International developments

Financial markets

Debt a cause for concern

Tensions on the financial markets eased at the start of 2012, after the decision by the European Central Bank (ECB) to continue with its policy of monetary easing and the measures implemented by the European States to improve the sustainability of their government finances.

In Q2 2012, tensions rose once again on the financial markets. Doubts about the financial stability of Greece, along with downward revisions of growth prospects in several European countries led to a reassessment of risks. In the Eurozone, the interbank market had not fully returned to normal in Q2 and sovereign yield spreads increased sharply once more.

As a result, the stock markets fell again in Q2 2012, after increasing sharply in Q1. The euro also slipped back in Q2 after remaining stable throughout Q1.

In Q2 2012, the financing of businesses and households, particularly in the southern Eurozone countries, is likely to be affected by this. Lending conditions, which tightened at the end of 2011 and the start of 2012, are unlikely to ease significantly over the coming months.

Over the forecast horizon the conventional assumptions for the exchange rate are 1.27 dollar, 101 yen and 0.81 pounds sterling to the euro in Q2 2012, then 1.24 dollar, 96 yen and 0.80 pounds to the euro in H2.

Tensions have eased on the interbank market since January 2012

With the two 3-year refinancing operations (LTRO) 1 - Tensions continue to fall on the interbank marketsa 1% interest rate introduced in December 2011 and February 2012, the ECB balance sheet now exceeds 30% of the Eurozone's gross domestic product (GDP), i.e. almost double that of the American Federal Reserve. This operation eased tensions on the Eurozone interbank market; the American and British markets also benefited of this effect. The Euribor-OIS spread has fallen back below 40 basis points since March after reaching 95 basis points at the end of 2011 (see *Graph 1*). While tensions surrounding sovereign debt have been rising since April, the interbank spread has

1 - Tensions continue to fall on the interbank markets

* As the spread between the Libor or Euribor three-month yield and the OIS swap yield

Source: DataInsigh

remained stable, even though the level of tensions both in the United States and in Europe is still higher than before the crisis of summer 2011.

Faced with the fall in inflation in the Eurozone and the weak level of activity, the ECB may bring down its rates by 25 points in summer.

In the United Kingdom the central bank has continued its operations to buy back sovereign bonds despite inflation persistently remaining above target. The American Federal Reserve (Fed) has warned that it will maintain its rate at 0.25% until at least mid-2013, provided that inflationary risks are kept under control.

Important resurgence of tension on the sovereign debt market in Q2 2012

With the action of the ECB and the commitment by the European States to greater sustainability of their government finances, the spreads between German bond yields and those of the other Eurozone countries came down in Q1 2012. But the resurgence of doubts surrounding the financial stability of Ireland, Portugal, Spain and Italy, along with the political instability in Greece, led to renewed tensions on all sovereign markets in Q2 *(see Graph 2)*. Spanish and Italian yields in particular rose once again at the end of Q1 2012 after Spain announced an upward revision of its deficit forecasts for 2012 and Italy for 2013. Ten-year sovereign yields stood at 6.6% in Spain and 5.8% in Italy at the end of May, after reaching a low point at 4.9% and 4.8% in March.

The French 10-year sovereign yield has been falling since the start of the year: it dropped from 3.3% at 1st January to 2.4% at the end of May. The spread with the German rate has remained stable. The German 10-year sovereign yield benefited fully from the "flight to quality" effect in Q2 2012 and came down to below 1.5% at the end of May. British and American rates have also come down since March. The 10-year sovereign yields of both these countries stood at 1.6% at the end of May, after respectively 2.4% and 2.3% in mid-March.

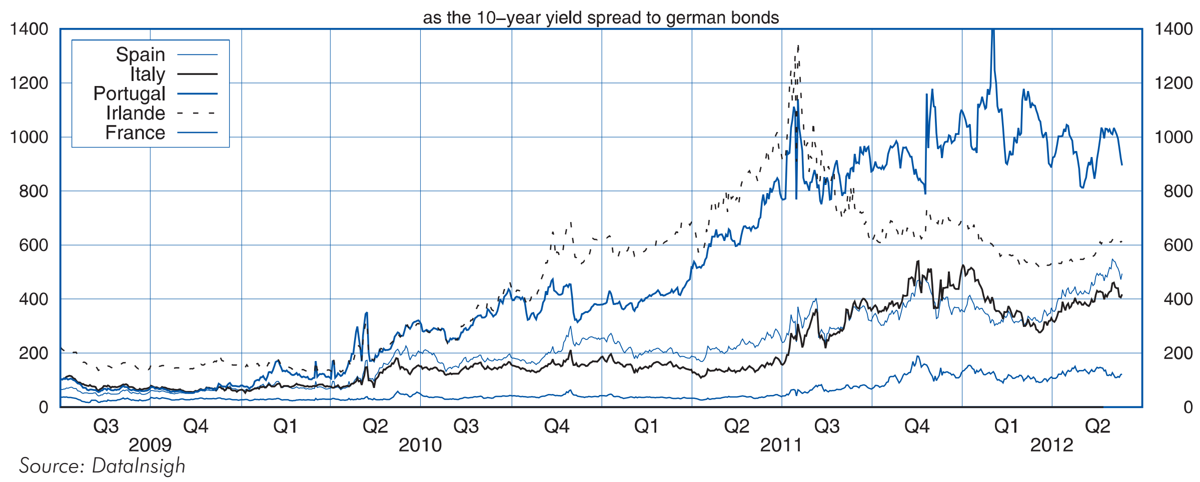
The financing conditions of the economy unlikely to ease significantly

According to the quarterly survey by the ECB on European banks, after two quarters of tougher lending conditions in the Eurozone, the tightening of credit terms was less marked in Q1 2012 *(see Graph 3)*. In France and Italy most notably, the number of banking institutions reporting a further tightening of lending conditions fell sharply. In Spain and Germany, the balance of lending conditions has remained in the stabilisation zone.

The resurgence of uncertainty in the Eurozone may bring the improvement in lending conditions to a halt over the coming months. Additionally, lending conditions may suffer from the preparation by banking institutions for the implementation of tougher liquidity and solvency standards ("Basel III" and "Solvency II" in 2013).

In the Eurozone, outstanding loans to non-financial companies continued to fall quarter-on-quarter in April, for the fifth consecutive month. In France, the growth rate of these outstanding loans remained positive, albeit weak, in Q1 2012 (+ 1.0%). More specifically, on the French property market the volumes of loans fell dramatically at the end of Q1 2012. Banking

2 - New increase in spreads between the sovereign yields of the Eurozone



Source: *DataInsigh*

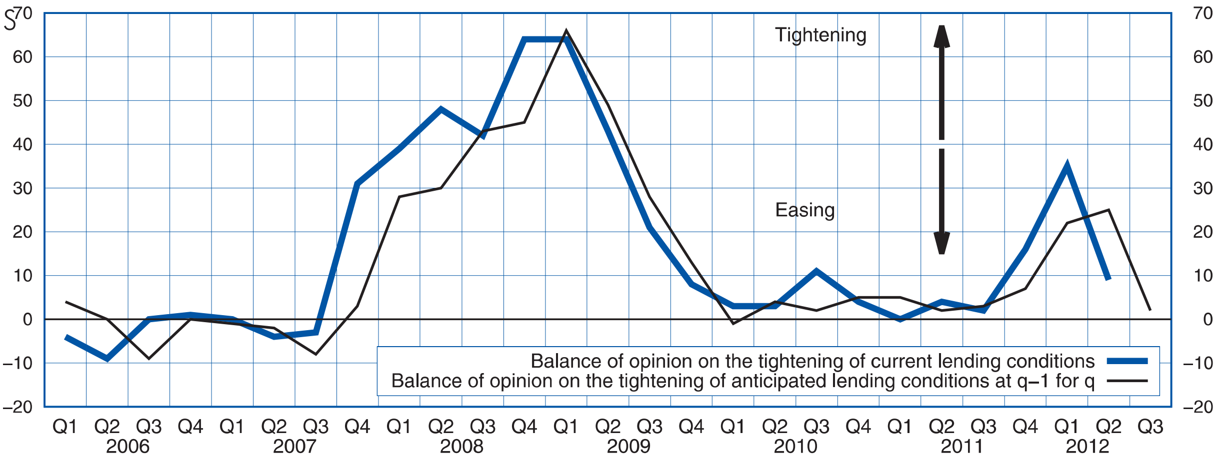
institutions also reported a sharp drop in demand for all types of credit in Q1 2012, in the Eurozone and in France in particular.

European stock markets hard-hit by uncertainty surrounding the Eurozone

With the improved situation on the interbank market and prospects of an easing of the European financial crisis, the main stock market indices rose sharply between January and March *(see Graph 4)*.

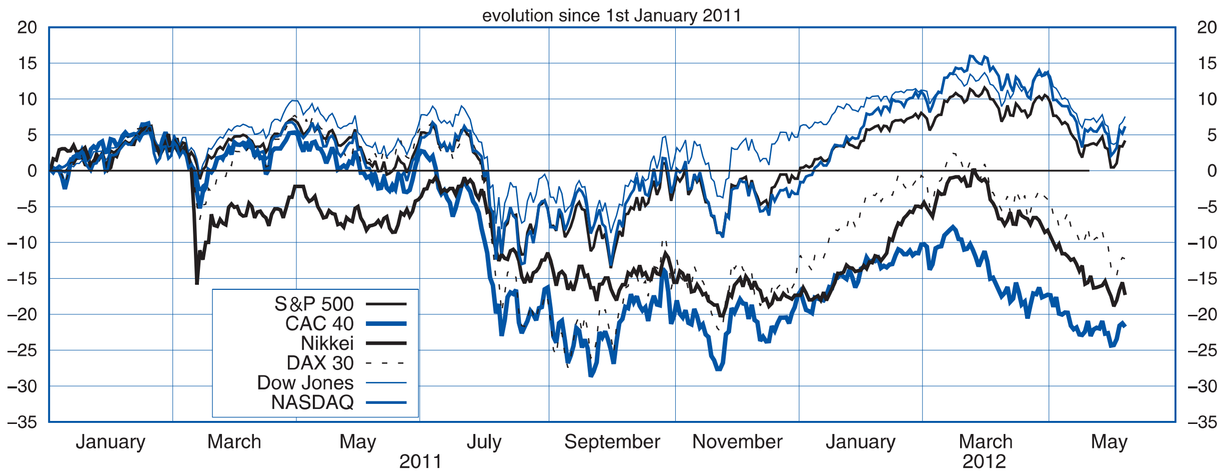
But the return of tensions on the sovereign markets, along with downward revisions of growth prospects in the Eurozone, led to a drop in the stock markets starting at the end of Q1 2012. The CAC 40 and the DAX 30 are still at lower levels than on 1st January 2011 (-22.7% for the CAC 40 and -10.4% for the DAX 30 at 31 May 2012). As a sign of the uncertainty on the markets, the implied volatility of the stock market indices is rising once again. The

