## **CONJONCTURE IN FRANCE**

## **JUNE 2004**



## **GROWTH CONFIRMED**

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### **GROWTH CONFIRMED**

The upturn in European growth since mid-2003 has been confirmed by the figures for Q1 2004: + 0.6% in the euro zone and + 0.8% in France. Household consumption and exports are the two driving-forces behind this growth, but in proportions that vary from country to country. In Germany, exports explain the totality of growth, whereas in France it was domestic demand that played the major role, with the rise in consumption compounded by a revival of investment.

In the euro zone, the business climate has been improving slowly. The uncertainties created first by the fall in the dollar and then by the surge in the prices of raw materials and oil are curbing the underlying optimism generated by the strong world growth. Consumption is growing moderately. Household confidence remains affected by the level of unemployment, with the upturn having so far had no notable impact on employment. In these circumstances, a growth figure of close to 0.5% is expected in France in Q2 and in the euro zone as a whole.

The end of Q2 finds the euro zone's international environment still very buoyant. In the United States, the acceleration in job creation is lending credence to the view that an increase in dependent incomes is going to take up the running from tax cuts as the underpinning for consumption. This would lead to American growth remaining strong until the end of the year, even though a slight deceleration is likely as the result of the tightening of monetary conditions. With the single currency tending to stabilise, the euro zone should settle down to a growth rate of slightly below 2% at annualised rate, benefiting from the expansion of exports and firmer domestic demand, with the improved demand outlook in turn stimulating investment. Even so, consumption is likely to be held back by the fact

that the upswing has not reached the stage at which it has a substantial impact on the total wage bill.

The French economy is expected in the second half to post slightly faster growth than the euro-zone average. Its relative advantage in terms of domestic demand recorded in the early part of the year is expected to continue but not on the same scale. Investment can be expected to go on improving, but consumption is likely to be curbed in Q3, before recovering in Q4, by the lagged impact of the less favourable income growth in H1 and the erosion of purchasing power related to the soaring oil price. Inflation is expected to remain at 2.4% in June, following 2.6% in May, before returning below 2% towards the end of the year. The rise in the OPEC production quotas should mean an easing of the oil price, which would nevertheless remain high because of the strength of world demand, notably from Asia. Starting in Q3, GDP should rise at a rate slightly above 2%, bringing average annual growth for 2004 to 2.3%. Nine months after the upturn in activity, dependent market employment, which had not fully adjusted during the downswing phases of the cycle, is expected to start to grow again as of Q2. The total absolute increase for the year should then be 40,000 jobs, despite the decline registered in Q1. The unemployment rate is likely to be pushed up in mid-year by re-registrations with the national employment bureau and then show a modest tendency to fall in Q4, reaching 9.8% in December.

In the short term, the unknown factor most liable to affect growth in the euro zone is the oil price, which has become highly sensitive to the situation in the Middle East. Variations in the price, having a rapid impact on domestic demand, are capable of delaying — or accelerating — the tentative return to balanced growth.



## Sharp rise in the oil price since the beginning of Q2

The price per barrel of Brent oil has risen by almost 25% since the beginning of 2004, reaching \$38 in May. Political instability and the build-up of terrorist attacks in the Middle East have since March been intensifying the rise in the price, already triggered off by the strength of demand for oil, notably from China, and by OPEC's restrictions on output. Fears of disruption of supply, at a time when stocks in the consuming countries are low, are maintaining a high risk premium in the Brent price (amounting to roughly \$6.5 in Q2 2004) and this is discouraging restocking and hindering any rapid absorption of the premium. This means that the oil price is likely to remain high until the end of the year and that the Brent price is likely to end Q2 with an average of \$36 for the quarter. Following the announcement of quota increases by OPEC at the beginning of June and a less pessimistic assessment of stocks, the price should then ease slightly to 35 \$ and 32 \$ respectively in Q3 and Q4 (see graph 1).

