The international economic situation

World growth is expected to slacken gradually in H1 2007. Business surveys in manufacturing, which are less upbeat than last spring, indicate that global industrial production will be somewhat less buoyant than a year ago. But the all-industry Purchasing Manufacturers' Index (PMI) has registered only a slight dip, suggesting no more than a mild deceleration in global GDP in spring 2007.

Growth rates are set to ease in all industrialized regions, notably because of tighter economic policies. However, the slowdown is projected to be moderate since the downtrend in energy inflation in all importing countries should boost real incomes, stimulating domestic economic drivers. Moreover, several emerging countries such as China, India, and Russia are forecast to keep expanding at a robust pace. South-East Asia might even experience a reacceleration, thanks to a halt in local monetary-policy tightening and a leveling-off of commodity prices (we stabilized the oil price at \$55/barrel in the forecasting period).

Two main uncertainties continue to weigh on this scenario. Between now and mid-2007, the international environment could prove less buoyant than expected if the U.S. real-estate market downturn significantly impacts other demand components and/or if its contagion effect on other countries exceeds the forecast. Conversely, the euro zone's potential for a cyclical rebound could prove greater than expected.

Europe and Japan versus United States: different credit conditions

Monetary tightening by central banks in the industrialized countries kept short-term interest rates rising throughout 2006. In early 2007, short rates have practically stabilized, notably thanks to the pause in the U.S. Federal Reserve's rate-hike cycle. Meanwhile, long-term interest rates disregarding a moderate month-to-month volatility—were back to their December 2006 levels by early March 2007.

Most market participants believe that the European Central Bank could lift its key rates by 25 basis points by June (see "Financement de l'économie" [Financing the economy] chapter, available in French version only). The Bank of England is also likely to keep raising rates, since the economic outlook remains bright and inflation was still running high in early 2007. In Japan, the activity rebound, which was particularly strong at

Table 1

Industrialized countries: consolidated supply and use table

			Annual change, %									
	20	05		20	06		20	07	2005	2004	2007	
	Q3	Q4	Q1	Q2	Q 3	Q4	Q1	Q2	2005	2000	ovhg*	
GDP	0.8	0.4	1.0	0.7	0.5	0.8	0.5	0.5	2.4	2.9	1.9	
Private consumption	0.8	0.2	0.7	0.5	0.4	0.9	0.6	0.6	2.4	2.3	2.0	
Public consumption	0.8	-0.2	1.0	0.2	0.5	0.6	0.3	0.4	1.3	1.9	1.4	
Investment	1.6	0.4	1.6	0.6	0.2	0.0	-0.3	0.3	4.9	3.6	0.2	
Exports	1.8	2.1	3.6	1.2	1.0	2.4	1.4	1.5	6.1	8.8	5.1	
Imports	1.7	2.1	2.7	0.9	0.5	0.3	0.9	1.1	5.9	6.5	2.4	
Contributions to growth												
Domestic demand excl. inventories	0.9	0.1	1.0	0.5	0.4	0.7	0.5	0.5	2.7	2.6	1.7	
Inventories	-0.2	0.4	-0.1	0.2	0.0	-0.3	0.0	0.0	-0.2	0.1	-0.2	
Net foreign trade	0.0	-0.1	0.1	0.0	0.0	0.4	0.0	0.0	-0.2	0.2	0.4	

Forecast

*ovhg: statistical overhang, i.e. annual change if variable in question was to remain at its level in the last known quarter. The overhang measures the impact of past changes; it is not a forecast.

Sources: national data, World Bank, INSEE computations



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The international economic situation

end-2006, led to a fresh rate hike by the central bank—despite the very slow exit from deflation, as witnessed by low wage levels and weak price increases. In the United States, the economy's soft landing and the very gradual return of core inflation to the Fed's "comfort zone" could lead the Fed to leave its key rates unchanged in H1 2007. In most emerging Asian countries, the easing of inflationary pressures convinced monetary authorities to halt their rate hikes by fall 2006.

Amid the uncertain climate—particularly in the U.S.—share prices underwent a downward correction in February due to the release of disappointing U.S. data and the overall rise in financial-investment risk. Meanwhile, the dollar has been depreciating in real effective terms since fall 2006, and so has the yen. In contrast, the British pound and, to a lesser extent, the euro appreciated. By convention, we stabilized the dollars-per-euro rate at 1.30 in the forecast, although the dollar's recent slippage raises the prospect that exchange rates could move less favorably for European growth.

Inflation set to ebb by mid-year

Prices of non-energy industrial commodities have leveled off since last spring. The price of Brent crude oil has fallen sharply since September 2006. In January 2007, it actually dropped 15% from December, as the easing of geopolitical tensions and mild weather softened world demand for heating oil. However, in early February, oil prices started rising again, under pressure from the implementation of OPEC's production cutback and lower temperatures in the northern hemisphere. On average, the Brent price has been fluctuating around \$55 since last fall. We assume it will stay at that level throughout the forecasting period (see "Pétrole et matières premières" [Oil

HOUSEHOLD CONSUMPTION DEFLATOR, ALL INDUSTRIALIZED COUNTRIES year-on-year change, % 2.5 2.5 2.3 2.3 2.1 2.1 1.9 1.9 1.7 1.7 1.5 1.5 1.3 1.3 1.1 1.1 0.9 0.9 0.7 0.7 0.5 0.5 2001 2002 2003 Sources: national statistical 2004 2005 2006 2007 Forecast to right of dotted line institutes, INSEE computations

and commodities] chapter, available in French version only).

The incipient easing on the commodities market has enabled producer prices and consumer prices to stay on a downtrend, thanks to positive base effects on energy components of the indices. The phenomenon, which prevails in all regions, is expected to last into spring 2007 (*Chart 1*). Our forecast calls for core inflation to decline slightly in the United States, to stabilize at around 2.0% in the euro zone (see "Consumer prices in the euro zone" chapter), and to remain weak in Japan. In emerging Asia, the inflationary tensions due to the past surge in commodity prices seem to be under control.

Toward a moderate slowdown by mid-2007

The global manufacturing outlook is weaker than a year ago. This suggests that the growth in world industrial output could return to around 5.0% a year by mid-2007, after peaking at over 7.0% in spring 2006 (*Chart 2*). However, the production component of the Purchasing Managers' Index (PMI) has been running at over 55 in recent months. All in all, world growth is expected to ease, but moderately. Under this scenario, global GDP would thus keep expanding by over 4.0% year-on-year.

By spring 2007, world growth is projected to dip as a result of the performance of all major industrialized regions. There, growth should settle at slightly over 2.0% year-on-year, after nearing 3.0% at end-2006. This assumes that the initial effects of more restrictive economic policies will make themselves gradually felt. The first consequence would be a slowdown in investment from its early 2006 rates (Table 1). In addition,





tighter fiscal policies in the euro zone should restrain personal consumption. The impact should, however, be cushioned by the easing of inflation (see above), which—as everywhere else—will likely support real household income.

In the United States, the effects of the real-estate market downturn ought to persist in early 2007 (see "Main partner countries of the euro zone" chapter). U.S. growth may thus stay below its potential in H1 (Table 2). However, it should not weaken further. The end of the Fed's rate-hike cycle and the resilience of personal consumption, sustained by robust real incomes, should help to maintain economic growth.

