

# Why the United Kingdom has seen stronger growth than France since mid-2013

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*From 2000 to mid-2013, the economic trajectories followed by France and Britain were broadly similar, notwithstanding a few differences: sustained growth from 2000 to 2008, recession in 2008 and 2009 followed by a recovery up until mid-2013 (in France, the bulk of the recovery occurred before 2011). Since mid-2013, however, economic activity has been buoyant in the UK while growing timidly in France. All in all, over this two-and-a-half-year period, GDP increased by 6.4% in the UK compared with just 1.6% in France, a differential of 4.9 points. And yet these two economies are comparable: the sector-by-sector structure of economic output is similar and does not account for the differences observed, while the structure of demand is almost the same.*

*The growth differential seen since mid-2013 can be largely attributed to differences in consumption, household investment and government investment; meanwhile, government consumption and international trade have made virtually no contribution to the differential, and demand from businesses appears to have played no more than a secondary role.*

*Above and beyond these itemised contributions, models for household consumption and investment in both countries suggest that there are three main factors behind this considerable cyclical divergence.*

*First, while the distribution of value added has been relatively similar, and purchasing power has grown at the same rate on both sides of the Channel since 2013, the nature of the British labour market is such that there has been a redistribution of the wage bill in favour of higher employment and at the expense of individual salaries. The fall in unemployment in the UK is probably behind the decrease in precautionary savings and the resulting increase in consumption expenditure. Unemployment in France has increased over the same period, and in any case the rate of saving is much less clearly connected to the rate of employment. This effect is believed to have contributed +1.7 GDP points to the growth differential observed between the two countries since mid-2013.*

*Next, monetary policy has been accommodating in both countries. In the UK this has led to a stronger appreciation in asset prices (property prices and stock market indices), with clear repercussions for household consumption and investment thanks to very powerful wealth effects. All in all, the monetary and financial context is believed to have contributed +2.2 GDP points to the growth differential observed between the two countries since mid-2013.*

*Lastly, fiscal policy has been more clement in the UK since 2010 and has contributed to the growth differential between the two countries in two major ways: more dynamic government investment and a household tax burden which is less of an obstacle to consumption. The contribution of fiscal policy to the growth differential observed between the two countries since mid-2013 is estimated at +1.1 GDP points.*

*Nonetheless, these differentiating factors are expected to melt away, some as early as H1 2016. Unemployment in the UK is close to the frictional level, and recruitment difficulties are particularly pressing: the potential for avoiding precautionary spending appears to have been exhausted, which should lead to a slowdown in consumption. Furthermore, the country is saddled with a significant general government deficit and the British government plans to rein in spending from 2016 onwards. Finally, the Bank of England is expected to tighten monetary policy in the medium term, which could hold back asset prices and thus limit wealth effects.*

## Why the United Kingdom has seen stronger growth than France since mid-2013

**Since mid-2013, activity has been much more buoyant in the UK than in France**

*Until mid-2013, the cyclical developments in French and British activity were in step*

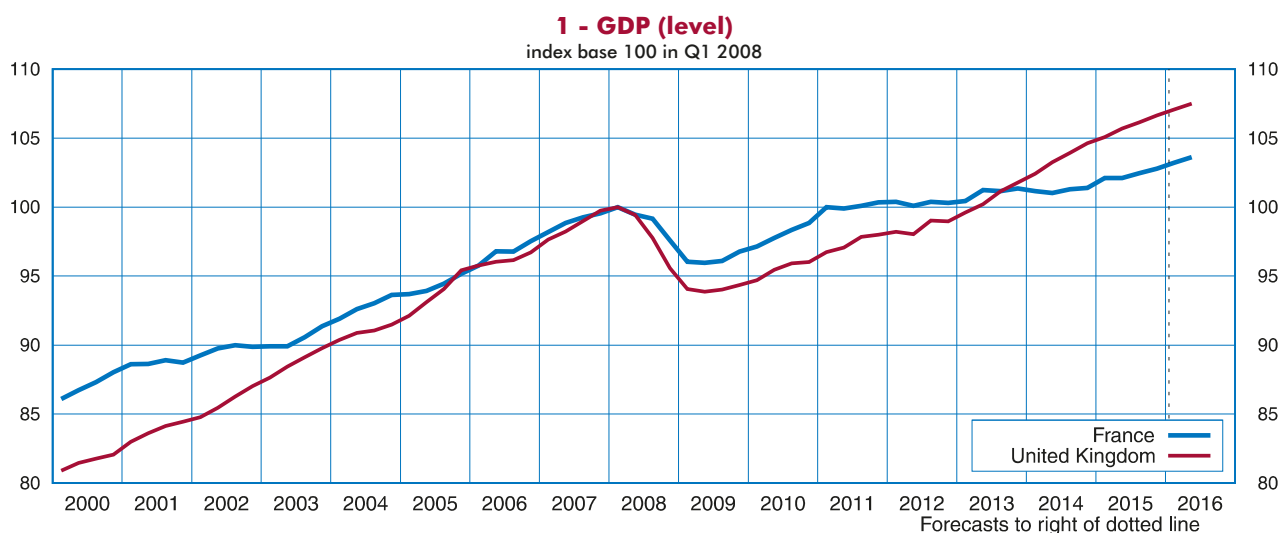
Growth in France and the UK over recent years has seen both economies return to their pre-crisis levels, in Q1 2011 for France and Q2 2013 for the UK (*Graph 1*). Since Q3 2013, British growth has been four times more dynamic (+6.4%) than the growth seen south of the Channel (+1.6%), a differential of 4.9 points over ten quarters.

Between the early 2000s and the onset of the crisis in 2008, growth rates in the two countries were comparable, albeit slightly stronger in the UK than it was in France (an annual average of +2.9% compared with +2.1%). Both countries felt the effects of the recession, with the UK particularly hard hit: between Q2 2008 and Q3 2009, British GDP dropped by 6.0% while French GDP shrank by 3.9%. Thereafter, the scale of the recovery was similar in both countries: between Q4 2009 and Q2 2013, GDP grew by 6.6% in the UK and 5.3% in France.

So why has there been such a substantial growth differential since mid-2013? Breaking down GDP into categories of 'output' and 'demand' allows us to identify the components responsible for this differential: household expenditure and general government spending appear to be the primary factors. Economic analysis of recent developments for these components allows us to get to the root of the gap between the two countries.

*The structures of the two economies are similar*

The cyclical divergence observed since mid-2013 cannot be attributed to differences in the sectoral composition of the two economies. The breakdown of value added by the different sectors of the British and French economies is broadly similar (*Graph 2*). Industry, construction and real estate activities account for similar proportions of gross value added in both countries. The only slight differences are found in the banking and insurance sector, which contributes more in the UK (8%) than in France (4%), while general government activities, defence spending, education, healthcare and social spending account for a greater proportion of French value added (23% compared with 18%). As such we can calculate the impact of a structural effect, corresponding to that portion of the growth differential which can be attributed purely to differences in the composition of the two economies. This effect can be said to have had a marginal impact in France's favour with regard to the growth differential recorded since mid-2013 (+0.4 points); between 2000 and 2008, the contribution of this factor to the overall growth differential was equivalent to +1.3 points of accumulated GDP growth in the UK's favour.



Sources: INSEE, ONS

# Why the United Kingdom has seen stronger growth than France since mid-2013

*Differences in the dynamism of individual sectors, particularly services*

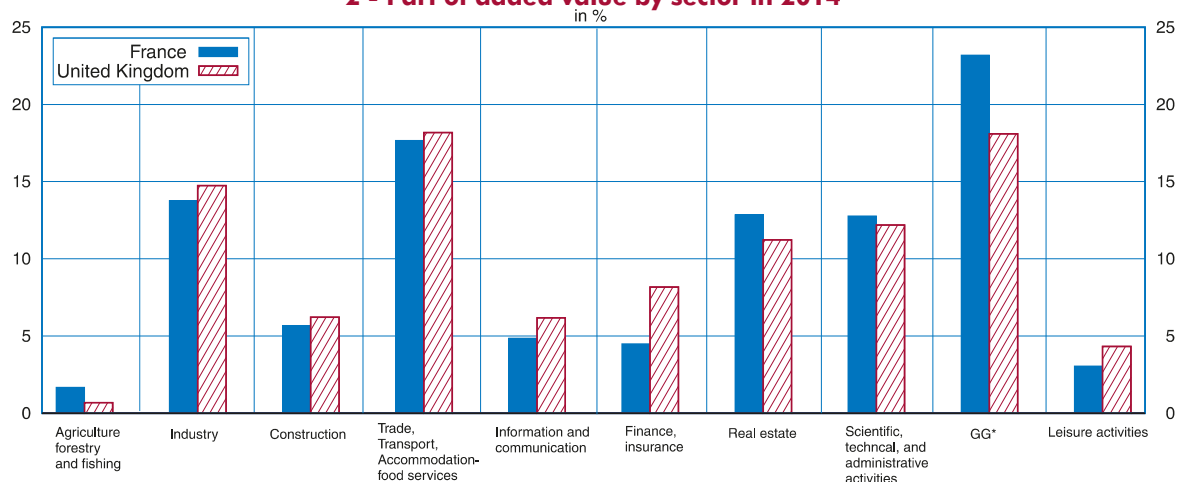
However, the relative momentum of the various sectors has been very different since mid-2013. Of the total value added differential (+5.2 points) in the UK's favour, 3.8 points can be attributed to the more dynamic performance of the private service sector (Table 1), particularly the transport and accommodation and food service sectors (+1.8 points), as well as scientific, technical and administrative activities (+1.6 points). Construction also played a major role, contributing +1.2 points, with this sector proving to be particularly robust in the UK (average quarterly growth of +1.0% since mid-2013) while it shrank in France (−0.9% on average).

On the other hand, the contribution to growth made by industry and non-market services has been similar in both countries since mid-2013. Industry made a modest contribution to growth in the United Kingdom, but only after contracting sharply during the recession, to the extent that its current level is still 10% below the pre-crisis high point (compared with just 3.4% in France).

## The British recovery since mid-2013 has been primarily driven by household consumption and investment

The cyclical mismatch between France and the UK can be explained by the varying levels of dynamism seen in the different areas of demand rather than by any structural effects. Household consumption, household investment and government investment appear to be the primary contributors to the disparity in GDP growth observed since mid-2013; government consumption and corporate investment have been less important factors, while foreign trade has not had a significant influence.

**2 - Part of added value by sector in 2014**



\* General Government  
Sources: INSEE, ONS

**Table 1 - Contributions of sectors to growth (chain-linked volume)**

Periods	France (1)			United Kingdom (2)			Differential ((2)-(1))		
	Q2 2008- Q3 2009	Q4 2009- Q2 2013	Q3 2013- Q4 2015	Q2 2008- Q3 2009	Q4 2009- Q2 2013	Q3 2013- Q4 2015	Q2 2008- Q3 2009	Q4 2009- Q2 2013	Q3 2013- Q4 2015
	in %			in %			in %		
<b>GDP</b>	<b>-3.9</b>	<b>5.3</b>	<b>1.6</b>	<b>-6.0</b>	<b>6.6</b>	<b>6.4</b>	<b>-2.1</b>	<b>1.3</b>	<b>4.9</b>
<b>Value added</b>	<b>-3.5</b>	<b>5.3</b>	<b>1.6</b>	<b>-5.9</b>	<b>6.7</b>	<b>6.8</b>	<b>-2.4</b>	<b>1.4</b>	<b>5.2</b>
Industry	-1.1	0.9	0.0	-1.8	-0.1	0.3	-0.6	-1.0	0.3
Construction	-0.6	-0.5	-0.5	-1.0	0.2	0.7	-0.4	0.7	1.2
Private services	-2.3	4.1	1.4	-3.3	6.1	5.2	-1.0	2.0	3.8
Others (General Government, defence, education, etc.)	0.4	0.8	0.7	0.1	0.6	0.6	-0.4	-0.3	-0.1

How to read it : Between Q3 2013 and Q4 2015, the contribution of the private service sector to the growth of total value added was +5.2 points in the UK and +1.4 points in France. The differential between the contribution of private services to the growth of value added in France and in the UK was thus equivalent to +3.8 points over this period.