## The consequential world-wide acceleration in inflation

The bulk of the recent variations in inflation reflects movements in the oil price. For example, inflation in France recovered to 2.6% in May from 1.8% in February. The corresponding figures for the United States are 3.1% and 1.7%. This direct and virtually automatic impact via the rise in the "petroleum products" item in the consumer price index amounts to a first-round effect. On the other hand, the sec-

BARREL OF BRENT PRICE



ond-round impact in the form of diffusion to prices in general, via a rise in production costs and especially wages, has been limited. With energy prices now expected to ease, French inflation should then fall back to 1.7% by the end of 2004. Core inflation<sup>(\*)</sup>, which by definition excludes energy prices, is expected to remain stable in H2 (1.8% in December), testifying to the absence of diffusion effects from the oil price to the French economy as a whole (see graph 2).

(\*) Excluding public-sector prices and volatile items, adjusted for tax changes.

#### FRANCE: GROSS DOMESTIC PRODUCT (volume) BY TYPE OF EXPENDITURE

					(at 199	5 prices	s seasoi	nally and	d workir	ng-day a	djusted	data, %	chang	e from p	revious	period)
		2002			2003				2004				0000	2002	2004*	
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2002	2003	2004
GDP	(100%)	0.8	0.6	0.1	-0.1	0.2	-0.3	0.6	0.6	0.8	0.5	0.6	0.5	1.1	0.5	2.3
Imports	(27%)	3.0	1.8	0.9	-1.0	-0.6	-0.1	0.2	2.5	0.7	1.7	1.4	1.4	3.3	0.3	5.1
Consumption	(54%)															
Public consumption	(23%)	0.4	0.6	0.5	0.3	0.7	-0.2	0.6	0.5	1.1	0.3	0.2	0.4	1.8	1.7	2.1
Investment	(20%)	1.7	1.3	0.6	0.9	0.3	0.3	0.7	1.0	0.4	0.8	0.7	0.6	4.6	2.5	2.7
of which:		-0.4	-0.3	-0.5	-0.5	0.3	0.5	0.0	0.8	1.2	0.6	0.9	0.9	-1.8	0.2	3.1
Non financial corporated and unincorporated enterprises	(12%)	-0.8	-1.3	-0.9	-1.2	-0.2	0.4	-0.2	0.8	1.7	0.8	1.1	1.1	-3.8	-1.5	3.8
Households	(5%)	-0.1	0.9	0.1	-0.1	0.2	0.4	-0.2	0.4	1.3	1.0	1.4	1.2	0.7	0.7	3.4
Exports	(29%)	2.3	2.7	-0.3	-1.0	-2.2	-1.4	0.9	1.5	0.3	1.3	1.6	1.2	1.7	-2.7	3.6
Contributions to growth																
Internal demand ex. inventory changes		0.5	0.6	0.3	0.3	0.5	0.1	0.5	0.6	0.9	0.5	0.5	0.5	1.7	1.6	2.5
Inventory changes		0.4	-0.3	0.1	-0.4	0.1	0.0	-0.1	0.2	0.0	0.1	0.1	0.1	-0.2	-0.2	0.3
Net foreign trade		-0.1	0.3	-0.3	0.0	-0.5	-0.4	0.2	-0.3	-0.1	-0.1	0.0	-0.1	-0.4	-0.8	-0.4

Forecast





## Neither phenomenon is liable to prompt a severe monetary tightening

Within the time-horizon of this forecast, the limited impact of the second-round effects of the rise in the oil price is not liable to lead to a severe tightening of monetary policy in either the United States or Europe. This is because inflationary pressures remain moderate in the United States, thanks to the maintenance of a high level of competition on the market for goods, and in the euro zone because of the persistent unemployment. The Fed has clearly since May been envisaging an imminent rise in the Fed Funds rate. This tightening is expected to be gradual, in line with market investors' expectations, being reflected in rises in long rates and mortgage refinancing rates. The Bank of England is also expected to continue to raise rates (see graph 3). The ECB is likely to follow suit only at a later date. All in all, financial conditions should remain favourable: in particular, money-market and bond rates should remain at their historically low levels.



# Nor should either of them bring world growth to a halt

The international environment should remain supportive for euro-zone exports in 2004, benefiting from the initiation of a virtuous spiral of growth in the United States and from the strength of activity in the United Kingdom. In the case of Japan, the economy would benefit in addition from regained growth in domestic demand, especially in the form of household consumption, while China should still experience rapid growth in activity in the short term.