3 - Lending conditions remain tense in the Eurozone



Source: European Central Bank

4 - The stock markets declined in Q2 2012



Source: DataInsight, INSEE

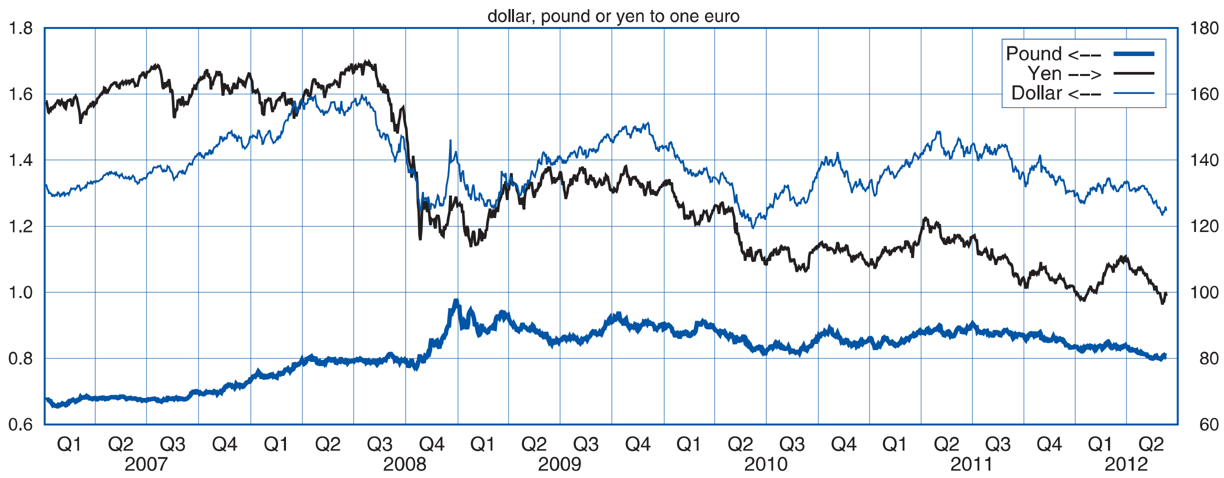
American stock market also suffered a decline in Q2 2012, although to a lesser extent, as the USA is enjoying more favourable business prospects.

Significant drop in the euro

The exchange rate of the euro against the dollar remained stable in Q1 2012 (*see Graph 5*). But in Q2, the euro fell sharply, from $1.33 in early April to $1.24 on 31 May. This drop reflects the heightening of financial tensions within the Eurozone.

Most notably, the risks brought by the Greek economy to the Eurozone as a whole are likely to put investors off the European currency. In our forecast the euro should stabilise at $1.24 on average in H2 2012, after $1.27 in Q2.■

5 - Changes in the exchange rate of the euro



Source: DataInsight

Eurozone

The Eurozone at a standstill in 2012

After falling in Q4 2011 (-0.3%), activity in the Eurozone levelled out in Q1 2012 (0.0%). Exports showed a marked upturn, but domestic demand continued to fall back. Tighter access to credit weighed down on investment which contracted. In the construction sector, meanwhile, activity was hit by very cold temperatures in February. Finally, private consumption stabilised as households reduced their savings ratio to offset the fall in their purchasing power.

The outlook is set to remain difficult through the Eurozone over the rest of the year. For example, in the April and May surveys, business leaders reported a further deterioration in the business climate and the confidence of economic agents has fallen back to its level in Q4 2011. On the sovereign debt market, tensions are flaring up again and financing terms for private agents should therefore remain difficult.

Activity in the Eurozone is likely to contract (-0.2%) in Q2 2012 then level out in H2 (0.0% in Q3 then +0.1% in Q4). After a dynamic Q1, exports should slow down significantly in Q2 2012. They should then progress a little more strongly in H2, driven by accelerating demand from emerging countries. Investment should continue to be penalised by tighter lending terms and to fall in Q2, before stabilising at the end of the year. The worsening labour market is likely to hit earned income and fiscal consolidation measures should weigh down on household consumption. Despite the fall in inflation, purchasing power should therefore fall in 2012, dragging consumption in its wake.

In Q1 2012, activity remained stable in the Eurozone

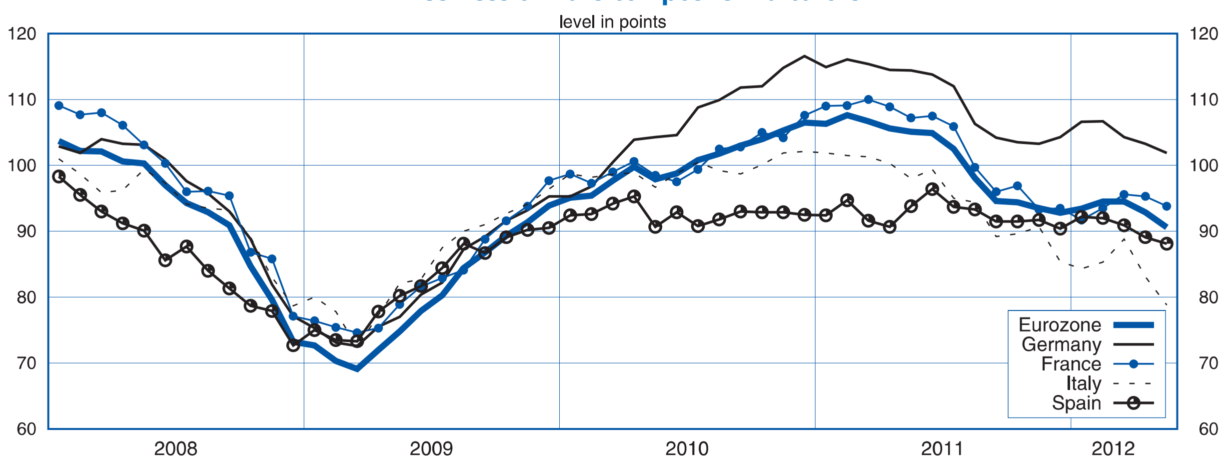
Activity in the Eurozone was stable in Q1 2012 (0.0%). Tighter lending terms in several countries in early 2012 and poor activity prospects hit investment, which fell back. In addition to this, the cold temperatures in February restricted activity in the construction sector. Both public and private consumption were stable in Q1 2012. Households reduced their savings ratios to soften the impact of the fall in their purchasing power on their consumption. Exports rebounded, however: trade within the Eurozone stabilised, after falling sharply at the end of 2011, and demand from the emerging countries saw an upturn.

Financial tensions flared up again in Q2 2012

The two exceptional long-term refinancing operations carried out by the European Central Bank (ECB) in December 2011 and February 2012 contributed to easing financial tensions in early 2012, especially on the sovereign debt of certain Eurozone countries (Italy, Spain...). However, these tensions flared up again in Q2, in particular due to political uncertainties in Greece and the fragility of the Spanish banking system. The spread between the rates on German bonds and those of other Eurozone countries has been widening again since April.

Lending terms to businesses have tightened considerably since summer 2011 (*See "Financial markets" note*). Despite the intervention of the ECB, they did not ease in Q2 2012 and given the revived tensions on financial markets, any significant easing of financing terms for business is unlikely through to the time horizon of the forecast.

1 - Business climate composite indicators



Source: European Commission

Fall in GDP in Q2 2012

In Q2 2012, Eurozone activity is set to fall back (-0.2%). According to the business tendency surveys, the outlook is worsening again after the slight improvement in Q1 *(see Graph 1)*. Activity in the Eurozone should then increase at a slow rate in H2 (0.0% in Q3 then +0.1% in Q4).

Over 2012 as a whole, GDP should fall by 0.3%, after growth of 1.5% in 2011. This overall trend does hide some large divergences between countries, however *(see Graph 2)*. While activity is likely to progress in Germany and, to a lesser extent, in France, it should fall sharply in Italy and in Spain.

Exports and investment weak

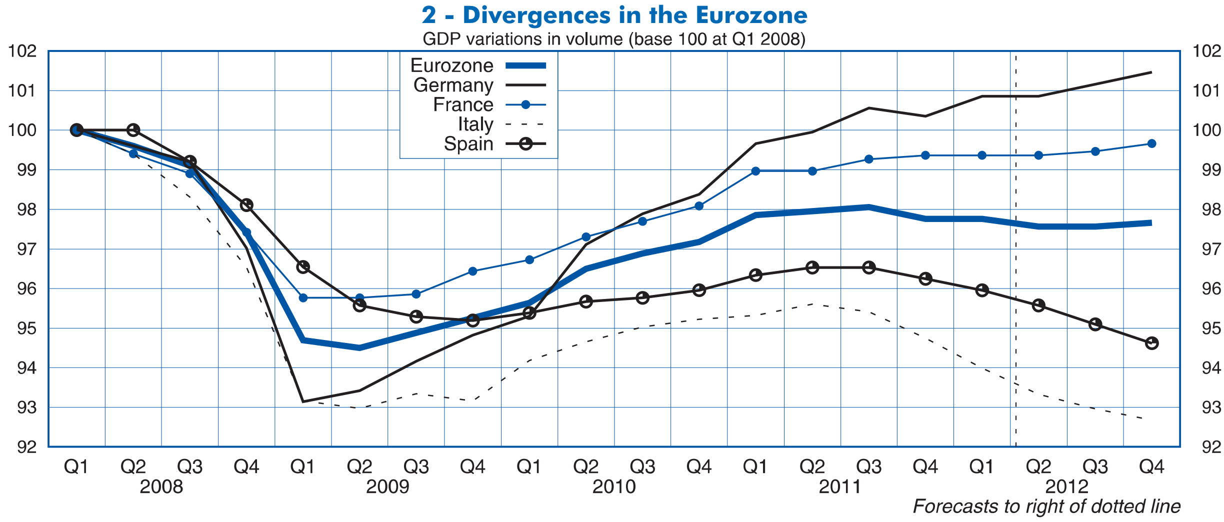
In Q2, exports should grow weakly (+0.4% after +1.0%) after showing an upturn in Q1 2012, as demand from the United States and emerging countries slows down. In H2 2012, exports should accelerate slightly, buoyed by more dynamic world trade and by the fall in the Euro in Q2 which should improve the competitiveness of exports from the Eurozone countries. The rate of growth in exports, however, is likely to remain moderate as it continues to be penalised by weak demand from European countries.

