1 | 0.1  | 0.1  | -4.1 | -2.9 | 0.1  |
| Inventories                          | 0.1  | 0.0  | 0.1  | 0.1  | -0.1 | 0.1  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.1  |
| Foreign trade                         | 0.1  | 0.9  | 0.5  | 1.0  | 0.1  | 0.4  | -0.2 | 0.2  | 0.1  | 0.1  | 2.5  | 1.6  | 0.4  |

---

Forecast

How to read it: % in brackets represent the weight in the nominal GDP in 2012

yoy: year-on-year
cyoy: contributions year-on-year

(1) Share in Eurozone area GDP

Sources: Eurostat, INSEE forecasts
### United States of America

#### Quarterly change in %

<table>
<thead>
<tr>
<th>Supply and use table (in real terms)</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
</tr>
</thead>
<tbody>
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<td>GDP</td>
<td>0.9</td>
<td>0.3</td>
<td>0.7</td>
<td>0.0</td>
<td>0.3</td>
<td>0.9</td>
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<tr>
<td>Private consumption (69%)</td>
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<td>0.4</td>
<td>0.4</td>
<td>0.6</td>
<td>0.5</td>
</tr>
<tr>
<td>Private investment (15%)</td>
<td>2.1</td>
<td>1.2</td>
<td>0.7</td>
<td>2.8</td>
<td>-0.4</td>
<td>1.6</td>
</tr>
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<td>Government expenditures and public</td>
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<td>0.1</td>
<td>0.9</td>
<td>-1.7</td>
<td>-1.1</td>
<td>-0.1</td>
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<tr>
<td>investment (19%)</td>
<td>1.0</td>
<td>0.9</td>
<td>0.1</td>
<td>0.3</td>
<td>-0.3</td>
<td>1.9</td>
</tr>
<tr>
<td>Exports (13%)</td>
<td>0.2</td>
<td>0.6</td>
<td>0.1</td>
<td>-0.8</td>
<td>0.2</td>
<td>1.7</td>
</tr>
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</table>

#### Contributions to GDP growth

| Domestic demand excluding inventories | 0.7  | 0.5  | 0.6  | 0.3  | 0.1  | 0.5  | 0.5  | 0.4  | 0.6  | 0.6  | 2.5  | 1.5  | 1.7  |
| Inventories                          | 0.1  | -0.2 | 0.2  | -0.5 | 0.2  | 0.1  | 0.4  | 0.0  | 0.0  | 0.0  | 0.2  | 0.2  | 0.3  |
| Foreign trade                         | 0.1  | 0.0  | 0.0  | 0.2  | -0.1 | 0.0  | 0.0  | 0.0  | 0.0  | 0.1  | 0.0  | -0.1 |

### United Kingdom

#### Quarterly change in %

<table>
<thead>
<tr>
<th>Supply and use table (in real terms)</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDP</td>
<td>0.0</td>
<td>-0.5</td>
<td>0.6</td>
<td>-0.3</td>
<td>0.4</td>
<td>0.7</td>
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<tr>
<td>Private consumption (63%)</td>
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<td>0.2</td>
<td>0.7</td>
<td>0.6</td>
<td>0.3</td>
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<tr>
<td>Investment (14%)</td>
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<td>-2.4</td>
<td>-3.8</td>
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<td>1.4</td>
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<tr>
<td>Public consumption (24%)</td>
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<td>0.0</td>
<td>-0.1</td>
<td>-0.2</td>
<td>0.5</td>
</tr>
<tr>
<td>Exports (32%)</td>
<td>-1.8</td>
<td>-0.4</td>
<td>2.0</td>
<td>-1.7</td>
<td>0.1</td>
<td>3.0</td>
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<tr>
<td>Imports (34%)</td>
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<td>1.4</td>
<td>0.8</td>
<td>-0.9</td>
<td>-0.8</td>
<td>2.9</td>
</tr>
</tbody>
</table>

#### Contributions to GDP growth

| Domestic demand excluding inventories | 1.2  | -0.1 | -0.2 | -0.1 | 0.3  | 0.4  | 0.8  | 0.7  | 0.5  | 0.5  | 1.3  | 0.9  | 2.0  |
| Inventories                          | -0.4 | 0.3  | 0.5  | 0.1  | -0.2 | 0.3  | 0.9  | 0.1  | 0.0  | 0.0  | -0.5 | 0.9  | 0.5  |
| Foreign trade                         | -0.8 | -0.6 | 0.4  | -0.2 | 0.3  | 0.0  | -0.9 | 0.0  | 0.0  | 0.0  | -0.7 | -0.3 | -0.4 |

### Japan

#### Quarterly change in %

<table>
<thead>
<tr>
<th>Supply and use table (in real terms)</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDP</td>
<td>0.9</td>
<td>-0.5</td>
<td>-0.8</td>
<td>0.1</td>
<td>1.1</td>
<td>0.9</td>
</tr>
<tr>
<td>Private consumption (61%)</td>
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<td>0.4</td>
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</tr>
<tr>
<td>Investment (21%)</td>
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<td>0.2</td>
<td>-1.7</td>
<td>0.6</td>
<td>-0.1</td>
<td>2.0</td>
</tr>
<tr>
<td>Public consumption (20%)</td>
<td>1.3</td>
<td>-0.5</td>
<td>0.4</td>
<td>0.7</td>
<td>0.7</td>
<td>0.6</td>
</tr>
<tr>
<td>Exports (15%)</td>
<td>2.7</td>
<td>-0.5</td>
<td>-3.8</td>
<td>-3.0</td>
<td>3.9</td>
<td>2.9</td>
</tr>
<tr>
<td>Imports (17%)</td>
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<td>1.4</td>
<td>-0.4</td>
<td>-1.7</td>
<td>1.0</td>
<td>1.7</td>
</tr>
</tbody>
</table>

#### Contributions to GDP growth

| Domestic demand excluding inventories | 0.4  | 0.2  | -0.6 | 0.6  | 0.7  | 1.0  | 0.6  | 0.7  | 1.1  | -1.2 | 2.2  | 2.1  | 1.2  |
| Inventories                          | 0.3  | -0.3 | 0.3  | -0.3 | 0.0  | -0.2 | 0.2  | 0.0  | -0.2 | 0.2  | -0.1 | -0.3 | 0.0  |
| Foreign trade                         | 0.1  | -0.3 | -0.5 | -0.1 | 0.4  | 0.1  | -0.5 | 0.0  | -0.3 | 0.3  | -0.9 | -0.2 | -0.3 |

### Forecast

How to read it: % in brackets represent the weight in the nominal GDP in 2012

Sources: BEA (USA), ONS (UK), Japanese government (Japan), INSEE forecasts

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**Conjoncture in France**
Statistical French Appendix
### GOODS AND SERVICES: SOURCES AND USES AT CHAIN-LINKED PREVIOUS YEAR PRICES

**billion euros and percentage changes from previous period**

**working-day and seasonally adjusted data**

**2012** | **2013** | **2014** | **ovhg***
--- | --- | --- | ---

**GROSS DOMESTIC PRODUCT (GDP)**  453.0  451.5  452.2  451.5  453.0  454.7  455.6  1808.2  1812.6  
% change  0.0  -0.3  0.2  -0.1  0.5  -0.1  0.4  0.2  0.2  0.0  0.2  0.7  
**Imports**  133.0  133.3  133.2  131.7  131.7  133.9  135.2  136.7  137.6  138.5  531.1  537.4  
% change  0.8  0.2  -0.1  -1.1  0.4  0.7  0.2  1.1  1.6  1.1  0.7  0.7  2.9  
**Total resources**  989.9  986.0  989.0  984.8  986.1  995.8  994.6  1000.2  1003.2  1006.3  3949.7  3976.7  
% change  -0.1  -0.4  0.3  -0.4  0.1  1.0  -0.1  0.6  0.3  0.3  -0.4  0.7  1.1  