Sources: INSEE, ONS

## Why the United Kingdom has seen stronger growth than France since mid-2013

*The structure of demand is comparable*

As with value added, the structure of demand in France is broadly similar to that seen in the UK. Nevertheless, household consumption accounts for a greater proportion of British GDP (62% in 2014) than of French GDP (53%).

The opposite is true for general government consumption (24% of French GDP in 2014 compared with 20% in the UK). Similarly, investment accounts for a greater proportion of French GDP: 22% compared with 17% in the UK. In fact, the role played by corporate investment has been greater in France (13% compared with 9% in the UK), while the contributions of household investment (almost 5% of GDP) and public sector investment (4%) are comparable. In terms of assets, investment in both countries is distributed in a broadly similar manner between construction, capital goods and intellectual property.

Levels of exports and imports are similar, accounting for around 30% of GDP in both countries, in spite of structural differences: exports of services occupy a much more significant position in the UK's economy (43% of total exports, compared with 27% in France), reflecting British specialisation in business and financial services.

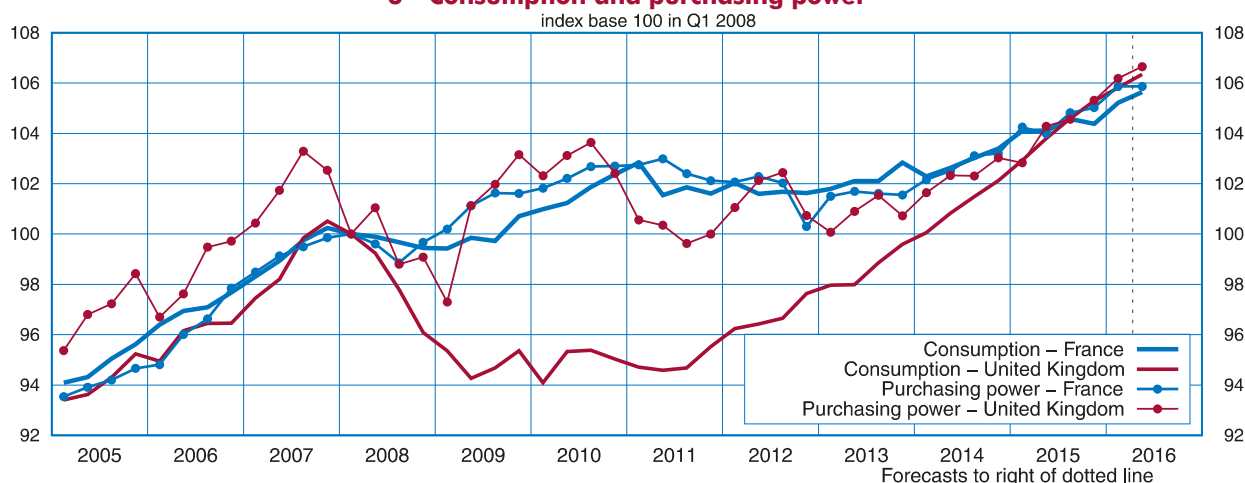
Structural effects, i.e. the proportion of growth which can be attributed purely to differences in the structure of demand, appear to have had a negligible effect since mid-2013.

*Household consumption has been far more vigorous in the UK since mid-2013*

Between 2000 and 2007, household consumption was more dynamic in the UK (an average of +0.8% per quarter) than in France (+0.5%). In 2008-2009, the crisis had very different effects on consumption on either side of the Channel: in the UK, consumption slumped by 5.3% between Q2 2008 and Q3 2009 (equivalent to a contribution of -3.3 points to GDP growth), while stagnating in France over the same period (Graph 3).

After the crisis, consumption took longer to pick back up in the UK, but when it did so the rebound was much stronger. British consumption thus caught up to consumption in France, in relation to pre-crisis levels. All in all, household consumption accounts for 3.4 points of the 4.9-point growth differential which has opened up between the UK and France since mid-2013 (Table 2). These divergences in the respective household consumption profiles can be attributed primarily to differences in savings, with British households strongly increasing their savings ratio in 2008 and strongly reducing it since mid-2010 (Graph 4). This is not a result of divergences in purchasing power: fluctuations in the purchasing power of French and British households have been virtually identical since 2008 (Graph 3).

### 3 - Consumption and purchasing power



Sources: INSEE, ONS

# Why the United Kingdom has seen stronger growth than France since mid-2013

*Household investment and government investment are major factors in the growth disparity observed since mid-2013*

Between 2000 and 2007, investment – or gross fixed capital formation (GFCF) – grew at a similar rate in France and the UK. The effects of the crisis were felt more sharply in the UK, where GFCF shrank by over 20% between Q1 2008 and Q3 2009 (compared with around 11% in France, *Graph 5*). On the other hand, the recovery has also been stronger in the UK: investment has been increasing vigorously since 2013 (while contracting since 2012 in France), and had almost returned to pre-crisis levels by the end of 2015, while investment in France remains almost 10% below the rate observed at the start of 2008.

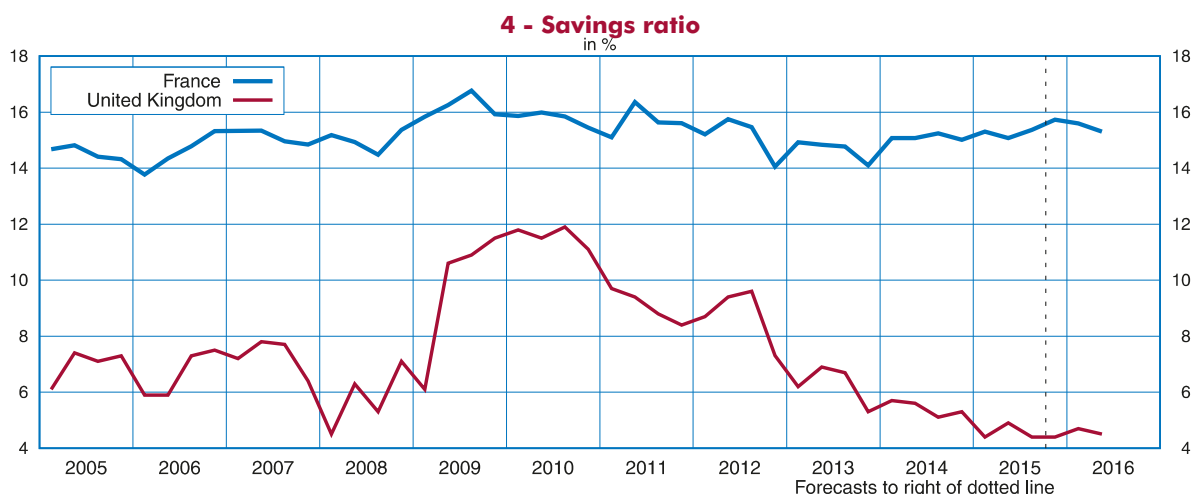
All in all, investment accounts for +2.5 points of the growth differential which has separated France and the UK since mid-2013. Corporate investment has barely contributed to this disparity, despite its relative importance. Indeed, corporate investment has grown in both countries throughout this period, contributing just +0.2 points to the growth differential, as the improvement of financing conditions has been similar in both countries. Nevertheless, the accelerator effect of demand on corporate investment (Eudeline *et al.*, 2013) should have boosted British GFCF. Taking into account inventory change as well as demand from businesses, this reinforces the hypothesis that the growth differential between France and the UK is not a question of business demand; inventory change has actually served to narrow the gap (–1.1 points), making a strong contribution to French growth since mid-2013 while having virtually no effect on the UK's growth rate over the same period. Demand from businesses will not be studied in any further detail in this article, as it does not allow us to explain Britain's more buoyant growth figures since mid-2013.

**Table 2 - Contributions of demand to growth (chain-linked volume)**

Periods	France (1)			United Kingdom (2)			Differential ((2)-(1))		
	Q2 2008- Q3 2009	Q4 2009- Q2 2013	Q3 2013- Q4 2015	Q2 2008- Q3 2009	Q4 2009- Q2 2013	Q3 2013- Q4 2015	Q2 2008- Q3 2009	Q4 2009- Q2 2013	Q3 2013- Q4 2015
<b>GDP</b>	<b>-3.9</b>	<b>5.3</b>	<b>1.6</b>	<b>-6.0</b>	<b>6.6</b>	<b>6.4</b>	<b>-2.1</b>	<b>1.3</b>	<b>4.9</b>
Households consumption	-0.2	1.3	1.2	-3.3	2.2	4.6	-3.1	0.9	3.4
Public consumption	0.9	1.4	1.0	0.7	0.6	1.1	-0.2	-0.8	0.1
Gross fixed capital formation	-2.7	1.1	-0.2	-2.9	1.4	2.3	-0.2	0.3	2.5
of which enterprises	-1.9	1.2	0.8	-2.0	1.8	1.0	-0.1	0.6	0.2
of which households	-1.0	0.1	-0.5	-1.5	0.5	1.0	-0.5	0.4	1.6
of which Government	0.2	-0.1	-0.4	0.5	-0.6	0.4	0.3	-0.5	0.7
Foreign trade	-0.3	0.3	-1.8	1.1	-0.1	-1.8	1.4	-0.4	0.0
Inventories	-1.6	1.3	1.3	-1.6	2.6	0.2	0.0	1.4	-1.1

How to read it: Between Q3 2013 and Q4 2015, the contribution of household consumption to GDP growth was +4.6 points in the UK and +1.2 points in France. The differential in the contribution of household consumption to GDP growth in the UK and in France was +3.4 points over this period.

Sources: INSEE, ONS



Sources: INSEE, ONS

## Why the United Kingdom has seen stronger growth than France since mid-2013

*Government consumption and international trade have had little impact on the cyclical divergence observed since mid-2013*

Household investment (+1.6 points) and government investment (+0.7 points) have thus been the major drivers behind the disparity in GFCF: since mid-2013, these forms of investment have increased in the UK while decreasing in France.

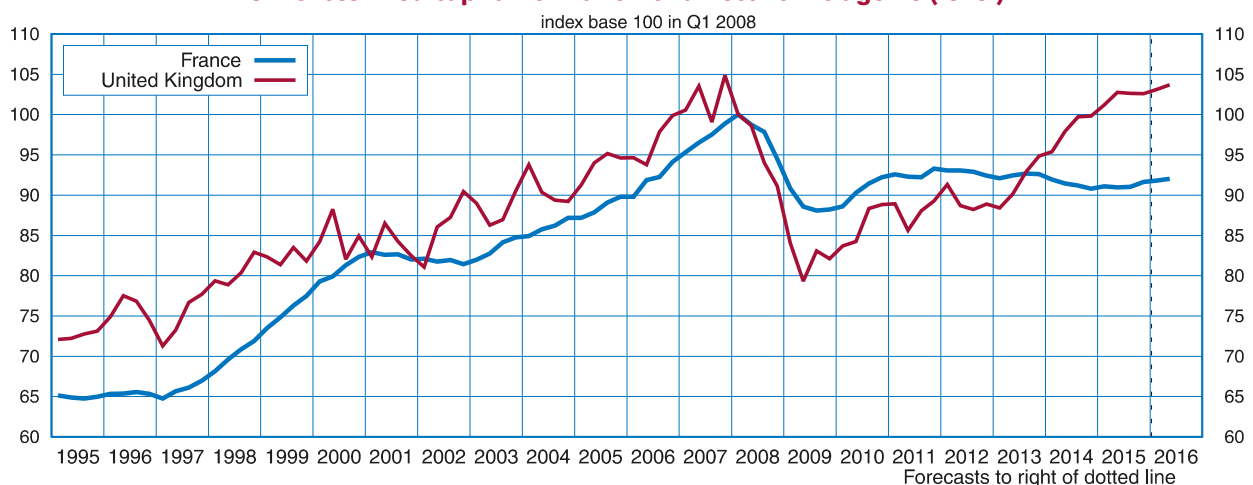
General government consumption was much more robust in the UK than in France in the period 2000-2007 (average growth of +0.9% and +0.4% per quarter, respectively). Since 2008 public spending in both countries has grown at a very similar rate, and as such government consumption is not a major factor in the growth differential recorded since mid-2013 (+0.1 point).

