MACROECONOMIC PROJECTIONS
FRANCE

BANQUE DE FRANCE
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According to the Banque de France's macroeconomic projections for France – constructed as part of the Eurosystem projection exercise – GDP growth is expected to be 1.3% in 2017 (annual average rate, working-day adjusted), after close to 1.3% in 2016, and should then accelerate slightly to 1.4% in 2018 and to 1.5% in 2019.

French growth is projected to stabilise in 2017. The positive effect of purchasing power gains linked to cheaper oil are expected to dissipate, resulting in a smaller contribution from domestic demand, especially private consumption, than in 2015 and 2016. Conversely, the economy should benefit from the upturn in activity in the broader euro area, which is notably being supported by the ECB's highly accommodative monetary policy stance. After weighing on growth in previous years, foreign trade is expected to make a near-neutral contribution to GDP over the projection horizon, due to slower domestic demand and an acceleration in exports. Ongoing improvements in the corporate margin rate, which has been rising since 2013, should help to sustain business investment.

After remaining low in 2016, at an annual average of 0.3%, HICP inflation should gradually strengthen to 1.2% in 2017, 1.4% in 2018 and 1.5% in 2019.

KEY PROJECTIONS FOR FRANCE

	2015	2016	2017	2018	2019
HICP	**0.1**	**0.3**	**1.2**	**1.4**	**1.5**
HICP excluding energy and food	**0.6**	**0.6**	**0.8**	**1.1**	**1.3**
GDP deflator	0.6	0.8	0.9	1.2	1.3
Real GDP	**1.2**	**1.3**	**1.3**	**1.4**	**1.5**
Contributions to GDP growth (in percentage points):[a)]					
Domestic demand (excluding changes in inventories)	*1.4*	*1.8*	*1.3*	*1.5*	*1.6*
Net exports	*-0.3*	*-0.6*	*0.0*	*-0.1*	*-0.1*
Changes in inventories	*0.1*	*0.1*	*-0.1*	*0.0*	*0.0*
Private consumption	1.5	1.5	1.2	1.5	1.6
Government consumption	1.4	1.5	1.1	0.9	1.1
Total investment	0.9	2.8	1.8	1.9	1.9
Government investment	*-3.9*	*2.6*	*1.4*	*1.9*	*1.8*
Household investment	*-0.8*	*1.5*	*1.9*	*0.5*	*0.0*
Business investment (NFCs-FCs-IEs)	*2.9*	*3.3*	*1.8*	*2.4*	*2.7*
Exports	6.0	1.2	4.3	3.8	3.9
Imports	6.4	3.0	4.1	3.9	3.9
Real household disposable income (RHDI)	1.6	1.8	1.2	1.3	1.5
ILO unemployment rate (France and overseas territories, % of labour force)	10.4	10.0	9.9	9.7	9.5

Sources: Insee data for 2015 and the first three quarters of 2016, publication of 28 October 2016.
Blue-shaded columns show Banque de France projections.
Annual percentage change except where otherwise indicated.
a) The sum of individual contributions may not add up to GDP growth as figures have been rounded.

French activity should rise by close to 1.3% in 2016, buoyed by the same favourable factors as in 2015

After three years of subdued growth, French economic activity rebounded slightly in 2015, rising by 1.2%. The tailwinds propelling the economy in 2015 continued to make themselves felt over 2016 (low oil prices, depreciation of the euro, renewed cuts in interest rates to historical lows, reductions in employers' payroll taxes), and GDP growth is predicted to strengthen slightly to close to 1.3% over the year. For timing reasons linked to the coordination of Eurosystem projections, this forecast does not take into account the quarterly national accounts released by Insee on 29 November (second estimate for Q3 2016).

Despite fluctuating markedly from one quarter to the next, private consumption should be the main engine of growth in 2016, rising by an average of 1.5% over the year. Low inflation is expected to deliver further strong gains in purchasing power for households (1.8% growth after 1.6% in 2015). Meanwhile, after starting to recover in 2015 (0.9% growth), total investment should rise by a marked 2.8% in 2016, spurred by historically low interest rates and the extension of targeted government measures (i.e. zero-interest loans, the Pinel tax incentives for residential investment, and the additional depreciation allowance for investments in capital goods).

In contrast, the situation in foreign trade is less favourable, with exports only expected to rise at a modest pace in 2016 (1.2% after 6.0% in 2015) due to slower growth in foreign demand for French goods and services (2.0% compared with 3.1% in 2015) and a decline in France's export market shares. The negative impact of exports on the contribution of foreign trade to GDP will be tempered to an extent by a moderation of import growth relative to 2015 (3.0% in 2016, down from 6.4% in 2015). However, foreign trade is still projected to make a stronger net negative contribution of -0.6 percentage point (pp) to growth in 2016, after -0.3 pp in 2015.

French growth should accelerate very gradually in 2018 and 2019

GDP growth is projected to pick up very gradually: after keeping to the same pace in 2017 as in 2016 (i.e. 1.3% in annual average terms), it should then accelerate slightly to 1.4% in 2018, then to 1.5% in 2019. This projection updates our 3 June forecast for 2016-2018 and extends it to 2019. It was finalised in mid-November as part of the Eurosystem staff macroeconomic projection exercise. The cut-off date for international assumptions is 17 November 2016.

After peaking in 2016, domestic demand should decelerate

Domestic demand is expected to hit a peak in 2016. The positive effects of past oil price falls on household purchasing power should dissipate as of 2017, particularly given that the technical assumptions, which are based on oil futures, factor in a slight rise in crude prices over the projection horizon. This effect should only be partially mitigated by the gradual recovery in wages. Private consumption is therefore projected to slow, despite a slight drop in the saving ratio.

Business investment should continue to be supported by low interest rates, rising activity and strong corporate savings, despite high levels of debt. Investment growth is nonetheless projected to be slower than in 2016, when the impact of the additional depreciation allowance was particularly marked. Despite this slowdown, the corporate investment rate (the ratio of investment to value added) should exceed 2008's peak (highest level since 1980) in 2018, after already recovering markedly since 2013. Meanwhile, the upward trend in the profit margin rate of non-financial corporations (NFCs) appears to be coming to an end: after falling to a low of 29.9% in 2013, it rose by 2 pp in both 2014 and 2015, and we now expect it to edge up at a very modest pace up to 2019, returning to the average observed for the period 1996-2008.

Household investment should continue to benefit from various tailwinds going into 2017 (zero-interest loans, Pinel tax incentives for residential investment, low interest rates). However, the recovery should only prove temporary, as structural factors such as adverse demographic changes are expected to drag on residential investment over the medium term. Government investment, which rebounded in 2016 after a sharp drop in 2015, should increase at a slightly faster pace than GDP between 2017 and 2019, making a positive contribution to growth over the period.

Global demand and exports are expected to rebound as of 2017

The downward revision to the 2017 and 2018 growth forecasts (-0.2 pp respectively) since the June projections primarily reflects less favourable assumptions for the global economic environment. Nonetheless, the forecasts for 2017-2019 still factor in an acceleration in global demand (3.2% growth in 2017, 3.8% in 2018 and 2019, after 2.1% in 2016). Over the projection horizon, global demand for French goods and services should mainly be buoyed by the euro area. As a result, the strong negative impact of foreign trade on growth in 2016 (-0.6 pp) is expected to fade, turning near-neutral for the period 2017-2019.

Inflation should strengthen gradually between 2017 and 2019

Headline inflation, as measured by the change in the Harmonised Index of Consumer Prices, is projected to average 0.3% in 2016, after 0.1% in 2015. It should then strengthen progressively to 1.2% in 2017, 1.4% in 2018 and 1.5% in 2019 (annual averages). HICP inflation excluding energy and food is projected to remain stable in 2016 at 0.6%, before inching up very gradually to 0.8% in 2017, 1.1% in 2018 and 1.3% in 2019.