Affected by difficult access to credit and weak support from export markets, investment in capital goods is likely to be sluggish through to the time horizon of the forecast. In the construction sector, investment should be stable as the property market crisis in Spain is offset by relatively dynamic situation in the sector in Germany.

Household disposable income is likely to be sluggish...

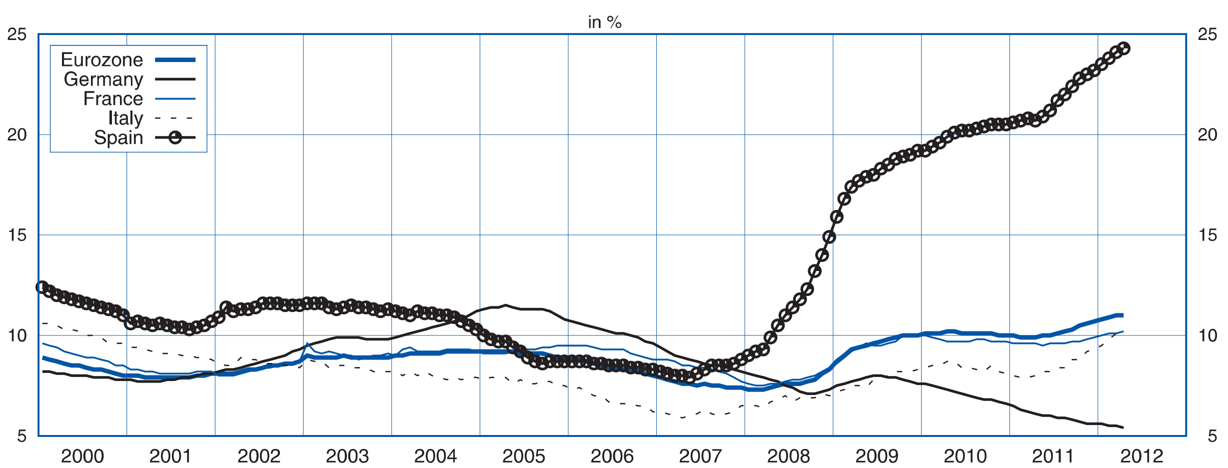
Due to the weakness of activity, employment should continue to fall through to the time horizon of the forecast. The worsening labour market *(see Graph 3)* is likely to limit the bargaining

2 - Divergences in the Eurozone



Source: Eurostat, INSEE calaculations

3 - Unemployment rates in Eurozone



Source: Eurostat

power of employees and nominal wages are likely to be sluggish through to the end of 2012. Two very different processes are at work in Europe: in Germany, employment is progressing and wage negotiation conditions are favourable for employees; in Spain and Italy, there is an effort underway to keep wage rises down, breaking with past trends. In addition to this, the fiscal consolidation measures (tax rises, benefits cuts) in most countries (Italy, Spain...) are likely to continue holding household disposable income back. They should represent around 2 to 3 points of household income in Italy and Spain.

...and despite the slide in inflation in 2012...

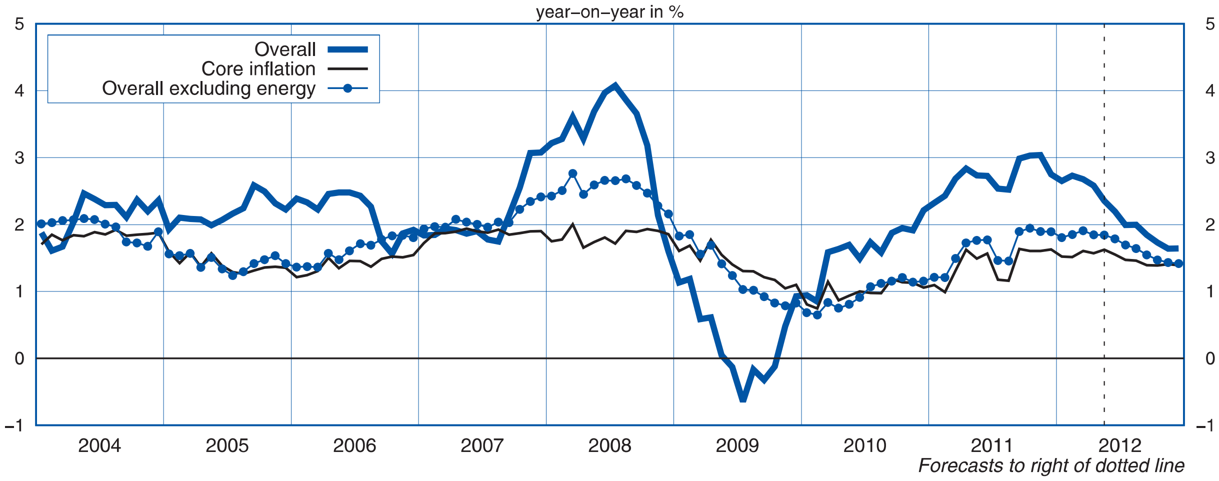
Since peaking at 3.0% in November 2011, headline inflation in the Eurozone has fallen. It stood at 2.4% in May 2012 *(see Graph 4)*. This fall should continue for the rest of the year, bringing inflation down significantly to 1.6% in December 2012.

"Core" inflation should fall from 1.6% in May to 1.4% in December 2012 *(see Graph 4)*. The high unemployment rate should keep inflationary pressures moderate. As the rise in food commodity prices stops working through, the fall in year-on-year food prices that began in March should continue through to the end of the year. Finally, on the assumption that the price of a barrel of Brent remains stable going forward at €81, the year-on-year rise in energy prices should ease considerably through to December.

...household consumption should fall back

Household consumption should fall back in 2012 (-1.4% against 2011). After being stable (0.0%) in Q1, it should then fall through to the time horizon of the forecast (-0.2% in Q2 and Q3 then -0.1% in Q4).■

4 - Consumer prices in the Eurozone



Sources: Eurostat, INSEE forecasts

Germany

The engine is spluttering but still turning

German activity rebounded in Q1 2012 (+0.5% after -0.2%), buoyed up by world trade and strong household consumption.

It should slow down in Q2 2012 (0.0%) then regain momentum in H2 (+0.3% per quarter), thanks to an acceleration in demand from non-Eurozone countries. In the construction industry, investments should pick up in Q2 2012 after the cold snap in February, and remain buoyant in H2. Thanks to solid earned income, German household consumption should continue to rise.

Labour market still sound

The German labour market situation is highly favourable. In Q1 2012, there were once again numerous job creations (+200,000) and the uninterrupted fall in the unemployment rate over the last three quarters continued. Employment should lose some of its dynamism by the end of the year due to the slowdown in activity, but the unemployment rate should nonetheless continue to fall.

The rude health of the labour market has strengthened the bargaining power of German employees. So wages were particularly strong in 2011 and the wage negotiations already conducted suggest that rises in nominal wages should be high in 2012.

Household consumption on the rise

After declining in Q4 2011, household consumption rebounded in Q1 2012 (+0.4% after -0.2%). The purchasing power of German households should continue to progress throughout the year thanks to the strength of earned income, and consumption expenditure should continue to increase (+0.2% per quarter).

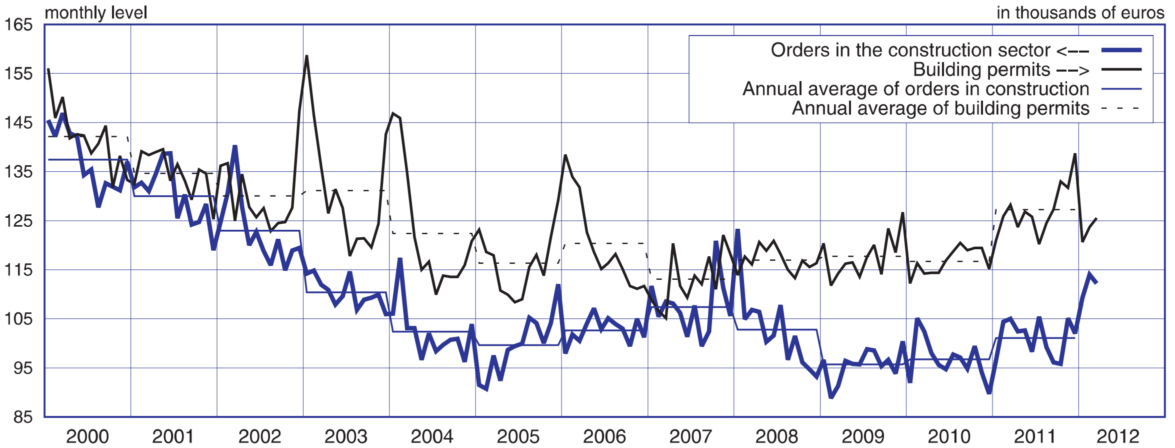
Construction sustaining activity

After years of decline, activity in the construction industry is showing signs of an upturn in Germany. Building permits and orders in this sector progressed in 2011 *(see Graph)*. Investment in construction did however slip back in Q1, due to the particularly low temperatures in February. Investment in this sector should therefore rebound in Q2 (+1.5%), then remain buoyant through to end 2012.

Sluggish exports

After picking up in Q1 2012, German exports should slow in Q2 because of more moderate demand from the emerging economies and weak demand from the Eurozone. Demand from countries outside the Eurozone should see renewed dynamism in H2 and German exports should pick up. However, they should grow at a slower pace than that observed in 2011. Investment in capital goods declined in Q1 2012 and is likely to slip back further in Q2. It should gradually recover in H2, as financing conditions for entrepreneurs are still favourable. ■

Orders and building permits increased sharply in 2011



Source: Bundesbank

Italy

Prolonged recession

The Italian economy has been very hard-hit by the sovereign debt crisis. Although the exceptional refinancing operations by the European Central Bank (ECB) eased tensions in early 2012, these tensions had spread to the real economy and the recession deepened in Q1 2012.