Before the crisis, the British lagged slightly behind the French in terms of exports of goods and services, but the drop-off in 2008-2009 was less severe in the UK and the subsequent recovery has been more substantial. In terms of imports, both the growth rates for 2000-2007 and the contraction following the crisis were almost identical on both sides of the Channel. Since mid-2013, exports and imports have been very slightly more vigorous in France than in the UK, meaning that international trade has not made any real contribution to the growth differential. However, the dynamism of British GDP should have further stimulated imports in comparison to exports, thus having a negative impact on the growth differential between the two countries. Moreover, the steep appreciation of the pound in relation to the currencies of the UK's trading partners (+20% between mid-2013 and the end of 2015) might have contributed more to the growth differential.

### Understanding the dynamism of British growth since mid-2013

Breaking down GDP by different types of demand allows us to identify the economic agents and types of expenditure that have had a quantifiable effect on the divergent paths taken by the French and British economies over the past few years, but it will not allow us to identify the direct causes. From econometric equations which generate models of consumption expenditure and of household investment, and from general government spending, three of the main factors behind the gap which has opened up between France and the United Kingdom since mid-2013 can be isolated (*Box 1*).

#### 5 - Gross fixed capital formation of all economic agents (level)



Sources: INSEE, ONS



# Why the United Kingdom has seen stronger growth than France since mid-2013

## Box 1 - Contribution of demand items to the cyclical differential between the United Kingdom and France

GDP can be broken down into different categories of demand:

$$GDP = C_{GG} + C_{Households} + I_{GG} + I_{Households} + I_{Enterprises} + (X - M) + \Delta Inv$$

where  $C$  is consumption,  $GG$  in general government,  $I$  is investment,  $(X - M)$  represents the trade balance and  $\Delta Inv$  is changes in inventories.

The divergence of French and British growth rates at different times can be broken down to examine the contributions of the various categories of demand to GDP (Table 2). This allows us to identify the key factors contributing to the recent divergence between the two countries, of which a part can be directly linked to differences in fiscal policy, the financial climate and the labour market.

The differential seen between the respective contributions of the public sector (consumption and investment) can be attributed to differences in the two countries' fiscal policies. As such, 0.8 points of the gap can be directly attributed to differences in fiscal policy.

The household consumption equation (Appendix) allows us to break down those effects linked to the monetary and financial context (the contribution of interest rates and wealth effects to the variations observed in household consumption), those connected with fiscal policy (the contribution of indirect taxes to the consumption deflator, which is a component of purchasing power<sup>1</sup>, and the impact of taxes and direct subsidies on gross disposable income, another component of purchasing power<sup>2</sup>) and those derived from the labour market (via the unemployment rate). According to these hypotheses, financial variables have contributed +3.1 points to the differential of +5.2 points which opened up between British and French consumption between mid-2013 and the end of 2015, with fiscal policy contributing +0.5 points and the labour market +1.4 points. Taking into account the relative importance of consumption as a proportion of GDP, these factors contributed (via the channel of household consumption) +1.5 points, +0.3 points and +1.4 points respectively to the GDP growth differential between France and the UK.

Household investment has contributed +1.6 points to the growth differential between the two countries. Using equations designed for this purpose (Appendix), we can determine how much this effect owes to the monetary and financial climate (the influence of asset prices and interest rates), to fiscal policy (via purchasing

power, as per the consumption equation) and to the labour market (total payroll employment). The results show that the financial context contributed +16 points to the 35-point differential observed between French and British household investment between mid-2013 and the end of 2015, while fiscal policy barely had an impact and employment contributed +6 points. The contribution of BoE policy (via the channel of household investment) to the GDP growth differential between France and the UK was thus +0.7 points, with the labour market contributing +0.3 points.

As foreign trade and corporate investment contributed less to the GDP growth differential between the two countries, these factors have not been broken down in greater detail. Nevertheless, fiscal policy, the financial context and the labour market can all have major consequences for these quantities, both directly and indirectly. Corporate investment may have been stimulated by monetary policy: a fall in interest rates and an increase in asset prices may boost corporate investment by making it easier to obtain financing, and also via wealth effects (Hauseux *et al.*, 2015). In France, Hauseux *et al.* have shown that an increase in property prices would bolster investment in non-residential property, but would have no effect on investment in productive assets. Moreover, a fall in interest rates could push down the cost of capital, which would allow for an increase in investment spending. In the UK, Reuschke and MacLennan (2014) have shown that property prices have an impact on the investment decisions of small businesses. Other studies have identified a link between property prices and business creation (Adelino *et al.*, 2013), via the availability of collateral. Fiscal policy may also have influenced corporate investment expenditure, by acting directly on their margin rates. In France, reforms such as the CICE tax credit and the additional depreciation allowance may serve to stimulate corporate investment. Monetary policy may also have consequences for foreign trade, by influencing exchange rates. Exports may also be stimulated by a fiscal policy which makes businesses more competitive. Indirectly, the positive effect of these factors on domestic demand has almost certainly stimulated British imports, which has had a negative effect on the growth differential between the two countries. In this article, individual components have been analysed directly and in isolation. We do not have a model which incorporates 'loops' to simulate the impact of different components on one another, particularly the impact of demand on investment and imports. ■

1. By using the HICP at a constant rate of tax to modify the level of the consumption deflator (a component of purchasing power) in the consumption equation, we can calculate the contribution of indirect taxes by comparing this simulation with that obtained using the original equation.

2. By modifying the trajectory of gross disposable income (a component of purchasing power) in the consumption equation so that it mirrors the fluctuations in gross disposable income excluding taxes and subsidies (GDI\_om):

$$\Delta GDI_{om}/GDI_{om} = \Delta GDI/GDI - (\text{growth\_tax\_rt} \cdot \text{spontaneous\_growth\_tax\_rt}) \cdot \text{tax}/GDI - (\text{growth\_real\_services\_rt}) \cdot \text{services}/GDI$$

## Why the United Kingdom has seen stronger growth than France since mid-2013

Firstly, developments in the labour market and the mechanisms by which they are passed on to household spending behaviour account for +1.7 points of the growth differential (Table 3). Indeed, while real purchasing power has progressed at a similar rate in both countries, the specific conditions of the British labour market have led to a strong upturn in employment at the expense of wages. The fall in unemployment has allowed the savings ratio to return to its pre-crisis level, which has had a positive effect on household consumption. Furthermore, differences in the financial context (asset prices, interest rates) and particularly modes of transmission which are much more powerful in the UK (wealth effects) are believed to account for +2.2 points of the differential. Finally, fiscal policy has been much more accommodating in the UK than in France since 2010, and appears to have contributed +1.1 GDP points to the growth differential recorded since mid-2013, essentially via government investment.

**With comparable increases in purchasing power, employment has been much more buoyant in the UK since mid-2013**

*Purchasing power has increased at virtually the same rate since mid-2013*

Purchasing power had been much more buoyant in the UK since the turn of the millennium, but it fell during the crisis while simply slowing down in France (Table 4). Since mid-2013, purchasing power has been growing at a similar pace on both sides of the Channel (+4.4% in the UK, +3.3% in France). The increase has actually been even more dynamic in the UK if we consider only the wage bill in real terms (+5.4% compared with +4.0%), even if the wage bill has yet to return to its pre-crisis level.

Nonetheless, the balance between employment and wages is very different in the two countries: since mid-2013, employment has accelerated considerably in the UK but wages have been much more buoyant in France.

**Table 3 - Recap of the factors contributing to the growth differential**

Contribution to growth of British GDP - Contribution to growth of French GDP	Household consumption	Household investment	Public consumption and investment	Other demand items	<b>Total</b>
Fiscal policies	0.3	0.0	0.8	-	<b>1.1</b>
Monetary and financial context	1.5	0.7	-	-	<b>2.2</b>
Labour market	1.4	0.3	-	-	<b>1.7</b>
Contribution to the observed differential	3.2	1.0	0.8	-	<b>5.0</b>
Others	0.2	0.6	-0.3	-0.6	<b>-0.1</b>
Total contribution	3.4	1.6	0.5	-0.6	<b>4.9</b>

Sources: INSEE, ONS

**Table 4 - Change of employment, real average wages per capita and purchasing power in France and United Kingdom**

Periods	France (1)				United Kingdom (2)				Differential ((2)-(1))			
	Q2 2008- Q4 2015	Q2 2008- Q3 2009	Q4 2009- Q2 2013	Q3 2013- Q4 2015	Q2 2008- Q4 2015	Q2 2008- Q3 2009	Q4 2009- Q2 2013	Q3 2013- Q4 2015	Q2 2008- Q4 2015	Q2 2008- Q3 2009	Q4 2009- Q2 2013	Q3 2013- Q4 2015
Total employment	<b>0.9</b>	-1.4	1.3	1.0	<b>5.8</b>	-2.1	3.0	5.0	<b>5.0</b>	-0.7	1.7	4.0
Real average wage per capita*	<b>9.2</b>	3.8	2.0	3.1	<b>-5.6</b>	0.0	-6.5	1.0	<b>-14.7</b>	-3.8	-8.5	-2.1
Total gross wages*	<b>8.5</b>	2.1	2.3	4.0	<b>-2.0</b>	-2.3	-4.8	5.4	<b>-10.5</b>	-4.4	-7.1	1.4
Purchasing power*	<b>5.1</b>	1.6	0.1	3.3	<b>5.3</b>	2.0	-1.1	4.4	<b>0.2</b>	0.4	-1.1	1.1
Prices	<b>4.1</b>	-1.3	5.6	-0.2	<b>19.1</b>	3.7	12.4	2.2	<b>15.0</b>	4.9	6.8	2.4

\* INSEE forecast for Q4 2015.