**Households' consumption expenditures**  253.0  251.7  252.0  252.2  252.0  253.2  253.5  254.2  254.6  255.0  1009.0  1012.9  
% change  0.2  -0.5  0.1  0.1  -0.1  0.4  0.2  0.3  0.1  0.1  -0.4  0.4  0.6  

**General government's consumption expenditures**  121.7  122.2  122.7  123.2  123.7  124.5  124.8  125.2  125.5  125.9  489.8  498.2  
% change  0.5  0.4  0.4  0.4  0.4  0.7  0.2  0.3  0.3  0.3  1.5  1.7  1.0  

**Government's individual consumption expenditures**  73.5  73.7  73.9  74.2  74.4  75.0  75.1  75.3  75.5  75.8  295.2  299.7  
% change  0.5  0.3  0.3  0.3  0.3  0.8  0.1  0.3  0.3  0.3  1.4  1.5  2.0  

**Government's collective consumption expenditures**  38.9  39.2  39.4  39.6  39.8  40.2  40.3  40.5  40.5  40.6  157.0  160.2  
% change  0.6  0.7  0.5  0.6  0.6  0.6  0.6  0.6  0.6  0.6  1.5  2.1  0.9  

**Gross fixed capital formation (GFCF)**  85.2  85.5  85.2  84.6  84.0  83.3  82.6  82.9  82.9  82.8  339.4  331.8  
% change  -1.3  -0.4  -0.7  -0.6  -0.8  -0.8  -0.6  -0.4  -0.4  -0.4  -2.2  0.0  2.2  

**Contributions:**

- **Domestic demand excluding inventory changes**
  0.0  -0.3  0.0  0.0  -0.3  0.4  0.0  0.3  0.2  0.2  -0.1  0.2  0.6  
- **Inventory changes**
  0.1  -0.1  0.1  -0.4  0.2  0.1  0.5  -0.2  0.0  0.0  -0.8  0.2  0.6  
- **Net foreign trade**
  -0.1  0.0  0.1  0.2  -0.1  0.0  -0.7  0.3  0.0  0.0  1.0  -0.2  -0.1  

**Forecast**

*Includes consumption expenditures by non-profit institutions serving households (NPISHs)

**Inventory changes include acquisitions net of sales of valubales

***Overhang

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### MANUFACTURED GOODS: SOURCES AND USES AT CHAIN-LINKED PREVIOUS YEAR PRICES

**percentage changes from previous period**

**working-day and seasonally adjusted data**

**2012** | **2013** | **2014** | **ovhg***
--- | --- | --- | ---

**Actual production**  -1.6  -1.9  1.5  -2.0  0.5  2.0  -1.0  0.8  0.2  0.2  -2.8  0.5  1.0  
of which Value added  -0.9  -1.2  1.0  -1.6  0.0  1.2  -0.8  0.7  0.1  0.2  -2.0  -0.4  0.7  
Intermediate consumption  -1.8  -2.0  1.7  -2.1  0.7  2.3  -1.0  0.8  0.2  0.2  -3.1  0.8  1.0  
Imports  1.5  1.6  -1.4  -1.4  0.0  1.6  1.6  1.5  0.8  0.8  0.3  1.0  3.7  
Taxes on products excluding subsidies  -0.3  -1.1  -0.1  -0.2  -0.5  0.7  0.2  0.4  0.0  0.1  -1.9  -0.2  0.6  
Trade and transport margins  -0.2  -0.5  0.1  0.3  -0.6  0.3  0.0  0.8  0.1  0.2  -0.5  0.0  0.9  
Total resources  -0.5  -0.6  0.3  -1.2  0.1  1.5  0.0  0.9  0.3  0.4  -1.6  0.5  1.7  
Intermediate uses  -0.8  -1.2  0.7  -1.1  0.1  1.5  -0.4  0.6  0.2  0.2  -1.8  0.4  1.0  
Households' consumption expenditures  -0.3  -0.9  0.3  0.0  -0.9  0.4  0.4  0.5  -0.2  0.0  -1.2  -0.3  0.5  
General government's individual consumption expenditures  1.7  0.9  0.3  1.5  1.7  1.5  0.4  1.0  1.0  1.0  4.3  4.7  3.1  
Gross fixed capital formation (GFCF)  -3.5  -1.0  -1.3  -0.9  -1.0  -0.3  0.9  1.1  0.6  0.6  -3.0  -2.1  2.3  
of which Non-financial enterprises (incl. unincorp. enterprises)  -3.9  -1.1  -1.5  -1.1  -1.1  -0.4  0.9  1.2  0.6  0.6  -3.7  -2.5  2.4  
Other  -0.4  -0.4  -0.1  0.2  0.4  0.5  0.5  0.4  0.6  0.6  2.4  1.3  1.7  
Inventory changes* contributions to manufactured production  -0.3  0.3  -0.4  -1.0  1.1  0.2  0.9  -0.6  0.1  0.0  -2.5  0.7  0.2  
Exports  1.0  0.0  0.9  -1.3  -0.6  2.8  -1.9  3.1  0.9  0.9  3.0  0.7  3.6  
Domestic demand excluding inventory changes*  -0.8  -1.0  0.4  -0.6  -0.3  0.9  0.0  0.6  0.1  0.2  -1.5  0.0  0.9  

**Forecast**

*Inventory changes include acquisitions net of sales of valubales

**Overhang

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Conjoncture in France
### GOODS AND SERVICES: SOURCES AND USES
#### CHAIN-LINKED PREVIOUS YEAR PRICES INDEX

**percentage changes from previous period**
**working-day and seasonally adjusted data**

#### 2012 2013 2014 ovhg**

<table>
<thead>
<tr>
<th>Q1</th>
<th>Q2</th>
<th>Q3</th>
<th>Q4</th>
<th>Q1</th>
<th>Q2</th>
<th>Q3</th>
<th>Q4</th>
<th>Q1</th>
<th>Q2</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
</tr>
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<tbody>
<tr>
<td><strong>Gross domestic product (GDP)</strong></td>
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<td>0.4</td>
<td>0.2</td>
<td>0.2</td>
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<td>0.5</td>
<td>0.3</td>
<td>1.5</td>
<td>1.2</td>
</tr>
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<td><strong>Imports</strong></td>
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<td>0.1</td>
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<td>0.2</td>
<td>0.3</td>
<td>1.7</td>
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<tr>
<td><strong>Household's consumption expenditures</strong></td>
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<td>0.1</td>
<td>0.2</td>
<td>0.3</td>
<td>-0.1</td>
<td>0.2</td>
<td>0.1</td>
<td>0.5</td>
<td>0.3</td>
<td>1.9</td>
<td>0.6</td>
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<tr>
<td><strong>General government's consumption expenditures</strong></td>
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<td>0.3</td>
<td>0.2</td>
<td>0.2</td>
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<tr>
<td><strong>GFCF</strong></td>
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<td>0.1</td>
<td>0.4</td>
<td>-0.1</td>
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<td>1.7</td>
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<tr>
<td><strong>of which Non-financial enterprises (incl. unincorp. enterprises)</strong></td>
<td>0.3</td>
<td>0.3</td>
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<td>0.1</td>
<td>0.6</td>
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<tr>
<td><strong>Households</strong></td>
<td>0.8</td>
<td>0.8</td>
<td>0.5</td>
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<td>0.3</td>
<td>-0.3</td>
<td>0.1</td>
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<td>0.5</td>
<td>0.4</td>
<td>2.3</td>
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</tr>
<tr>
<td><strong>Exports</strong></td>
<td>0.5</td>
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<td>0.9</td>
<td>0.2</td>
<td>-0.3</td>
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<td>0.2</td>
<td>0.2</td>
<td>1.2</td>
<td>-0.1</td>
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<tr>
<td><strong>Domestic demand excluding inventory changes</strong></td>
<td>0.7</td>
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<td>0.1</td>
<td>0.0</td>
<td>-0.5</td>
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<td>1.7</td>
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</tbody>
</table>