In the euro zone, after a particularly brisk end-2006 performance, growth is forecast to dip in H1 due to slacker domestic demand (see "Economic situation in the euro zone" chapter). We expect consumption to be affected by tighter fiscal policies, while investment should weaken particularly because of the demand downturn. In Italy, for example, the reform of the income-tax brackets will put consumption on a more moderate growth path than last year. German households should feel the consequences of the VAT increase, although its effects on inflation seem milder than expected—possibly limiting the cutbacks in personal consumption.

The Japanese economy is set to grow more slowly than at end-2006, with domestic demand still burdened by the lack of a clearcut exit from deflation. The Bank of Japan's February rate hike may even prove premature if the early-2007 slowdown portended by recent indicators turns out to be steeper than expected.

Ultimately, the most resilient industrialized economy in early 2007 is likely to be the United Kingdom. Households should continue benefiting from a relatively favorable labor market and positive real-estate wealth effects. The impact of prior monetary tightening should thus remain weak in H1 2007.

In South-East Asia, growth is likely to stay brisk during the forecasting period. Business investment is showing tangible signs of recovery after a nearly two-year slowdown. This acceleration should continue in early 2007 with the likely loosening of monetary policy in the countries of the region. In fact, the gradual easing of inflationary pressures due to high oil prices has already led several central banks to lower their key rates. On this scenario, industrial production, after slowing in Q4 2006, should rebound in early 2007. This is suggested by the rise in South Korea's leading economic indicator and the persistently high level of the production component of the Hong Kong and Singapore PMIs. The countries of the region are thus expected to continue benefiting from a buoyant international environment—most notably, China's robust growth—in the guarters ahead.

The Chinese economy admittedly lost momentum at year-end 2006, as indicated by the year-on-year growth in industrial production, which slipped from almost 19% in June to less than 15% in December. Nevertheless, growth should remain brisk in early 2007 as it is still driven by thriving foreign trade (see "Is the dip in industrial production and investment in China a transient phenomenon?" box).

In this somewhat slacker environment, partly due to tighter economic policies, world trade is forecast to weaken. By the end of H1 2007, the growth in trade-weighted demand for French products should accordingly return to a pace slightly below its long-term average (see "Échanges extérieurs" [External trade] chapter, available in French version only). Global imbalances will probably remain significant between now and mid-2007, particularly given the expected mildness of the U.S.

Table 2 Main industrialized countries: GDP

										In	real terms					
			Ann	Annual change, %												
	20	05		2005		2005		2005 2006		2006 2007		2007		0005	2004	2007
	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	2005	2006	ovhg*					
Total	0.8	0.4	1.0	0.7	0.5	0.8	0.5	0.5	2.4	2.9	1.9					
United States	1.0	0.4	1.4	0.6	0.5	0.6	0.5	0.5	3.2	3.3	1.7					
Japan	0.7	0.4	0.7	0.3	0.1	1.3	0.4	0.4	1.9	2.2	1.9					
United Kingdom	0.4	0.7	0.7	0.7	0.7	0.8	0.7	0.6	1.9	2.7	2.3					
Euro zone, of which:	0.6	0.3	0.8	1.0	0.6	0.9	0.4	0.6	1.5	2.8	2.0					
Germany	0.5	0.3	0.8	1.2	0.8	0.9	0.2	0.5	1.1	2.9	1.9					
Italy	0.4	-0.1	0.8	0.6	0.3	1.1	0.5	0.5	0.2	1.9	2.0					

Forecast

*ovhg: statistical overhang

Sources: national statistical institutes, World Bank, INSEE computations



The international economic situation

economic slowdown. Emerging Asia should continue to run large trade surpluses, as was already the case in the recent past (*Chart 3*).

The main uncertainty: contagion effects of the U.S. slowdown on the rest of the world

As always, the oil-price outlook remains uncertain. The very mild temperatures of early winter helped to ease prices in late 2006/early 2007. But new cold waves, particularly in the U.S., and—beyond the winter—geopolitical tensions (especially over Iran's nuclear program) might provide further momentum for the upturn in prices that began in mid-February. On the other hand, a sharper-than-expected slowdown of world growth could help to send prices under the projected \$55/barrel.

But the main uncertainty in our forecasting scenario is the U.S. slowdown and its impact on other regions. American households might respond more strongly than expected to the real-estate market slide by an upward adjustment in their saving ratio. Also, the contagion effects on countries that export massively to the U.S., particularly Asian countries, could prove more significant than projected. Conversely, the euro zone may display a greater-than-predicted potential for a cyclical rebound.





Box: Is the downturn in China's industrial production and investment a transient phenomenon?

An economic slowdown dictated by monetary measures

Although its performance remains extraordinary by comparison with most OECD economies, China's economy did slow at end-2006. While year-on-year GDP growth stayed above 10% in Q4, industrial production—which appears more cyclically sensitive—showed signs of weakening. Its year-on-year growth declined from 19% in June to 15% in December. Capital spending by Chinese firms slowed as well. The growth rate of fixed capital investment slipped from nearly 30% until summer 2006 to under 25% in December.

Both phenomena may be due, among other factors, to Chinese government measures to dampen industrial production, prevent overinvestment, and thus curb the economy's potential overheating.¹ In particular, the monetary tightening implemented since end-2003 via the gradual increase in required reserves from 7% to 9% (*Chart 1*) has greatly slowed the growth in bank loans. However, the impact of this stricter monetary policy on the real economy is probably rather moderate, owing to the structure of investment financing. The share of capital-goods expenditures financed through bank loans has fallen steadily in the past six years, from 24% in 2000 to 18% in 2006. Conversely, Chinese firms are funding an ever-greater share of their investment projects from accumulated profits—from under 28% in 2000 to over 36% in 2006.

But investment and exports remain extremely buoyant

The year-on-year growth in Chinese corporate profits accelerated sharply at end-2006, despite high commodity prices.² In Q4, its average rate hit a two-year high of more than 30%. This drove up the profits/sales ratio: in December, it reached its highest level since October 2004 (*Chart 2*). The improvement in profits, which gives a powerful boost to cash flow, may bring the corporate productive investment slowdown to a halt by early 2007.

The data also indicate that exports will be stimulated by the expected industrial rebound in China's main Asian partners. In February, the Purchasing Managers' Index (PMI) export-order component jumped to 54.0, its highest level since August 2006. All in all, economic growth should remain fairly brisk in the coming months. Industrial-production growth should stabilize at a rate close to its end-2006 value, as underscored by the recent increase in the PMI's production component from its 2006 average of 52.8 to 53.9 in February 2007.

At the same time, imports are set to grow at close to their end-2006 rate, consistently with the stabilization of investment growth (*Chart 3*). As a result, *China's* trade surplus should continue to widen in early 2007. n

^{2.} Moreover, Chinese inflation remained subdued in 2006, at close to 1.5%.





^{1.} Published investment data do not make it easy to determine whether China is or is not overinvesting. The series may overstate investment volume, notably because of an understatement of land costs (see Goldman Sachs, "China's Investment Strength is Sustainable," Global Economics Paper no. 146, October 2006). On these assumptions, the sharp rise in capital-equipment expenditures, which is partly linked to the Chinese economy's current development phase, does not necessarily imply overinvestment at the macroeconomic level. However, at a more disaggregated level, capital allocation is potentially defective as State-owned enterprises, which are less profitable than private-sector firms, continue to weigh on the total investment profile.