Sources: INSEE, ONS



# Why the United Kingdom has seen stronger growth than France since mid-2013

*Employment has rebounded strongly in the UK*

*Unemployment has fallen considerably in the UK*

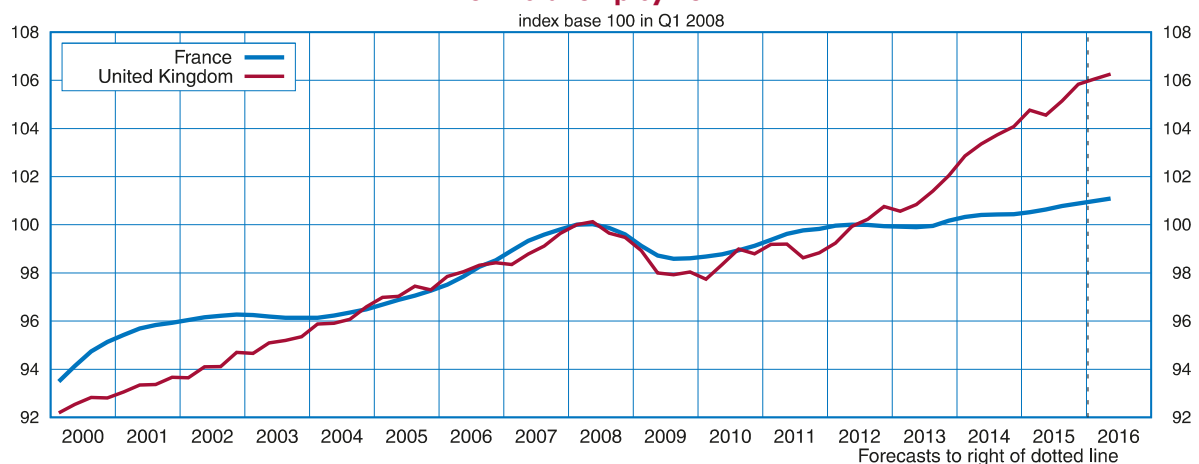
*Real wages have been much more dynamic in France*

Since mid-2013, the trajectories followed by employment in both countries have diverged considerably (Box 2): employment has bounced back strongly in the UK (+5.0%), while improving only slightly in France (+1.0%). Total employment in the UK has clearly exceeded its pre-crisis level (+5.8%), while in France the increase has been more modest (+0.9%). And yet, between 2000 and 2012 the employment figures for both countries followed a broadly similar path. From 2000 to 2007 employment increased: by around +8% in the UK and +6% in France. Following the onset of the crisis in 2008 employment fell slightly more significantly in the UK, but the recovery since 2011 has also been more vigorous (Graph 6).

These developments in employment have consequences for the unemployment figures. The crisis led to a more substantial rise in unemployment in the UK (Graph 7): the rate of unemployment rose by 2.8 points between Q1 2008 and Q1 2010, compared with +2.2 points in France. Between 2010 and the end of 2011, unemployment continued to rise in the UK (+0.4 points) while remaining virtually stable in France (+0.1 points). Since 2011, unemployment has fallen in the UK (-3.3 points) while rising in France (+0.9 points between Q4 2011 and the end of 2015).

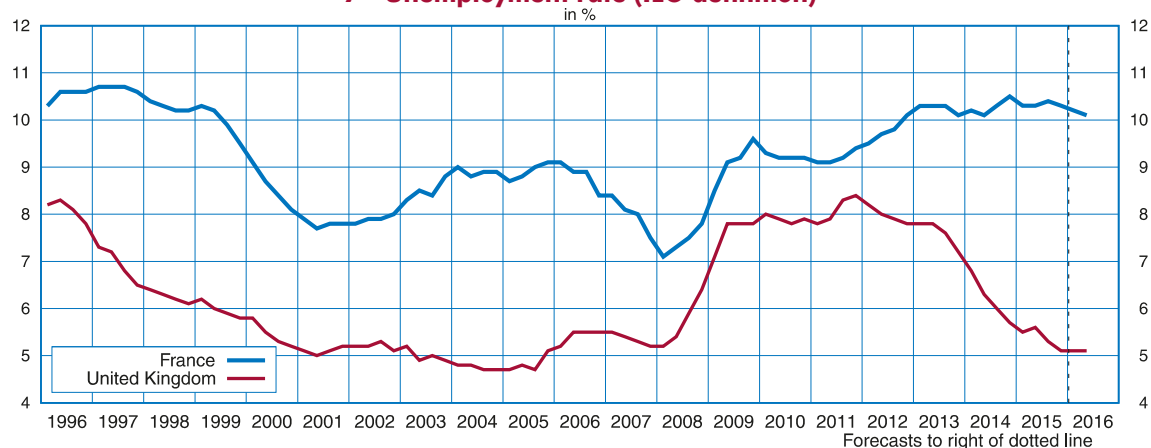
The buoyancy of British employment figures has come at the expense of a downturn in per capita wages. In Q4 2015, real per capita wages in the UK were still well below their pre-crisis levels: -5.6%, compared with +9.2% in France. There was a pronounced slump in wages between late 2009 and mid-2013, with nominal wages increasing much less rapidly than prices; but even since mid-2013, real wages have continued to grow less vigorously in the UK (+1.0%) than they have done in France (+3.1%), in spite of the strong upturn in activity on the other side of the Channel.

## 6 - Total employment



Sources: INSEE, ONS

## 7 - Unemployment rate (ILO definition)



Sources: INSEE, ONS

# Why the United Kingdom has seen stronger growth than France since mid-2013

## Box 2 – Differences between the French and British labour markets

### The rebound in employment in the United Kingdom has been accompanied by a decline in productivity

Employment in the UK has been much more dynamic than value added since 2008, in all sectors of the economy (Jess *et al.*, 2013). Average per capita productivity has slowed much more sharply than it has done in France (Graph 1). In Q4 2015, French productivity was 1.7% above its pre-crisis level, and only 0.9% in the UK. This differential is amplified if we take into account the trend for productivity gains observed before the crisis: the trend was much more positive in the UK between 2000 and 2007, so the current productivity figures are 12% below the projected long-term trend in the UK, compared with 7% in France.

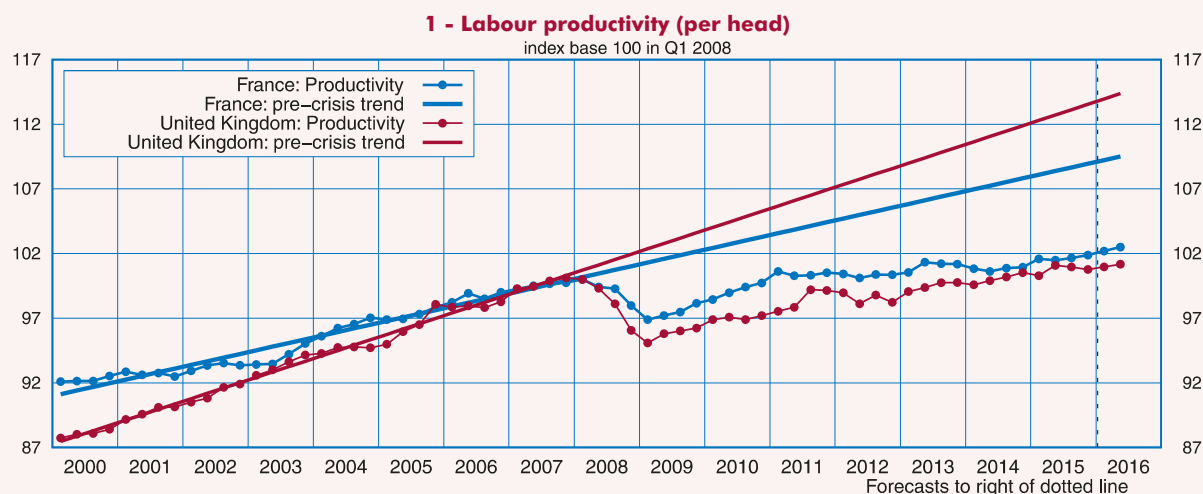
### This difference is a result of the greater flexibility of the British labour market, as well as short-term measures to stimulate employment

The UK's buoyant employment figures have been the subject of numerous studies (see in particular Jess *et al.*, 2013, and COE, 2015). These studies have demonstrated the extent to which the employment results obtained in the UK can be attributed to the structural reforms implemented before the crisis with a view to deregulating the labour market, reducing employers' social security contributions and getting people back to work more rapidly (active labour market policies such as the 'Welfare to Work' scheme, reducing the value and duration of unemployment benefits).

These results are also the fruit of a number of special short-term measures introduced to boost employment at the onset of the

crisis: recruitment bonuses for businesses taking on long-term unemployed workers, targeted measures for unemployed persons lacking experience and young people, an increase in training, an increase in the number of Job Centre personnel and the launch of the 'Work Programme' expanding the use of private-sector firms to run unemployment schemes. Since 2011, further reforms have focused on labour law (simplifying dismissal procedures, creating the new status of 'employee shareholder') and expanding the labour market (continuing targeted efforts for young people, removing the compulsory retirement age and gradually rolling back the legal minimum pensionable age, introducing measures to increase government subsidies to cover the cost of nursery care for young children).

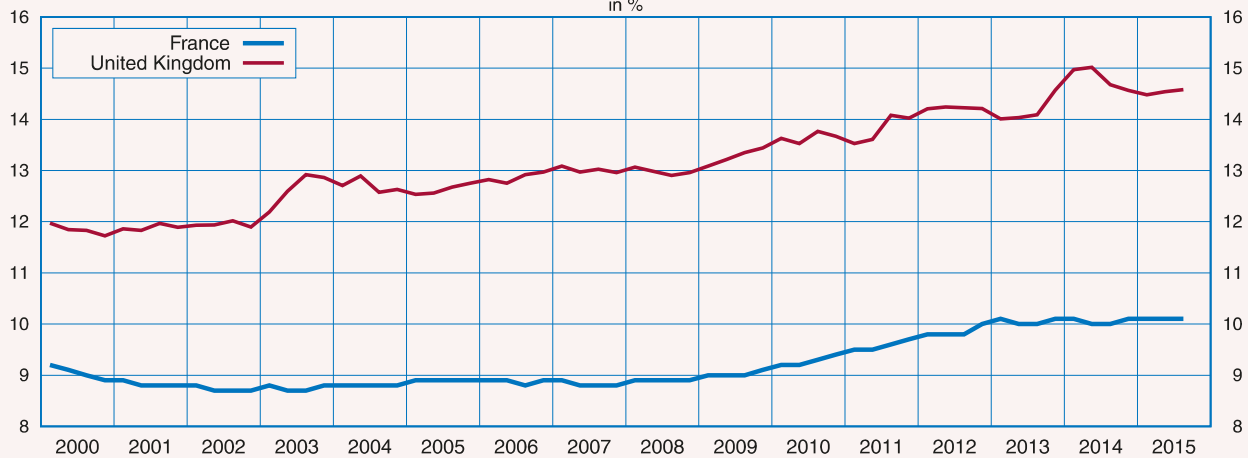
The rise in self-employment in the UK is a factor which could potentially explain the relative dynamism of employment. And yet, as a proportion of total employment, the upwards trend in self-employment in the UK is comparable to that seen in France (Graph 2). Similarly, while the proportion of part-time employees is much higher in the UK (26.9% in 2014) than it is in France (11.8% in 2014), its recent development does not suffice to explain the differences in the dynamism of employment in the two countries. However, the use of 'zero-hour' contracts (offering no guarantees to the employee in terms of minimum working hours) has increased significantly over the past four years, with 250,000 workers on such contracts in 2012, 580,000 in 2013 and 740,000 by 2015 (corresponding to around 1.5 million contracts). This increase is indicative of the increasing flexibility in the organisation of labour, with a decrease in the average duration of employment contracts. ■



Sources: INSEE, ONS

## Why the United Kingdom has seen stronger growth than France since mid-2013

**2 - Self-employment rate**  
in %



Sources: INSEE, ONS

*Buoyant employment figures and the consequent decrease in unemployment in the UK account for the 1.7-point growth rate differential between the two countries*

British employment, particularly payroll employment, has seen an exceptional rebound, while real gross wages have increased at practically the same rate as that seen in France. This has bolstered both consumption, thanks to the decrease in precautionary savings linked to the fall in unemployment, and household investment. All in all, this effect has contributed +1.7 points to the growth differential observed over the past two years (*Table 3, Box 1*).

### More favourable financial and monetary conditions and more effective channels of transmission in the United Kingdom

The Bank of England (BoE) and the European Central Bank (ECB) have both acted to prop up the financial system and bolster economic activity by adopting more flexible monetary policies since 2008. The BoE adopted a more accommodating monetary policy than the ECB, and did so at an earlier juncture. While the resulting cuts in base interest rates have been comparable since mid-2013, the greater efficiency of the channels by which this policy is passed on to the economy has helped growth to bounce back more vigorously in the UK than in France, particularly via a more substantial increase in asset prices and the accompanying wealth effects.