*Forecast*

*Inventory changes include acquisitions net of sales of valuables

**Overhang**

### MANUFACTURED GOODS: SOURCES AND USES
#### CHAIN-LINKED PREVIOUS YEAR PRICES INDEX

**percentage changes from previous period**
**working-day and seasonally adjusted data**

#### 2012 2013 2014 ovhg**

<table>
<thead>
<tr>
<th>Q1</th>
<th>Q2</th>
<th>Q3</th>
<th>Q4</th>
<th>Q1</th>
<th>Q2</th>
<th>Q3</th>
<th>Q4</th>
<th>Q1</th>
<th>Q2</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
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<tr>
<td><strong>Actual production</strong></td>
<td>0.8</td>
<td>-0.2</td>
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<td>-0.8</td>
<td>0.2</td>
<td>0.3</td>
<td>0.0</td>
<td>0.4</td>
<td>1.6</td>
<td>-0.2</td>
</tr>
<tr>
<td><strong>of which Value added</strong></td>
<td>-0.1</td>
<td>-0.1</td>
<td>1.9</td>
<td>1.7</td>
<td>1.1</td>
<td>0.9</td>
<td>0.2</td>
<td>0.4</td>
<td>-0.9</td>
<td>0.7</td>
<td>1.0</td>
<td>4.2</td>
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<tr>
<td><strong>Intermediate consumption</strong></td>
<td>1.1</td>
<td>-0.2</td>
<td>-0.3</td>
<td>0.1</td>
<td>-0.6</td>
<td>-1.3</td>
<td>0.2</td>
<td>0.3</td>
<td>0.3</td>
<td>0.3</td>
<td>1.8</td>
<td>-1.5</td>
</tr>
<tr>
<td><strong>Imports</strong></td>
<td>0.8</td>
<td>-0.3</td>
<td>0.4</td>
<td>0.0</td>
<td>-0.8</td>
<td>-0.9</td>
<td>0.0</td>
<td>0.2</td>
<td>-0.1</td>
<td>0.3</td>
<td>1.1</td>
<td>-1.3</td>
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<td><strong>Total resources</strong></td>
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<td>-0.2</td>
<td>0.2</td>
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<td>-0.3</td>
<td>-0.7</td>
<td>0.1</td>
<td>0.2</td>
<td>0.0</td>
<td>0.3</td>
<td>1.4</td>
<td>-0.4</td>
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<tr>
<td><strong>Intermediate uses</strong></td>
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<td>0.0</td>
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<td>-0.8</td>
<td>-1.2</td>
<td>0.1</td>
<td>0.5</td>
<td>0.0</td>
<td>1.4</td>
<td>-1.4</td>
<td>-0.7</td>
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<tr>
<td><strong>Households’ consumption expenditures</strong></td>
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<td>0.1</td>
<td>0.0</td>
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<td>0.2</td>
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<td>-0.4</td>
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<td>0.2</td>
<td>0.9</td>
<td>0.1</td>
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<tr>
<td><strong>General government’s individual consumption expenditures</strong></td>
<td>-0.4</td>
<td>-1.5</td>
<td>-1.1</td>
<td>-0.7</td>
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<td>-1.4</td>
<td>-0.6</td>
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<td>-1.0</td>
<td>-1.4</td>
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<td><strong>GFCF</strong></td>
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<td>0.2</td>
<td>0.2</td>
<td>0.4</td>
<td>1.0</td>
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<td><strong>of which Non-financial enterprises (incl. unincorp. enterprises)</strong></td>
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<td>-0.1</td>
<td>0.1</td>
<td>1.0</td>
<td>0.0</td>
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<td>0.2</td>
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<tr>
<td><strong>General government</strong></td>
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<td>0.1</td>
<td>0.0</td>
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<td>1.2</td>
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<td>0.3</td>
<td>0.3</td>
<td>0.4</td>
<td>0.0</td>
<td>1.3</td>
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<tr>
<td><strong>Exports</strong></td>
<td>0.6</td>
<td>-0.4</td>
<td>0.3</td>
<td>0.3</td>
<td>-0.3</td>
<td>-0.4</td>
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<td>0.2</td>
<td>1.0</td>
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<tr>
<td><strong>Domestic demand excluding inventory changes</strong></td>
<td>0.9</td>
<td>-0.2</td>
<td>0.0</td>
<td>0.2</td>
<td>-0.3</td>
<td>-0.8</td>
<td>0.1</td>
<td>0.1</td>
<td>0.3</td>
<td>0.2</td>
<td>1.5</td>
<td>-0.7</td>
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</tbody>
</table>

*Forecast*

*Inventory changes include acquisitions net of sales of valuables

**Overhang**

### PRODUCTION (by sector) AT CHAIN-LINKED PREVIOUS YEAR PRICES

**percentage changes from previous period**
**working-day and seasonally adjusted data**

#### 2012 2013 2014 ovhg*

<table>
<thead>
<tr>
<th>Q1</th>
<th>Q2</th>
<th>Q3</th>
<th>Q4</th>
<th>Q1</th>
<th>Q2</th>
<th>Q3</th>
<th>Q4</th>
<th>Q1</th>
<th>Q2</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
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<tbody>
<tr>
<td><strong>Agriculture</strong></td>
<td>-0.9</td>
<td>-0.6</td>
<td>-0.5</td>
<td>0.2</td>
<td>0.3</td>
<td>0.4</td>
<td>0.6</td>
<td>0.4</td>
<td>0.3</td>
<td>0.4</td>
<td>-1.5</td>
<td>0.8</td>
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<tr>
<td><strong>Manufacturing</strong></td>
<td>-1.6</td>
<td>-1.9</td>
<td>1.5</td>
<td>-2.0</td>
<td>0.5</td>
<td>2.0</td>
<td>-1.0</td>
<td>0.8</td>
<td>0.2</td>
<td>0.2</td>
<td>-2.8</td>
<td>0.5</td>
</tr>
<tr>
<td><strong>Energy, Water and Waste</strong></td>
<td>2.3</td>
<td>1.0</td>
<td>-0.6</td>
<td>0.4</td>
<td>0.8</td>
<td>2.1</td>
<td>-1.5</td>
<td>-0.3</td>
<td>1.0</td>
<td>0.7</td>
<td>1.6</td>
<td>1.8</td>
</tr>
<tr>
<td><strong>Construction</strong></td>
<td>-0.8</td>
<td>-0.1</td>
<td>-0.5</td>
<td>-0.9</td>
<td>-0.7</td>
<td>-0.6</td>
<td>-0.5</td>
<td>0.0</td>
<td>-0.3</td>
<td>-0.5</td>
<td>-0.7</td>
<td>-2.3</td>
</tr>
<tr>
<td><strong>Trade</strong></td>
<td>-0.1</td>
<td>-0.5</td>
<td>0.2</td>
<td>-0.2</td>
<td>-0.2</td>
<td>0.4</td>
<td>0.0</td>
<td>0.8</td>
<td>0.1</td>
<td>0.2</td>
<td>0.1</td>
<td>0.1</td>
</tr>
<tr>
<td><strong>Market services excluding trade</strong></td>
<td>0.2</td>
<td>-0.3</td>
<td>0.2</td>
<td>0.3</td>
<td>0.1</td>
<td>0.7</td>
<td>-0.1</td>
<td>0.5</td>
<td>0.3</td>
<td>0.4</td>
<td>0.4</td>
<td>1.0</td>
</tr>
<tr>
<td><strong>Non-market services</strong></td>
<td>0.5</td>
<td>0.4</td>
<td>0.4</td>
<td>0.3</td>
<td>0.3</td>
<td>0.7</td>
<td>0.2</td>
<td>0.3</td>
<td>0.2</td>
<td>0.3</td>
<td>1.2</td>
<td>1.5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>-0.2</td>
<td>-0.5</td>
<td>0.4</td>
<td>-0.3</td>
<td>0.2</td>
<td>0.9</td>
<td>-0.3</td>
<td>0.5</td>
<td>0.2</td>
<td>0.3</td>
<td>-0.3</td>
<td>0.6</td>
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</tbody>
</table>