The main factor driving up inflation in 2017 should be the fading of the downward effect from the past falls in oil prices. In 2018 and 2019, however, the increase should more clearly reflect upturns in non-energy and non-food components. Service price inflation should progressively strengthen as of the end of 2016, after hitting a record low, boosted by an acceleration in nominal wages and a fall in the unemployment rate. In the fourth quarter of 2019, it is projected to reach 1.9% year-on-year, although this is still low compared with historical levels. Industrial goods inflation should remain negative in 2017, before recovering gradually as a result of a projected rise in import prices.

The GDP deflator is expected to pick up very gradually, supported by the recovery in import prices and then wages, and thus the progressive acceleration of nominal labour costs. In the final quarter of 2019, the deflator should reach 1.4% year-on-year.

A slow improvement in public finances in 2016 and 2017

After narrowing to 3.5% of GDP in 2015, the nominal public deficit is expected to shrink to 3.3% of GDP in 2016, then to 3.1% in 2017, and should thus remain above the 3.0% deficit ceiling. The ratio of tax and social security receipts to GDP is expected to fall to 44.5% in 2016 from 44.7% in 2015, due to ongoing cuts to social contributions and taxes, notably under the *Pacte de Responsabilité et de Solidarité* (PRS – Responsibility and Solidarity Pact). However, it should then stabilise in 2017. Primary public spending (excluding tax credits) is expected to accelerate in 2016 and 2017, rising by 1.9% and 2.0% respectively in nominal terms after 1.1% growth in 2015 (and average annual growth of 2.0% for the period 2010-2015). In real terms (i.e. adjusted for CPI excluding tobacco), it should grow by 1.7% in 2016 then by 1.0% in 2017. This smaller improvement in public finances compared with the June forecast also reflects the less favourable macroeconomic environment for 2017, with domestic demand in particular now expected to rise at a slower pace.

The outlook for growth and inflation remains subject to uncertainties

There are a number of uncertainties surrounding the projections. On the whole, the risks to economic activity and inflation remain balanced. On the upside, the dynamic growth in household investment observed at the start of 2016 could continue and indeed accelerate over the remainder of the year. Meanwhile, the measures implemented since 2013 to improve French competitiveness could gradually translate into larger gains in market share.

On the downside, the household saving ratio, which is already fairly low, could decline at a slower pace than envisaged in the forecasts. The international environment could also prove less favourable than currently predicted: oil prices remain volatile, and developments in the run-up to the United Kingdom's withdrawal from the European Union could trigger a period of negative uncertainty.

The results and consequences of various elections in France and abroad (United States, Italy, Germany) are also liable to affect the projections to differing extents.

1| Technical assumptions and the international environment: foreign demand should strengthen and oil prices are expected to rise

The economic scenario is based on the technical assumptions (exchange rates, interest rates, commodity prices) and international environment projections prepared by the Eurosystem (see notes to Table 1).

Between June 2014 and April 2015, the euro depreciated sharply vis-à-vis the US dollar, and has remained well below the levels observed over the past decade. Aside from a number of fluctuations, the euro/dollar exchange rate has been weak since mid-2015. The level of 1.09 dollars per euro, equal to the average rate observed in the ten days up to 17 November, used over the whole projection horizon is close to that observed on average since the start of 2015. The nominal effective exchange rate also declined considerably between 2014 and mid-2015, before appreciating until the first quarter of 2016. It has since been relatively stable and the appreciation of the average nominal effective exchange rate in 2016 can be ascribed to movements at the beginning of the year.

Since the first quarter of 2016, oil prices have rebounded and they should continue to recover steadily until 2019, but are not expected to return to the levels observed between 2010 and 2014. The Brent price per barrel reached in January 2016 its lowest level since 2009 at EUR 29. It has since rebounded to stand at EUR 45.3 in October 2016. By convention, oil price forecasts are based on futures prices.

The average annual growth of the price of a barrel of Brent is expected to be over EUR 6 in 2017, and it should then rise more slowly in 2018 and 2019.

Table 1: Technical assumptions and the international environment[a)]

	2015	2016	2017	2018	2019
Technical assumptions					
Brent oil price (USD/barrel)	52.4	43.1	49.3	52.6	54.6
Brent oil price (EUR/barrel)	47.2	38.8	45.3	48.3	50.1
Non-energy commodity prices in USD (annual percentage change)	-16.5	-4.0	6.6	3.8	4.5
USD/EUR exchange rate	1.11	1.11	1.09	1.09	1.09
Euro nominal effective exchange rate (annual percentage change)[b)]	-7.1	3.8	0.1	0.0	0.0
3-month Euribor[c)]	0.0	-0.3	-0.3	-0.2	0.0
10-year French government bond yields[c)]	0.8	0.5	0.9	1.1	1.4
International environment, annual percentage change					
Global CPI	2.0	2.0	2.2	2.4	2.6
Extra euro-area competitors' prices on the export side (in EUR)	5.3	-5.3	2.7	2.4	2.4
World real GDP	3.1	2.9	3.3	3.4	3.5
World (excluding euro area) real GDP	3.2	3.0	3.5	3.7	3.8
Global (excluding euro area) trade	0.6	0.9	2.8	3.7	3.8
Foreign demand for French goods and services	3.1	2.0	3.2	3.8	3.8
Intra-euro area	*5.8*	*3.2*	*4.1*	*4.3*	*4.1*
Extra-euro area	*0.8*	*1.0*	*2.4*	*3.3*	*3.5*

Sources: Eurosystem. Blue-shaded columns show Banque de France projections.
a) These technical assumptions and international environment projections were constructed by the ECB on 17 November for market data, and on 22 November for foreign demand for French goods and services, in accordance with the principles set out in *A guide to Eurosystem staff macroeconomic exercises*, ECB, June 2001, available at: *https://www.ecb.europa.eu/pub/pdf/other/staffprojectionsguideen.pdf*. Foreign demand corresponds to the weighted average imports of France's trading partners. The method of calculation is described in the Occasional Paper *Trade consistency exercise in the context of the Eurosystem projection exercises-an overview*, available at: *https://www.ecb.europa.eu/pub/pdf/scpops/ecbocp108.pdf*.
b) Calculated against 38 trading partners of the euro area.
c) The forecasts for interest rates were calculated using the yield curve.

Due to the accommodative monetary policy stance, nominal interest rates are slated to remain at low levels. Markets expect the 10-year government bond rate to rise and stand at 1.4% in 2019 after a low of 0.5% in 2016. However, the seven-year moving average of the yield at issue of 10-year OAT, used to proxy government interest payments, should continue to decline to 1.2% in 2019, while it stands at 2.0% in 2016 and was at 4.2% in 2007.

The international environment looks to be less favourable than predicted in our June 2016 projections. Demand for French exports is expected to rise in 2016 by 2.0%, at a much slower pace than in 2015 (3.1%). The annual average growth rate should accelerate from 2017 to 2019 to reach 3.8% by the end of the projection horizon. In light of the recovery in euro area activity, demand from other EMU countries should prove fairly robust, although it should increase at a slower pace than in 2015. Growth in demand from non-euro area countries, which was very weak in 2015 and 2016, should pick up gradually over the next three years, to reach around 3.5% in 2019. However, this is still well below the average annual growth of 7.4% seen between 1995 and 2007.

Box 1

REVISION OF THE PROJECTION BETWEEN JUNE 2016 AND DECEMBER 2016

The Banque de France's GDP growth projection stands at 1.3% for 2016 and 2017, and 1.4% for 2018. It is therefore significantly **revised downwards compared to the June 2016 publication** (-0.2 pp in 2016, -0.2 pp in 2017 and -0.2 pp in 2018).[1]

Compared with June, **total HICP inflation is revised slightly upwards in 2016, almost unchanged in 2017 and revised slightly downwards in 2018.** HICP inflation excluding energy and food is unchanged in 2016 and barely revised upwards in 2017. It is unchanged for 2018.