In the United States, activity stands to benefit from the recent improvement in the jobs content of growth. GDP growth should be between 3% and 5% at annualised rate in the final three quarters of 2004. To an increasing extent, household consumption should be stimulated by the job creations, which would take up the running from the disappearing impact of the tax cuts (see graph 4). However, it is liable to slow down slightly towards the end of the year with the drying up of the fiscal stimulus. The impact of the rise in inflation and the tightening of monetary conditions will probably be limited. In these circumstances, the strong demand prospects and the accommodating financial conditions should continue to encourage corporate investment, which should also accelerate towards the end of the year in the run-up to the ending of the tax break relating to accelerated depreciation of investment. Inventory behaviour should also underpin activity. The firmness of domestic demand in the United States would then lead to an acceleration in activity in the country's main trading partners and, in return, help to raise American export growth. As a consequence of the firm growth in domestic demand and the end of the slide in the dollar, import growth would also be boosted.

In the United Kingdom, growth is likely to remain robust despite a slight slowdown in domestic demand linked to the tightening of monetary policy.





Household consumption, although slowing down in H2, should continue to rise at a firm rate, the main reasons for the expected firmness being the decline in unemployment and the strength of the housing market, which are underpinning household income and wealth, respectively. However, the rise in interest rates and the dearer cost of borrowing, by gradually reducing the impact of mortgage refinancing, can be expected to affect household consumption and investment in housing. The liveliness of United States consumption and imports should give a boost to United Kingdom exports in H2. On the conventional assumption that the appreciation of sterling versus the dollar comes to an end, foreign trade would be less of a handicap for activity than in the past. The favourable outlook for both foreign and domestic demand should provide support for growth in investment and inventories.

Meanwhile, activity should remain brisk in Asia. Japanese growth is liable to benefit from strong export demand and the acceleration in domestic demand, thus pushing the risk of deflation further away, the result being 5% GDP growth for Japan in 2004. At the same time, growth in China is likely to remain strong (it was 13%, year on year, in Q1 2004), but ease slightly with the slowdown in borrowing that the Chinese authorities would like to see.

#### In this buoyant world climate, exports from the euro zone and from France set to remain positively headed

In Q1 2004, the strong performance of the euro zone's two principal partners, the United States and the United Kingdom, have encouraged exports and these have constituted a major prop for growth. Exports to outside the zone are likely to remain positively headed for the rest of the year, with the stabilisation of the exchange rate at around USD 1.20 to the euro (having been close to 1.29 at the be-



ginning of the year) putting an end to the deterioration in European products' price-competitiveness. Moreover, business leaders in most countries in the zone consider that their export order books have been improving since mid-2003 - even though this improvement seems to have come to a halt in May and are expecting a rise in demand for their products (see graph 5). Total exports, inside and outside the zone, should remain lively for the whole of the year, growing by 1.6% in Q2 before slowing down slightly to 1.2% in Q3 and 1.1% in Q4 as a result of the reduction in the strength of world trade expected towards the end of the year, linked to the slowdown in American consumption.

The early part of 2004 saw a temporary break in the recovery in French exports of goods and services that seemed to have begun in H2 2003, with a rise of only 0.3%, compared with 1.5% in Q4 2003. And yet the economic situation in the euro zone had improved from Q4 on and this tendency was confirmed in Q1 2004. On the other hand, demand from the United States and the United Kingdom weakened, with exports to these countries still handicapped by the loss of price-competitiveness for French products related to the earlier appreciation in the European currency. Another major factor was that the figures for deliveries of ships were automatically sharply reduced following the delivery of the cruise liner Queen Mary 2 in December (see graph 6). Another factor adversely affecting French exports of manufactures was the country's high degree of sectoral specialisation in aircraft, at a time when the world air transport market was in decline in response to the 9/11 terrorist attacks, the uncertainty generated by the Iraqi situation and the SARS epidemic in the spring of 2003. Starting in the summer, in a currency situation that has again become more neutral, exports should enjoy the full benefit of the strength of American and British demand. Moreover, the gradual upturn in growth in the euro zone would provide fresh stimulus for orders for French goods.