*The base interest rates applied by the central banks are at rock bottom, with weak inflation*

The BoE and the ECB have both slashed their base interest rates (*Graph 8*). Between January 2008 and June 2009, the BoE's base rate fell from +5.5% to +0.5%, where it has remained ever since. The ECB reduced its base rate less substantially during the crisis (from +4.0% to +1.0%) but it has continued to fall since, remaining at a historically low level (+0.05%) since September 2014. These expansionary monetary policies have not led to a rebound in inflation, partly due to the concomitant fall in commodity prices: since the start of 2015, inflation has been virtually nil in France and in the UK.

*The BoE and the ECB have both turned to non-standard measures, but on a greater scale in the UK*

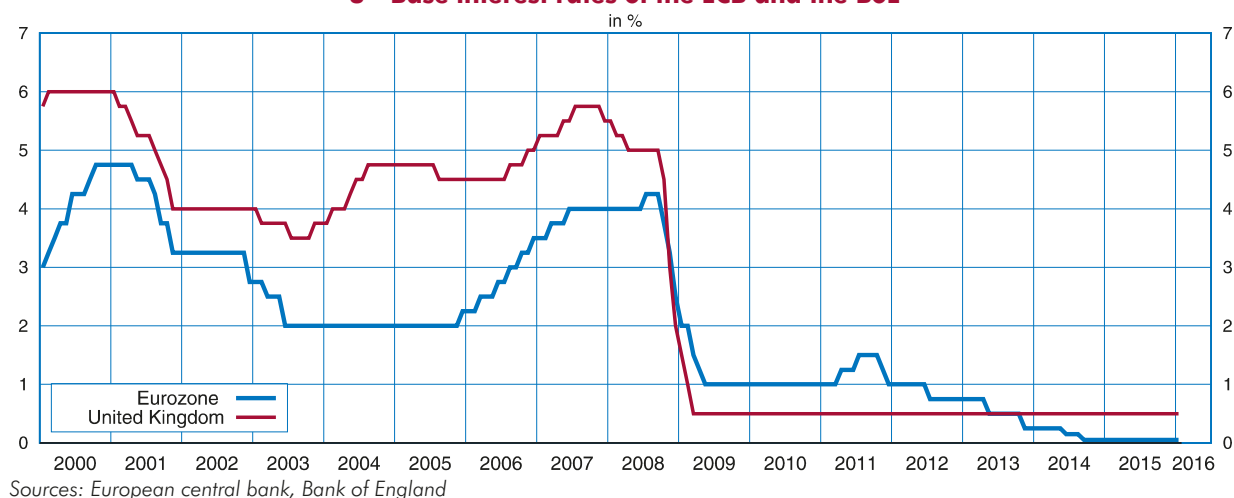
With base interest rates at a minimum and inflation reined in, the ECB and the BoE have both turned to "non-standard measures" to further reduce long-term interest rates. Both central banks issue clear statements on their future plans for base rates in order to help economic agents plan ahead (forward guidance): the BoE has explicitly linked its base rate to the unemployment rate; in July 2013 the governor of the ECB announced that rates would remain at the same level or fall even further for a long time.

## Why the United Kingdom has seen stronger growth than France since mid-2013

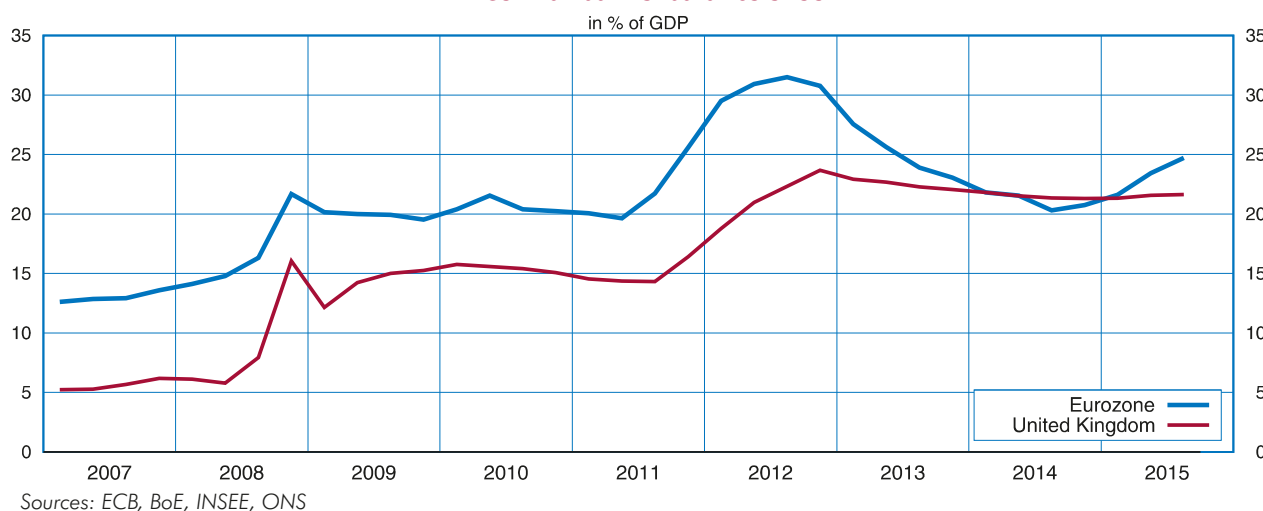
In addition to issuing such forward guidance, the BoE and the ECB have taken non-standard measures – consisting primarily of buying up securities – to considerably expand their balance sheets since 2008 (*Graph 9*). The BoE increased its total assets threefold between August and October 2008, while the ECB's holdings increased by just 40%. In 2011 both central banks embarked upon a fresh wave of purchases: the ECB increased its total asset holdings by 60% between July 2011 and July 2012, while the BoE expanded its assets by 68% between September 2011 and November 2012. The BoE's balance sheet has since remained stable, while the ECB's was reduced by one third between September 2012 and September 2014 before growing sharply thereafter (+35% between September 2014 and December 2015), particularly under the quantitative easing (QE) programme announced in January 2015.

This quantitative easing has been accompanied by qualitative easing, since the make-up of both central banks' balance sheets has changed since the onset of the crisis. With financing via the bond market being more common in the UK – in France businesses are more likely to look to banks to meet their financing needs – the BoE's QE policy rapidly came to focus on buying up securities on the bond markets, almost exclusively government debt securities. The ECB initially preferred to boost the liquidity of the banks, and it expanded its securities purchasing programme to include government debt in March 2015, long after the BoE (see Fawley & Neely, 2015 and Héam *et al.*, 2015).

**8 - Base interest rates of the ECB and the BoE**



**9 - Central banks' balance sheet**



# Why the United Kingdom has seen stronger growth than France since mid-2013

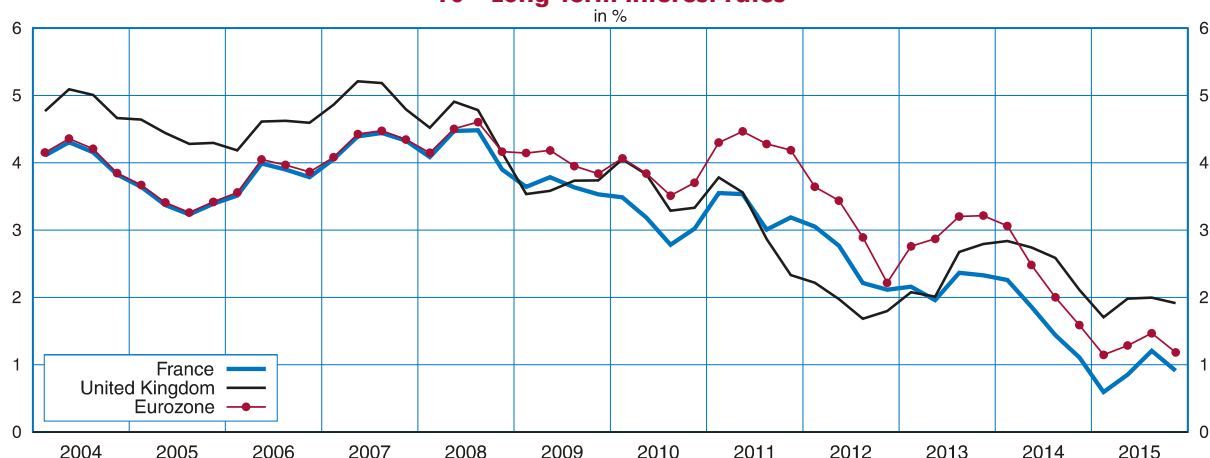
*Interest rates are at a minimum in both countries*

The combined effects of these monetary tools have caused long-term public and private interest rates to fall continuously since 2008, reaching historically low levels (Graph 10). In theory, a reduction in long-term interest rates should have consequences for the demand from agents. By cutting the cost of capital, this reduction should stimulate investment. The direct effect on consumption is less clear-cut: the income effect is negative as a result of the decline in income from savings, but the substitution effect is positive because households are encouraged to consume more while reducing savings, which offer only a small return. Overall, as the fall in interest rates has been broadly similar in both countries, interest rates have barely contributed to the growth differential observed between 2013 and 2015.

*Since mid-2013, lending to British households has been very dynamic*

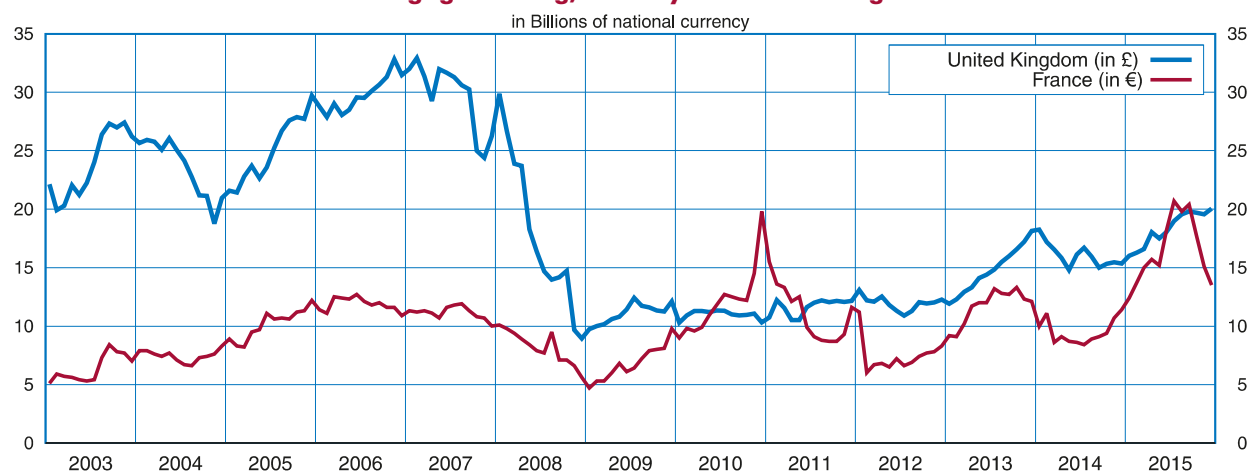
The flow of loans granted to households has evolved differently in France and the UK (Graph 11), in spite of the similar trajectories followed by the countries' respective interest rates. In France, the flow of lending to households has fluctuated at around the same level since the turn of the millennium (around 10 billion Euros of mortgage lending to households is approved each month). In recent years, this lending has increased sharply as a result of the numerous loan renegotiations prompted by the very low level of interest rates. This increase in lending has therefore not led to an increase in stocks. In the UK, lending dropped off sharply during the recession then remained stable until late 2012, picking up considerably thereafter (+70% between the start of 2013 and the end of 2015).