For 2016, the downward revision of annual average GDP growth is explained by a lower-than-expected increase in activity in the second and third quarters.[2]

Domestic demand is broadly unchanged for the year. Private consumption, stable in Q2 and Q3 2016, is revised markedly downwards on an annual average basis, reflecting lower than expected revenues. This surprise is offset by much more dynamic household investment (+2.7 pp on an annual average basis). Business investment is unchanged compared to the June projection. Lastly, public demand, in particular investment, is more dynamic than in the June projection, due to stronger than expected growth in the first three quarters of the year.

Foreign trade and inventories are strongly revised. Exports are expected to slow much more (projection gap for 2016 from one projection to the next of -1.7 pp) due to the sharp downward revision of growth in global demand (-1.2 pp gap) and unexpected market share losses. However, this weaker export growth is accompanied by an equally negative surprise on imports (-1.9 pp), with the result that the net external contribution is revised marginally upwards for the year. However, this is more than offset by a less positive than expected inventory contribution (-0.2 pp), due in particular to the strong destocking movements in the second quarter of the year.

In 2017 and 2018, the downward revision of our GDP growth projection (-0.2 pp in 2017 and -0.2 pp in 2018) is mainly due to the deterioration in the international environment.

The projection is thus particularly affected by less favourable foreign demand prospects (-1.0 pp in 2017 and -0.6 pp in 2018), notably as a result of the impact of Brexit on the UK economy and of its dissemination to the euro area economies. The projections for French exports are thus lowered by -0.3 pp in 2017 and -0.6 pp in 2018. The weak revision to the net contribution of foreign trade thus masks a less significant initial spillover effect on activity through exports.

In addition, the purchasing power of households is expected to be affected by a lower dynamism of income from activity and property in a context of less buoyant activity. The lower decline potential of the saving ratio should also contribute negatively to the growth in private consumption in 2017, the growth rate of which is thus revised downwards by -0.4 pp in 2017 and -0.3 pp in 2018. However, household investment is revised upwards, especially in 2017, as a result of stronger developments up to Q3 2016 and a more favourable outlook than in June in light of the indicators in the construction sector.

Business investment is revised significantly downwards (-1.3 pp in 2017 and -0.9 pp in 2018). The after-effect of the additional depreciation allowance was stronger than expected in Q2 and Q3 2016, which weighs somewhat on the annual average for 2017. Above all, these one-off movements are compounded by the accelerator effect of less dynamic activity.

Lastly, public demand (consumption and investment) is revised slightly upwards (+0.2 pp in 2017 and +0.1 pp in 2018), due to the inclusion in the scenario of new measures concerning the priority missions of the government.

Total HICP inflation is revised upwards by 0.1 pp in 2016 mainly due to an upward revision of the energy component. The projection for HICP inflation excluding energy and food remains unchanged in 2016.

In 2017, the forecast for headline HICP inflation is unchanged. HICP inflation excluding energy and food is revised upwards due to a revision of the assessment of the rise in import prices and to higher unit labour costs than those forecast in the June 2016 scenario. Energy inflation is only slightly higher than in June because the effect of the rise in oil prices is partly offset by a downward revision of the price of electricity. These upward revisions are nevertheless neutralised by a downward revision of growth in food prices, leaving total inflation almost unchanged in 2017.

In 2018, total HICP inflation is revised slightly downwards. Indeed, energy inflation is lower. HICP inflation excluding food and energy is at the same level as in June.

1 See the revision table in the appendix to this publication. The projected GDP growth in June was 1.4% in 2016, 1.5% in 2017 and 1.6% in 2018. The gaps presented here are rounded off gaps and not the gaps between figures rounded off to one decimal place, resulting in possible differences of 0.1 pp.

2 In the June publication, the first quarter forecast was Q2 2016. In December, only Q4 2016 is unknown. On the other hand, revisions to the quarterly accounts in the quarters prior to Q2 2016 have a slightly positive impact on average growth in 2016 (+0.1 pp).

2| Economic outlook: domestic demand peaked in 2016 but exports should accelerate

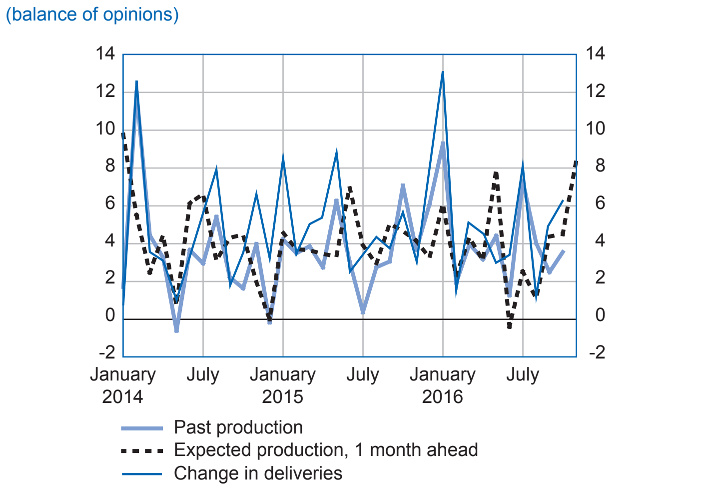
The current economic environment

The Banque de France survey on industry indicated that conditions in the manufacturing industry would stabilise at a level close to the long-term average. Moreover, the expected production indicator for November rose. These positive indicators were tempered by the decline in industrial output in September.

In the construction sector, revisions to recent past indicators of housing starts and household construction investment show a recovery is underway, probably underpinned by the ongoing effects of the Pinel tax incentives and the new zero-interest loan scheme. This recovery should continue even though property development and building trade surveys suggest that growth in the fourth quarter of 2016 should stabilise.

On the whole, current economic indicators are consistent with a 0.4% rise in GDP in the fourth quarter of the year.

Chart 1: Banque de France manufacturing survey



Source: Banque de France.

Moreover, due to the timing of the Eurosystem staff macroeconomic projection exercise, this projection uses data from the quarterly accounts published on 28 October 2016 (preliminary estimate – Q3 2016) and not those of 29 November (second estimate – Q3 2016). The second estimate confirmed GDP growth of 0.2% in Q3, with fairly minor revisions to the components. According to this second estimate, the growth carry-over for 2016 at the end of Q3 was revised downwards from 1.15% to 1.10%.

Headline annual HICP inflation stood at 0.5% in October 2016, while inflation excluding energy and food was 0.6%. For the first time since July 2014, the contribution of the year-on-year change in energy prices to overall inflation has become positive. However, year-on-year service price inflation remained subdued (1.1% in October), as has been the case since spring 2015. Non-energy industrial goods prices continued to decline year-on-year, on the back of the fall in prices of non-food consumer goods imported from outside the euro area (-0.7% in September 2016).

Foreign trade should make up for weaker domestic demand

Activity in France was driven in 2015 and 2016 by domestic demand (consumption and investment), whereas foreign trade was a significant drag on GDP growth (contributions of -0.3 pp in 2015 and -0.6 pp in 2016). As of 2017, while remaining the main driver of growth in France, domestic demand is expected to slow down while foreign trade should be more vigorous. The net contribution of foreign trade should therefore be close to zero.

French exports performed poorly in 2016, with annual average growth of 1.2%. Not only was foreign demand for French goods weak but 2016 was also marked by losses in market shares. These losses mainly seem temporary, due partly to an impact of transport equipment delivery problems, and French exports should recover strongly, by over 1% per quarter, at the end of 2016 and start of 2017. Exports should then move in line with foreign demand. Market shares at end-2017 should be marginally higher than those of 2015 and far greater than those of 2010. The nominal effective exchange rate, which has been relatively stable since April 2016, does not suggest that there will be additional market shares. Foreign demand for French goods should become buoyant as of 2017, mainly thanks to the strength of euro area demand, while that of non-euro area countries is likely to recover more slowly. Exports should therefore accelerate sharply in 2017 (4.3%) and continue to grow at a sustained pace in 2018 (3.8%) and 2019 (3.9%).