Through to the end of the year, only exports are likely to sustain Italian activity. Faced with losses in purchasing power, households are set to bring down their expenditure. And with the recent resurgence of tensions surrounding sovereign debt, financing conditions for private agents should remain tight, while companies have little incentive to invest. The contraction in Italian activity is thus likely to continue: -0.7% in Q2 2012 then -0.4% and -0.3% in Q3 and Q4.

Persisting financial tensions

In Q2 2012, tensions surrounding Italian debt once again reared their head, having eased at the start of the year thanks to the action led by the European and Italian authorities: exceptional refinancing operations by the ECB; adoption of the "Salva Italia" plan; adoption of a plan to liberalise certain sectors of the economy, and opening of negotiations on the labour market reform.

The financing conditions of private agents should therefore remain difficult. Italian companies are unlikely to find incentive to invest, given the surplus in production capacities and the absence of domestic outlets. Investment in capital goods should therefore continue to decline over the forecasting period.

In the construction sector, the decline in investment, accentuated in Q1 by the very low February temperatures, should temporarily come to a stop in Q2, before worsening once again at the end of the year.

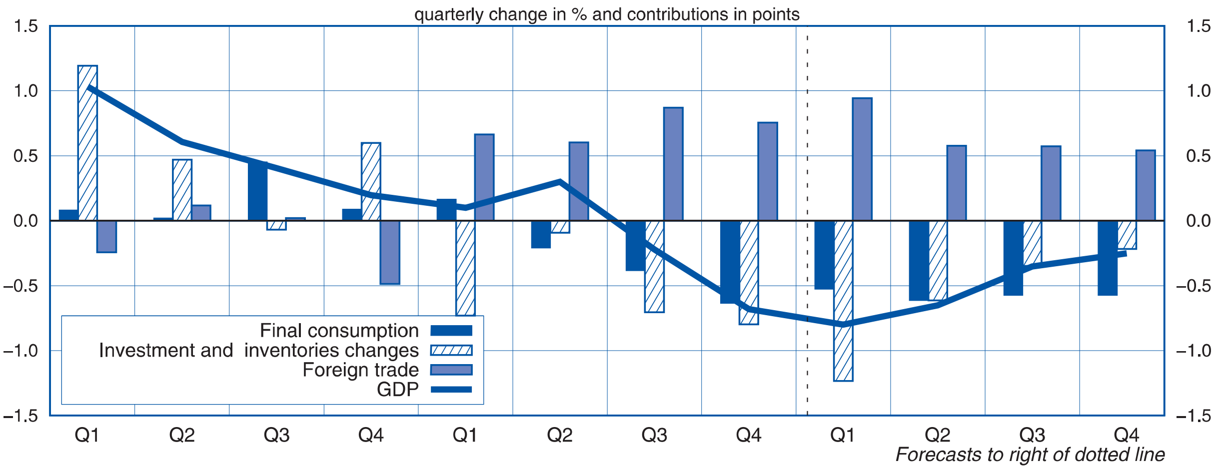
Italian households likely to slash their consumption expenditure

Fiscal measures are likely to take their toll on the disposable income of households in 2012, with, among other things, large tax increases and cuts in social benefits. Furthermore, real wages should slip back in 2012: civil service wages have been frozen in value and the bargaining power of employees is likely to be restricted by the rise in unemployment (10.2% in April). Italian households are thus confronted with a sharp drop in their purchasing power. Despite a new fall in their savings ratio, the consumption expenditure of households is set to decline sharply over the year.

Exports likely to be the only driver of activity

Following the return of demand in the Eurozone, Italian exports declined in Q1 2012. They should grow over the forecasting period, sustained by the pick-up in world trade and by the recent depreciation of the euro. Conversely, imports are likely to fall, in line with the contraction of domestic demand. The contribution of foreign trade to growth should thus remain clearly positive throughout the year (*see Graph*). ■

Italian activity continuing to decline



Sources: ISTAT and INSEE calculations

Spain

Under pressure

Spanish activity contracted once again in Q1 2012 (-0.3% after -0.3% at end 2011) and the trend is likely to worsen over the forecasting period: -0.4% in Q2 then -0.5% per quarter to the end of 2012. After a relative lull in Q1 2012, tensions surrounding sovereign debt and the Spanish banking system increased sharply in Q2. Access to credit should remain difficult for private agents and private investment is likely to contract sharply all year long. Furthermore, the deteriorating labour market and the measures to consolidate government finances are set to take their toll on Spanish households, who will reduce their consumption expenditure. However, exports should enjoy slightly greater dynamism thanks to the growth in world trade and the recent depreciation of the euro.

Investment set to contract

Through to the end of 2012, the financing conditions of private agents are likely to remain difficult in Spain. Spanish sovereign yields rose once again in Q2 after the lull in Q1 (6.5% in May 2012 against 5.1% in February) and the banking system came under sustained pressure. Investment in capital goods should thus continue to decline sharply through to the end of 2012, especially as business prospects have worsened and production capacities are underused. The construction sector will likely still be penalised by the reduction in public investment and by the property crisis.

Households set to make drastic cuts to their consumption expenditure

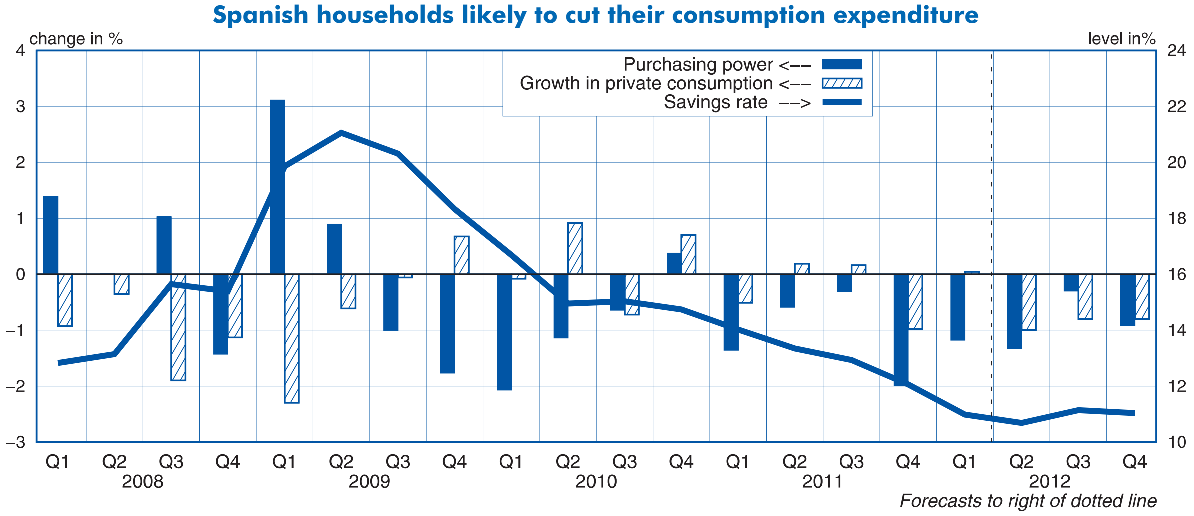
The purchasing power of households is set to fall sharply in 2012. Employment declined significantly in Q1 (-1.7%) and, bearing in mind the contraction in activity, it should continue to do so through to the end of 2012. With the rise in unemployment, the bargaining power of employees is likely to be diminished and wage gains limited. Also, household income is likely to be affected by fiscal consolidation measures, most notably the freezing of civil service wages and the rise in the income tax scale.

Faced with the extent of their purchasing power losses since 2010, Spanish households have radically brought down their savings ratio: standing at 19.9% in 2009, it was 13.1% in 2011 and 11.0% in Q1 2012 *(see Graph)*. The savings ratio should stabilise at this relatively low level through to the end of 2012 and consumption should decline sharply over the same period.

Rebound in Spanish exports

After falling by 0.9% in Q1 2012, Spanish exports should rebound in the second half of the year. They should benefit from the increase in demand from Germany, France and the countries outside the Eurozone, as well as from the depreciation of the euro.■

Spanish households likely to cut their consumption expenditure



Source: INE and INSEE calculations

United States

Residential real-estate gets back on track

In Q1 2012, activity grew in a relatively sustained manner in the United States (+0.5% after +0.7% in Q4 2011). Buoyant household consumption and the upturn in residential real-estate offset the sharp decline in government expenditures.

Within the forecasting period, growth should remain fairly solid (+0.5% in Q2 then +0.6% per quarter) and reach + 2.2% for the year as a whole, after +1.7% in 2011. Thanks to the fall in inflation, American employees should continue to enjoy gains in real wages. Household consumption should thus drive activity, as in the previous quarters. To service this rising demand, companies are likely to increase their production investment expenditure. A new feature is the activity in construction, which began to grow again in early 2011 after five years of sharp decline and should increase sharply.

A fairly promising labour market

The American economy created 677,000 jobs in Q1 2012. In H2, it should create jobs again, although at a more moderate rate, and the unemployment rate (8.2% in May) should come down slightly. Per capita productivity, which at the end of the recession had largely exceeded its pre-crisis level, should thus return to its long-term trend during the forecasting period. The improved labour market should allow employees to negotiate real wage gains and the share of value-added should stabilise, whilst remaining strongly in favour of employers.