The international economic situation





The euro zone's main partner countries

The euro zone's international environment is expected to be somewhat less buoyant in H1 2007 than in 2006. The slackness of imports by the United States, United Kingdom, and Japan should curtail demand for euro-zone products. The U.S. economy ought to be driven by lower energy prices and persistent wage-income gains. However, GDP growth (0.5% per quarter) is likely to be undercut by the real-estate downswing and slower private-sector investment. The U.K. economy should keep expanding at a pace similar to that of 2006, i.e., about 0.6-0.7% per guarter. Vigorous domestic demand and a still lively real-estate market will provide the greatest stimulus, but the economy should gradually feel the effects of earlier monetary tightening. Japan is forecast to have trouble moving out of deflation for good: growth should dip to 0.4% per guarter, subdued by weaker domestic demand.

Despite the real-estate downturn, personal-income gains should keep the U.S. economy growing

U.S. job creations slowed from 226,000 in December 2006 to 146,000 in January 2007 and 97,000 in February, with the decline concentrated in services. The construction industry still appears to be having a negative impact on hirings (-62,000 in February) despite the January rebound (+28,000), likely due to mild weather. We project continued moderate growth in employment through spring 2007, with further losses in manufacturing jobs. In the same time frame, nominal wage growth should remain reasonably strong despite slower productivity gains. Year-on-year hourly-wage growth is currently fluctuating around 4%. With inflation expectations rather stable and the unemployment rate still running low-at close to its February level of 4.5%—hourly wages should stay on their present trend in the coming quarters, with per-capita wages also growing steadily.

Household consumption should thus benefit from robust incomes but also an easing of inflation by mid-2007. Price changes will closely depend on the energy component, which, after a sharp fall at end-2006, is expected to rebound mildly in Q1 2007 before a further decline. As a result, real income growth may weaken somewhat in Q1 but should subsequently rebound. In our forecast, household consumption will therefore remain buoyant in the first half of 2007, gaining 0.9% in Q1 and 0.6% in Q2. Meanwhile, the drop in residential investment should lose momentum very gradually: the aggregate is expected to keep declining in Q1 at the same pace as in H2 2006 (4.5%), amid a continued weakening of mortgage-loan demand. However, the halt in the decline of the real-estate market confidence indicator and the recent dip in housing inventories raise the hope that residential investment will



U.S. REAL-ESTATE MARKET ACTIVITY AND OUTLOOK



Table 1

United States, United Kingdom and Japan - supply and use table

			0	uarterly	change	%			Annual change %		
	20	05		20	06	70	20	07			2007
	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	2005	2006	ovhg*
UNITED STATES (37.2%) ¹											
GDP	1.0	0.4	1.4	0.6	0.5	0.6	0.5	0.5	3.2	3.3	1.7
Consumption	1.0	0.2	1.2	0.6	0.7	1.0	0.9	0.6	3.5	3.2	2.7
Private investment ²	1.5	0.7	2.0	-0.4	-0.3	-2.2	-2.1	-0.5	7.5	2.9	-4.3
Government expenditures ³	0.8	-0.3	1.2	0.2	0.4	0.8	0.5	0.7	0.9	2.1	1.8
Exports	0.8	2.3	3.3	1.5	1.7	2.5	1.7	1.7	6.8	8.9	6.3
Imports	0.6	3.1	2.2	0.4	1.4	-0.6	0.5	0.8	6.1	5.8	1.5
Contributions:											
Domestic demand excluding inventories	1.1	0.2	1.4	0.4	0.5	0.5	0.4	0.5	3.8	3.1	1.5
Change in private inventories	0.0	0.5	0.0	0.1	0.0	-0.3	0.0	0.0	-0.3	0.2	-0.2
Net exports	0.0	-0.3	0.0	0.1	0.0	0.4	0.1	0.1	-0.3	0.0	0.4
UNITED KINGDOM (5.6%) ¹											
GDP	0.4	0.7	0.7	0.7	0.7	0.8	0.7	0.6	1.9	2.7	2.3
Consumption	0.3	0.6	0.2	1.0	0.4	1.0	0.7	0.6	1.3	2.0	2.4
Total investment	3.1	0.5	1.7	0.9	1.9	2.5	2.2	1.6	3.4	6.0	6.6
Public consumption ⁴	0.7	0.5	0.5	0.5	0.7	0.5	0.5	0.5	3.1	2.4	1.7
Exports	2.5	3.4	10.3	2.6	-11.2	-1.0	1.0	1.0	7.9	11.2	-4.4
Imports	3.9	2.9	9.7	4.1	-11.4	-0.2	1.6	1.3	7.0	11.5	-2.7
Contributions:											
Domestic demand excluding inventories ⁴	0.9	0.5	0.5	0.9	0.8	1.2	0.9	0.8	2.1	2.8	3.0
Change in private inventories	0.2	0.0	0.3	0.3	-0.5	-0.2	0.0	0.0	-0.1	0.2	-0.3
Net exports	-0.5	0.0	-0.2	-0.5	0.5	-0.2	-0.3	-0.2	0.0	-0.4	-0.3
JAPAN (14.8%) ¹											
GDP	0.7	0.4	0.7	0.3	0.1	1.3	0.4	0.4	1.9	2.2	1.9
	0.5	0.3	0.0	0.5	-1.1	1.0	0.3	0.3	1.5	0.9	0.9
lotal investment	1.8	-0.9	2.0	0.5	-0.2	3.1	0.9	0.9	2.4	3.5	4.0
Public consumption	1.2	-1.1	-0.2	0.7	0.7	0.1	0.0	0.0	1.7	0.3	0.6
Exports	3.0	3.8	2.3	0.6	2.4	0.6	1.5	1.5	6.9	9.6	4.5
Imports	3.4	-0.2	2.0	1.4	-0.5	-0.2	1.3	1.3	5.8	4.6	2.2
Contributions:											
Domestic demand excluding inventories	0.9	-0.2	0.5	0.6	-0.5	1.3	0.4	0.4	1.7	1.4	1.6
Change in private inventories	-0.2	0.0	0.2	-0.2	0.2	-0.1	0.0	0.0	-0.1	0.1	0.0
Net exports	0.0	0.6	0.1	-0.1	0.4	0.1	0.1	0.1	0.3	0.8	0.4

Forecast

* ovhg: statistical overhang, i.e. annual change if variable in question was to remain at its level in the last known quarter.

1. Country's share of OECD GDP (1995 PPP, 2003 volume)

2. Investment by enterprises and households

3. Government consumption and investment

4. Includes consumption by non-profit institutions

Sources: BEA, ONS, Economic and Social Research Institute (ESRI), INSEE forecasts

normalize by Q2, with a quarter-over-quarter loss of 1.9% (Chart 1).

The relative improvement in corporate financial positions should allow only a very gradual recovery in business investment. After the H2 2006 slowdown, margin and profit ratios have started rising again. At the same time, financing conditions have stabilized. But the slippage of the Institute for Supply Management (ISM) index in manufacturing since April and the decline in shipments and the capacity utilization rate make it likely that businesses will remain cautious in early 2007. Our forecast calls for a 0.6% dip in total business investment in Q1, followed by a modest 0.3% rise

in Q2. The investment rate should stabilize at its current level.

In a somewhat slacker international environment, U.S. export growth should stabilize at around 1.7% per quarter, helped by the dollar's past depreciation. At the same time, the moderate performance of total investment will likely restrain import growth. Foreign trade should thus have a neutral impact on GDP growth, and the trade deficit is projected to stabilize at 6% of GDP in mid-2007.