*Forecast*

*Overhang*
### Imports (CIF) at Chain-Linked Previous Year Prices

#### Percentage Changes from Previous Period

<table>
<thead>
<tr>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Agricultural goods</strong></td>
<td>-3.9%</td>
<td>-1.1%</td>
<td>-1.5%</td>
<td>-1.1%</td>
<td>-1.1%</td>
<td>-0.4%</td>
<td>0.9%</td>
<td>1.2%</td>
<td>0.6%</td>
<td>0.6%</td>
<td>0.0%</td>
<td>-3.7%</td>
<td>-2.5%</td>
</tr>
<tr>
<td><strong>Manufactured goods</strong></td>
<td>-1.4%</td>
<td>-0.3%</td>
<td>-0.8%</td>
<td>-0.8%</td>
<td>-0.5%</td>
<td>0.0%</td>
<td>-0.5%</td>
<td>-0.2%</td>
<td>-0.4%</td>
<td>-0.6%</td>
<td>-2.2%</td>
<td>-1.9%</td>
<td>-1.3%</td>
</tr>
<tr>
<td><strong>Other</strong></td>
<td>1.4%</td>
<td>-0.1%</td>
<td>-0.2%</td>
<td>0.8%</td>
<td>-0.7%</td>
<td>0.9%</td>
<td>-2.8%</td>
<td>1.0%</td>
<td>0.5%</td>
<td>0.5%</td>
<td>1.2%</td>
<td>-0.7%</td>
<td>0.4%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>-1.7%</td>
<td>-0.6%</td>
<td>-0.9%</td>
<td>-0.5%</td>
<td>-0.8%</td>
<td>0.1%</td>
<td>-0.6%</td>
<td>0.7%</td>
<td>0.2%</td>
<td>0.2%</td>
<td>-1.9%</td>
<td>-1.8%</td>
<td>0.7%</td>
</tr>
</tbody>
</table>

*Forecast

**Overhang

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### Inventory Changes (per product) at Chain-Linked Previous Year Prices

#### GDP Changes Contributions, %

<table>
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<th></th>
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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Agricultural goods</strong></td>
<td>0.1%</td>
<td>0.0%</td>
<td>0.1%</td>
<td>-0.1%</td>
<td>-0.1%</td>
<td>0.1%</td>
<td>0.1%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.1%</td>
<td>0.1%</td>
<td>0.1%</td>
</tr>
<tr>
<td><strong>Manufactured goods</strong></td>
<td>-0.1%</td>
<td>0.1%</td>
<td>-0.2%</td>
<td>-0.4%</td>
<td>0.4%</td>
<td>0.1%</td>
<td>0.4%</td>
<td>-0.2%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>-1.0%</td>
<td>0.3%</td>
<td>0.1%</td>
</tr>
<tr>
<td><strong>Energy, Water and Waste</strong></td>
<td>0.1%</td>
<td>-0.2%</td>
<td>0.1%</td>
<td>0.1%</td>
<td>-0.2%</td>
<td>0.0%</td>
<td>0.1%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>-0.1%</td>
<td>0.1%</td>
<td>0.1%</td>
</tr>
<tr>
<td><strong>Construction</strong></td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
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<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>0.1%</td>
<td>-0.1%</td>
<td>0.1%</td>
<td>-0.4%</td>
<td>0.2%</td>
<td>0.1%</td>
<td>0.5%</td>
<td>-0.2%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>-0.8%</td>
<td>0.2%</td>
<td>0.2%</td>
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</tbody>
</table>

*Forecast

**Overhang

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### Exports (FOB) at Chain-Linked Previous Year Prices

#### Percentage Changes from Previous Period

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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Agricultural goods</strong></td>
<td>-11.5%</td>
<td>8.5%</td>
<td>-14.7%</td>
<td>16.0%</td>
<td>9.1%</td>
<td>-8.3%</td>
<td>-1.5%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>-7.5%</td>
<td>6.8%</td>
<td>-3.0%</td>
</tr>
<tr>
<td><strong>Manufactured goods</strong></td>
<td>1.0%</td>
<td>0.0%</td>
<td>0.9%</td>
<td>-1.3%</td>
<td>-0.6%</td>
<td>2.8%</td>
<td>-1.9%</td>
<td>3.1%</td>
<td>0.9%</td>
<td>0.9%</td>
<td>3.0%</td>
<td>0.7%</td>
<td>3.6%</td>
</tr>
<tr>
<td><strong>Energy, Water and Waste</strong></td>
<td>-2.3%</td>
<td>-0.6%</td>
<td>-5.0%</td>
<td>0.9%</td>
<td>-16.5%</td>
<td>7.2%</td>
<td>9.1%</td>
<td>-2.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>-6.9%</td>
<td>-10.3%</td>
<td>4.5%</td>
</tr>
<tr>
<td><strong>Total goods</strong></td>
<td>0.4%</td>
<td>0.3%</td>
<td>0.2%</td>
<td>-0.7%</td>
<td>-0.6%</td>
<td>2.4%</td>
<td>-1.6%</td>
<td>2.9%</td>
<td>0.8%</td>
<td>0.8%</td>
<td>2.3%</td>
<td>0.6%</td>
<td>3.4%</td>
</tr>
<tr>
<td><strong>Total services</strong></td>
<td>0.6%</td>
<td>-0.6%</td>
<td>-0.2%</td>
<td>0.4%</td>
<td>0.9%</td>
<td>0.9%</td>
<td>-0.1%</td>
<td>0.3%</td>
<td>0.3%</td>
<td>0.8%</td>
<td>2.3%</td>
<td>1.7%</td>
<td>1.3%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>0.4%</td>
<td>0.3%</td>
<td>0.2%</td>
<td>-0.6%</td>
<td>-0.4%</td>
<td>1.9%</td>
<td>-1.5%</td>
<td>2.3%</td>
<td>0.7%</td>
<td>0.7%</td>
<td>2.5%</td>
<td>0.6%</td>
<td>2.7%</td>
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</tbody>
</table>

*Forecast

**Overhang

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**Conjoncture in France**
### HOUSEHOLDS’ CONSUMPTION EXPENDITURES AT CHAIN-LINKED PREVIOUS YEAR PRICES