Imports are set to remain robust between 2017 and 2019, despite the deceleration in domestic demand. Indeed, the penetration rate (measured as the weighted average percentage of demand met by imports) should continue to rise over the projection horizon, returning to its historical trend (see Box 2). Imports are therefore expected to post annual average growth of 4.1% in 2017, 3.9% in 2018 and 3.9% in 2019.

Box 2

HOW TO INTERPRET THE SHARP INCREASE IN NON-ENERGY IMPORTS IN 2014 AND 2015?

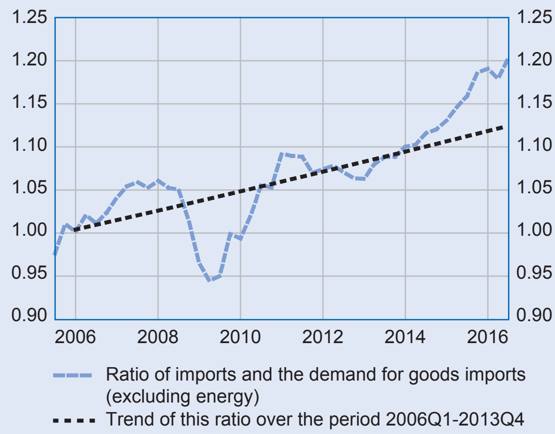
Since 1990, the apparent elasticity of imports to GDP[1] has generally been between 2 and 4. The years 2014 and 2015 are remarkable in this respect with an apparent elasticity of 7.2 in 2014 and 5.3 in 2015. The year 2016 seems to show a reversal because the apparent elasticity (calculated on the growth carry-over of imports and GDP for the year 2016 at the end of the third quarter) falls back to 2.3.[2]

Imports were very dynamic in France in 2014 and 2015 (annual growth of 4.8% in 2014 and 6.4% in 2015, after 2.2% in 2013), **driven by imports of non-energy goods**, and in particular capital goods and transport equipment. **The strong growth in imports was largely linked to that of demand, especially exports,** which grew by 6.0% in 2015 and have a high import content.

One way of addressing the dynamism of imports is to calculate an import demand indicator, which is equal to the sum of final demand items weighted by their import content for a base year. In the absence of changes in import content, imports would increase at the same pace as this indicator. However, the import content of non-energy goods has been increasing steadily in France since 2005, i.e. there is a trend increase in the penetration rate defined as the ratio of imports to the demand for fixed-weight imports (see chart opposite).

The increase beyond the trend of the penetration rate describes the acceleration beyond demand for non-energy imports in 2014 and 2015. This acceleration goes beyond what can be attributed to a competitiveness effect incorporating the changes in the effective exchange rate.

Chart: Penetration rate



Source: Insee quarterly national accounts published on 28 October 2016.

The acceleration in imports between 2013 and 2015 is essentially attributable to imports of non-energy goods, in particular capital goods and transport equipment. Is the acceleration in imports for these two products due to insufficient supply or **is it only the consequence of stronger dynamism in the most import-intensive components of demand** (notably exports and business investment)? **One way of addressing this issue is to study the destination of imports by demand item** (final or intermediate) **using the resources and uses balances** available in the quarterly national accounts.[3] As regards **capital goods**, imports are clearly more dynamic than domestic production in 2014 and 2015. This dynamism is accompanied by an acceleration in intermediate consumption and exports, as well as a strong dynamism of private consumption.

Between 2014 and 2015, the acceleration in imports of capital goods thus fuels both the productive process and domestic final demand. As regards **transport equipment**, the high growth rates observed on the supply side are accompanied on the demand side by dynamic intermediate consumption and changes in inventories in 2014 and a strong absorption by exports in 2015. **Between 2014 and 2015, the acceleration in imports of transport equipment thus fuels essentially the production process, destined for export.**

1 *Defined as the ratio of the annual growth rate of imports in real terms to real annual GDP growth.*
2 *The apparent elasticity of imports to GDP for the whole world has come close to 1. This is not the case for euro area countries, where the apparent elasticity has been above 2 since 2014, close to the levels of the mid-2000s.*
3 *These are the resources and uses balances in real terms at 2010 prices so as to have a full resource-use balance (including changes in inventories). As quarter-by-quarter resource-use balances are somewhat noisy, we calculate the contributions over four rolling quarters to the changes in resources for each product (equal by definition to those of uses).*

After peaking between 2015 and 2016, growth in private consumption should slow in 2017

Private consumption is projected to grow in 2016 at the same annual average pace as in 2015 (1.5%), underpinned by marked gains in purchasing power, largely stemming from low inflation caused by the oil counter-shock. The improvement in France's oil bill was EUR 17.2 billion between 2014 and 2015, or 1.3 pp of household gross disposable income (GDI). The decrease in the price of oil products continued at the start of 2016 and the additional gain should be EUR 9.7 billion this year compared with 2015, or 0.7 pp of GDI. The effects of this purchasing power gain should disappear over the projection horizon and consumption should only grow by 1.2% in 2017, before picking up to grow by 1.5% in 2018 and by 1.6% in 2019.

Table 2: Change in private consumption and in real household disposable income

(annual average percentage change)	2015	2016	2017	2018	2019
Real household consumption	1.5	1.5	1.2	1.5	1.6
Real disposable income	1.6	1.8	1.2	1.3	1.5
Nominal disposable income	1.4	1.8	2.0	2.5	2.8
Contributions to growth in nominal disposable income					
Gross operating surplus	*0.2*	*0.2*	*0.3*	*0.4*	*0.4*
Gross wages	*1.0*	*1.2*	*1.4*	*1.6*	*1.7*
Net property income	*-0.1*	*0.0*	*0.2*	*0.2*	*0.4*
Current transfers	*0.2*	*0.0*	*0.0*	*0.0*	*0.0*
Social security benefits	*0.7*	*0.6*	*0.6*	*0.8*	*1.0*
Current taxes	*-0.3*	*-0.2*	*-0.3*	*-0.4*	*-0.5*
Social contributions	*-0.2*	*-0.2*	*-0.2*	*-0.2*	*-0.2*

Sources: Insee quarterly national accounts published on 28 October 2016. Blue-shaded columns show Banque de France projections. Does not take account of the national accounts published on 29 November.

Thus, in 2017, private consumption should slow compared with the two previous years. Thanks to the recovery in activity, household nominal disposable income should grow significantly (2.0%) but household purchasing power is expected to be affected by the sharp rise in inflation, and real gross disposable income should only increase moderately (1.2%).

In 2018 and 2019, private consumption growth should be underpinned by that of nominal income and in particular of nominal wages (see section on wages).

Since the previous projection exercise, the revision of the 2013-2015 annual accounts has led to a sharp downward revision of the saving ratio. As a result, its downward trend over the projection horizon is limited and less marked than before, which offers household consumption less support than expected in June.

Household investment should recover throughout 2017

After a protracted decline, household investment stopped falling in 2015 and even increased considerably in early 2016. This rebound was largely underpinned by the measures to ease the conditions of the Pinel tax incentives and of the zero-interest loan scheme. Thus, for the first time since 2011, annual growth in household investment should be positive in 2016 (1.5%). The effects of these government measures should still be significant in 2017, when this investment is expected to grow by 1.9%. Beyond 2017, the impact of this temporary support is likely to diminish and, due to adverse demographic trends (decrease in the share of the 30-59 age group in the population), household investment growth is only expected to come in at 0.5% in 2018, and at zero in 2019.

The household investment to gross disposable income ratio should be stable between 2016 and 2018 at 8.0%, before inching down to 7.9% in 2019. The household financial saving ratio, calculated as the ratio of their net lending to their gross disposable income, is expected to decline very slightly from 5.7% in 2016 to 5.5% in 2019, which is still below the average level of 6.3% observed for the 2009-2012 period.