#### Domestic demand, especially in the corporate sector, set to strengthen, still underpinned by favourable financial conditions

The first quarter of 2004 had already seen strong growth in capital spending in several euro-zone countries where domestic demand was moving positively, notably France and Spain. During the rest of 2004, the partial re-balancing of the growth factors in the euro zone as between domestic and foreign demand is likely to continue.

The favourable financial conditions throughout the zone in 2004, despite the recent rise in long rates, should contribute to the continuation and diffusion of a fresh upswing in investment (*see graph 7*). Responding to firmer demand expectations, notably from abroad, firms can be expected to start investing again (with an average rise of 0.8% per quarter). Investment in Italy is expected to be more dynamic than in the other euro-zone countries, accelerating up to Q4. This is because firms can be expected to bring forward their investment projects in order to benefit from fiscal incentives in favour of investment in R&D (Tecno Tremonti) which run out at the end of the year.

In France, corporate capital spending was already back to high growth in Q1 2004 (1.7%, up from 0.8% in Q4 2003). This investment was mainly in the form of manufactured goods, notably to renovate the most obsolete plant (see April investment survey).

This rapid acceleration is explained by the continuing favourable financial conditions and strong export demand. The past improvement in firms' financial situations has also encouraged strong capital spending. Since Q3 2003, firms have in fact done little recruiting at a time when their activity was picking up and this enabled them to improve their



margin rate. For non-financial firms, the margin rate rose from 39.1% in Q2 2003 to 39.7% in Q1 2004. At the same time, the amounts set aside in the form of saving by non-financial firms have been rising since the beginning of the upturn. Firms took advantage of this rise in profits to cut back their borrowing, which, after slowing down from September 2003 on, has in fact been in decline in since February 2004. The partial down-payments of corporation tax in Q1, set by firms themselves in the light of their expected profits in 2004, are relatively high and would seem to indicate that the improvement in firms' financial situations is set to continue.

Investment is likely to remain vigorous throughout the year (see graph 8), helped by an acceleration in exports, continuing favourable financial conditions and domestic demand that should be relatively lively even if slightly less strong than in Q1. However, there are likely to be differences depending on the type of product concerned. A sharp rise in investment in intangibles can be expected, notably for IT services. Meanwhile, with expectations by firms in the public works sector optimistic, spending on construction seems likely to accelerate in Q2. Finally, investment in manufactured goods is likely to be less robust than in Q1, although remaining firm. Surveys of wholesalers are in fact optimistic, especially regarding orders for computer equipment. All in all, capital spending by firms is expected to rise at a quarterly rate of close to 1% starting in Q2 2004, in line with the positive expectations announced by the industrial leaders questioned in the April 2004 investment survey. The absence of pressure on productive capacity means, however, that investment will not be as strong as might be expected at this stage of the economic cycle.

The growth in overall demand and the favourable financial conditions should also provide an incentive to firms to re-stock. In Q1 2004, the scale of domestic demand for manufactures caught business leaders off guard, and they were obliged to draw down inventories. With the expectations now being for higher demand, they see inventories as being on the





light side and can be expected to reconstitute them. The easing of financial constraints and the low level of interest rates, which are keeping the opportunity cost of stocking at a low level, would further encourage this tendency. As a result, stock changes are expected to make a positive contribution to growth amounting to 0.1 of a point, starting in Q2 2004 (see graph 9).

#### Growth in household consumption constrained by past weakness of income growth and continuing unfavourable expectations

Household consumption in the euro-zone countries is likely to be slow in picking up, despite the favourable financial conditions (see graph 10). Consumption seems to have been fairly firm in Q2 (up 0.4%), with one-off support from the cuts in German tax rates. Household consumption then seems likely to slow down in H2, with more moderate increases of 0.3% per quarter. This moderate growth is explained by the continuing high level of unemployment and by the limited purchasing power gains. The slow pace of growth in euro-zone employment, following several consecutive quarters of stagnation, can be expected to hold back growth in real income, which is expected to be small in 2004. In addition, European households' purchasing power is set to be eroded by the rise in prices of petroleum products. Another factor will be the continuing high saving ratio in the euro zone, with household confidence still low and, indeed, showing a further fall in the May survey. Spain should remain more favourably placed, with growth in household consumption still firm, notably in view of the continuing historically low level of unemployment.