The main uncertainty concerns the persistence of the real-estate downswing and consumers'



The euro zone's main partner countries

response to this shock. While the latest available indicators do suggest resilient consumption behavior, we cannot rule out the possibility that our scenario will prove somewhat overoptimistic and that the real-estate shock will generate contagion effects, notably through wealth effects: the result might be a more-abrupt-than-expected adjustment in the saving ratio. Also, the real-estate normalization forecast for Q2 could occur later. Conversely, the pick-up in business investment may be steeper than expected, especially if the export outlook proves brighter.

Thanks to still-buoyant domestic demand, the U.K. economy should remain vigorous in H1 2007

In the United Kingdom, household consumption, boosted by the vibrant real-estate market, should continue to grow briskly in H1 2007 but register a very gradual slowdown. Its Q4 2006 peak was largely due to real-estate wealth effects (Chart 2): the Halifax and Nationwide real-estate price indices rose at a faster pace in Q4 2006 (by 2.4% and 3.3% respectively). However, in H1 2007, this uptrend should gradually weaken, essentially as a result of tighter monetary conditions. In the recent high-growth environment, the Bank of England's Monetary Policy Committee lifted rates three times to avert an inflation spiral: the three 25-basis-point rises in August 2006, November 2006, and January 2007 brought the key rate to 5.25%. Given the persistence of inflationary pressures due to higher wages and real-estate prices, a further rate hike cannot be ruled out. The housing market, although still very buoyant, seems to be losing steam. Real-estate experts' market confidence deteriorated sharply in December and January, although it has remained strong. In particular, the figures suggest that the number of new home-buyers may be starting to decline.

Household spending should also be dampened by the central bank's rate hikes. Monetary tightening would increase households' interest payments, insofar as most of their very heavy borrowings—equal to nearly 150% of gross disposable income in Q3—are at adjustable rates. In fact, retail sales registered their steepest fall in four years in January 2007, losing 1.8% after a 1.1% gain in December.

Nevertheless, in the coming months, the inflation downtrend begun in January—with a year-on-year change of 2.7% after 3.0% in December—is set to continue. Vigorous wage growth should persist amid a continuing rise in employment powered by the earlier economic boom. These various factors will fuel real-income growth. On balance, household consumption should stay on a robust uptrend in H1 2007, albeit at a slightly slower pace than at end-2006 because of the current monetary tightening. We expect the same pattern in residential investment, which, after an end-2006 revival due to the real-estate market improvement, is also likely to grow at a more moderate rate.

Business investment should remain vibrant in H1 2007. The latest monthly industrial surveys have been particularly encouraging. The February survey by the Confederation of British Industry (CBI) showed a strong improvement in production outlook and manufactured-goods orders, now at their highest levels since 1995. The Purchasing



How to read this chart:



The curve shows quarterly consumption growth, which we model by means of an econometric equation comprising real gross disposable income (GDI), real-estate prices, and a financial-wealth indicator (Financial Times Stock Exchange Index [FTSE]). The bars represent the contribution of each of these variables, as well as of the econometric-equation residual, to consumption growth. For example, in Q4 2006, consumption rose 1.0%; real GDI explains 0.2 points of the increase, financial wealth 0.2 points, and real-estate prices 0.7 points. The residual contributed a negative 0.1 points.

The euro zone's main partner countries

Managers' Index (PMI) surveys in manufacturing and services are very upbeat as well. Lastly, the continued rise in pressure on productive capacity in Q1 should incite businesses to invest. Buoyant domestic demand is likely to remain the chief spur to industrial investment in the coming months. A further incentive should come from brighter export prospects, reported by respondents to the latest PMI survey in manufacturing. Under this scenario, the hikes in key interest rates will have a very moderate impact in our forecasting horizon.

British exports are poised to accelerate again in 2007, after what looks like a sharp contraction in H2 2006 due to the near-complete elimination of VAT fraud, which had artificially inflated the H1 figures. Exports should return to a growth path close to that of world demand for U.K. goods and services. However, the appreciation of sterling's effective exchange rate in recent months precludes a steep rise in exports. Imports, as well, are set to rebound in H1 owing to robust domestic demand and the export acceleration.

Overall, Britain's GDP should experience a moderate slowdown in H1 2007, gaining 0.7% in Q1 and 0.6% in Q2.

Japan's economic growth is likely to stall in early 2007 because of stagnant domestic demand

The Bank of Japan lifted its key rate by 25 basis points on February 22. This monetary tightening took place even as the country is struggling to move out of deflation for good. Prices continued to decline at end-2006 and the outlook for wage growth in the coming quarters remains very modest. In such circumstances, the central bank's decision could marginally amplify the economic slowdown, particularly by dampening business investment more than expected.

Despite the forecast gains in employment, low wage growth will likely undercut household consumption in the quarters ahead. Employment improved significantly in Q4 2006, rising 0.4%

Table 2 United States, United Kingdom and Japan - Household accounts

	Average annual changes									
	2004	2005	2006	2007 ¹						
United States										
Non-farm payroll employment	1.1	1.7	1.9	1.0						
Average wage per head	4.3	3.3	4.4	2.9						
Nominal gross disposable income	6.4	4.1	5.4	3.9						
Private consumption deflator	2.6	2.9	2.8	1.0						
Saving ratio	2.0	-0.4	-1.1	-0.9						
United Kingdom										
Dependent employment	1.0	0.9	0.8	0.6						
Average wage per head	3.3	3.8	3.8	3.2						
Nominal gross disposable income	3.4	5.1	3.8	3.3						
Private consumption deflator	1.5	2.4	2.4	1.1						
Saving ratio	3.7	5.2	5.5	5.7						
Japan										
Total employment	0.2	0.4	0.4	0.7						
Average wage per head	-1.2	0.5	1.1	0.4						
Nominal gross disposable income	0.7	0.2	0.8	0.3						
Private consumption deflator	-0.7	-0.8	-0.3	-0.2						
Saving ratio (net)	3.6	3.0	3.3	2.9						

Forecast

Sources : BEA, BLS (U.S.); Central Statistical Office, Department of Employment, ONS (U.K.); Economic and Social Research Institute (ESRI), Ministry of Public Management, Ministry of Labour (Japan); INSEE



^{1.} Statistical overhang in Q2 or annual average (Japan: income and saving ratio)

after the previous quarter's stabilization. The uptrend is linked to the economy's somewhat stronger—albeit not exceptional—growth. The Q4 Tankan survey results, as well as the forecasts for Q1 2006, show that a growing number of firms are reporting labor shortages. Absent a sharp slowdown in the Japanese economy, employment should thus keep rising in early 2007. But wage growth is likely to be very moderate in the coming guarters. Admittedly, rising employment has driven up the job supply/demand ratio to 1.06 in January, not far from the July 2006 peak of 1.09. Until now, however, these tensions have not affected wages. High oil prices continue to exert major pressure on Japanese business costs, all the more so given the yen's further depreciation in 2006. As a result, the spring wage bargaining ("Shunto") to be concluded at the end of April should not entail significant wage increases. Because of this



slowdown in real-income gains, we expect Japanese households' consumption expenditures to slacken in early 2007, their quarterly growth rate stabilizing at around 0.3%.

The weakening of domestic demand should lead Japanese firms to trim their investment outlays at the start of the year. Machinery orders (excluding ships and energy), which provide a leading indicator of investment for the 3-6 months ahead, fell sharply in H2 2006. The December Tankan results also indicate a gloomier outlook for sales and profits among Japanese business leaders for the coming quarters (Chart 3). However, investment should be driven by pressures on the production system. These intensified in Q4 2006, with the capacity utilization rate rising to its highest value since November 1991. The rebound in bank loans to Japanese firms in Q4 2006-after a pause in Q3-indicates the persistence of a relatively dynamic investment behavior.