Business investment should continue to be underpinned by the low interest rate environment, despite the end of the additional depreciation allowance

Buoyed by the "extra depreciation" tax incentive (see Box 3), business investment accelerated sharply in Q4 2015 (1.4% quarter-on-quarter) as well as in Q1 2016 (1.9%), before displaying a marked reversal, falling by 0.3% and 0.2% in Q2 and Q3 2016 respectively. Although weaker than in 2016, the impact of this tax cut measure on investment should still be significant in Q4 2016 and in Q1 2017. When the effect of this temporary support ceases, business investment should grow more slowly again in 2017 than in 2016. More specifically, it should grow by 1.8% in 2017 after 3.3% in 2016, then by 2.5% in 2018 and by 2.7% in 2019. This should reflect a return to a pace more consistent with its determinants, i.e. a recovery in activity and low cost of capital.

The improvement in the margin rate of non-financial corporations is likely to come to an end: after reaching a low in 2013 of 29.9 %, this rate rapidly recovered by two points in 2014 and 2015, thanks to measures to reduce labour costs (the Tax Credit for Competitiveness and Employment or CICE, and the Responsibility and Solidarity Pact or PRS) and a certain wage moderation fostered by the weakness of inflation. The extension of the CICE should have a slightly positive effect on the margin rate in 2018. All in all, this rate should stabilise at end-2019 at 32.5 %, at the pre-crisis level; it remained in a range of 32% to 33% between 1996 and 2008.

Table 3: Ratios of non-financial corporations

(annual average, in %)	2015	2016	2017	2018	2019
Margin rate	31.4	31.9	32.1	32.4	32.5
Investment ratio	22.9	23.3	23.4	23.6	23.8
Self-financing ratio	86.3	88.6	89.2	89.6	88.7
Profit ratio before dividends	26.2	27.1	27.4	27.6	27.6

Sources: Insee quarterly accounts published on 28 October 2016. Blue-shaded columns show Banque de France projections. Does not take account of the national accounts published on 29 November.

Overall, despite this slowdown compared with 2016, business investment is expected to remain at a high level: expressed as a percentage of value added, the investment rate should return in 2017 to its previous high of 2008 and continue to rise to reach 23.8% of value added at end-2019. Furthermore, corporate debt should stabilise at a high level, close to 130% of their value added. Net borrowing should stand at around EUR 10 billion per quarter from 2016 to 2019, or a level close to that of 2015 (EUR 9 billion).

The unemployment rate should continue to fall

Thanks to the recovery in activity and the measures to reduce labour costs (CICE, PRS), market sector employment has improved significantly since 2015. Apparent productivity gains should be very weak in 2016, at 0.2% (see Table 4). The impact of economic policy measures should strengthen slightly over the projection horizon, with the increase in the rate of the CICE from 6% to 7% for wages paid in 2017.

Productivity gains are set to accelerate as of 2017, as is generally expected during economic upswings, but this acceleration is likely to remain moderate. Private sector employment should grow by 0.6 % in 2017, after 0.9% in 2016. Employment should continue to rise in 2018 (0.8%) and 2019 (0.7%) in line with the increase in growth.

Table 4: Change in wages and productivity in the private sector

(annual average percentage change)	2015	2016	2017	2018	2019
Value added deflator	0.6	0.8	0.7	1.2	1.3
Unit labour costs	0.0	1.0	0.8	1.2	1.2
Productivity per capita	1.2	0.2	0.7	0.8	1.0
Per capita nominal wage	1.5	1.3	1.6	2.0	2.2

Sources: Insee quarterly national accounts published on 28 October 2016. Blue-shaded columns show Banque de France projections. Does not take account of the national accounts published on 29 November.

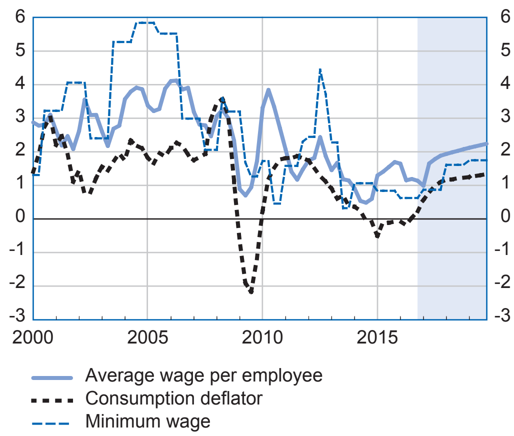
Albeit at a slower pace than in previous years, non-market sector employment should nevertheless continue to grow in 2016 (0.5%), before slowing in 2017 (0.1%) and stabilising in 2018 and 2019. Subsidised job growth in particular is expected to slow down.

Total employment should rise sharply in 2016 (0.7% after 0.2% in 2015) and then continue to grow at a slower pace in the following years (0.5% in 2017 and 0.6% in 2018 and 2019).

Thanks to the strength of employment, bolstered by weak labour force growth at the start of the year, the fall in the unemployment rate on average in 2016 is likely to be significant: it is expected to fall to 10.0% after 10.4% (as defined by the ILO, France and overseas territories). In 2017, the slowdown in employment and slightly stronger labour force growth should result in a stabilisation of the unemployment rate at 9.9%. As of 2018, with the labour force predicted to increase by 0.4% per year, and thanks to employment growth, the unemployment rate should fall to 9.4% in Q4 2019.

Chart 2: Private sector wages and consumption deflator

(year-on-year percentage change – quarterly series)



Sources: Insee quarterly national accounts published on 28 October 2016 for the period 2000-2016Q3, Banque de France projections.

The strength of real wage growth observed in 2015 and 2016 is not set to continue

Nominal wage growth is expected to remain modest in 2016 (1.1%), in line with the stabilisation of corporate margin rates. For households, gains in the purchasing power of wages (1.1%) were nevertheless underpinned by weak consumer price inflation. Nominal wages should accelerate gradually as of 2017 as labour market conditions improve and overall inflation picks up.

Minimum wage growth, according to the minimum wage adjustment rule, is likely to remain moderate. In the private sector, the average wage per employee should rise by 1.6% on average in 2017 and by 2.0% in 2018 and 2.2% in 2019. Real wage growth should be lower overall than in 2015 and 2016: 0.8% in 2017, 0.7% in 2018 and 0.8% in 2019.

Thanks to productivity gains of 1% year-on-year at the end of the projection horizon in 2019, unit labour cost growth in the private sector should remain modest, rising by 1.2% by end-2019.

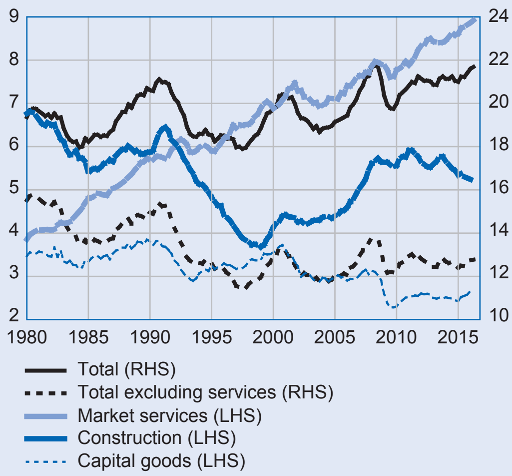
Box 3

BUSINESS INVESTMENT DEVELOPMENTS OVER THE RECENT PERIOD

The investment rate of French non-financial corporations (NFCs), measured by the ratio of investment to value added, is close to its pre-crisis peak. In nominal terms, this figure stands at 23.3% in the second quarter of 2016, compared with 23.6% in the second quarter of 2008. This ratio illustrates the share of resources allocated to the development of productive capital. The investment rate increases when investment in real terms rises faster than value added in real terms, conditional on relative changes in investment and value added deflators.[1]

Chart: Investment rate of non-financial corporations (NFCs) by product

(percentage of value added)



Source: Insee quarterly national accounts published on 28 October 2016.