Percentage changes from previous period

Working-day and seasonally adjusted data

<table>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Agricultural goods</strong></td>
<td>1.3</td>
<td>-0.8</td>
<td>0.2</td>
<td>-0.5</td>
<td>1.2</td>
<td>-2.3</td>
<td>0.4</td>
<td>0.2</td>
<td>0.1</td>
<td>0.1</td>
<td>0.9</td>
<td>-0.7</td>
</tr>
<tr>
<td><strong>Manufactured goods</strong></td>
<td>-0.3</td>
<td>-0.9</td>
<td>0.3</td>
<td>0.0</td>
<td>-0.9</td>
<td>0.4</td>
<td>0.4</td>
<td>0.5</td>
<td>-0.2</td>
<td>0.0</td>
<td>-1.2</td>
<td>-0.3</td>
</tr>
<tr>
<td><strong>Energy, Water and Waste</strong></td>
<td>6.4</td>
<td>1.7</td>
<td>-1.7</td>
<td>-0.7</td>
<td>5.6</td>
<td>0.9</td>
<td>-4.3</td>
<td>-3.0</td>
<td>2.0</td>
<td>0.0</td>
<td>5.2</td>
<td>2.3</td>
</tr>
<tr>
<td><strong>Trade</strong></td>
<td>-0.5</td>
<td>-1.8</td>
<td>-0.9</td>
<td>-1.7</td>
<td>-0.7</td>
<td>-0.1</td>
<td>0.5</td>
<td>-0.3</td>
<td>-0.3</td>
<td>-3.6</td>
<td>-2.8</td>
<td>-0.6</td>
</tr>
<tr>
<td><strong>Market services excluding trade</strong></td>
<td>0.2</td>
<td>-0.2</td>
<td>0.2</td>
<td>0.2</td>
<td>-0.1</td>
<td>0.4</td>
<td>0.2</td>
<td>0.3</td>
<td>0.3</td>
<td>0.2</td>
<td>0.4</td>
<td>0.6</td>
</tr>
<tr>
<td><strong>Non-market services</strong></td>
<td>0.5</td>
<td>0.3</td>
<td>0.3</td>
<td>0.5</td>
<td>0.1</td>
<td>0.5</td>
<td>0.4</td>
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*Forecast

*Overhang

### MAIN RATIOS (non-financial corporate sector)

Percentage points

Working-day and seasonally adjusted data

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<td><strong>Wage costs / Value added (VA)</strong></td>
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<td>67.9</td>
<td>67.6</td>
<td>67.9</td>
<td>67.9</td>
<td>67.7</td>
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<tr>
<td><strong>Taxes on production / VA</strong></td>
<td>5.4</td>
<td>5.5</td>
<td>5.5</td>
<td>5.7</td>
<td>5.7</td>
<td>5.7</td>
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<td>5.9</td>
<td>5.6</td>
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<td>5.9</td>
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<tr>
<td><em><em>Margin ratio (GOS</em> / VA)</em>*</td>
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<td>28.3</td>
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<td>28.0</td>
<td>28.1</td>
<td>28.2</td>
<td>27.9</td>
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<td>28.0</td>
<td>28.1</td>
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<td>28.1</td>
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<td><strong>Investment rate (GFCF / VA)</strong></td>
<td>19.6</td>
<td>19.5</td>
<td>19.2</td>
<td>19.2</td>
<td>19.1</td>
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<td>19.0</td>
<td>19.4</td>
<td>19.0</td>
<td>18.9</td>
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<tr>
<td><strong>Saving ratio (savings / VA)</strong></td>
<td>13.3</td>
<td>12.8</td>
<td>13.0</td>
<td>11.9</td>
<td>12.4</td>
<td>12.8</td>
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<td>13.5</td>
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<td><strong>Tax pressure (Income taxes / gross disposable income before tax)</strong></td>
<td>21.7</td>
<td>21.0</td>
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<td><strong>Self-financing ratio (cash earnings)</strong></td>
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<td>67.4</td>
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*Forecast

*Gross operating surplus

**Savings / GFCF

***Overhang

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December 2013

129
## HOUSEHOLD INCOME

Percentage changes from previous period

Working-day and seasonally adjusted data

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<td>0.5</td>
<td>0.4</td>
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<tr>
<td><strong>of which Unincorporated enterprises</strong></td>
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<td>0.5</td>
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<td>-0.1</td>
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<td>1.0</td>
<td>0.6</td>
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<td>0.8</td>
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<td>-13.1</td>
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<td>0.4</td>
<td>0.5</td>
<td>0.3</td>
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<td>1.7</td>
<td>2.4</td>
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<td>5.9</td>
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<td>4.7</td>
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<td>-0.7</td>
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<td>0.4</td>
<td>0.9</td>
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<td>15.9</td>
<td>15.9</td>
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<td>6.6</td>
<td>6.9</td>
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<td>6.7</td>
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<td>19.5</td>
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<td>60.0</td>
<td>60.1</td>
<td>60.2</td>
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<td>60.1</td>
<td>60.1</td>
<td>60.0</td>
<td>60.2</td>
<td>60.1</td>
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<tr>
<td><strong>Social benefits (cash) / gross disposable income</strong></td>
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<td>32.9</td>
<td>33.3</td>
<td>33.8</td>
<td>33.6</td>
<td>33.7</td>
<td>34.0</td>
<td>34.3</td>
<td>34.2</td>
<td>34.1</td>
<td>33.2</td>
<td>33.9</td>
<td>34.1</td>
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**MAIN RATIOS (households)**

Percentage points

Working-day and seasonally adjusted data

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<tr>
<td><strong>Saving ratio</strong></td>
<td>15.6</td>
<td>16.1</td>
<td>15.8</td>
<td>15.0</td>
<td>15.9</td>
<td>15.9</td>
<td>15.7</td>
<td>15.3</td>
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<td>15.6</td>
<td>15.7</td>
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<tr>
<td><strong>Financial saving ratio</strong></td>
<td>6.1</td>
<td>6.7</td>
<td>6.4</td>
<td>5.6</td>
<td>6.6</td>
<td>6.9</td>
<td>6.7</td>
<td>6.3</td>
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<td>6.7</td>
<td>6.6</td>
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<td><strong>Weight of taxes and social contributions</strong></td>
<td>19.5</td>
<td>19.5</td>
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<td>20.0</td>
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<td><strong>Gross wages and salaries / gross disposable income</strong></td>
<td>59.7</td>
<td>59.6</td>
<td>60.0</td>
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<td>60.0</td>
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<td>60.1</td>
<td>60.0</td>
<td>60.2</td>
<td>60.1</td>
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<tr>
<td><strong>Social benefits (cash) / gross disposable income</strong></td>
<td>32.7</td>
<td>32.9</td>
<td>33.3</td>
<td>33.8</td>
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<td>33.2</td>
<td>33.9</td>
<td>34.1</td>
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Forecast

*Overhang

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*Savings excluding dwelling / gross disposable income

**Taxes and social contributions / gross disposable income before taxes and social contributions

***Overhang
### MAIN RATIOS (non-financial corporate sector)
**percentage points**
**working-day and seasonally adjusted data**