The first quarter of 2004 saw France placed somewhat apart from the other major euro-zone countries as regards household consumption, with a sharp increase of 1.1%, on the back of the concentration of



tax cuts that occurred at the end of 2003 and against a background of low interest rates. The strength of consumption has been reflected in a marked decline in the saving ratio. Thanks to cheap consumer credit, households have been borrowing to finance major purchases in new-technology products, whose imports have accelerated markedly. Certain exceptional factors also explain the scale of the rise. For instance, spending on energy rose sharply in Q1 because of below-normal temperatures, spending on clothing was stimulated by bargain sales that were more advantageous than usual; on the other hand, healthcare spending slowed down distinctly following the sharp acceleration due to the influenza epidemic in Q4 2003.

In France, as in the euro zone as a whole, the weakness of purchasing power gains around the end of 2003 and the beginning of 2004 and the high level of unemployment are nevertheless likely to exert a lagged adverse effect on consumption throughout the rest of 2004, despite the improvement in purchasing power in H2 and the support provided by government measures relating to consumer credit and gifts inter vivos. As a result, consumer spending is expected to rise by 0.3% per quarter on average during the rest of the year (*see graph 11*).

In Q2, purchasing power is likely to be particularly eroded by the rise in energy prices. At the same time, with unemployment still high, the low level of household confidence is also likely again to affect consumption unfavourably. Balances of opinion regarding past standard of living and on the timeliness of making major purchases were in this respect again showing a decline in May.

Purchasing power seems set to accelerate distinctly in H2, in the first place because of the slowdown in consumer prices. Inflation should in fact fall back to 2.5% in June and to below 2.0% in December, the reasons being that energy prices can be expected to decline with that of crude oil, that tobacco prices will not be increased in July, as they were last year, and that food prices should not suffer as they did last year





from the production shortfall due to the drought and the heat wave. In addition, the large-scale retailers may cut many of their prices in the framework of the agreements reached on 17 June.

Another reason for an acceleration in purchasing power would be the improvement in dependent incomes. In the private sector, employment should return to a positive growth rate (+0.1% per quarter, equivalent to 40,000 job creations in H2) and wages would benefit from the adjustments to the guaranteed minimum wage and the guaranteed monthly remuneration as of 1 July, under the "Fillon" Law on the harmonisation of minimum wage rates.

#### Manufacturing output set to accelerate, underpinned by export and corporate demand

Manufacturing output grew only slightly in Q1 2004 (by 0.2%, compared with 1.0% in Q4 2003). Firms underestimated the strength of domestic demand and suffered from the marked slowdown in exports. In Q2, on the other hand, exports accelerated, investment seems to have again been high and firms seem to have begun restocking. In these circumstances, output seems to have become firmer and returned to a growth rate close to 1%, in line with the improvement in industrial leaders' views on production prospects. Production of transport services, stimulated by the upturn in manufacturing output, is also thought to have accelerated in Q2.

## Construction still benefiting from favourable financial conditions

Construction seems likely to benefit from the strength of investment by households and firms, whereas public investment will probably slow down distinctly. Construction should continue to grow at a

satisfactory rate throughout the year (0.5% or 0.6% per quarter). The continued implementation of the "Robien" arrangements has amplified the impact of favourable borrowing conditions on households' investment in buildings. These factors are liable to continue to underpin household investment throughout the rest of the year, with a strong rise of 3.4% in 2004 (compared with 0.7% in 2003 and 2002). Housing permits granted to private individuals in Q1 testify to the strength of this progress.

#### Meanwhile, production of market services and energy are likely to slow down automatically in line with household consumption

Production of services, mainly of a market nature, was very lively in Q1 2004, in response to consumption of household and business services. In particular, household consumption was very brisk in hotels and catering. Subsequently, household consumption of market services returned to a more modest growth rate (0.3% on average, compared with 0.6% in Q1). This very distinct slowdown seems to have been attenuated by continued high spending on business services. All in all, production of market services seems to have slowed down slightly.

Furthermore, certain branches are likely to feel the backlash of the exceptional evolutions seen in Q1. For instance, production of energy is set to decline substantially in Q2, notably as a result of a return to normal in the case of consumption by households. Conversely, production of non-market services, notably healthcare, will probably return to a more normal growth rate.