Japanese exports weakened significantly in Q4 2006, largely because of the contraction in U.S. imports and declining industrial production in South-East Asia. In early 2007, they are expected to rebound slightly. They should benefit not only from a particularly favorable exchange rate, but also from the expected acceleration in capital-goods spending among Japan's main Asian partners. This phenomenon is reflected in the vigorous 15.9% rise in foreign orders for machinery in Q4 2006, after a 6.2% slippage in Q3. Imports, as well, should be more robust in early 2007 than at the end of last year, correcting an abnormally weak H2. Overall, Japan's foreign trade is set to make a mildly positive contribution to GDP growth in Q1-Q2 2007.



Box : Real-estate crisis and economic recession in the U.S.: is there a link?

Economies are subject to cycles, i.e., an alternation of expansion and contraction phases, or even recession phases (negative growth). The economic cycles of the United States have been traditionally dated by the National Bureau of Economic Research (NBER).

Since end-2005, the rapid, significant deterioration of the U.S. real-estate market has raised fears, among some observers,¹ of a general economic recession via contagion to other domestic-demand components. In light of these developments, we shall try to suggest ways of assessing such a risk, drawn from (1) an analysis of time correlations between different macroeconomic variables in a cyclical turnaround and (2) a historical analysis of the linkages between U.S. real-estate crises and recessions.

The economic-cycle dating method used here is the Bry and Boschan² procedure (1971) applied to unfiltered raw series, i.e., following the recommendations of Harding and Pagan³ (2002). This method, adopted by NBER and others, makes it possible to date the turning points (peaks and troughs) for monthly and quarterly series. The main step is to determine the peaks and troughs. Next, the phases are defined as the periods between a peak and a trough (contraction) or between a trough and a peak (expansion). Cycles are the periods between two peaks or two troughs. The procedure comprises stages that make it possible, in particular, to correct atypical points.

We begin by comparing these datings to the official NBER dating. Given the methodological differences—most notably the fact that our method disregards phases lasting less than three quarters—the dating obtained from GDP is not identical to the NBER's but is very close to it.

Datings obtained from macroeconomic variables offer a chronological description of an average economic cycle (Table 1):

• Residential investment generally leads the economic cycle.

- Investment in non-residential construction follows a totally different cycle from that of residential investment: we find a correlation of -0.09 between these variables on a year-on-year basis.
- Trade-flow data confirm the intuition that imports adjust to the economic cycle with a one-quarter lag, influencing supplier countries' economic cycles.

Residential investment does not, however, consistently lead the rest of the economic cycle (*Chart*): the real-estate crises of 1951, 1964-66, 1993, and 1999 did not trigger general recessions. Conversely, the 2001 recession, usually blamed on the bursting of the Internet bubble in the early 2000s, or the 1953-54 recession, due to the spending readjustment that followed the Korean War, were not sparked by a real-estate downturn.

For lack of sufficient hindsight, the latest cyclical turning point in residential investment (a downswing) cannot technically be

<sup>Paper, no. 20.
D. Harding and A. Pagan (2002), "Dissecting the cycle: a methodological investigation,"</sup> *Journal of Monetary Economics*, no. 49.
Technically, the Bry-Boschan method compares the double moving average of order 4 for each observation and compares it with the five past and future values. This requires seven observations before and after the turning point.

Correlations between cycles of individual variables										
	Non-residential construction	Consumption	Construction employment	Total employment	Equipment investment	Residential investment				
lag 5	0.02	-0.03	-0.02	-0.03	-0.02	-0.16				
lag 4	0.07	-0.03	0.08	0.09	0.08	-0.11				
lag 3	0.17	0.12	0.19	0.21	0.19	-0.02				
lag 2	0.27	0.28	0.29	0.27	0.29	0.07				
lag 1	0.31	0.43	0.34	0.33	0.34	0.16				
coincide	0.27	0.58	0.29	0.27	0.29	0.26				
lead 1	0.22	0.74	0.24	0.15	0.14	0.26				
lead 2	0.17	0.58	0.19	-0.03	-0.02	0.26				
lead 3	0.12	0.43	0.14	-0.09	-0.07	0.26				
lead 4	0.07	0.28	0.08	-0.09	-0.12	0.21				
lead 5	-0.03	0.12	0.03	-0.09	-0.12	0.16				

How to read this table:

-

The correlation between datings based on GDP and on investment in non-residential construction is strongest (0.31) for a one-quarter lag. The latter variable therefore lags the economic cycle. Source: INSEE



[•] Cyclical effects on firms' investment and hiring decisions are lagged by an average of 1-2 quarters. The employment cycle thus lags the business cycle, consistently with productivity-cycle theory: in acceleration periods (or: slowdown periods), firms adjust their workforce with a lag, resulting in a temporary increase (or: decrease) in productivity.

^{1.} For example, Alan Greenspan, in a speech in Tokyo on March 1, 2007, stated that a U.S. recession "is possible [...] but I don't think it's probable."

^{2.} G. Bry and C. Boschan (1971), "Cyclical Analysis of Time Series: Selected Procedures and Computer Programs," NBER, Technical Paper, no. 20.

The euro zone's main partner countries

taken for granted, $^4\,$ but the scope of the fall recorded since Q3 2005 leaves little doubt as to the reality of the downturn.

The chart confirms the intuition that the likelihood of a U.S. recession increases with the duration of the real-estate crisis. More specifically, with the exception of the period 1964-67, the critical duration generating contagion to the rest of the economy appears to range between 5 and 6 quarters (*Table 2*). This means that any additional delay in the normalization of the real-estate market as specified in our

Table 2

Link between duration of real-estate crises and economic recession

real-estate crisis	duration*	recession?
1947-49	10	yes
1951	4	no
1956-57	11	yes
1959-60	6	yes
1964-67	12	no
1969-70	5	yes
1973-74	8	yes
1977-81	16	yes
1986-89	15	yes
1993	4	no
1999	2	no
2005-06	5	Ş

* quarters

5. The complexity of this type of product has led the Federal Reserve to publish a Consumer Handbook on Adjustable-Rate Mortgages.

forecasting scenario represents a major risk for the U.S. economy from end-2007 onward.

The characteristics of the present real-estate crisis (which, according to our analysis, began in Q3 2006) are, however, relatively unprecedented in U.S. economic history:

- The pre-crisis boom in residential investment is the longest ever observed (although periods of up to 5 years have already occurred), driving the residential investment rate to a record high.
- Households' mortgage debt and liabilities (as a percentage of gross disposable income) rose by an average 6% and 20% per year respectively between 2002 and 2006, versus earlier debt growth of about 1.5% per year.
- The mortgage default rate has risen sharply since September 2002, exceeding a historically high level at end-2003. This phenomenon may, however, be partly due to the growth of "exotic" mortgage loans that enable borrowers to choose adjustable installments by changing the principal.⁵
- On the positive side, the vibrancy of the rest of the global economy provides major support, as do softer commodity prices.
- Inflation has remained very subdued in the U.S., contrary to the standard pattern in prior slowdowns. The Federal Reserve was able to engage in a milder monetary-policy tightening than in previous comparable phases of the cycle.

In this rather special context, we can draw the following conclusion: the risk that the real-estate crisis may lead to a general economic recession within one or two years is not zero, but it is hard to quantify. In any event, such a risk is low in our forecasting horizon.