The business investment rate in France has increased steadily since the sharp contraction observed in 2008-2009, in particular because investment spending has been fostered by improved activity, favourable financing conditions, increased margins and one-off government measures (additional depreciation allowance). Between 2014 and 2016, the investment rate of non-financial corporations rose from 22.9% at end-2013 to 23.3% in mid-2016 and is expected to reach 23.9% by the end of 2019, according to our projection. **From 2014 to 2016, real investment by NFCs (2.8% on average) is expected to grow at twice the rate of value added (1.4% on average).** However, the effect of this gap on the increase in the investment rate has been tempered by a slightly lower increase in the relative prices of investment than in those of value added. The investment rate has nonetheless now reached a high level and we expect it to grow at a slower pace than in recent years up to 2019: the moderate growth outlook does not encourage companies to continue expanding their production capacity at such a sustained pace.

The recent dynamism of investment has been underpinned since mid-2015 by the additional depreciation allowance which enables companies to deduct an extra depreciation charge of 40% from their income over 5 years. This measure, initially scheduled to last until April 2016, has been extended for one year until April 2017. An analysis of investment trends suggests that the effect of the measure has been strong. Business investment accelerated in the last quarter of 2015 (1.5%, quarter-on-quarter) and in the first quarter of 2016 (2.0%, quarter-on-quarter), followed by a reversal in the second quarter of 2016 (-0.4%, quarter-on-quarter). An estimate based on an assumption of expected quarterly investment growth of 0.7% per quarter results in an assessment of the impact of the measure on the level of investment of around 0.2 pp in 2015 and 1.2 pp in 2016.[2] This effect is significantly stronger than that expected with our forecasting model in which the measure results in a reduction in the cost of capital, which has a relatively small impact in the short term. On the other hand, the imputed effect is closer to an alternative estimate based on a DSGE[3] model (0.9 pp on business investment in 2016) due to the expectation of the end of the measure and a stronger effect of the cost of capital in the short term.

1 *In the absence of a deflator of the value added of NFCs in the national accounts, we use the deflator of the value added of the market branches. The price of investment increases by 0.2% more than the price of value added on average from 2008 to 2016.*
2 *In its* Notes de conjoncture *for June and December 2015, Insee published estimates of the effect of the extra depreciation allowance on investment, but they are only ex ante estimates and have been contradicted to an extent by actual figures.*
3 *Dynamic stochastic general equilibrium models.*

…/…

Compared to other euro area countries, French non-financial corporations have a higher investment rate, with the exception, however, of Spain, whose ratio profile fluctuates widely. The greater dynamism of the French investment rate vis-à-vis Germany is essentially a reflection of the weakness in the growth of value added, for a comparable investment trajectory. Indeed, from 2008 to 2014, investment by non-financial corporations in nominal terms increased by about 5% in both Germany and France, while value added rose by 14% in Germany compared with only 6% in France.

National accounts distinguish the investments of non-financial corporations by products. This breakdown of investment shows more contrasting trends than the simple observation of the overall investment rate, which had rebounded sharply following the crisis in 2009. **Indeed, the investment rate in capital goods dropped in 2009 and has not climbed back to its pre-crisis level,** despite the slight positive effect of the extra depreciation measure in recent quarters (see above). Business investment in capital goods, close to 3% of their value added in 2007 and 2008, is now stagnating at around 2.5%. Investment in construction, which had remained strong during the crisis, has been declining since end-2013. However, investment in market services (R&D, software, patents, etc.) has not ceased to grow and its progression has not been interrupted by the crisis.

3| Inflation should remain weak in 2016, strengthening gradually to 1.5% by the end of 2019

Headline HICP inflation is expected to average 0.3% in 2016 after 0.1% in 2015, and should subsequently strengthen to 1.2% in 2017, followed by 1.4% in 2018 and 1.5% in 2019 (Chart 3). A number of factors should support this recovery: the rise in oil prices (as implied by futures prices as at 17 November 2016), growth in the price of non-energy imports, and the pick-up in domestic activity. Inflation excluding energy and food should also remain low in 2016 (annual average of 0.6%, after 0.6% in 2015) and 2017 (0.8%), before climbing as of 2018 to reach 1.3% in 2019.

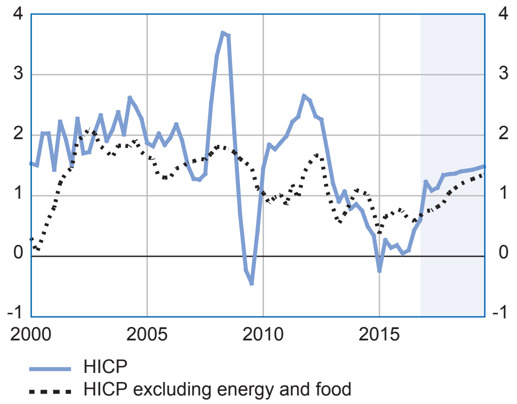
In 2016, inflation excluding energy and food remained subdued, while energy prices continued to weigh on headline inflation.

After falling up until the start of 2016 (EUR 32 per barrel in the first quarter), oil prices have since been trending upwards again. In the first quarter of 2017, the price of a barrel of crude is expected to reach EUR 43, in line with the average for the second half of 2015. This recovery has a direct impact on the energy component of consumer prices (which represents around 9% of the overall index), via the prices of oil products consumed by households (petrol, heating oil, etc.). The latter have indeed been rising since the start of the year; however, oil products have still been cheaper than a year earlier for a large part of 2016, so energy inflation should stay firmly in negative territory for the year (annual average of -2.8%).

Inflation excluding food and energy remained weak in 2016. Industrial goods prices rebounded markedly in the first quarter of 2016, buoyed by the dynamic growth seen in 2015 in non-energy

Chart 3: HICP and HICP excluding energy and food

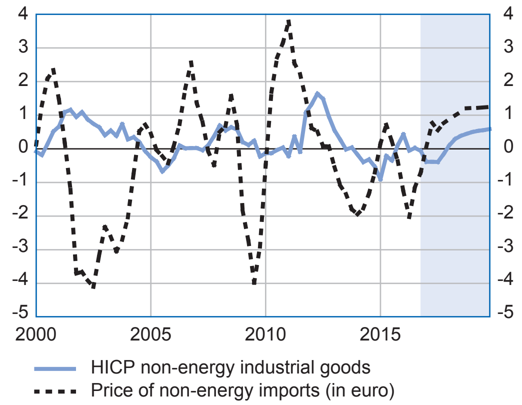
(year-on-year percentage change – quarterly series)



Sources: Insee for the period 2000-2016Q3, Banque de France projections.

Chart 4 HICP non-energy industrial goods and non-energy imported goods prices

(year-on-year percentage change – quarterly series)



Sources: Insee for the period 2000-2016Q3, Banque de France projections.

import prices (Chart 4), which generally have a lagged impact on industrial goods. Annual industrial goods inflation was subsequently close to zero in the second and third quarters of 2016, and is expected to remain around these levels in the final quarter. As a result, we expect it to barely average 0.1% for the year.

Service price inflation fell to historical lows in 2016. In labour-intensive activities, inflation was dampened by declines in unit labour costs, stemming from the PRS and CICE measures, and from wage moderation in a context of high unemployment. Growth in rent prices, which is notably linked to past inflation, continued to slow. Service price inflation is therefore expected to average 1.0% over the year, down from 1.2% in 2015.

Lastly, food inflation also remained subdued in 2016, against a backdrop of low commodity prices and agricultural production costs. Food prices are therefore expected to rise by an average of 0.5% over the year, making only a modest contribution to headline inflation.

In 2017, the recovery in energy prices should push inflation higher, despite a slight fall in industrial goods prices.

In 2017, HICP inflation should essentially be driven by the energy component of the index. The growth in oil prices embedded in the futures curve, as well as tax hikes on oil-related products and increases in gas and electricity prices, should push the energy component up by an average 4.6% over the year, making a 0.4 pp contribution to headline inflation. Higher agricultural production costs should also drive food inflation higher in 2017, to an annual average rate of 1.1%.