Sustained growth in household consumption and investment

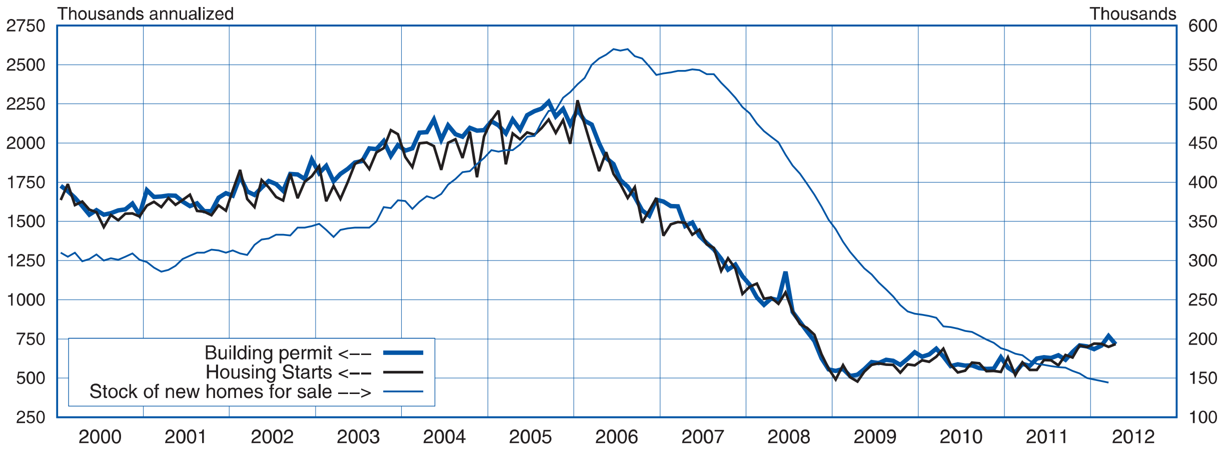
Despite the tax rises and the stabilisation of transfers underway over the last few quarters, the purchasing power of households should remain fairly buoyant, driven by growth in wages and the recent decline in energy prices. Households should therefore increase their consumption (+0.5% per quarter) whilst stabilising their savings ratio.

In parallel, the property market adjustment has come to an end and the residential construction industry has started to pick up: new housing stocks are now at a very low level while housing starts and building permits have registered a moderate increase over the last few months *(see Graph)*. Corporate investment is likely to be driven by the vitality of outlets, especially as the financing capacity of companies should be sustained by the historically high margin rate and by the still-favourable lending conditions.

Decline in government expenditure

American government expenditure should continue to represent the main domestic obstacle to growth. Over the last 18 months it has declined: on the one hand, local authorities, subjected to strict budget rules, have adjusted their expenditure to sluggish revenue; and on the other hand, at federal level national defence budget cuts have been made. Within the forecasting period, this consolidation is likely to continue and government expenditures should fall back by about 2% in 2012, like in 2011. ■

Recovery confirmed in the construction sector



Source: US Census Bureau

Shale gas: a positive supply-side shock for the United States

The rapid rise of a new type of unconventional gas in the United States: shale gas

With the arrival of new techniques (hydraulic fracturing and horizontal drilling), shale gas operations have developed strongly in recent years in the United States(1). Their share in US gas output has thus risen from less than 2% in 2001 to almost 30% in 2011, while American gas production has been rising again since 2006 after stagnating for almost 15 years *(see Graph 1)*. The United States thus became the world's first gas producer again in 2009 and 2010, ahead of the Russian Federation, and the American gas trade deficit has narrowed quickly.

A large direct contribution to industrial activity

The development of shale gas production has been a factor in the expansion of American industrial activity: since 2006, gas production has contributed 0.2 to 0.3 points per year to growth in total industrial production and shale gas alone explains 0.7 points of growth in industrial production in 2010 and 0.5 points in 2011. At the end of 2011, gas extraction thus represented 4.6% of total US industrial production, against 1.3% in 1998.

And divergence between American and European gas prices...

The rise in shale gas production has all the characteristics of a positive supply-side shock. However, due to transport constraints, the benefits for the partners of the United States remain limited.

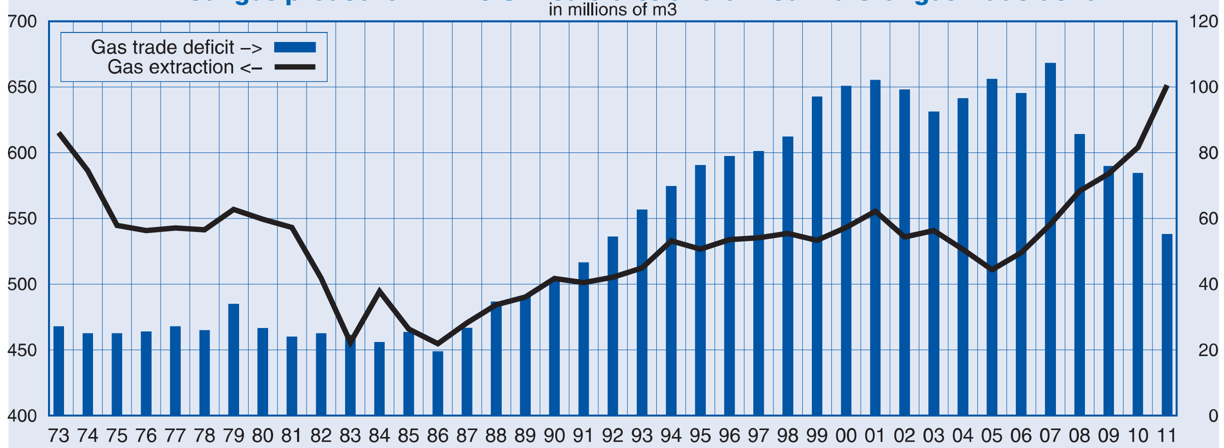
Unlike oil, gas is relatively complex to transport outside the gas pipe network (2). At present, the production areas that supply Europe are mainly the former USSR countries and Middle East, which also supply the Asian countries.

On this market serving Europe and Asia, demand is growing strongly (see *Graph 2*) due to growth in emerging economies, which is generating tensions on prices.

(1) We are looking here only at the medium-term economic effects of exploitation of these resources without making any assessment as to the costs, and in particular ecological costs, generated over the long term.

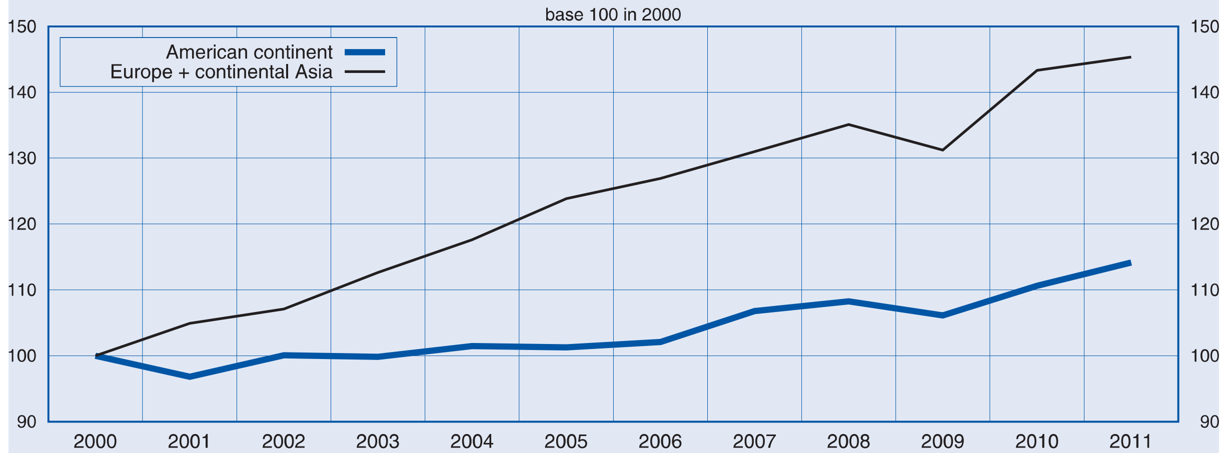
(2) It must be transported in liquid form, at -162°C in methane tankers, from the place of production to places of consumption: this is what is referred to as LNG or Liquid Natural Gas. But this transformation is costly and can therefore cause a lasting divergence between prices on the American and European continents. In 2010, 69.5% of world trade transited via gas pipelines, with the rest being transported in the form of LNG (*Source: BP Statistical Review of World Energy, June 2011)*

1- Annual gas production in the United States and annual natural gas trade deficit



Source: US Energy information Administration

2 – Natural gas consumption



Source: BP Statistical Review of World Energy, June 2011

On the contrary, fast-growing American supply is serving relatively sluggish demand, causing a fall in prices on the American market.

In these conditions, divergence can be seen between gas prices on either side of the Atlantic since 2008 *(see Graph 3)*. In Europe, traditionally, international gas and oil prices remain closely linked, because gas production is tied in with that of oil from many conventional deposits. Conversely, in the United States, gas and oil prices have been clearly decorrelated since 2008. This divergence was accentuated further in 2010 and 2011: gas prices in the United States have not followed the sharp rise in oil and gas prices in Europe.

...resulting mainly in purchasing power gains for American households

This positive shock on gas prices is working through into the American economy, both via the price of intermediate consumption for industry and via consumer prices for American households. For example, gas prices paid by American households (see *Graph 4*) have been diverging clearly since 2008 from those paid by European households.

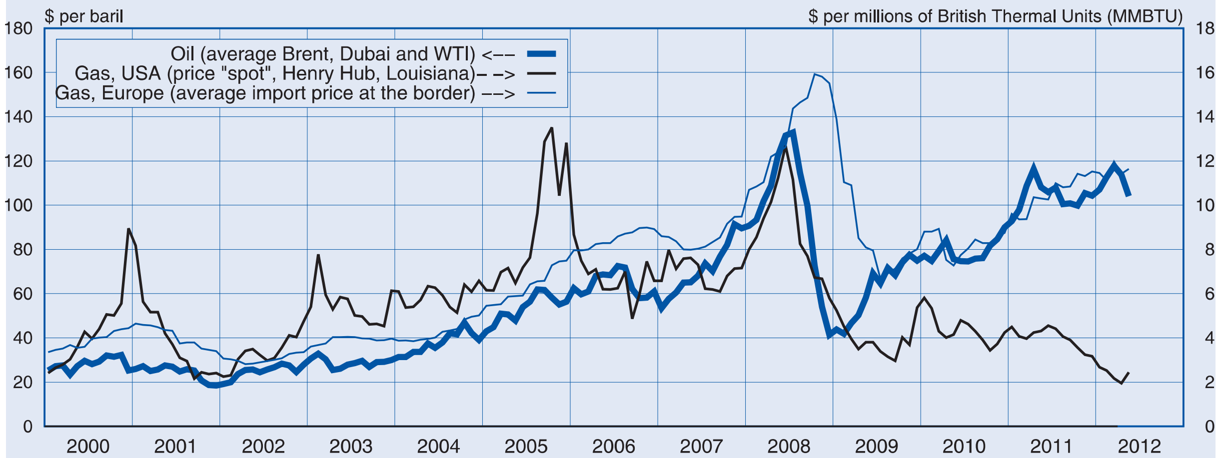
To quantify this effect on American household purchasing power, we can model the gas component in the US consumer price index according to oil and gas prices (see *Annexe*). By simulating an alternative scenario in which gas prices in the United States follow gas prices in Europe, it can be estimated that exploitation of shale gas has allowed a saving of about 35% in 6 years on the gas prices billed to US households. In 2011, this represented a 0.1 point gain in purchasing power [3].