**10 - Long-term interest rates**



Source: OCDE

**11 - Mortgage lending, monthly totals of loans granted**



Sources: Banque de France, BoE

## Why the United Kingdom has seen stronger growth than France since mid-2013

This increase cannot be ascribed solely to the low level of interest rates; it is also linked to the increase in asset prices and measures introduced to encourage lending to households. The Help to Buy programme came into force in the UK on 1st April 2013, intended to help households buy new homes: all households capable of putting up a deposit equivalent to at least 5% of the value of the home they wish to buy (which must be below £600,000) may apply for a government loan equivalent to 20% of the sale price. This loan is free for the first five years, making it easier for buyers to obtain a loan from a private lender to cover the rest of the purchase price. In 2014, around 30,000 transactions were financed in this way. Thereafter the scheme was expanded, with the government also providing mortgage guarantees.

In France, since 1995 it has been possible to obtain an interest-free loan (IFL), subject to certain income-contingent conditions, to partially fund the acquisition of your first primary residence. The conditions for obtaining an IFL (based on the financial resources of the buyers and the area in which they live), the type of accommodation for which these loans are available (new, old but requiring substantial renovation, meeting environmental standards etc.) and the value of the loan have all changed regularly since this policy was introduced. The IFL+ scheme was launched in 2011, removing income-assessment conditions and thus leading to a strong upturn in the number of beneficiaries (over 300,000 transactions financed).

Thereafter, while the Help to Buy scheme was expanded in the UK, its French equivalent was reined in. In 2012, lending conditions for the IFL+ scheme were tightened, and the number of beneficiaries fell (130,000 transactions financed): IFL+ loans now became income-contingent, and only available for new homes (or existing homes requiring substantial renovations). In January 2013, these conditions were tightened further: the homes in question now needed to meet energy efficiency criteria, and the maximum income threshold was lowered (60,000 transactions). The scheme saw further adjustments in 2014, aiming to help first-time buyers in regions not suffering from a lack of available properties. Since January 2016 the programme has been expanded again: the total value of loans and the income thresholds have been increased. In its latest incarnation, as with the British Help to Buy scheme, the loans are free for the first five years, and now cover up to 40% of the cost of the operation (cost of construction or purchase, plus transaction fees), with the total value of the loan determined by the location of the home and the number of people who will live there. The two schemes are therefore comparable, but between 2013 and 2015 – the period in which the growth differential between France and the UK opened up – the British programme was ramped up while the French programme was reduced.

Monetary policies can have a direct effect on asset prices via lending. On the one hand, massive asset purchases conducted as part of a policy of quantitative easing lead to an increase in the demand for such assets, and hence an increase in their price. On the other hand, a fall in the interest rates charged on loans can serve to boost borrowing capacities, which leads to an increase in demand for credit and a rise in asset prices.

The prices of financial and non-financial assets in the UK have been higher than their pre-crisis levels for several quarters now, while the rebound is more recent in France.

*Prices of financial and non-financial assets have risen sharply in the United Kingdom*



## Why the United Kingdom has seen stronger growth than France since mid-2013

In the UK, since 2013, mortgage lending has been particularly vigorous and property inflation is stronger (*Graph 12*). Property prices exceeded their pre-crisis levels in mid-2013. In France, meanwhile, property prices were fairly dynamic until 2009 (between 2004 and 2008, prices increased by an average of 2.0% per quarter), but declined from 2011 onwards (–7.4% between Q3 2011 and Q2 2015), picking up only slightly in Q3 2015.

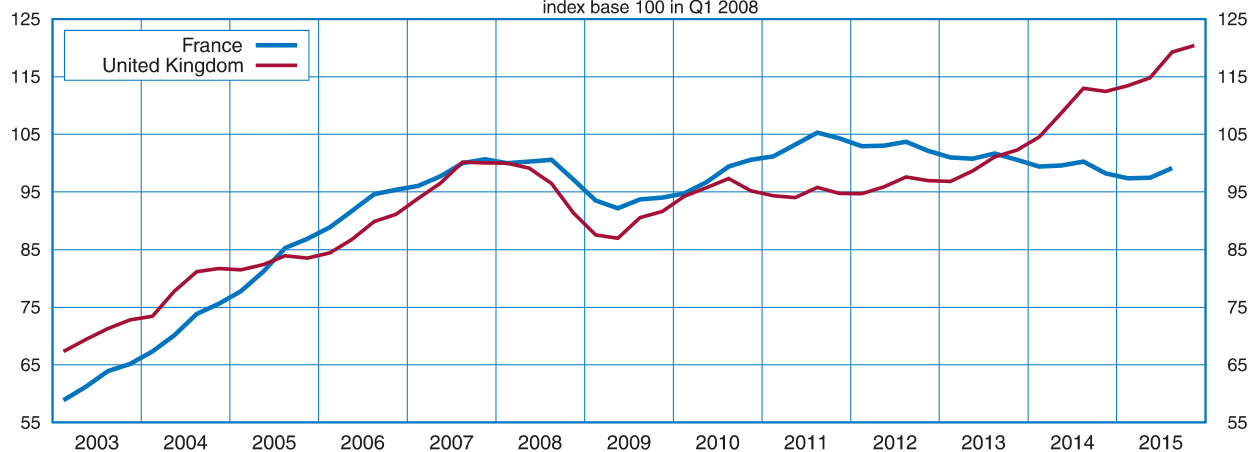
As for financial assets, prices have diverged since the 2008 crisis (*Graph 13*). While the French (CAC 40) and British (FTSE 100) stock market indices progressed at a similar pace prior to 2008, the FTSE 100 rebounded more rapidly in 2009, reaching an all-time high in May 2015; meanwhile the CAC 40, despite improving since 2015, still remains 20% below its peak level of May 2007.

*The effects of property wealth on household consumption are felt more strongly in the UK than in France*

The structure of household wealth in France is different from that seen in the UK, primarily as a result of differences in the countries' pension systems: in 2014, 69% of France's net household wealth was composed of non-financial assets (essentially property and land), compared with 55% in the UK. The funded system in place in the UK has the effect of mechanically increasing the financial assets held by households, limiting the relative importance of property wealth. Nonetheless, the proportion of housing (including land) in net wealth excluding debt and insurance policies remains similar in both countries (around 80% in 2014).

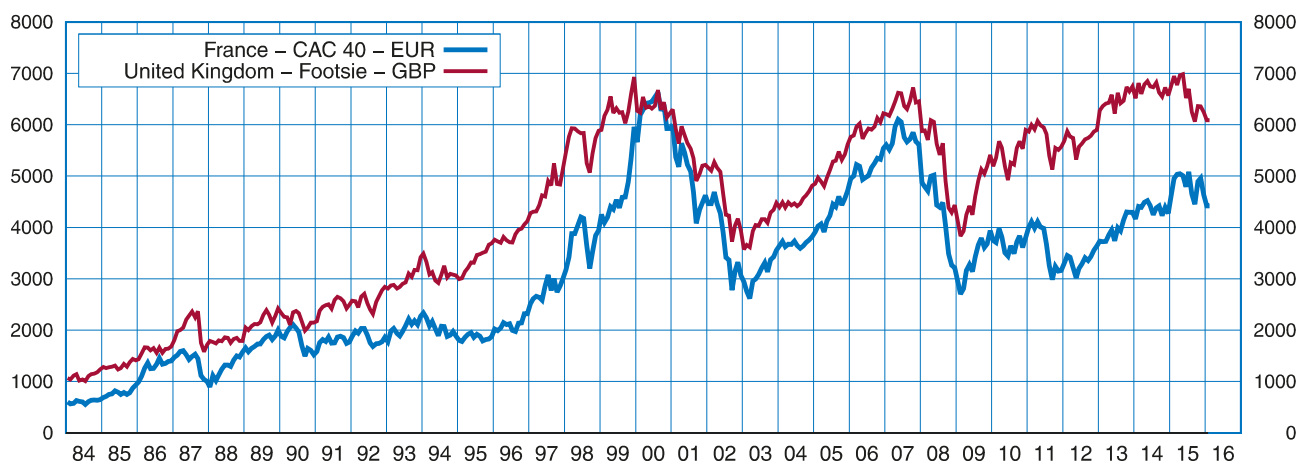
### 12 - House prices

index base 100 in Q1 2008



Sources: INSEE, ONS

### 13 - Stock market indices



Sources: FTSE, NYSE Euronext

## Why the United Kingdom has seen stronger growth than France since mid-2013

The proportion of homeowners in France (65.1%) and the UK (64.8%) was very similar in 2014, remaining high in comparison with other European nations. The structure of household wealth in France and the UK may thus be conducive to wealth effects: a high proportion of homeowners, with property wealth accounting for the majority of wealth.

However, the proportion of loans in total assets, net of debts and insurance policies, is much smaller in France (14% in 2014) than it is in the UK (26%). Household debt is much higher north of the Channel: in the UK, average debt stood at 127% of disposable income in 2014, while in France the household debt ratio is 86%. Moreover, the loans granted in the UK are more conducive to wealth effects because they often require property as collateral, even for consumer loans (Box 3). A number of studies have concluded that the development of lending in the UK has boosted household consumption, and that property wealth effects on household consumption are strong in the UK while remaining weak or non-existent in France (Chauvin & Damette, 2010 and Aviat *et al.*, 2007). Slacalek (2009) has also estimated the impact of financial wealth effects in both countries: he finds these effects to be twice as influential in the UK, but not as significant as property wealth effects. In France, Chauvin & Damette (2010) and Slacalek (2009) have found that financial wealth effects outstrip property wealth effects. The model of household consumption presented in this article does not reveal financial wealth effects in France, but in the UK the long term effects are comparable to those attributed to property wealth.

*All in all, the financial context, acting primarily via asset prices, explains +2.2 points of the growth differential seen over the past 2 years*

All in all, between mid-2013 and the end of 2015, the financial context and its channels of transmission contributed +2.2 points to the total growth differential: +1.5 GDP points via household consumption and +0.7 GDP points via their investment in property, especially via asset prices and thanks to the impact of wealth effects (Appendix).

### Box 3 – Increasing property prices can have consequences for household and corporate expenditure

Economic activity is directly connected to asset prices via three mechanisms (Boone *et al.*, 1998):

- the cost of capital is a decreasing function of asset prices: an increase in asset prices leads to a decrease in the cost of capital and stimulates investment,
- the lending channel depends on asset prices: an increase in asset prices increases the value of collateral and the number of projects which are profitable, by decreasing the associated risks (Hauseux *et al.*, 2015),
- 'wealth effects' is a term covering various mechanisms which mean that the demand from agents is an increasing function of their wealth, and thus of asset prices; they are derived from

agents' behaviour, as agents can make consumption or investment decisions based on their current and anticipated wealth. These effects also depend on the monetary and financial environment.