# The improvement in activity likely to lead to a moderate increase in market-sector employment

Against a background of recovery in economic activity, employment seems to have recovered slightly in Q2. Firms in the euro zone, after being somewhat slow to react to this recovery, seem to have started hiring again. As a result, employment in the euro zone seems set to rise slightly and the unemployment rate to stabilise.

In France, the improvement in the economic environment begun in Q3 2003 should be reflected in a revival in job creations starting in Q2 2004. Accelerating job creations in the construction sector and consolidated growth in the tertiary sector probably made up for the continued decline in employment in industry (*see graph 12*). This tendency in industry was likely in fact to ease as of Q2 2004, thanks to the continued growth in manufacturing value added. Having declined by 36,000 in 2003, dependent employment in the market sector can be expected to re-





sume growth, with 40,000 job creations in 2004 (meaning a rise of 0.3% in the total workforce). In the other direction, the non-market tertiary sector is expected to lose 47,000 jobs in 2004, intensifying the tendency begun in 2003, with the rise in non-assisted tertiary unemployment unable to make up for the sharp diminution in the number of state-assisted jobs. As a result, total employment will probably decline by roughly 15,000 in 2004 as a whole, despite the recovery starting in H2.

Unemployment is unlikely to vary particularly in response to the slowdown in the growth of the labour force, notably because of the retirement of people having spent a long working life. The unemployment rate, which has stabilised at 9.8% since February, would nevertheless rise to 9.9% at the end of Q2 2004, this rise being largely attributable to the re-inscription with the employment bureau of job-seekers who had originally been deleted from the list and have now been "recalculated". The unemployment rate should then stabilise in Q2 and Q3 before starting to fall, reaching 9.8% in December 2004.

#### The oil price still an element of uncertainty

In the event of, for example, a further major attack on oil installations in Saudi Arabia, it is not totally excluded that the Brent price remains at a high level. In that case, consumer prices would accelerate visibly. Apart from the impact of what would then be a probable tightening of monetary policy, consumption would be handicapped by purchasing power losses, while firms, having to cope with higher costs, would postpone their investment projects. These negative effects would be partly offset by the impact of the rise in exports to the oil-producing countries. The impact on growth in 2004 would be small (*see box*).

Conversely, the recovery in industry could find itself receiving greater support from exports. The stabilisation of the exchange rate has put an end to the deterioration in the price-competitiveness of euro-zone products. Exports could well benefit from a stronger-than-expected upturn in the air transport market, which would in turn favour aircraft construction more than expected.

#### BOX: IMPACT OF A CONTINUED RISE IN THE OIL PRICE

In the forecast, the scenario regarding the oil price reflects a modest decline in tensions on the markets, both because of a better match between supply and demand and especially because of a decline in the risk premium, with the result that the oil price is assumed to decline from \$36/barrel in Q2 to \$35 in Q3 and \$32 in Q4.

This box contains an illustration of what would happen to the economy should tensions increase, on the contrary. Two scenarios are examined, one taking the oil price to \$40/barrel, in other words slightly more than 10% higher than in our forecast, the other to \$50, an increase of just under 40%.

#### Theoretically, a persistent rise in the oil price can be analysed mainly as a transfer of income from the oil-importing countries to the oil-exporters

The (net) importing countries find that their domestic demand slows down because of a negative income effect. To be more precise, the effects on the domestic demand of the net oil-importing countries, such as France, pass initially through an increase in consumer prices for households and in prices of inputs for firms. For households, the induced erosion of purchasing power slows down their consumption in volume, while for firms it reduces earnings in the short term. Firms in fact do not adjust their selling prices sufficiently fast or perhaps deliberately do not do so in order to remain competitive. The decline in earnings helps to slow down corporate investment.

The negative impact is compounded by the concomitant slowdown in external demand from other oil-importing countries, whose domestic demand is also affected. Conversely, the oil-producers become richer and increase their demand for goods from the oil-importing countries and this serves to cushion the negative effect to some extent.