Positive macro-economic effects should last in coming years

The available projections suggest today that gas production in the United States should continue to grow over the next few years. In the short term, the United States should therefore continue to benefit from falling gas prices. This fall in gas prices works through gradually to the economy as a whole. For commercial, industrial or residential uses, natural gas prices for businesses are following the same trend as

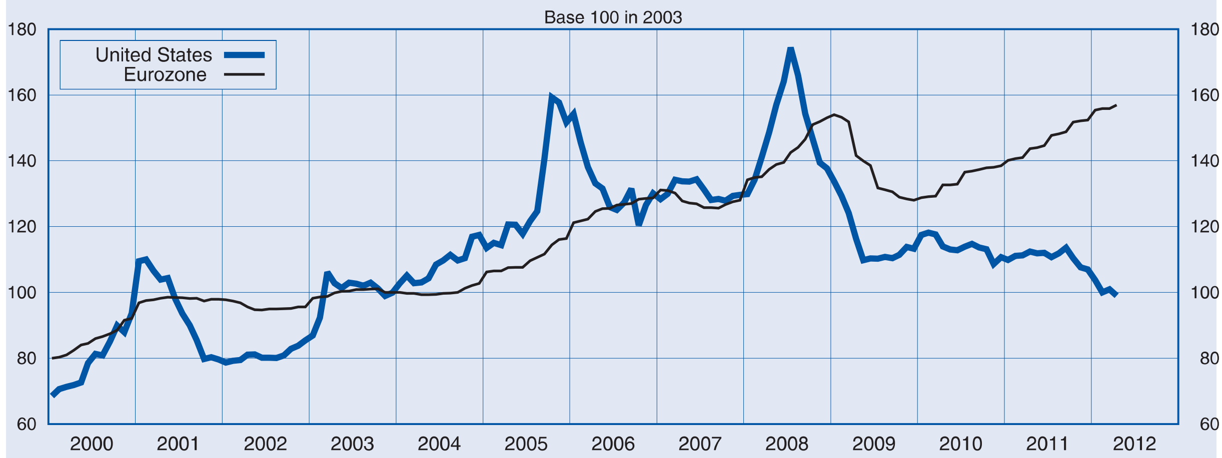
(3) In the United States like in the Eurozone, gas represented about 1% of the consumer price index in 2008.

3 – Oil and gas prices in the United States and Europe



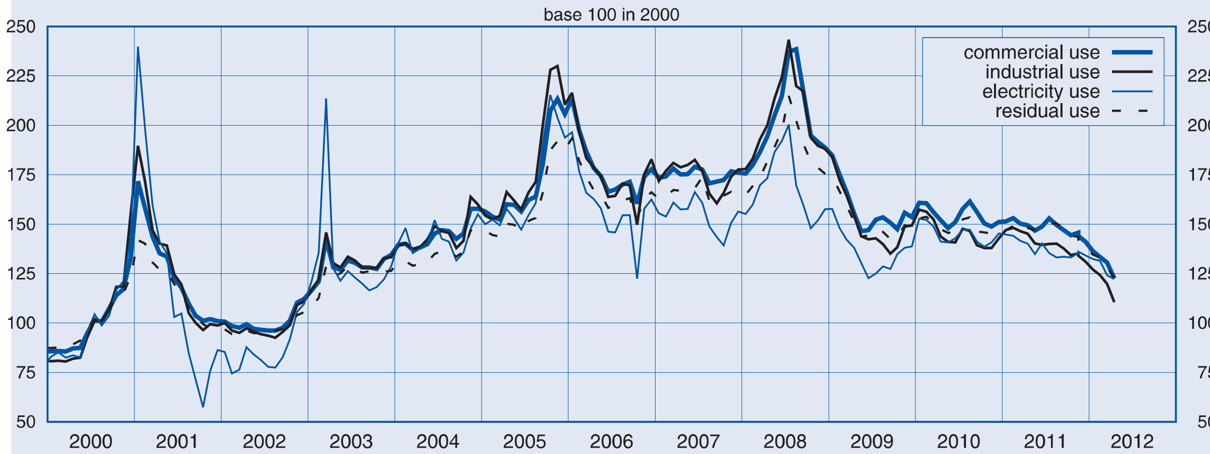
Source: World Bank

4 – "Utility gas service" component of the consumer price index in the United States and the Eurozone



Sources: US Bureau of Labor Statistics, Eurostat consumer prices (*see Graph 5*). The prices of other energies could also be affected. For example, whereas 45% of the electricity produced in the United States in 2010 was generated from coal and 24% from natural gas, natural gas represents 49% of the additional capacity programmed for 2011-2015 (*Source: US Energy information Administration*). With the fall in gas prices, the production cost per kWh generated from natural gas is moving closer to that from coal and the positive supply-side effect should therefore find a new channel via which to work through into electricity prices. ■

5- Producer price index – Natural gas supply



Sources: US Bureau of Labor Statistics, INSEE calculations

Annexe - Modelling the price of gas billed to households in the United States

The price of gas billed to households is modelled in the form of an error-correction equation. Over the long term, the gas price is index linked to the WTI oil price and gas price (*see Table 1*). In the short term, autoregressive terms describe the adjustment process (*see Table 2*).

The models suggest that in the long term, 26% of the variations in gas prices and 25% of the variations in oil prices are passed on in the gas prices billed to US households. Many commercial contracts are still index-linked to oil prices. They also show that the consumer price adjusts very quickly to this long-term target.■

Table 1

Long-term relationship

Variable explained: Monthly variation in the gas price as a % (consumer price index)

Estimation period: October 1993 - January 2007 (160 observations)

Explanatory variables	Coefficient	t-Stat
Constant	3.77	48.17
Gas price (Henry Hub, Louisiana, in $/MMBTU)	0.26	9.69
Oil price (WTI, $/Barrel)	0.25	7.92
R^2 = 0.89		

Table 2

Short-term relationship

Variable explained: Monthly variation in the gas price as a % (consumer price index)
Estimation period: December 1993 - January 2007 (158 observations)

Explanatory variables	Coefficient	t-Stat
Constant	0.32	3.48
Adjusting force – long-term	-0.08	-3.47
Variation in gas price as a %	0.03	2.13
Variation in oil price as a %	-0.02	-0.97
Variation in gas price as a % (M-1)	0.12	8.63
Variation in oil price as a % (M-1))	0.02	0.85
AR(1)	0.17	3.02
AR(2)	-0.03	-0.58
AR(3)	0.13	2.38
R^2 = 0.59		

United Kingdom

Not in Olympic shape

In 2012 in the United Kingdom, growth is likely to decline: +0.1% after +0.7% in 2011. Besides, the quarterly profile of activity should be marked by one-off peaks and troughs, with the Queen's Diamond Jubilee in early June and the Olympic Games in summer.

The impact of fiscal consolidation on government expenditure should soften in 2012. With the moderation of inflation after the VAT rise in January 2011, household purchasing power should enjoy a little more vigour and household consumption expenditure should pick up slightly. However, corporate investment is set to suffer due to weak foreign outlets, particularly in the Eurozone.

Major quarterly jolts in activity

In Q1 2012, British activity declined once again (-0.3%). The cold snap in February and the end of the building projects linked to the Olympic Games caused a drop in construction activity. Industrial activity also suffered due to the downward trend in oil production *(see Focus)*. The United Kingdom should see renewed growth in Q2 (+0.1%), although activity will be adversely affected by one day's less production in June [1]. Activity should pick up in Q3 (+0.5%). It is likely to be sustained by the catch-up-effect of the Jubilee celebrations and by the recording in the summer of the sales of Olympic Games tickets (+0.1 GDP points). In Q4 2012, once these effects have gone, British growth should slow sharply (+0.1%).

The effects of fiscal consolidation likely to ease in 2012

In 2012-2013, the new fiscal consolidation measures should have less effect than in 2011-2012. The additional public expenditure savings should represent 0.7 GDP points against 1.0 point in 2011-2012 and government investment should be sustained by a plan to overhaul infrastructures. For households, the measures to cut social benefits and to raise taxes are likely to continue. However, once the price rises linked to the VAT increase of 2011 *(see Graph 1)* have passed, fiscal consolidation should weigh less heavily on purchasing power gains.

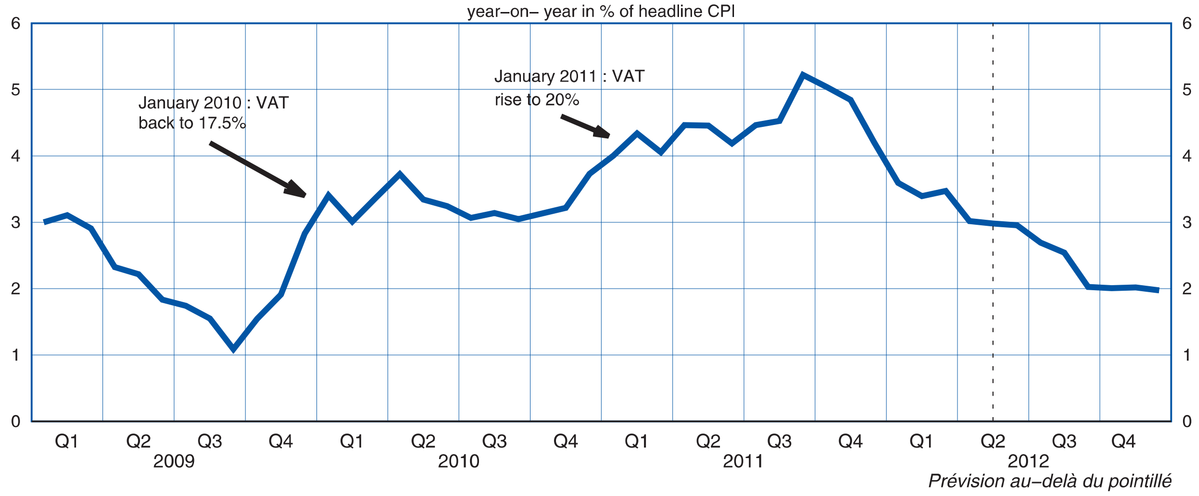
Domestic demand set to pick up slightly

British domestic demand should pick up somewhat in 2012. With the easing of the fiscal consolidation effort, government consumption should start rising again. Households should see their purchasing power buoyed up by the sharp drop in inflation, and are likely to increase their expenditure moderately. After a rebound in Q1, corporate investment should grow sluggishly, since trade outlet prospects remain gloomy, particularly for foreign outlets. Exports should slow sharply in 2012, penalised by weak demand from the Eurozone. ■

(1) To celebrate 60 years of the reign of Queen Elisabeth II, Tuesday 5 June was declared a national holiday. This extra bank holiday is not taken into account in the working day adjustment.