The behaviour of agents is influenced in different ways by property assets and financial assets. The usefulness of financial assets depends solely upon their value, while property also serves a purpose in that it provides accommodation. As everybody requires accommodation, an increase in property prices can have wealth effects for homeowners, but will also reduce the consumption potential of future homeowners and tenants. The effect on total consumption can therefore be unclear. ■

# Why the United Kingdom has seen stronger growth than France since mid-2013

## Fiscal policy is more favourable in the United Kingdom

*The United Kingdom and France both have high budget deficits*

*Public spending and revenue are higher in France, mostly due to the pension system*

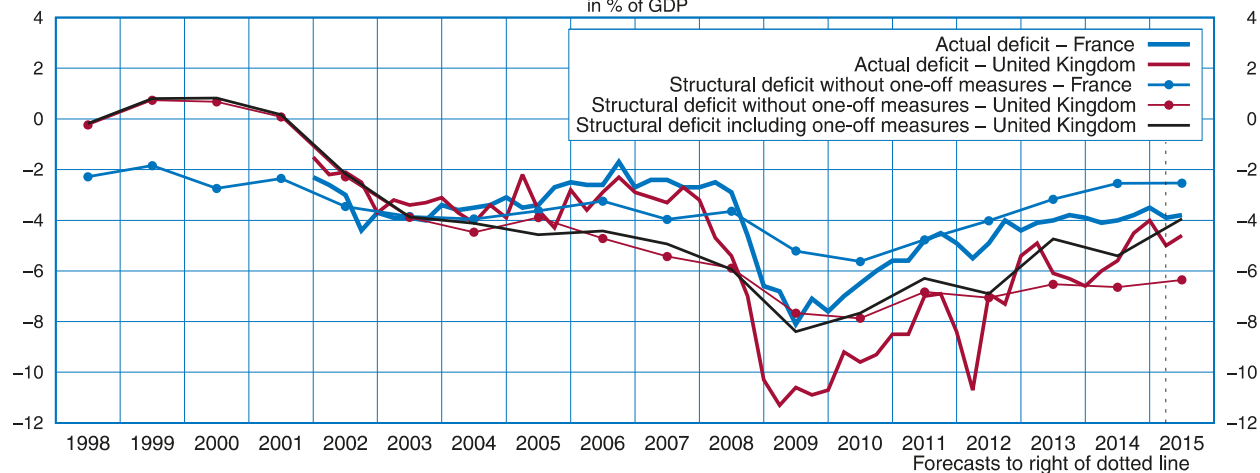
*Since 2010, fiscal tightening measures have been twice as rigorous in France*

The French and British deficits are among the highest in Europe: in 2014, the deficit stood at 5.7% of GDP in the UK and 3.9% in France (Graph 14). As with their European partners, the deficit increased sharply in both countries during the crisis, and has decreased since: the British deficit was reduced from 10.6% of GDP to 4.9% between mid-2009 and mid-2013, while in France it shrunk from 8.1% to 4.1% over the same period. Since mid-2013, deficit reduction has been less substantial in our two nations than elsewhere (−0.2 points in France and the UK, compared to the EU average of −1.5 points).

The structure of public finances is broadly similar in the UK and France, with the exception of the respective pension systems: the French system is state-controlled and works on a pay-as-you-go basis, while the UK has a funded system managed outside the public sector. While government spending is much higher in France than it is in the UK (respectively 58% and 43% of GDP in 2014), this gap can be largely attributed to differences in the pension systems. By the same token, total government revenue from taxes and social security charges is similar in both countries: in 2014, government revenue was equivalent to 48% of GDP in France and 36% of GDP in the UK, with the gap primarily resulting from social security contributions to the pension system.

The government budget deficit depends heavily on the economic cycle: for example, in periods where the short-term outlook is bleak, spending on social benefits increases while tax revenue falls, which leads to an increase in the budget deficit. In order to adjust for cyclical effects, and the effects of extraordinary income, we generally use the structural deficit to measure the budget-tightening efforts made by a country. This aggregate cannot be measured directly: it is estimated in relation to potential growth, which is itself an estimate. Various bodies, and particularly international institutions such as the IMF, the OECD and the European Commission, use comparable methods to arrive at these estimates. By this measure, the government budget deficit has been reduced more substantially in France than in the UK. According to the OECD, France's structural deficit (excluding exceptional measures) was reduced from 5.5% of GDP in 2010 to 2.5% in 2015, an improvement of 3 points (Graph 14); over the same period, the British deficit was reduced from 7.9% to 6.6%, a less substantial reduction of 1.3 points.

**14 - Actual deficit and structural deficit**  
in % of GDP



Notes : - Fiscal measures are considered to be 'exceptional' when they allow for a one-off reduction in the deficit for a given budget cycle. Since 2009, such measures have had no meaningful effect on the French deficit. In the UK, on the other hand, several exceptional measures have been used to significantly reduce the deficit: the government buy-out of Royal Mail's pension assets in 2012, the privatisation of Royal Mail in 2013 and use of the BoE's surplus liquidity since 2013.

- Data on the structural deficit are annual; other data series are quarterly. The OECD forecasts cover the structural deficit for 2015.

Sources: OECD (structural deficit), INSEE (actual deficit France), ONS (actual deficit United Kingdom)

## Why the United Kingdom has seen stronger growth than France since mid-2013

*Fiscal policies explain  
+1.1 points of the growth  
differential between the two  
countries since mid-2013*

Since the onset of the crisis, efforts to reduce the government deficit in the UK have focused primarily on reining in spending – which has decreased as a proportion of GDP – and raising indirect taxes, while French efforts have focused more on increasing direct taxes.

In order to understand how much of the growth differential observed since mid-2013 can be explained by differences in the countries' respective fiscal policies, we need to make certain distinctions for the different categories of demand: the contributions made by government consumption and government investment are direct, while the effect of fiscal measures on household consumption and investment are indirect, affecting their purchasing power (Box 1). All in all, the contribution of fiscal policy to the growth differential between the UK and France from mid-2013 to the end of 2015 appears to be in the order of +1.1 points, primarily as a result of government investment, which has been more dynamic in the UK (a gap of +0.7 points).

### **In H1 2016, the cyclical divergence between France and the UK should narrow**

In H1 2016, the cyclical divergence between France and the UK is expected to diminish. Growth in both countries should be similar for the first two quarters of 2016, primarily thanks to household consumption. This should slow down in UK, while picking up pace in France.

Obstacles to recruitment are high in the UK, at their highest level since 2005, and as such the unemployment rate should stabilise at around 5.1%. The option of delaying precautionary savings appears to have run out, and British household consumption should slow down accordingly. The slowdown in consumption may be even more pronounced if the savings ratio rises more sharply than anticipated: the increase in "zero-hour" contracts has created jobs which are less stable, and any increase in uncertainty is liable to stoke precautionary saving. In France, unemployment should decrease slightly; changes in the unemployment rate should therefore no longer contribute to the disparity in consumption dynamics between the two countries. On the contrary, French household consumption should see a clear increase in H1 2016: +0.8% in Q1 and +0.4% in Q2, after -0.2% in Q4 2015. This buoyancy should come on the one hand as a result of the buoyancy of purchasing power and on the other hand as a result of seasonal factors: energy spending should bounce back after a particularly mild autumn, spending on household goods should receive a boost from the scheduled change in TV broadcasting formats at the start of April, and spending on accommodation and food services should stabilise after shrinking in late 2015.

The divergence in the short-term economic outlook in the two countries should thus be reduced in the near future, largely thanks to consumption. Furthermore, efforts to cut the government budget deficit could further slow government investment in the UK, especially since the structural deficit remains much higher there than in France. After H1, the expected tightening of monetary policy by the Bank of England could put a brake on asset prices, and thus reduce the impact of wealth effects in the UK. ■

## Bibliography

- Adelino M., Schoar A., Severino F.** (2013), "House prices, Collateral and Self-Employment", *NBER Working Papers* n° 18868, March.
- Aviat A., Bricongne J.-C. et Pionnier P.-A.** (2007), "Asset wealth and consumption: weakly correlated in France, strongly in the United States", *Conjoncture in France*, December, p. 37-52.
- Boone L., Giorno C. et Richardson P.** (1998), "Stock Market Fluctuations and Consumption Behaviour: Some Recent Evidence", *OECD Economics Department Working Papers* n° 208, OECD Publishing.
- Chauvin V. et Damette O.** (2010), "Effets de richesse : le cas français", *Économie et statistiques*, n° 438-440, p. 111-140.
- Conseil d'Orientation pour l'Emploi (COE, 2015)**, *Les réformes des marchés du travail en Europe*, rapport, 2015.
- Eudeline J.-F., Gorin Y. et Zakartchouk A.** (2013), "Will corporate investment take off again in France in 2014?", *Conjoncture in France*, December, p. 19-39.
- Faure M. E., Soual H. et Kerdrain C.** (2012), "Eurozone and United States in 2011: growth despite shocks", *Conjoncture in France*, June, p. 23-37.
- Fawley B. W. et Neely C. I.** (2013), "Four stories of Quantitative Easing", *Federal Reserve Bank of St. Louis Review*, January/February, p. 51-88.
- Hauseux Y., Marc B., Audenaert D. et Chevalier C.-M.** (2015), "Real estate prices appear to have no direct effect on investment in productive assets", *Conjoncture in France*, June, p. 22-37.
- Héam J.-C., Marc B., Lee R. et Pak M.** (2015), "Quantitative easing by the ECB has driven down interest rates and contributed to the Eurozone recovery", *Conjoncture in France*, December, p. 41-61.
- Jess N., Pramil J. et Roucher D.** (2013), "In search of lost British productivity", *Conjoncture in France*, December, p. 41-56.
- Reuschke D. et Maclellann D.** (2014), "Housing Assets and Small Business Investment: Exploring Links for Theory and Policy", *Regional Studies*, 48:4, p. 744-757.
- Slacalek J.** (2009), "What drives personal consumption ? The role of housing and financial wealth", *DIW working paper*, n° 647.
- Sutter C., Faubert V. et Monnet E.** (2015), "Despite the recovery of purchasing power, housing construction should keep falling in 2015", *Conjoncture in France*, June, p. 39-52.
- Stock J. H. et Watson M. W.** (1993), "A Simple Estimator of Cointegrating Vectors in Higher Order Integrated Systems", *Econometrica*, vol. 61, n° 4, July, p. 783-820.

# Why the United Kingdom has seen stronger growth than France since mid-2013

## Appendix - Households consumption and investment equations

### I. Consumption equations

In order to understand the saving decisions of households, household consumption is often simulated using an error correction model which allows us to represent both the long-term trend and short-term adjustments in relation to this trend. This modelling equation binds the unitary elasticity of consumption to total income over the long term. The factors which traditionally determine the savings ratio are financial and property wealth (wealth effects), the unemployment rate and inflation.

Household consumption models have been produced for France and the UK, testing various long term scenarios using the determinants listed below. The French model reveals that only purchasing power has a decisive impact on the consumption equation in the long term, which essentially means that the savings ratio is stationary over the period of estimation. Most notably, there were no significant wealth effects in the long term, nor did the unemployment rate have a substantial impact. (Faure *et al.*, 2012)

In the UK, on the other hand, these two quantities contribute to the variations in the long-term target for the savings ratio. Since the crisis of 2008, they have often surpassed purchasing power in terms of their effect on the fluctuations in British household consumption: they account for over half of the buoyant performance of consumption between mid-2013 and the end of 2015, while purchasing power accounts for just over a quarter.

#### The equation for household consumption in France

$$\Delta c_t = 2,12 - 0,16(c_{t-1} - y_{t-1}) + 0,01I_{95T1-T3} + 0,01I_{96T1-T4} - 0,01I_{93T1} - 0,01I_{2011T2} + 0,12\Delta_4 y_t^{HI} - 0,004\Delta u_t + 0,05\Delta r_t + 0,003\Delta OAT_t + 0,00003DJU_t$$

(3,72) (3,72) (6,20) (5,79) (4,21) (4,22) 2011T2  
(4,50) (2,90) (2,07) (3,06) (2,14)

Period: 1990Q1-2014Q4

Adjusted R = 0.68

Student's t-test in brackets

#### The equation for household consumption in United Kingdom

$$\Delta c_t = 0,22 - 0,10(c_{t-1} - y_{t-1} - 0,1lr_{t-1} - 0,14rf_{t-1} - 0,0lu_{t-1}) + 0,20\Delta y_t - 0,01\Delta u_t + 0,07\Delta r_t - 0,01I_{2009T2-2010T1}$$

(3,51) (3,44) (5,05) (4,11) (2,86) (3,34) 2009T2-2010T1

Period: 1990Q1-2014Q4

Adjusted R = 0.51

A two-phase calculation using DOLS (dynamic ordinary least squares) over the long-term (Stock & Watson, 1993)

Where:

- $c_t$  is the logarithm for household consumption at chain-linked prices from the previous year,
- $y_t$  is the logarithm for gross disposable income deflated by household consumer prices,
- $y_t^{HI}$  is the logarithm for gross disposable income excluding tax, deflated by household consumer prices,
- $r_t$  is the logarithm for household property wealth (defined as the total active housing stock, including the land on which buildings are located) divided by gross disposable income,
- $rf_t$  is the logarithm for household financial wealth divided by gross disposable income,
- $u_t$  is the ILO unemployment rate in %,
- $DJU_t$  is the unified degree day indicator<sup>1</sup>,
- $OAT_t$  is the real interest rate on ten-year government bonds in %,
- and  $I_x$  is an indicator for date X (these indicators represent specific political measures intended to stimulate consumption, particularly of automobiles: cf. the scrappage bonuses offered in 2009 in the UK and 1993, 1995, 1996 and 2011 in France).