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<td>Q2</td>
<td>Q3</td>
<td>Q4</td>
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<td>Wage costs / Value added (VA)</td>
<td>67.7</td>
<td>67.9</td>
<td>67.6</td>
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<td>Taxes on production / VA</td>
<td>5.4</td>
<td>5.3</td>
<td>5.5</td>
<td>5.7</td>
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<tr>
<td>Margin ratio (GOS* / VA)</td>
<td>28.5</td>
<td>28.3</td>
<td>28.6</td>
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<tr>
<td>Investment rate (GFCF / VA)</td>
<td>19.6</td>
<td>19.5</td>
<td>19.2</td>
<td>19.2</td>
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<tr>
<td>Saving ratio (savings / VA)</td>
<td>13.3</td>
<td>12.8</td>
<td>13.0</td>
<td>11.9</td>
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<tr>
<td>Tax pressure (Income taxes / gross disposable income before taxes)***</td>
<td>19.1</td>
<td>19.6</td>
<td>23.8</td>
<td>21.7</td>
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<tr>
<td>Self-financing ratio (cash earnings)**</td>
<td>68.1</td>
<td>65.7</td>
<td>67.4</td>
<td>62.2</td>
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Forecast
*Gross operating surplus
**Savings / GFCF
***Overhang

### HOUSEHOLD INCOME
**percentage changes from previous period**
**working-day and seasonally adjusted data**

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<td></td>
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<td>Q2</td>
<td>Q3</td>
<td>Q4</td>
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<td>Gross operating surplus</td>
<td>0.4</td>
<td>0.3</td>
<td>0.2</td>
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<td>of which Unincorporated enterprises</td>
<td>0.5</td>
<td>0.4</td>
<td>0.2</td>
<td>-0.4</td>
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<td>Households excluding unincorporated enterprises</td>
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<td>0.2</td>
<td>0.8</td>
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<td>Gross wages and salaries</td>
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<td>0.3</td>
<td>0.5</td>
<td>0.2</td>
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<tr>
<td>Net interests and dividends</td>
<td>-0.6</td>
<td>-0.3</td>
<td>0.1</td>
<td>0.7</td>
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<tr>
<td>Social benefits (in cash)</td>
<td>1.2</td>
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<td>1.0</td>
<td>0.8</td>
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<td>Other net resources</td>
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<td>Total resources</td>
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<td>Income and wealth taxes</td>
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<td>Employees' social contributions</td>
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<td>0.9</td>
<td>2.0</td>
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<td>Social contributions by self-employed and non-employed persons</td>
<td>4.7</td>
<td>1.5</td>
<td>1.7</td>
<td>2.4</td>
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<td>Total charges</td>
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<td>4.7</td>
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<td>Gross disposable income (GDI)</td>
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Forecast
*Overhang

### MAIN RATIOS (households)
**percentage points**
**working-day and seasonally adjusted data**

<table>
<thead>
<tr>
<th></th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>ovhg***</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Q1</td>
<td>Q2</td>
<td>Q3</td>
<td>Q4</td>
</tr>
<tr>
<td>Saving ratio</td>
<td>15.6</td>
<td>16.1</td>
<td>15.8</td>
<td>15.0</td>
</tr>
<tr>
<td>Financial saving ratio*</td>
<td>6.1</td>
<td>6.7</td>
<td>6.4</td>
<td>5.6</td>
</tr>
<tr>
<td>Weight of taxes and social contributions**</td>
<td>19.5</td>
<td>19.5</td>
<td>20.1</td>
<td>20.9</td>
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<tr>
<td>Gross wages and salaries / gross disposable income</td>
<td>59.7</td>
<td>59.6</td>
<td>60.0</td>
<td>60.5</td>
</tr>
<tr>
<td>Social benefits (cash) / gross disposable income</td>
<td>32.7</td>
<td>32.9</td>
<td>33.3</td>
<td>33.8</td>
</tr>
</tbody>
</table>

Forecast
*Savings excluding dwelling / gross disposable income
**Taxes and social contributions / gross disposable income before taxes and social contributions
***Overhang

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December 2013

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Economic Outlook Terminology
BUSINESS TENDENCY SURVEYS

Business tendency surveys are qualitative surveys intended to track the economic situation of the moment and to forecast short-term trends. Business leaders or households are regularly surveyed. The results of these surveys are obtained very quickly - at the end of the month under observation - and their findings are crucial to short-term analysis and forecasting.

They provide an overview of a given sector and shed light on areas that are only covered much later, if at all, by classical statistics, for example household surveys. For businesses, the surveyed sectors are industry, services, retail and automobile sales and repairs, wholesale, and construction.

Some of these surveys (on households, industry, investment in industry, services, retail and automobile sales and repairs, building industry and civil engineering) are part of a harmonised European system of business tendency surveys to which the member States of the European Union contribute. The questionnaires, classifications and processing methods are all harmonised.

The data gathered in these business tendency surveys are called qualitative, because the respondents are asked to provide qualitative assessments rather than quantities in regard to the variables covered by the survey. For example, in this type of survey entrepreneurs are asked to specify whether their order books are "fuller than normal", "normal" or "not as full as normal", and whether their cash flow is "better", "equivalent", or "worse" than it was in the previous survey. By contrast, in conventional quantitative surveys, respondents will be asked to supply the actual amount of orders underway.

The Investment in Industry survey combines quantitative and qualitative questions.

Composite indicator

The composite business climate indicator summarises the mood of the responses given by business leaders in the Business Tendency Surveys: the higher it is, the more positive the view industrialists have of the economic outlook. It is built with a long-term average taking a value of 100.

This composite indicator is calculated by factor analysis. This technique can summarise the concurrent trends of several variables whose movements are closely correlated. Changes in the composite indicator therefore provide a relevant insight into the economic situation, influencing all the balances of opinion in the business tendency surveys.

Turning point indicator

The turning point indicator attempts to detect, as early as possible, the moment when economic trends are reversed. Each month it plots the difference between the probability of the economic trend being positive and the probability of it being negative.

The indicator varies between +1 and -1: a point very close to +1 (or -1 respectively) indicates that activity is in a distinct upturn phase (or distinct downturn phase, respectively). The moments when the indicator is very close to 0 are considered phases of stabilisation, i.e. the growth rate is returning towards its long-term average. During these phases the signals received are very mixed and do not show any pronounced movement upwards or downwards.

The value of the indicator for the latest month may be revised the following month, and it is therefore advisable to wait for at least two consecutive months before interpreting a big variation as being the signal of a major change in economic trends.

Balance of opinion

The balance of opinion is defined as the difference between the proportion of respondents having expressed a positive opinion and the proportion of respondents having expressed a negative opinion.

The questions in business tendency surveys usually call for a response chosen from three possibilities: "up", "stable" or "down".

From these responses, the percentage of respondents giving a positive response, "stable" or "down" (negative responses) is calculated for each question, taking account, in the case of enterprises, of the relative size of the enterprise and of the sub-sector concerned.

A balance of opinion is then established for each question as being the difference between the percentage of respondents giving a positive response and the percentage of respondents with a negative response.

In business tendency surveys on industrialists, for example, the balance of opinion on past sales or on business prospects is calculated. In the surveys on households, a balance of opinion on unemployment is calculated. The questions are expressed on a percentage basis, i.e. the proportion of respondents saying "up", "stable" or "down".

Final (or actual) consumption of households

Household consumption as a whole. It is the sum of household consumption expenditure and the individualised consumptions included in the final consumption expenditure of general government.

Household consumption expenditure is restricted to the expenses that households bear directly. It includes the share that they pay towards healthcare, education and accommodation after any reimbursements. It also includes "imputed rents", i.e. the rent which households that own their main residence implicitly pay to themselves.
Economic Outlook Terminology

The individualised consumptions included in the final consumption of general government are those for which the beneficiaries can be precisely defined. This is the case, in particular, of expenditure on education and healthcare.