Inflation falling sharply

year–on– year in % of headline CPI



Sources: ONS and INSEE calculations

In the UK, black gold no longer flowing so freely

North Sea oil production peaked over 10 years ago

North Sea oil and gas deposits are shared between the United Kingdom, the Netherlands and Norway. The first gas deposit was discovered in 1965 and the first oil field (the Arbroath field) in 1969 [1] . Production soared in the 1980s and the United Kingdom became a major contributor to world crude oil supplies, with its production exceeding one million barrels per day (bpd) in 1978 (see *Graph 1*). In 1985, with 2.7 million bpd, the UK was even the world's fifth-biggest producer, behind the USSR, USA, Mexico and Saudi Arabia.

North Sea reserves are gradually running out, however, despite exploration efforts and the discovery of new fields, notably Buzzard in June 2001. The peak in UK oil production was reached in 1999 (see *Graph 1*) and output has fallen by about two-thirds since then. Gas output peaked in 2000 and has been divided by two since then, and the country has no longer been self-sufficient in oil and gas since 2005.

Combined with rising oil prices since 2010, drying up oil revenues are weighing on the British current account balance

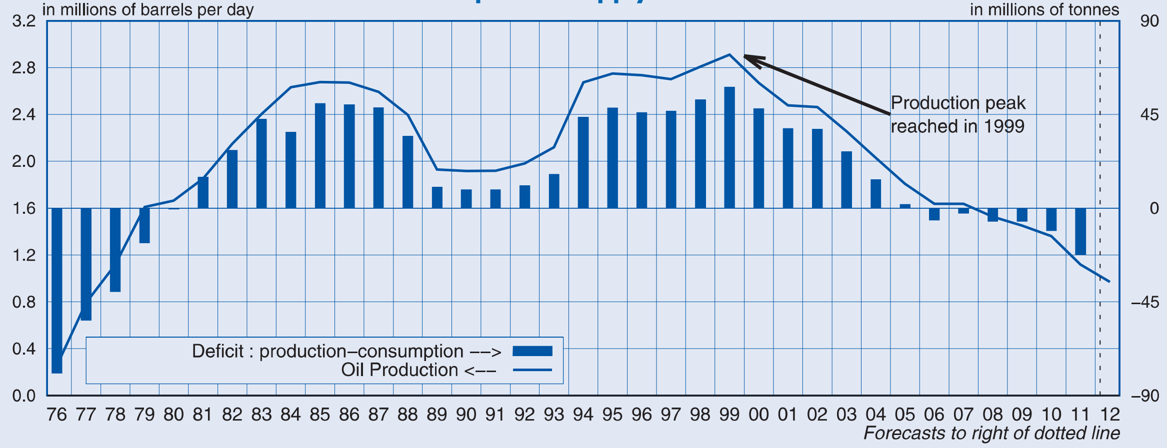
The slide in oil and gas production is weighing down on the country's current account balance.

In the good years of the 80s and 90s, oil and gas exports generated considerable income for the United Kingdom. The country was a net exporter until 2004 (see *Graph 2*), had an oil surplus of around 1.2% of GDP on average in the 1980s and still a surplus of 0.4% of GDP on average in the 1990s.

Since 2005, however, with waning domestic production, the UK has been a net importer of oil and gas. The sharp rise in oil prices in 2010 and then in 2011 (+29% and +40%

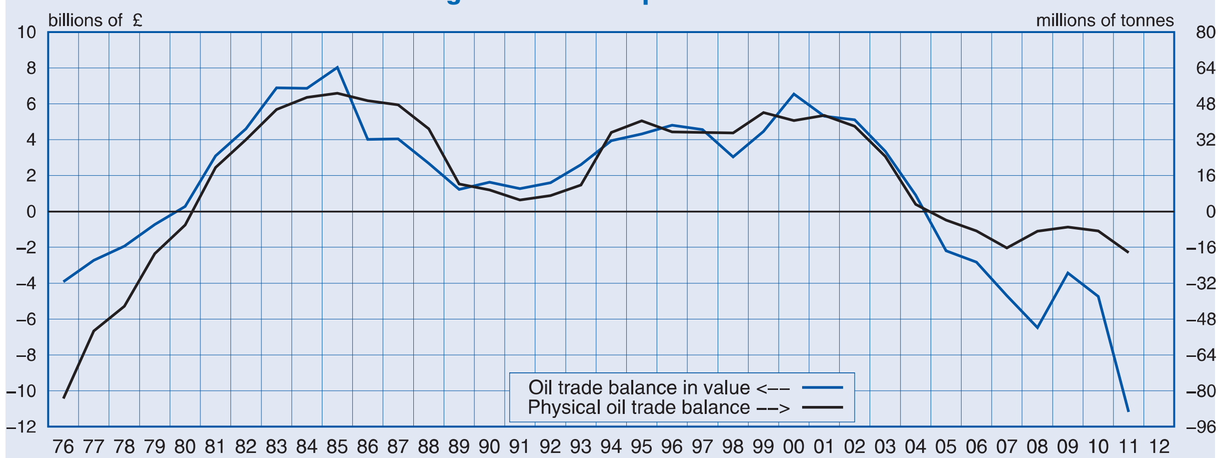
(1) See Office for National Statistics (ONS), "*Oil and gas sector, 1992-2004*" in United Kingdom Input-Output Analyses, 2006 Edition.

1 – Surplus oil supply until 2005



Sources: British Petroleum and AIE

2 – United Kingdom: net oil exporter from 1981 to 2004



Source: Office for National Statistics (ONS) respectively) seriously inflated the energy bill: the oil trade deficit more than doubled in 2011 (see *Graph 2*), reaching 0.7% of GDP.

Rising energy consumer prices

The end of oil and gas self-sufficiency resulted in an increase in the proportion of imported fossil energies in total energy consumption and therefore in a rise in energy prices in the United Kingdom, notably gas and electricity prices. British prices thus caught up with those in other European countries in the second half of the 2000s (see *Graph 3* and "Inflation Trends in the United Kingdom: So British?" in *Conjoncture in France*, June 2010).

The fall in energy production has reduced GDP growth by 0.2 points per year on average since 2000 and by 0.4 points in 2011

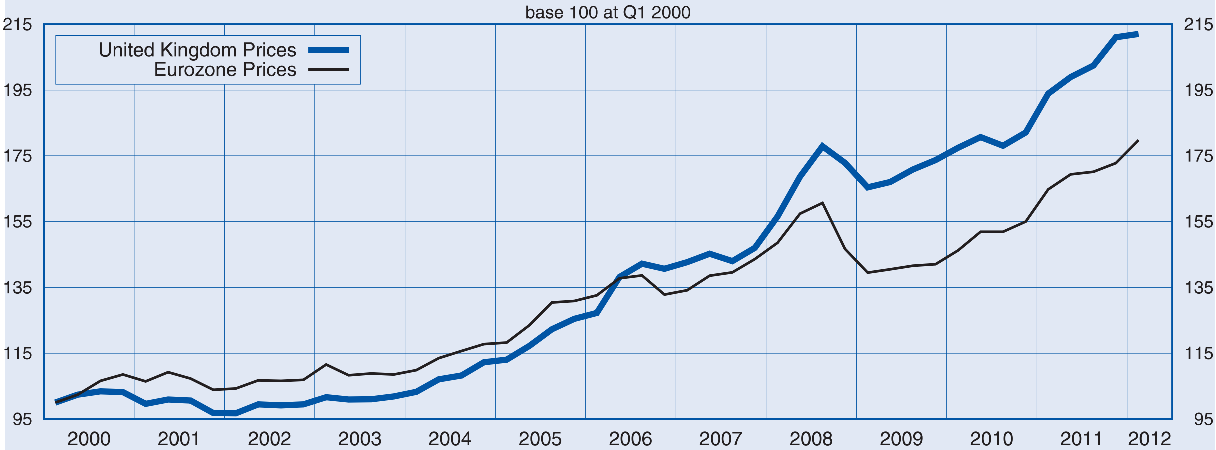
Declining oil and gas resources have had clear consequences for British industrial activity: since 2001, the contribution of the mining abd quarrying industry to growth in total industrial production has systematically been negative (see *Graph 4*), representing a loss of growth of around 1.1 points a year on average for total industrial production.

So since the beginning of the 2000s, British activity has been held back by the fall in the energy sector. Over the period 1995-2000(2), the British economy grew by about 3.6% a year, against 3.5% for a field excluding oil and gas production activities. Since 2001, the situation has been reversed: annual growth in UK GDP over the last ten years was 1.6% a year on average, but 1.8% for a field excluding extraction activities. The decline in gas and oil extraction therefore reduced growth by 0.2 points(3).