Monetary policy can also help to weigh down evolutions in activity because of its aim of maintaining price stability. This aim signifies in fact that the central bank tries to minimise the indirect effects on overall inflation of the rise in the oil price: these effects, known as second-round effects, are linked in particular to the higher wages negotiated by workers in order to safeguard their purchasing power. To avoid this, the central bank may therefore try to stabilise the expectations of inflation that are taken into account in wage bargaining, if necessary by applying "pre-emptive" tightening of monetary conditions. In this case, the financial conditions harden and act as a brake on spending behaviour by both households and firms.

#### In practice, the negative impact on activity in the developed countries has declined in relation to past decades and would be visible only after a year has passed

Measurement of this negative effect is difficult for several reasons.

In the first place, it is probably much smaller today than it would have been in the 1970s and 1980s. The experience of those years has led oil-importing countries to reduce their energy dependence on oil, by the substitution of other types of energy — nuclear, in the case of France —, and by an improvement in the energy intensity of production. In France, for example, the share of consumption of oil products in total consumption fell from 4.8% to 3.5% between 1980 and 2003 and the share of inputs in the form of petroleum products in total production also declined substantially (see graphs A and B).





#### BOX: IMPACT OF A CONTINUED RISE IN THE OIL PRICE

In the second place, the effects can be non-linear, in terms of both scale and timing. Empirical research on the United States (see Hamilton<sup>(1)</sup> and boxes in the March 2003 issue, pages 59 and 71) show that the effects on activity are negligible the first year, becoming stronger thereafter. The effects on consumption and investment are seen more rapidly, but are compensated by the curb placed on imports. The non-linear character can stem, in particular, from the manner of formation of expectations of inflation on the part of economic agents, who in the case of a more substantial shock are more inclined to revise them. In this case, monetary policy can intervene decisively in moderating these expectations.

# For the euro zone and France, the effect is expected to remain small in 2004, becoming potentially greater thereafter.

The euro-zone model MZE<sup>(2)</sup> described in the March 2003 issue makes it possible to evaluate the size of the negative effect on activity of the respective shocks to the oil price envisaged in the two scenarios (\$40 and \$50/barrel).

If the price were to reach 40 \$ (a rise of a little more than 10%), GDP could be reduced by almost 0.1% by the end of the year *(see table)* and inflation raised by 0.1 of a point (slightly more on an annual average basis). This estimate compares fairly well with that of the IMF, which estimates that a shock twice as great (20%) to the oil price results in a decline of GDP slightly more than twice as great (0.2%)

on an annual average basis<sup>(3)</sup>). Among the possible reasons why the IMF estimate is slightly more unfavourable, it should be noted that the MZE model is calculated over a more recent period, in which energy dependence had already diminished. In this scenario, monetary policy is not substantially modified, since agents' expectations of inflation remained virtually unchanged.

With a price of 50 \$/barrel (an increase of slightly less than 40%), both the shock and the decline in activity are greater. Even so, one should not rule out the possibility that the non-linear effects identified by Hamilton (2000) for the United States, linked in particular to the reaction of monetary policy, may come into play for the euro zone. The impact on activity would then be greater still. ■

	40\$	50\$						
Oil price	40\$	30\$						
Impact on the euro zone as of end-2004 <sup>(1)</sup> (en %)								
World demand	-0,31	-0,68						
Consumer price	+0,07	+0,13						
Consumption	-0,13	-0,26						
Investment	-0,26	-0,51						
GDP	-0,12	-0,24						

Table : Two scenarios for the rise in the oil price

(1) The impact on the annual averages is smaller because the negative effects are felt mainly towards the end of the year.

1) Hamilton J. (2000): What is an Oil Shock ?, NBER 7755, June.

2) In the March 2003 issue, the contribution of a macroeconometric model for short-term analysis was analysed. It should be recalled that in each issue, the use of the MZE-2003 model makes it possible to compare the forecasts made by use of calibration and expert judgements with those obtained as part of a model, assuming unchanged behaviour on the part of economic agents. These mainly consist of forecasts of household consumption and corporate investment. It also makes it possible to supplement the forecasts by forecasts of magnitudes not covered by these methods (unemployment, total workforce, capacity utilisation, etc).

3) IMF (2000): The Impact of Higher Oil Prices on the Global Economy.