RESIDENTIAL-INVESTMENT AND ECONOMIC CYCLES

How to read this chart:

The shaded areas (or unshaded areas) denote slowdowns (or accelerations), on the basis of (1) the traditional NBER dating of economic cycles (top) and (2) the dating determined from residential investment (bottom).



The euro zone ended 2006 with annual average GDP growth of 2.8%, its steepest increase since 2000. Chiefly driven by private consumption in 2005, the growth mix shifted toward other domestic-demand components, with investment on a persistent recovery path. External trade made a positive contribution, mainly thanks to Germany's good export performance.

The end-2006 economic rebound (0.9% in Q4) was fueled by vibrant external demand, especially from a number of emerging and oil-producing countries, whereas domestic demand stalled in the euro zone's chief developed-country partners.

The euro-zone economy is forecast to slow in early 2007 for two main reasons: (1) the impact on domestic demand of tax increases in Germany and Italy, and (2) slacker external demand after the boost from one-time massive purchases by the zone's trade partners at end-2006. By the end of H1, the statistical overhang for GDP growth should stand at 2.0%.

Euro-zone GDP growth likely to slow in early 2007

GDP growth accelerated in most euro-zone countries in 2006. Among the leading economies, Germany and Italy registered the largest gains, with 2.9% and 1.9% respectively after 1.1% and 0.2% in 2005. The total euro-zone growth mix displays a balance between its domestic-demand components and a positive external-trade contribution. However, the 2006 growth drivers in the zone's top three economies were not identical (*Chart 1*). In France and Italy, the chief engine remains private consumption; in Germany, the quickening of GDP growth was due to the construction industry's exit from crisis—with its first expansion since 1999—and to the persistence of outstanding export performance.

In Q4 2006, confidence surveys, industrial production, and GDP moved in different directions: GDP rebounded, whereas confidence surveys stopped improving and industrial production slowed (*Chart 2*). The intensification of foreign demand at year-end apparently took exporters by surprise, as the surveys had reported

no significant improvement in their order intake. This unexpected demand seems to have been partly satisfied by large-scale inventory drawdowns—particularly in Germany—which explains some of the differentials observed. Service-sector output appears to have picked up, contributing 0.5 to GDP growth in H2 as in H1, of which only 0.2 points in Q3.







Since January 2007, confidence surveys have been indicating a deterioration in the main euro-zone countries except France. Business sentiment has weakened in all sectors from its 2006 peaks, but is still running high. Production should move in the same direction, losing momentum in early 2007. Euro-zone GDP is also forecast to slow from Q4 2006, gaining 0.4% in Q1 and 0.6% in Q2 of this year.

Somewhat slacker household consumption in early 2007

In 2006, robust euro-zone growth stimulated job creations, which rose 1.3%. Employment continued to grow in France and picked up in Germany and Italy. Real wages, however, remained slack, largely on account of their

Table 1

Euro-zone and main countries: GDP and its components

	-									annual and quarterly changes, %					
		20	05			20	06		20	07	2004	2005	2006	2007	
	Q1	Q2	Q 3	Q 4	Q1	Q2	Q 3	Q4	Q1	Q2	2004	2005	2000	ovhg*	
GERMANY (29.4%) ¹															
GDP	0.6	0.3	0.5	0.3	0.8	1.2	0.8	0.9	0.2	0.5	0.8	1.1	2.9	1.9	
Household consumption	-0.4	0.0	0.6	-0.8	0.8	-0.1	0.7	0.3	-0.5	0.3	-0.3	0.3	0.9	0.3	
Total GFCF	-0.2	-0.1	2.0	1.5	0.2	4.4	1.1	1.0	1.2	1.1	-1.4	1.0	6.4	4.5	
Public consumption	0.8	1.2	-0.1	-0.6	2.4	-1.0	0.7	-0.1	0.0	0.0	-1.3	0.6	1.8	0.0	
Exports	1.4	1.9	4.1	1.2	4.6	0.7	4.5	6.0	1.0	1.8	8.8	7.1	12.9	9.4	
Imports	-1.1	3.6	3.5	1.7	4.5	0.4	4.0	1.6	1.0	1.8	6.2	6.7	11.5	5.7	
Contributions:															
Domestic demand excl. inventories	-0.3	0.3	0.7	-0.2	0.8	0.5	0.8	0.4	-0.1	0.4	-0.7	0.5	2.0	1.0	
Inventory change	-0.1	0.5	-0.6	0.6	-0.3	0.5	-0.4	-1.6	0.2	0.0	0.3	0.2	-0.3	-1.1	
Foreign trade	1.0	-0.5	0.4	-0.1	0.3	0.2	0.4	2.1	0.1	0.1	1.2	0.5	1.2	2.0	
ITALY (17.9%) ¹															
GDP	-0.3	0.6	0.4	-0.1	0.8	0.6	0.3	1.1	0.5	0.5	1.0	0.2	1.9	2.0	
Household consumption	-0.2	0.7	0.5	-0.2	0.5	0.4	0.6	0.2	0.5	0.5	0.7	0.6	1.5	1.4	
Total GFCF	-1.2	1.9	1.8	-1.7	1.7	0.4	-0.3	1.8	1.0	1.0	1.3	-0.2	2.5	3.1	
Public consumption	1.0	0.0	0.4	-0.2	-0.3	-0.1	0.2	0.0	0.1	0.1	1.6	1.5	-0.3	0.2	
Exports	-2.4	2.4	0.6	1.4	2.2	1.4	-1.8	4.5	1.0	1.0	2.7	0.0	5.4	4.5	
Imports	-2.1	1.8	0.1	1.4	1.0	0.3	2.2	2.0	1.2	1.2	2.0	1.0	4.4	4.8	
Contributions:															
Domestic demand excl. inventories	-0.1	0.8	0.7	-0.5	0.6	0.3	0.3	0.5	0.5	0.5	1.0	0.6	1.3	1.5	
Inventory change	0.0	-0.3	-0.5	0.4	-0.2	0.0	1.1	0.0	0.0	0.0	-0.2	-0.1	0.4	0.6	
Foreign trade	-0.1	0.2	0.1	0.0	0.3	0.3	-1.1	0.7	-0.1	-0.1	0.2	-0.3	0.3	-0.1	
EURO ZONE (27.8%) ²															
GDP	0.4	0.4	0.6	0.3	0.8	1.0	0.6	0.9	0.4	0.6	1.8	1.5	2.8	2.0	
Household consumption	0.0	0.4	0.7	0.1	0.6	0.3	0.7	0.5	0.3	0.6	1.4	1.5	1.8	1.6	
Total GFCF	0.4	1.0	1.3	0.4	0.8	2.1	0.6	1.2	1.0	0.9	1.7	2.7	4.2	3.4	
Public consumption	0.5	0.5	0.5	0.1	1.4	0.0	0.6	0.5	0.3	0.3	1.4	1.4	2.3	1.2	
Exports	-0.4	1.8	2.6	0.7	3.1	0.9	1.8	3.7	0.9	1.3	6.4	4.5	7.9	5.8	
Imports	-0.9	2.6	2.0	1.5	2.3	0.8	2.2	1.9	1.1	1.5	6.3	5.4	7.3	4.9	
Contributions:															
Domestic demand excl. inventories	0.2	0.5	0.8	0.2	0.8	0.6	0.6	0.7	0.4	0.6	1.4	1.7	2.4	1.9	
Inventory change	0.0	0.1	-0.3	0.5	-0.3	0.3	0.0	-0.5	0.0	0.1	0.2	0.0	0.0	-0.2	
Foreign trade	0.2	-0.3	0.2	-0.3	0.3	0.0	-0.1	0.7	-0.1	-0.1	0.2	-0.2	0.4	0.4	

Forecast

* ovhg: statistical overhang, i.e., annual change if variable in question was to remain at its level in the last known quarter

1. Share of euro- zone GDP

2. Share of OECD GDP

Sources: Eurostat, Destatis, Istat



persistent decline in Germany. After retreating in 2005, euro-zone households' purchasing power nevertheless rebounded 2.0% in 2006 thanks to faster employment growth and higher earnings by unincorporated enterprises.