This curb on British growth was even more pronounced in 2011: the fall in gas and oil extraction industry activity reduced growth in GDP by 0.4 points. One-off shocks have added their effects to the underlying downward trend: much greater maintenance requirements than usual in Q2 2011 and unusually clement temperatures in April and in winter 2011.■

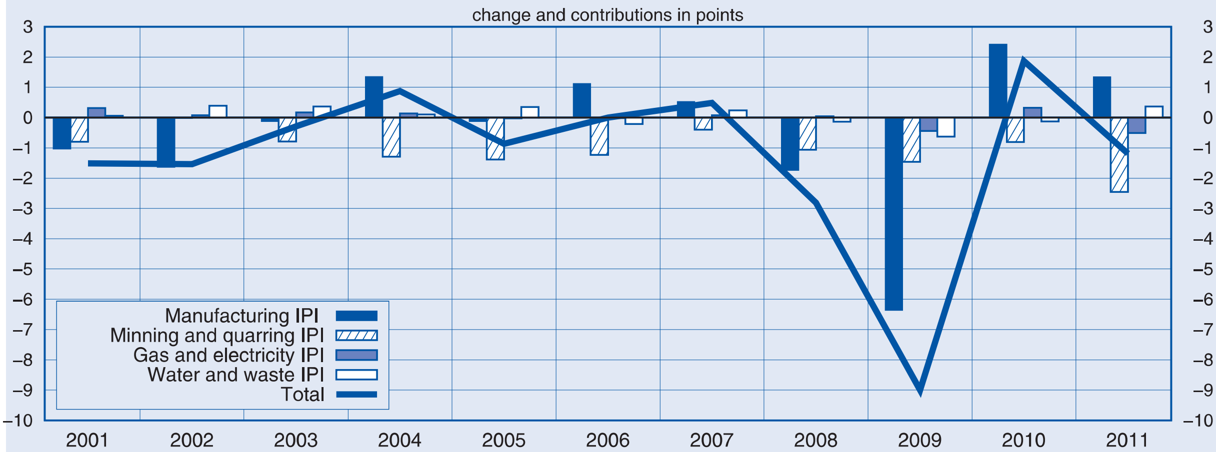
(2) The available data does not allow such calculations prior to 1995.
(3) This is only an accounting calculation without taking account of loop effects between sectors, for example via energy prices or via the labour market.

3 – Energy consumer price index in the United Kingdom and in the Eurozone



Sources: ONS, Eurostat and INSEE calculations

4 – British industrial production index



How to read: contributions are calculated for the whole of the period on the basis of the only weights provided by the ONS, those for 2008.
Sources: (ONS) and INSEE calculations

Japan

The rebuilding effort sustains activity

In Q1 2012, activity in Japan accelerated (+1.2% after 0.0% in Q4 2011), driven by dynamic private domestic demand. Subsidies for vehicle purchases boosted household consumption and the release of funds for the rebuilding process sustained public investment. With the dissipation of the effects of the Thailand floods, Japanese exports also rebounded sharply.

Over the forecasting horizon, the rebuilding effort should continue to sustain activity. Household consumption should also be robust. Exports are likely to be dynamic, buoyed by demand from the USA and emerging Asia. All in all, Japanese GDP growth should stand at +2.6% in 2012 after -0.7% en 2011.

Rebuilding plans boosting demand

Since the disaster of 11 March 2011, four stimulus plans have been voted in by Parliament, for a total of 20.5 trillion yen (3.8 GDP points). As a result, government investment rebounded strongly in Q1 2012 (+3.8% after -0.8%) and should continue to grow over the horizon of the forecast.

Additionally, automobile sales picked up sharply in Q1 2012, driven by the subsidies for purchases of clean vehicles. Given the car registration data for April and May (*see Graph*), household consumption should slow while remaining at a high level in Q2 2012. It should accelerate in H2 before the stimulus measures expire on 31 January 2013.

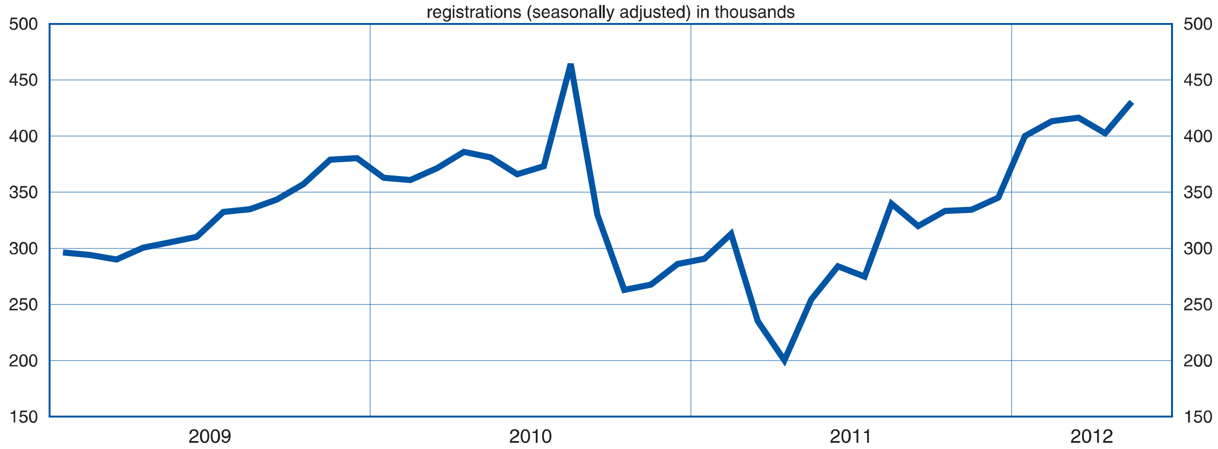
Exports set to remain buoyant

To the end of 2012, Japanese exports should remain buoyant, driven by demand from the USA and emerging Asia, as well as the recent intervention by the national bank to combat the appreciation of the yen. Sustained by vigorous domestic demand and by needs for commodities in order to cope with the closure of the nuclear power stations, imports should continue to grow sharply. The Japanese trade balance, which was in deficit in Q2 2011, should remain so for the rest of the year.

Output still restricted by electricity capacities

In order to service rising demand, industrial output picked up in Q1 (+1.2% after +0.4%). The automobile industry was particularly dynamic and has already exceeded its pre-earthquake production level. However, the business tendency surveys and the industrial output forecasts by the Japanese Ministry for the Economy suggest a sharp slowdown in activity in Q2 2012. In particular, output is likely to be restricted by electricity capacity constraints, as the country's 54 nuclear reactors are currently shut down. All in all, activity in Japan should slow in Q2 (+0.3%) and then pick up somewhat in H2 2012 (+0.4% then +0.5%).■

The subsidy for purchases of clean vehicles boosts automobiles sales in Japan



Source: Japan Automobile Manufacturers Association

China and emerging Asia

Better prospects for H2

In Q1 2012, activity continued to slow in China: year-on-year growth in GDP and industrial output was the lowest for 10 quarters. This decline in growth is linked to a slowdown in domestic demand and weak foreign demand, most notably from Europe.

In Q2, the industrial output data confirm that China has settled into a lower growth rate than that of the 2000s. However, the drop in inflation should give the Chinese authorities room for manoeuvre to implement monetary and fiscal stimulus plans.

The emerging Asian economies, whose domestic demand held up better than China's in Q1 2012, should also see a slowdown in Q2, before picking up again in H2.

The Chinese economy slowed at the start of 2012...

Expressed year-on-year, Chinese GDP continued to slow in Q1 2012 (+8.1% after +8.9% in Q4 2011) and quarterly GDP growth should now be under 2.0%. On the one hand, private domestic demand has slowed sharply. On the other hand, while the rebound in trade in Asia in Q1 2012 sustained Chinese exports, they were still penalised by weak demand from the European Union, China's leading client *(see Graph)*. The Chinese economy has thus settled into a slower rate of growth than its potential. In April, year-on-year growth in output fell to 9.3%. Apart from during the period from October 2008 to May 2009 - the epicentre of the crisis - such a low growth rate had not been observed since 2001.

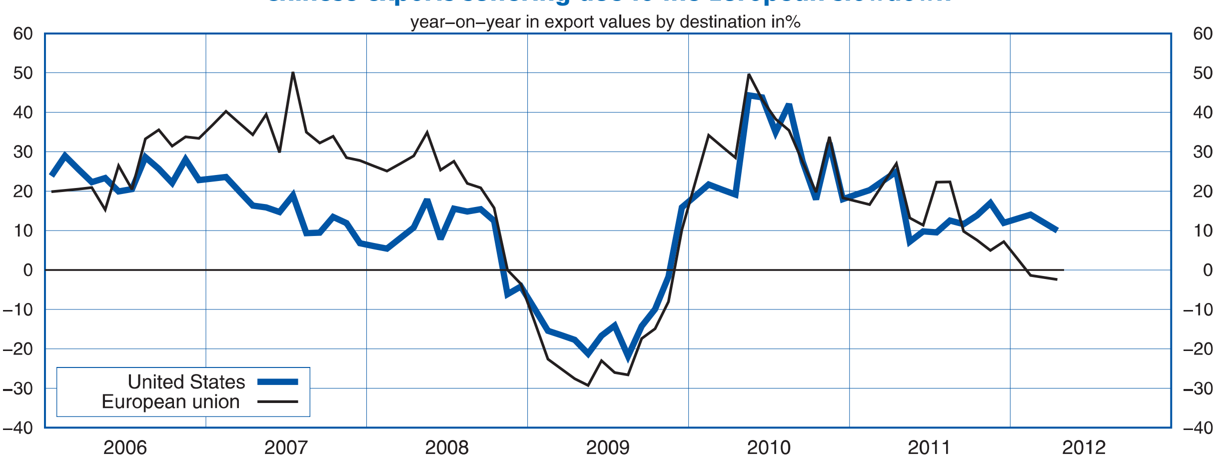
... but should pick up in H2

The low level of inflation, back down to 3.0% in May 2012, does however allow the Chinese authorities to ease their monetary policy. In mid-May the Central Bank brought down the cash reserve ratio imposed on credit institutions. Additionally, the Chinese government announced fiscal stimulus measures, including a grant for the purchase of small vehicles. The Chinese economy should therefore regain a little momentum in H2.

Domestic demand holding up in emerging Asia but the Chinese slowdown likely to make itself felt in Q2

Unlike in China, domestic demand among the "Asian tigers" was solid in Q1 2012. Additionally, trade rebounded with the dissipation of the consequences of the Thailand floods. In South Korea, Taiwan and Singapore, activity picked up sharply in Q1 2012. The business tendency surveys suggest however that activity may well decline in Q2, mainly due to the drop in Chinese growth. In H2, these economies should benefit from the Chinese and Japanese stimuli, but their growth rate should remain well below its pre-crisis level. ■

Chinese exports suffering due to the European slowdown



Sources: National Bureau of Statistics of China and INSEE calculations