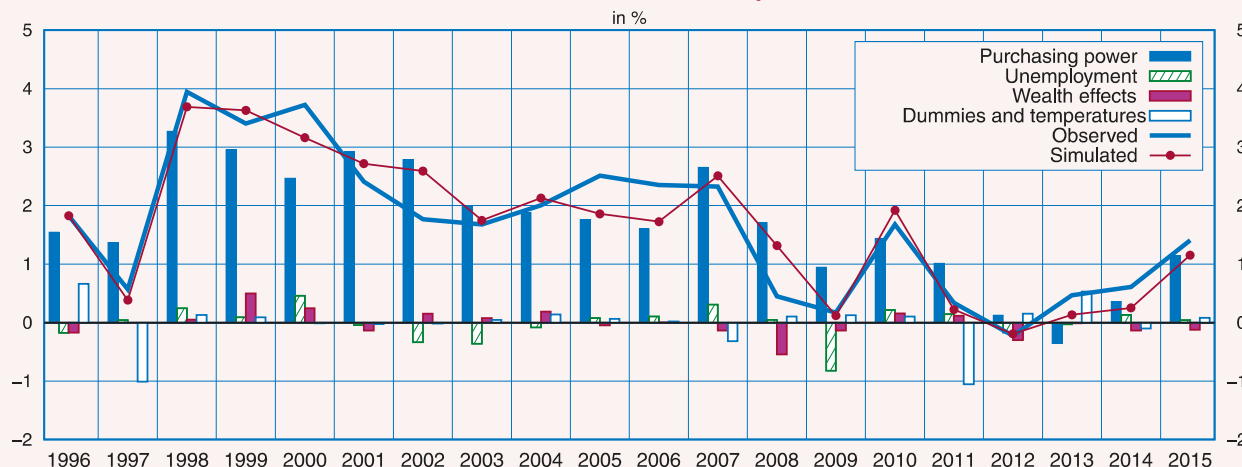
The variables used in the long-term equations are all integrated of order 1. The residuals of the French long-term relationship are stationary, the Johansen test confirms the existence of a unique cointegrating relationship in the UK, and the Shin test confirms this relationship in the long-term.

1. The unified degree day series (UDD) is a series which records the day-to-day difference between the recorded temperature and 18°C: this is the difference between the base temperature (18°C) and the median temperature on a given day (maximum temperature - minimum temperature). If the temperature is below 18°C, the UDD index is positive; if it is warmer than 18°C, the UDD is 0.

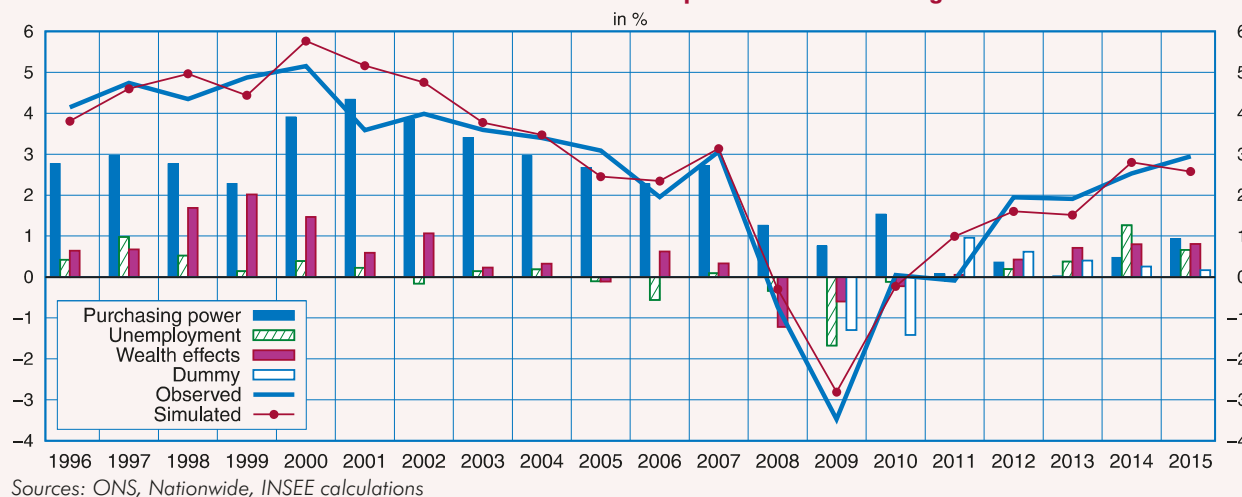


# Why the United Kingdom has seen stronger growth than France since mid-2013

1 - Contributions to household consumption in France



2 - Contributions to household consumption in the United Kingdom



## II. Household investment equations

Household investment in housing in France can be modelled using an error correction model (Sutter *et al.*, 2015). The same equation has also been calculated for the UK. Only purchasing power emerges as a decisive factor in the long term. In the short term, property prices play a major role. As data for household investment in construction has only been available since 1998, the British equation is calculated for a relatively short period (from Q1 1998 to Q4 2014). As with the French equation, the estimates are calculated in a single phase. According to this equation, the developments in household investment in the UK are primarily a result of the dynamic increase in property prices. As such, property prices account for virtually all of the increase in household investment seen since mid-2013, with the annual contribution of purchasing power and employment reduced by half over this period.

### The equation for household investment in housing in France

$$\Delta_i = 0,50 - 0,05(i_{t-1} - y_{t-1} - 0,79px\_anc\_r_{t-1} + 3,ldéf\_invt\_r_{t-1} - 0,07part\_30\_59_{t-1}) + 0,33\Delta_i + 1,84\Delta emp_t - 0,01\Delta_4 hypo_t$$

(3,42) (2,26) (3,74) (4,08) (4,51)

Period: 1991Q2-2014Q4  
Adjusted R = 0.73

# Why the United Kingdom has seen stronger growth than France since mid-2013

## The equation for household investment in housing in United Kingdom

$$\Delta i_t = 0,13 - 0,07(i_{t-1} - y_{t-1}) + 2,58 \Delta emp_t + 1,27 \Delta px\_anc\_r_t + 0,002 \Delta footsie_t$$

$\begin{matrix} (2,80) & (3,11) & (2,03) & (6,09) & (1,83) \end{matrix}$

Period: 1998Q1-2014Q4

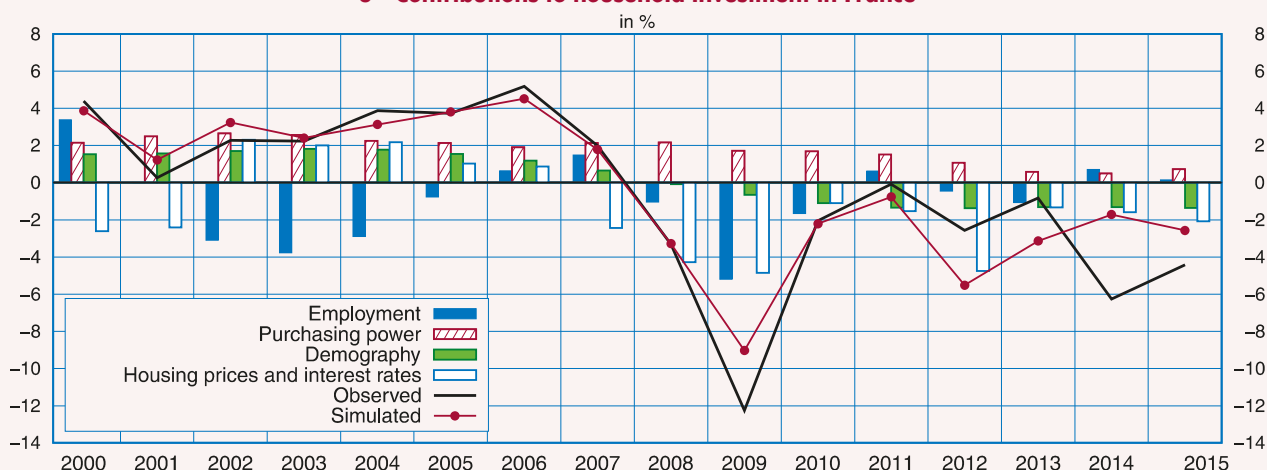
Adjusted R = 0.44

The variables which determine the long-term relationship are all integrated of order 1. The residuals of the long-term relationship are stationary.

Where:

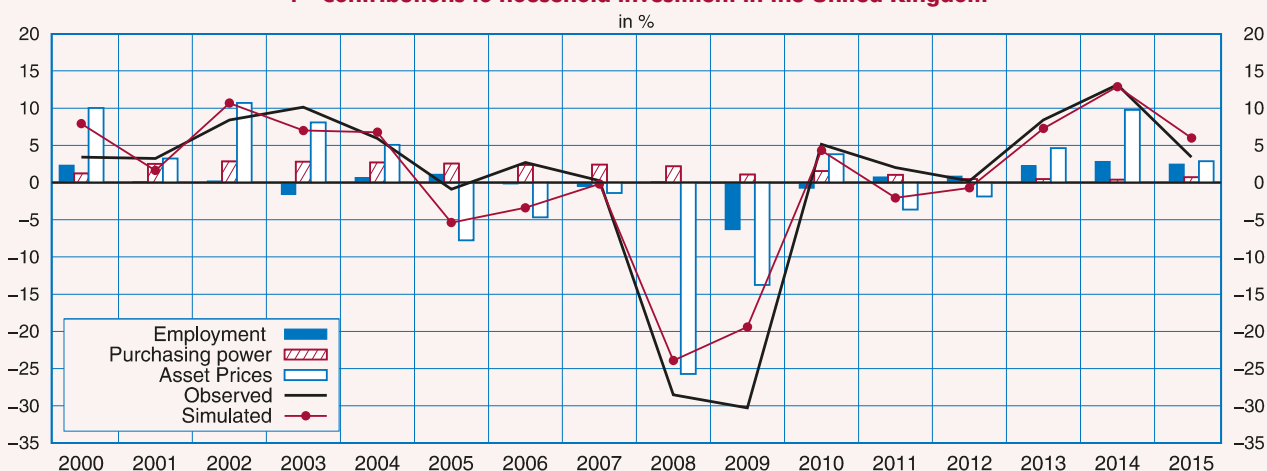
- $i_t$  is the logarithm for household investment in construction at chain-linked prices from the previous year,
- $y_t$  is the logarithm for gross disposable income deflated by household consumer prices,
- $emp_t$  is the logarithm for total payroll employment,
- $px\_anc\_r_t$  is the logarithm for property prices compared with household consumer prices,
- $dfl\_inv\_r_t$  is the logarithm for household investment in construction compared with household consumer prices,
- $part\_30\_59_t$  the proportion of the population aged 30-59,
- $hypo_t$  is the one-year differential of the effective nominal rate of mortgage loans to private individuals,
- $footsie_t$  is the FTSE 100 index divided by household consumption prices.

### 3 - Contributions to household investment in France



Source: INSEE

### 4 - Contributions to household investment in the United Kingdom



Sources: ONS, Nationwide, INSEE calculations