Euro-zone household consumption expenditures followed this rebound, rising 1.8% in 2006. Consumption accelerated in the zone's three largest economies, including Germany. However, the steep Q4 rise expected in Germany failed to occur: households did make some purchases ahead of the January 1, 2007, VAT rise—most notably of new cars—but their current consumption expenditures have been trending down since spring 2006, and have apparently kept on doing so in early 2007 (see "Effects of VAT increase on German household consumption" box).

In H1 2007, job creations should continue to rise at their current pace and the unemployment rate should stay on a downtrend, reflecting the economy's healthy performance throughout 2006 (Chart 3). However, wage growth is expected to remain slack in Germany and to slow in Italy in H1, as suggested from the sectoral wage agreements to be implemented in the forecasting period. In addition, the Italian and German fiscal plans to cut public deficits by raising taxes should dampen the growth in real household income, particularly in Q1. German households may trim their expenditures at the start of the year, but the effect will probably be short-lived (a 0.5% decline in Q1 followed by a 0.3% gain in Q2). Euro-zone household consumption should therefore remain vibrant, gaining 0.3% in Q1 and 0.6% in Q2 2007.

Investment growth set to dip in 2007

Euro-zone investment accelerated sharply in 2006. The largest gains were in construction investment: the sector pulled out of crisis in Germany, averaging 4.8% growth for the year. The trend should persist in all euro-zone countries except Germany. There, the end of support industry measures for the construction implemented in previous years could dampen the sector's growth in H1 2007 without, however, jeopardizing the expansion begun in 2006. Construction investment is thus forecast to rise by about 0.6% per quarter in H1 2007.

While equipment investment slowed in Germany in H2 2006, it rebounded elsewhere in the euro zone, particularly in the Netherlands and Spain. In the zone as a whole, productive investment thus continued to gain momentum, growing 4.9% in

2006. However the investment ratio seems to have leveled off below its peaks in previous cycles (Chart 4). In 2007, the demand slowdown—a more widespread phenomenon in the euro zone—and the lagged effects of tighter financing conditions (see "Financement de l'économie" [Financing the economy] chapter, available in French version only) should affect the entire region. Equipment-investment growth is expected to ease from an average 1.2% per quarter in 2006 to 0.9% in Q1 and Q2 2007.

No further contribution of external trade to growth

Euro-zone exports boomed in Q4 2006. While intra-zone trade accelerated steadily throughout the year, extra-zone exports rebounded sharply in







Q4 thanks to vibrant demand from secondary trade partners (China, Russia, South-East Asia, and oil-producing countries: *Chart 5*).

In early 2007, that stimulus is likely to weaken. In this forecast, world demand for euro-zone products will return to a growth rate more consistent with the expansion of imports by its main partners, while intra-zone trade will mirror the slowdown in domestic demand in euro-zone countries (*Chart 6*). As a result, exports should slow in H1 2007, gaining 0.9% in Q1 and 1.3% in Q2 after 3.7% in Q4 2006. Imports, as well, are expected to register a brief slowdown at the start of the year due to weaker private consumption; subsequently, thanks to the pick-up in domestic-demand growth, imports should expand at a mildly faster pace than exports.





Table 2 Euro-zone: Household accounts

											Annual o	and quar	terly % c	hanges
	2005					20	06		2007		2004	2005	2006	2007
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2				ovng
Total wage bill	0.8	0.5	0.6	1.1	0.9	1.1	0.6	0.5	0.5	0.5	2.8	2.6	3.5	1.8
- Employment	0.1	0.1	0.2	0.4	0.3	0.4	0.4	0.3	0.3	0.3	0.7	0.8	1.3	1.0
- Unit wage	0.6	0.4	0.4	0.8	0.6	0.6	0.2	0.2	0.2	0.2	2.1	1.8	2.2	0.8
Gross disposable income	0.4	0.2	0.5	1.6	0.6	1.7	0.8	0.1	0.9	0.8	3.4	1.5	3.9	2.4
Saving ratio (% of GDI)	12.3	11.6	10.9	11.7	11.2	12.0	11.7	11.3	11.3	11.1	13.4	11.6	11.5	11.2
Household consumption deflator	0.5	0.6	0.7	0.5	0.4	0.5	0.4	0.1	0.5	0.5	2.1	2.2	1.9	1.3
Real total wage bill	0.2	-0.1	-0.1	0.6	0.5	0.6	0.2	0.4	0.0	0.0	0.7	0.4	1.5	0.5
- Real unit wage	0.1	-0.2	-0.3	0.2	0.2	0.2	-0.2	0.1	-0.3	-0.3	0.0	-0.4	0.2	-0.5
Purchasing power of GDI	-0.1	-0.4	-0.1	1.0	0.2	1.3	0.4	0.0	0.4	0.3	1.3	-0.7	2.0	1.1

Forecast (MZE model)

* ovhg: statistical overhang

Sources: Eurostat, INSEE computations



Box: Effects of VAT increase on German household consumption

On January 1, 2007, Germany raised its standard value added tax (VAT) rate from 16% to 19%. The increase concerns slightly over half of the basket used to determine the consumer price index (CPI), as foods and some services are taxed at a reduced rate. A VAT increase affects household consumption in several ways. First, households anticipate some major purchases, a phenomenon that boosts consumption before the date at which the increase comes into effect, and depresses consumption symmetrically afterward. Second, the higher VAT entails a price increase that erodes real household income. The magnitude of this effect depends on the share of the increase absorbed by retailers and wholesalers, with the aim of curbing the demand slowdown (see box in "Consumer prices in the euro zone" chapter). The German VAT increase is unprecedented because of its size (3 points) and because the government announced it more than a year in advance, giving ample time for households and retailers to anticipate it. One can make an initial—and necessarily provisional—assessment of the effects of the VAT increase on household consumption before and after January 1, 2007.

The expected effects of the future VAT rise were visible in business and consumer surveys as early as summer 2006. The balance of opinion on current conditions in the retail trade shot up, signaling merchants' expectations of "early" consumer spending (Chart A). At the same time, the 6-month business outlook fell, due to the expected negative impact of the VAT increase in early 2007. Likewise, back in early 2006, consumers voiced the opinion that the period would be favorable for purchases of big-ticket items, and they temporarily feared a business downturn in Germany in early 2007 as a result of the VAT rise.

Advance purchases by households are not directly observable at the aggregate level: in Q4 2006, consumption edged up by a mere 0.3%. New-car registrations, however, rose sharply and sales of household equipment goods accelerated briskly at end-2006 (with respective increases of 7.0% and 5.4% in Q4). German households thus do seem to have made "early" purchases, but they consist of highly targeted acquisitions of consumer durables. Their other current consumption expenditures stayed on an underlying downtrend (Chart B). In other words, household spending would presumably have grown more slowly in late 2006 without the momentum from purchases in advance of the VAT increase.