In contrast, inflation excluding energy and food should remain weak at an annual average of 0.8%. Service prices are expected to be more dynamic than in 2016, rising 1.5% on the back of a slight recovery in wages and hence in unit labour costs. However, non-energy import prices have been falling year-on-year since the end of 2015 (-2.0% in the second quarter of 2016, see Chart 4), and this should start to weigh on industrial goods inflation. In addition, the restrictions to public healthcare expenditure set out under the *Objectif national des dépenses d'assurance maladie* (ONDAM – National Objective for Health Insurance Spending) should prompt another marked fall in the price of medicines, adding to the decline in industrial goods prices. Healthcare (or medicine) prices are expected to decline by 0.3%.

In 2018 and 2019, HICP inflation should continue to strengthen, reaching 1.5% year-on-year in the final quarter of 2019.

Inflation excluding energy and food should increase more markedly as of 2018, rising to an annual average of 1.3% in 2019. Service price inflation is expected to continue gathering momentum, fuelled by higher unit labour costs and a fall in unemployment. Industrial goods inflation should also turn positive as of 2018, rising to 1.2% by the end of the year on the back of the forecast rebound in non-energy import prices, before stabilising thereafter. Food inflation should continue to strengthen, reaching 1.3% in 2019. Finally, energy inflation is expected to moderate in the wake of the slowdown in oil prices, averaging 3.1% in 2019.

4| Public finances: a slow improvement in 2016 and 2017

The gradual improvement in public finances should continue in 2016, with the nominal public deficit expected to narrow to 3.3% of GDP for the year, compared with 3.5% of GDP in 2015. For 2017, however, given the trajectory of public spending, the deficit is no longer expected to fall to 3.0% of GDP.

In 2016, the cuts to taxes and social security contributions begun in 2015 are projected to continue, with the implementation of new measures (elimination of the surtax on corporate income tax) and the application of existing legislation (second rebate on the special social solidarity contribution for companies, exemptions from employer social charges, cut in income tax for households). As a result, the ratio of tax and social security receipts to GDP should fall by 0.2 pp to 44.5%, down from 44.7% in 2015 and from the historical peak seen in 2014.

The decline in the tax ratio should be offset by low debt service costs. Nominal public spending, excluding tax credits, is projected to rise by 1.4% in 2016, after 0.8% growth in 2015. The trajectory notably reflects higher spending linked to the emergency plan for employment, a rise in the public sector wage bill following July's upward revision to the index points in the pay grid, and the recovery in government investment. However, these factors should be offset to an extent by continued low interest rates, the spending cuts announced in the 2016 budget (notably the ONDAM) and the low level of inflation. In real terms, and excluding tax credits, primary spending should nonetheless rise by 1.7% in 2016, compared with an average growth rate of 0.9% per year during the fiscal consolidation of 2010-2015.

In 2017, the public deficit is projected to narrow to 3.1% of GDP.

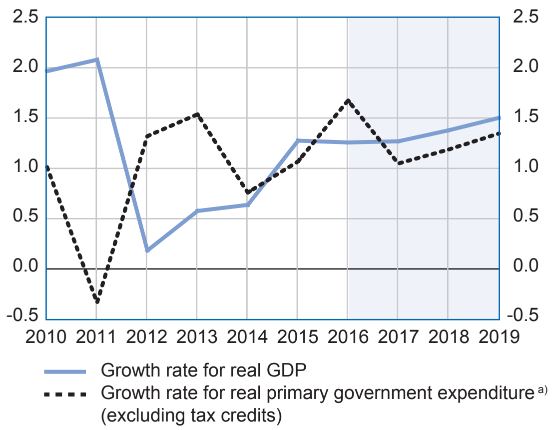
Some of the cuts to taxes and social security contributions originally planned for 2017 (under the PRS) have been postponed to 2018, with the result that 2017 tax revenue is now forecast to rise at a slightly higher pace than nominal GDP (2.3% growth against 2.2% for nominal GDP). The final stage in the elimination of the corporate social solidarity contribution has been cancelled and replaced with a rise in tax credits in 2018 (escalating impact of the CICE), while income tax cuts for large corporations have also been postponed. These measures are expected to boost revenues by an additional EUR 5 billion in 2017, but will be followed by an equivalent reduction in 2018. Significant additional revenues from the fight against tax fraud, coupled with the decision to collect certain taxes earlier than usual (increase in the 5th corporate tax instalment) should also help to push the tax ratio higher again in 2017, to 44.6% of GDP from 44.5% in 2016.

Growth in nominal spending excluding tax credits should accelerate to 1.9% in 2017, compared with 1.4% in 2016 (and average annual growth of 1.9% for the period 2010-2015). The increase will be driven by new measures in the government's priority areas (education and young people, security and employment training), a second upwards revision of the index points in the public sector wage grid in February, and slightly stronger growth in healthcare spending (the ONDAM target for 2017 is 2.1%, up from 1.8% in 2016). The fall in the debt service ratio from 2.0% in 2015 to 1.8% in 2016 should help to limit growth in overall expenditure. Real primary spending excluding tax credits should rise by 1.0% in 2017, as in 2015, after 1.7% growth in 2016 (see chart).

The structural deficit is expected to narrow by just 0.1 pp in 2016, after falling by 0.3 pp in 2015 (based on the European Commission's estimate of potential growth). This will be attributable to the decline in debt service costs between 2015 and 2016 as the primary structural deficit is in fact expected to rise by 0.1 pp. **In 2017, the structural deficit is projected to shrink by 0.2 pp.**

Chart 5: Comparison of changes in primary government expenditure and in real GDP

(annual average, in %)



Sources: Insee quarterly national accounts published on 28 October 2016 for the period 2000-2016Q3, Banque de France projections.
a) Spending deflated by the CPI excluding tobacco.

5| Uncertainties: the risks to the baseline inflation and growth scenario are broadly balanced

The projections for economic activity and inflation remain subject to a number of uncertainties. These are illustrated in the fan charts and are estimated on the basis of historical projection errors.

Risks to economic activity are on the whole balanced.

The measures implemented since 2013 to improve the competitiveness of French businesses could gradually translate into market share gains that are not currently included in the long-term assumptions. Household investment was more dynamic than expected at the start of 2016 and this could continue and even intensify over the remaining quarters. The projections also assume that wage growth will remain relatively moderate, in line with the trend observed in recent years.

On the downside, the household saving ratio, which has been revised downwards since the May 2016 national accounts, could be higher in 2019 than envisaged in the projections. There are also a number of downside risks weighing on businesses that could potentially impact growth: net changes in inventories are currently high, and the strong upwards impact on investment observed in early 2016 from the additional depreciation allowance could be followed by a sharper-than-expected counter-effect.

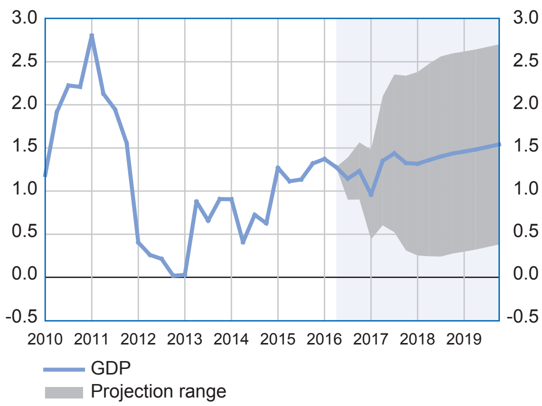
On an international level, developments leading up to the United Kingdom's withdrawal from the European Union could trigger a period of uncertainty that would undermine business investment as well as foreign demand for French goods and services. These effects are currently difficult to quantify. Similarly, the results and consequences of various elections (United States, Italy, Germany) are also liable to affect foreign trade to varying degrees.

With regard to the inflation forecast, the risks are also broadly balanced.