**Gross operating surplus (GOS)**

Gross operating surplus is the balance of the trading account of companies. It is equal to value-added minus payroll and other taxes on production, and plus operating subsidies.

Gross operating surplus can be calculated net, after deduction of the consumption of fixed capital, i.e. depreciation of the capital further to foreseeable wear and tear or obsolescence.

**GOS of pure households**

The rents received by pure households is what is known in national accounting as the gross operating surplus (GOS) of pure households. It corresponds to the rents that homeowners receive from their tenants or would receive if they rented out their property ("fictional rents"), minus property tax.

**Investment or Gross fixed capital formation (GFCF)**

In the national accounts, corporate investment, particularly that of non-financial companies, is called gross fixed capital formation (GFCF). It represents the acquisitions of net fixed assets (minus the sales of same) made by resident producers.

Fixed assets are tangible or intangible assets resulting from the production process and used either repeatedly or continuously in other production processes over a period of at least one year.

**Purchasing power of income**

The purchasing power of income is the quantity of goods and services that can be bought with an income unit. Its growth is linked to that of prices and incomes.

If prices increase while income is constant, there is a drop in purchasing power. If the increase in income is greater than that of prices, the purchasing power of income will rise.

**Gross domestic product (GDP)**

Gross domestic product (GDP) is a measure of the national wealth produced each year.

It is an aggregate representing the final result of the production activity of resident production units.

It can be defined in three ways:

- GDP is equal to the sum of the gross added values of the various institutional sectors or of the various branches of activity plus taxes and minus the subsidies on products (which are not attributed to the sectors and branches of activity);
- GDP is equal to the sum of the final domestic uses of goods and services (actual final consumption, gross fixed capital formation, inventory change) plus exports and minus imports; - GDP is equal to the sum of uses in the operating accounts of the institutional sectors: payment of wages, taxes on production, imports minus subsidies, gross operating surplus (GOS) and mixed income (GOS of sole proprietorships). Its growth is linked to that of prices and income.

**Gross disposable income (GDI)**

Gross disposable income is the proportion of income left for households to consume and save once social security contributions and taxes have been deducted.

Gross disposable income includes earned income (wages, salaries, etc.), own income (dividends, interest, rents), transfers (most notably insurance proceeds net of premiums) and social benefits (including pensions and unemployment benefit), net of direct taxes. Four direct taxes are generally taken into account: income tax, council tax, general social contribution (CSG) and contribution for the reimbursement of the social debt (CRDS).

**Adjusted disposable income**

For households, this is gross disposable income plus social transfers in kind, the counterparty to the consumption that can be isolated in general government expenditure (see final consumption of households).

**Property income**

Income received by the owner of a financial asset or a tangible non-produced asset in exchange for making this asset available to another institutional unit. It mainly includes the dividends paid by companies, interest, and rent from land (rent from housing is a tangible produced asset and is considered as payment for a service).

**Basic monthly wage**

Changes in the basic monthly wage reflect the average variation in wages at a constant qualification structure. The basic monthly wage does not include bonuses of any kind, or overtime.

It is an index that is estimated from the Acemo quarterly survey conducted by the DARES (survey on the activity and employment conditions of the workforce). This survey covers quarterly 20,000 to 30,000 establishments or companies with 10 employees or more in the non-agricultural market sector. The basic monthly wage is listed for 16 professional categories. Each establishment or company declares the basic wage of a work position considered as representative of a professional category. This position is tracked from survey to survey.

**Average wage per head**

Changes in the average wage per head reflect variations in the wages paid by all companies. This indicator is built by comparing changes in the total payroll and in the number of employees, both of which are measured from comprehensive sources (tax data from companies).

Unlike the basic monthly wage, it includes micro-enterprises and also integrates structuring effects (changes in qualifications and in the proportion of part-time work), short-term effects (level of overtime) and seasonal effects (bonuses).
Real wages and nominal wages

Compensation of employees can be measured either at current currency values, in other words at current prices, or at constant prices, i.e. after inflation is deducted. The former is known as the nominal wage and the latter as the real wage.

Household savings ratio

The proportion of the disposable income (or adjusted disposable income) of households which is not used for consumption expenditure (or final consumption) is their savings. The difference between disposable income and adjusted disposable income - which corresponds to social transfers in kind - is also the difference between consumption expenditure and final consumption. There is only one definition of savings. However, there may be several savings ratios depending on which definition of income the savings are plotted against. In short-term analyses, the savings ratio calculated against gross disposable income is preferred.

Margin rate

The margin rate measures the share of added value which services capital. It is the ratio of gross operating surplus to added value.

The margin rate:

- grows when labour productivity or terms of trade increase;
- diminishes when the real average wage per head or the employers’ contribution rate increases.

For further information, read the special report in Conjoncture in France, June 2003.

Margin rate at factor cost

The margin rate at factor cost (meaning the cost of production factors) measures the share of added value at factor cost which services capital. Added value at factor cost is calculated as gross added value minus taxes on production plus operating subsidies. The margin rate at factor cost is around 1% higher than the margin rate as defined in the national accounts.

Self-financing ratio

Ratio of gross savings to gross fixed capital formation (GFCF).

Consumption unit

A weighting system assigning a coefficient to each member of the household and used to compare standards of living between households of different sizes and compositions. With this weighting, the number of people is converted into a number of consumption units (CU).

To compare the standard of living of households, consumption per person is not satisfactory, as the needs of the household do not increase proportionally to its size. When several people live together, it is not necessary to multiply all the consumer goods (in particular durable consumer goods, appliances, etc.) by the number of people in order to keep the same standard of living. Therefore, to compare the standards of living of households of different sizes or compositions, we use a measurement of income corrected by the consumption unit using an equivalence scale.

The most widely used scale at present (known as the OECD scale) uses the following weighting:
- 1 CU for the first adult in the household;
- 0.5 CU for the other persons aged 14 years or older;
- 0.3 CU for the children under 14 years.

Value added

Value added is equal to the value of production minus intermediate consumption.

ECONOMIC TERMS

Unemployed person (ILO)

In application of the international definition adopted in 1982 by the International Labour Organisation (ILO), an unemployed person is a person of working age (15 or over) who meets three conditions simultaneously:

- they were without employment, meaning that they did not work, even for one hour, in the course of the reference week;
- they are available to take up employment within two weeks;
- they have actively looked for a job in the previous month or have found one starting within the next three months.

Note: An unemployed person (ILO) is not necessarily a person registered with Pôle Emploi (and vice versa).

Competitiveness

The competitiveness of an economy or a company is its ability - or otherwise - to gain market share from its competitors. To sell its products, a company can rely on its price competitiveness or its non-price competitiveness. The former is directly linked to the sale price. Non-price competitiveness depends on the quality of the product, its degree of innovation, and after-sales service, among other things.

At the level of an economy, price-competitiveness can be seen in the real effective exchange rate (see definition).

Potential growth and output gap

The potential growth of an economy is the maximum speed at which it could grow without causing inflation to accelerate, in other words without creating excessive tension in the goods and labour markets. It is a function of production factors, capital stock, the active population and technical progress. Econometric techniques can be used to determine this potential growth, consisting in extracting a trend from a cycle. The Hodrick-Prescott filter is one of these techniques. The idea is that on average over the long term, an economy progresses in line with its potential growth. Short-term incidents may cause it to deviate momentarily from this potential. It is also possible to build a production function that takes the various factors into account. Estimating these factors is the most difficult part.
The output gap is the difference between the observed growth of the economy and its potential growth.

**World demand for French products**

This is calculated from estimated imports for each of France’s trading partners, weighted by the share of France in these imports. It is an indicator of foreign demand and, along with competitiveness, is an important determinant of exports.

**French demand for products of trading partners**

French demand for products of trading partners is calculated by weighting each item of demand (from companies, households, general government and exports) by its content in imports.

**Flexion effects**

When the economic outlook is poor, a proportion of the population may decide not to join the labour market, or prefer to withdraw from it (young people may decide to pursue their studies, unemployed people may stop looking for jobs, etc.). Symmetrically, a good economic outlook encourages more people to enter the labour market.

So depending on the outlook, the activity rate, which is the ratio between the job-seeking population and the population of a working age, may vary: this variation is called a flexion of the activity rate driven by the economic outlook. A calculation of these flexion effects allows an estimation of the active population.

**Employment (ILO)**

Persons employed in the sense of the International Labour Organisation (ILO) are those aged 15 or older who worked for any amount of time, if only for one hour, in the course of the reference week. This notion is different from that of employment in the sense of the population census, which concerns persons having declared they had a job on the census form.

The notion of employment in the sense of the ILO is therefore broader than that in the sense of the population census. Some people may consider that occasional jobs are not worth declaring in the census.

The measurement of employment in the sense of the ILO can be made only through specific questions, such as those of the Labour Force Survey, one of the primary objectives of which is to make this measurement.

**Core inflation**

For the purposes of economic analysis, the INSEE publishes a core inflation index. It allows us to observe deeper trends in the changes in prices. It does not include prices which are subject to government intervention and products whose price is volatile, i.e. which experience high variability due to climatic factors or tensions on the global markets. Seasonal products, energy, tobacco and public service charges are all excluded. The core inflation index is also corrected for tax measures. It is a seasonally-adjusted index.

Additionally, the core inflation index is corrected for tax measures (rise or fall in VAT, specific measures imposed on products etc.) in order to neutralise the effect on the price index of variations in indirect taxation or government measures which directly affect consumer prices. Core inflation is thus better suited to analysis of inflationary tensions, as it is less sensitive to exogenous phenomena.

**Active population**

The active population includes all people with a job, constituting the occupied labour force, and the unemployed. Its growth mainly depends on demographics, trends in the activity rate, and flexion effects (see definition).

**Real effective exchange rate**

To get an idea of the competitiveness of a country or a zone, we have to be able to evaluate its currency in relation to all the exchange rates of its main trading partners, taking into account the weight of each one.

This is what economists call the effective exchange rate, the rate that allows us to take into account the structure of the country or zone’s foreign trade. To prevent competitiveness studies from being distorted due to prices changing in different ways in different zones, economists calculate a ‘real effective’ exchange rate which also takes account of the rate of inflation of trading partners.

**Terms of trade**

This is an indicator allowing an assessment of the advantage that a given economy gains from its trading relations with foreign countries. It is calculated as the ratio between a country’s export price and its import price.

**Activity rate**

The activity rate is the ratio between the number of active persons (occupied labour force and the unemployed) and the corresponding total population.

It can be calculated for women, men, or a specific age group.

**Unemployment rate**

The unemployment rate is the percentage of unemployed people in the active population (occupied labour force + the unemployed).

An unemployment rate per age can be calculated by calculating the ratio of the unemployed persons in an age group to the labour force of that age. Likewise, unemployment rates can be calculated by gender, by socio-professional category, by region, by nationality, by qualification level, etc.

**STATISTICAL TERMS**

**Growth overhang (ovhg)**

The growth overhang of a variable for a year N corresponds to the growth rate of the variable between year N-1 and year N that would be obtained if the variable remained until the end of year N at the level of the last known quarter.
For example, when the last known quarter for a year N is the third quarter, the variable’s growth overhang for year N is equal to the growth rate between N-1 and N that would be obtained if the variable remained at the same level in the fourth quarter as in the third quarter.

**Contribution to GDP growth**

GDP growth may be broken down into the sum of contributions from its various components: consumption expenditure of households and general government, investments, changes in inventories and trade balance.

In simple cases, the contribution of a component to an aggregate (GDP for example) is equal to the product of that component’s growth rate by its weight in the aggregate on the previous period.

This formula is not valid with chain-linked volumes at the price of the previous year, a concept of volume according to which the national accounts are published. However, as a first approximation the previous calculation with the growth of the component in chain-linked volume and weight in value provides a relatively accurate measurement of the contribution.

**Dynamic contributions**

Dynamic contributions are a technique used in econometrics. The starting point is an equation linking an explained variable (consumption, investment, exports, prices, wages, employment, etc.) to its economic determinants (income for consumption, demand for investment, etc.). The calculation of dynamic contributions gives an insight into the respective weight of the various determinants of the level or rate of growth of the explained variable. These contributions are termed dynamic, as opposed to static contributions which are obtained simply through an accounting breakdown. They explicitly take into account the lag(s) with which the explanatory variables have an effect on the explained variable: for example, the variation in consumption in a given quarter may also depend on the variation in income in the previous quarter.

**Seasonal and working-day adjustment**

The development of a statistical series may in general be broken down into three factors: a trend, a seasonal component and an irregular component. Seasonal adjustment is a technique that statisticians use to eliminate the effect of normal seasonal fluctuations on data, so as to bring out fundamental trends (trend and irregular component).

For example, the seasonally adjusted unemployment rate eliminates variations due to the seasonal habit of hiring in the summer and dismissing in the winter in sectors such as agriculture and the building industry.

Additionally, to compare periods that do not have the same number of working days as each other, a working-day adjustment is made.

**Year-on-year change and average**

A year-on-year change compares a value at two dates, generally a year or a quarter apart.

For example, the year-on-year change in a variable in a given Quarter Q corresponds to the change (as a %) obtained between the level of the variable in Q and its level in the same quarter of the previous year (Q-4). The quarter-on-quarter change is obtained by calculating the difference between the variable in Q and its level in the previous quarter (Q-1).

When the variable is monthly, year-on-year change is calculated between the level in a given month and that in the same month of the previous year (for example, December in year N and December in N-1). However, the change in the annual average compares the average of one year and the average of the previous year.

For example, a phrase such as ’In 2012, salaried employment increased by...’ can have two meanings, depending on whether reference is being made to average salaried employment in the course of 2012 and the average for 2011, or whether a year-on-year comparison is being made between the situation on 31 December 2012 and on 31 December 2011.

These two trends may be very different. For example, if there was strong growth in year N-1 and a small decline in year N, then the change in annual averages may be positive, while year-on-year change is negative.

When events are no longer included in the year-on-year calculation - for example, a sharp rise in oil prices in a given month will affect the measurement of year-on-year inflation for the following eleven months, before disappearing from the calculation - this is called the ‘base effect’.

**FINANCIAL TERMS**

**Yield curve**

The yield curve gives a view of the relationship between the values of interest rates and their terms. This curve is usually ascending because of the existence of a risk premium (long rates higher than short rates). However, it may reverse, most notably when operators expect a drop in inflation.

**Nominal and real interest rates**

An interest rate is either the cost of a loan to the borrower or the remuneration of an investment. It is expressed as a percentage, usually over a reference period of one year. The nominal interest rate is also known as the apparent interest rate. It is calculated in current euros, without taking account of the fact that inflation mechanically depreciates the amount of the loan. The real interest rate is the nominal rate corrected for inflation. It is calculated in constant euros. If inflation is denoted p, the nominal interest rate n and the real interest rate r, and assuming that p and n are not too high, we can write:

\[ r = n - p. \]

Otherwise, the following equation is used:

\[ 1 + r = (1 + n) / (1 + p). \]