The projections for oil prices have been revised upwards since June in the wake of the OPEC decision to cut production. Nonetheless, there is still a downside risk to the forecast: oil prices remain extremely volatile. More generally, imported inflation could prove weaker than anticipated, particularly if the global recovery turns out to be less robust. On the upside, recent movements in long-term yields suggest that markets are factoring in a sharper recovery in global inflation than currently anticipated in these projections.

Chart 6: Projection range for GDP growth

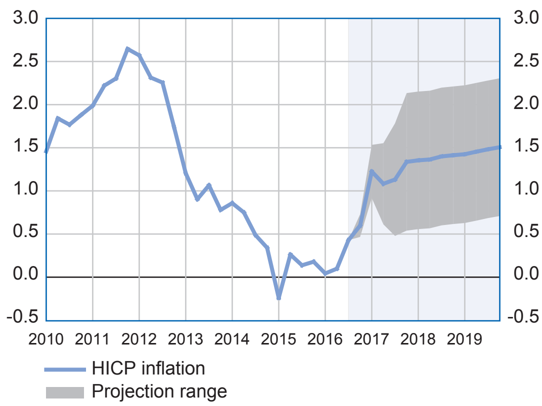
(year-on-year percentage change)



Sources: Insee quarterly national accounts published on 28 October 2016 for the period 2000-2016Q3, Banque de France projections.

Chart 7: Projection range for annual HICP inflation

(year-on-year percentage change)



Sources: Insee for the period 2000-2016Q3, Banque de France projections.

Appendix: Revisions to projections since June 2016

Table A1: Revisions to projections since the June BMPE

	December 2016 BMPE					Revisions since June 2016 BMPE			
	2015	2016	2017	2018	2019	2015	2016	2017	2018
HICP	**0.1**	**0.3**	**1.2**	**1.4**	**1.5**	**0.0**	**0.1**	**0.0**	**-0.1**
HICP excluding energy and food	**0.6**	**0.6**	**0.8**	**1.1**	**1.3**	**0.0**	**0.0**	**0.1**	**0.0**
GDP deflator	0.6	0.8	0.9	1.2	1.3	-0.6	-0.3	-0.2	-0.1
Real GDP	**1.2**	**1.3**	**1.3**	**1.4**	**1.5**	**0.0**	**-0.2**	**-0.2**	**-0.2**
Contributions to GDP growth (in percentage points):[a]									
Domestic demand (excluding changes in inventories)	*1.4*	*1.8*	*1.3*	*1.5*	*1.6*	*0.2*	*0.0*	*-0.3*	*-0.2*
Net exports	*-0.3*	*-0.6*	*0.0*	*-0.1*	*-0.1*	*-0.1*	*0.1*	*0.0*	*0.0*
Changes in inventories	*0.1*	*0.1*	*-0.1*	*0.0*	*0.0*	*-0.1*	*-0.2*	*0.0*	*0.0*
Private consumption	1.5	1.5	1.2	1.5	1.6	0.1	-0.5	-0.4	-0.3
Government consumption	1.4	1.5	1.1	0.9	1.1	-0.1	0.1	0.3	0.1
Total investment	0.9	2.8	1.8	1.9	1.9	0.9	0.8	-0.6	-0.5
Government investment	*-3.9*	*2.6*	*1.4*	*1.9*	*1.8*	*-0.8*	*1.4*	*0.0*	*-0.1*
Household investment	*-0.8*	*1.5*	*1.9*	*0.5*	*0.0*	*1.9*	*2.7*	*1.0*	*0.4*
Business investment (NFCs-FCs-IEs)	*2.9*	*3.3*	*1.8*	*2.4*	*2.7*	*1.0*	*0.0*	*-1.3*	*-0.9*
Exports	6.0	1.2	4.3	3.8	3.9	-0.2	-1.7	-0.3	-0.6
Imports	6.4	3.0	4.1	3.9	3.9	0.0	-1.9	-0.4	-0.6
Real household disposable income (RHDI)	1.6	1.8	1.2	1.3	1.5	-0.2	-0.4	-0.2	-0.3
Household saving ratio (% gross disposable income)	14.5	14.8	14.7	14.5	14.5	-0.9	-0.8	-0.7	-0.8
ILO unemployment rate (France and overseas territories, % of labour force)	10.4	10.0	9.9	9.7	9.5	0.0	-0.1	-0.1	-0.1

Sources: Insee data for 2015 and the first three quarters of 2016, publication of 28 October 2016. Blue-shaded columns show Banque de France projections.
Annual percentage change except where otherwise indicated. Revisions to June BMPE are in percentage points.
a) The sum of the contributions does not necessarily correspond to GDP growth as figures have been rounded. This may also affect the calculation of revisions since the last BMPE.

Table A2: Technical assumptions and international environment[a)]

	December 2016 BMPE					Revisions since June 2016 BMPE			
	2015	2016	2017	2018	2019	2015	2016	2017	2018
Technical assumptions									
Brent oil price (USD/barrel)	52.4	43.1	49.3	52.6	54.6	0.0	-0.3	0.3	1.3
Brent oil price (EUR/barrel)	47.2	38.8	45.3	48.3	50.1	0.0	0.5	2.3	3.4
Non-energy commodity prices in USD (annual percentage change)	-16.5	-4.0	6.6	3.8	4.5	3.4	-0.7	2.3	-0.8
USD/EUR exchange rate	1.11	1.11	1.09	1.09	1.09	0.0%	-1.9%	-4.6%	-4.6%
Euro nominal effective exchange rate (annual percentage change)[b)]	-7.1	3.8	0.1	0.0	0.0	0.0	-0.4	-0.1	0.0
3-month Euribor[c)]	0.0	-0.3	-0.3	-0.2	0.0	0.0	0.0	0.0	0.1
10-year French government bond yields[c)]	0.8	0.5	0.9	1.1	1.4	0.0	-0.1	0.1	0.2
International environment, annual percentage change									
Global CPI	2.0	2.0	2.2	2.4	2.6	0.0	-0.1	-0.3	-0.2
Extra-euro area competitors' prices on the export side (in EUR)	5.3	-5.3	2.7	2.4	2.4	-0.1	-0.5	-0.3	-0.2
World real GDP	3.1	2.9	3.3	3.4	3.5	0.2	0.0	-0.2	-0.1
World (excluding euro area) real GDP	3.2	3.0	3.5	3.7	3.8	0.1	-0.1	-0.2	-0.1
Global (excluding euro area) trade	0.6	0.9	2.8	3.7	3.8	-0.2	-0.9	-0.8	-0.3
Foreign demand for French goods and services	3.1	2.0	3.2	3.8	3.8	-0.1	-1.2	-1.0	-0.6
Intra-euro area	*5.8*	*3.2*	*4.1*	*4.3*	*4.1*	*0.0*	*-1.3*	*-0.8*	*-0.6*
Extra-euro area	*0.8*	*1.0*	*2.4*	*3.3*	*3.5*	*-0.1*	*-1.1*	*-1.1*	*-0.5*

Sources: Eurosystem. Blue-shaded columns show Banque de France projections.
Revisions to June BMPE data are expressed as percentages for levels, and as percentage points for rates of growth.
a) These technical assumptions and international environment projections were constructed by the ECB on 17 November for market data, and on 22 November for foreign demand for French goods and services, in accordance with the principles set out in *A guide to Eurosystem staff macroeconomic exercises,* ECB, June 2001, available at: *https://www.ecb.europa.eu/pub/pdf/other/staffprojectionsguideen.pdf.* Foreign demand corresponds to the weighted average imports of France's trading partners. The method of calculation is described in the Occasional Paper *Trade consistency exercise in the context of the Eurosystem projection exercises-an overview,* available at: *https://www.ecb.europa.eu/pub/pdf/scpops/ecbocp108.pdf.*
b) Calculated against 38 trading partners of the euro area.
c) The forecasts for interest rates were calculated using the yield curve.