In January, after the VAT rise, new-car registrations plunged 29% from December without picking up again in February, while retail sales shed 5.1%, their largest monthly drop since 1991. This steep fall clearly reflects the negative impact of advance purchases made in late 2006. Meanwhile, the underlying trend remains slack—as estimated from the changes in real income, real interest rates, the unemployment rate, and the variation in the relative prices of the goods tracked with respect to total consumption (Charts C and D).

However, in early 2007, households display greater confidence in the general economic outlook, and business surveys show retail sales nearly back to their mid-2006 level. The negative effect of the VAT rise could therefore prove rather weak and shorter-lived than expected. On this scenario, German household consumption will shed 0.5% in Q1 then gain a moderate 0.3% in Q2, sustained by a further improvement in fundamentals.



RETAIL SALES AND NEW-CAR REGISTRATIONS year-on-year changes, % 15 25 <--- Food, alcohol, tobacco Household equipment goods <--- Textiles 12 20 New-car registrations 15 9 6 10 З 5 0 0 -3 -5 -6 -10 -9 -15 2007 -20 -12 2005 2006 2002 2004

2003

Sources: Destatis ACEA

B









Consumer prices in the euro zone

Overall euro-zone inflation stabilized at an annual average of 2.2% in 2006, with higher food inflation offsetting lower energy inflation.

After a substantial decline in Q3 2006 promoted by the easing of oil prices, total euro-zone inflation edged up in Q4 to 1.9% in December, driven by resurgent energy inflation. Core inflation (excluding food and energy) held steady at around 1.5% at end-2006.

In Q1 2007, the three-point rise in Germany's standard VAT rate appears to have added only 0.2 points to the year-on-year change in the overall euro-zone index (0.5 points for Germany), and 0.3 points to the year-on-year change in the "core" index. Core inflation thus moved up from 1.5% in December 2006 to 1.9% in February 2007. But, in the same interval, overall inflation dipped from 1.9% to 1.8%. The reason is that the effect of the VAT increase was offset by a stabilization of oil prices in early 2007 and by a base effect due to the rise in oil prices at the start of 2006.

In Q2 2007, assuming a steady price of \$55/barrel for Brent crude and an exchange rate of \$1.30 to the euro, the year-on-year change in energy-product prices is forecast to turn negative, pushing overall inflation down. Euro-zone inflation should thus decline to 1.4% by the end of H1 2007.

A modest VAT effect, more than offset by lower energy inflation

Overall euro-zone inflation averaged 2.2% in 2006, as in 2005. Food inflation rose from 1.6% in 2005 to 2.4% in 2006, offsetting the concurrent decline in energy inflation from 10.1% to 7.7%.

By contrast, higher energy prices caused a slight rise in overall euro-zone inflation at end-2006 from 1.6% in October to 1.9% in December. In H1 2007, overall euro-zone inflation is expected to decline from 1.8% to 1.4%, assuming a stable Brent crude price of \$55/barrel.

The year-on-year change in energy prices rebounded from a negative 0.5% in October 2006 to 2.9% in December 2006 (Chart 1 and Table 1). The increase in energy inflation is due to a base effect generated by the sharp fall in the Brent price in November 2005. In H1 2007, a positive base effect on energy prices should depress their year-on-year change to a negative 3.6% by June 2007.

Food prices (including tobacco and alcoholic beverages) lost some momentum at end-2006, as mild temperatures in the fall and early winter softened fresh-product prices (Chart 1). This decline more than offset the increase in German tobacco prices in October 2006 (Box). In early 2007, the sharp hike in Spanish tobacco

1.9

0.9

2.6

Euro-zone inflation												
	Year-on-year changes											
Sectors (weights in 2006 index)	Feb. 2006	June 2006	Dec. 2006	Feb. 2007	June 2007							
Total (100.0%)	2.3	2.5	1.9	1.8	1.4							
Food (incl. beverage and tobacco)(19.3%)	1.8	2.2	2.7	2.4	2.1							
of which Food (15.3%)	1.7	2.0	2.6	1.9	1.7							
Alcoholic beverages and tobacco (4.0%)	2.5	2.8	3.1	4.1	3.5							
Energy (9.2%)	12.5	11.0	2.9	0.8	-3.6							

1.2

0.3

2.0

Table 1

Forecast

Sources: Eurostat, INSEE forecasts

Core inflation (71.5%)

of which: Manufactured products (30.7%)

Services (40.8%)



1.5

0.7

2.0

1.5

0.9

2.1

1.9

1.1

2.4

% changes

2006

2.2

2.4

2.3

2.7

77

1.4

0.6

2.0

Annual average

2005

2.2

1.6

0.7

4.9

10 1

1.4

0.3

2.3

Consumer prices in the euro zone



prices—partly responsible for the rise in "alcoholic beverages and tobacco" inflation in the euro zone—was more than offset by the steep decline in food-product inflation (particularly in the Mediterranean countries) due to a clement winter season. The year-on-year change in euro-zone food prices eased from 2.7% to 2.4% between December 2006 and February 2007. Barring exceptional weather events, the indicator should reach 2.1% by June 2007, as the year-on-year change will no longer reflect the atypical April 2006 rise in meat prices.

Core inflation¹ stabilized at around 1.5% at end-2006 (*Chart 2*). In January-February 2007, the rise in German VAT apparently added only 0.3 points (instead of the expected 0.4 points) to euro-zone core inflation, estimated at 1.9% in February (*Chart 2*). To curb the fall in demand in today's strongly competitive environment, German firms seem to have absorbed a larger-than-expected share of the



tax increase in their margins or passed it on to their subcontractors. Euro-zone core inflation should remain close to its February level until the end of H1.

Inflation in manufactured goods, which held steady at around 0.9% in Q4 2006, remained at that level in early 2007. The fall in manufactured-goods inflation in France and Italy, where price cuts during clearance sales were steeper than in 2005, offset the aggregate's acceleration in Germany. Moreover, the latter phenomenon was milder than expected: German clothing retailers, faced with a clement winter, passed on little of the VAT increase to their prices in January-February 2007, so as to clear out their inventories during the sales period. In February 2007, manufactured-goods inflation rose 1.1%, with the end of the clearance-sales period in France and Italy. By the end of H1, the year-on-year change in manufactured-product prices should ease to 0.9%. The diffusion of the recent fall in energy prices should contribute to this decline.

Inflation in services, which remained stable at around 2.0% in late 2006, quidened in early 2007 (Chart 1) —particularly in telecommunications and healthcare—as a result of Germany's VAT hike and an increase in Italian health-service prices. The year-on-year change in service prices reached 2.4% in February 2007. As the recovery matures and the labor market improves, the trend should persist, driving service-sector inflation in the euro zone to 2.6% by the end of H1. The reform of overtime regulations in the French restaurant and hotel industry, which came into effect on March 1 (see "Prix à la consommation" [Consumer prices] chapter, available in French version only), is also likely to fuel the rise.



^{1.} Measured as inflation tracked by the Harmonised Index of Consumer Prices (HICP) excluding food, alcoholic beverages, tobacco, and energy.

HICP, year-on-year changes, %										
	HI	СР	Core in	nflation	Energy					
	February 2005	February 2006	February 2005	February 2006	February 2005	February 2006*				
Austria	1.5	1.8	0.7	1.9	11.5	0,8 (0,1)				
Belgium	2.8	1.8	1.7	1.4	12.9	0,3 (0,0)				
Finland	1.3	1.2	0.5	1.3	10.5	-1,6 (-0,1)				
France	2.0	1.2	1.2	1.6	10.5	-0,4 (0,0)				
Germany	2.1	1.9	0.6	1.6	14.7	2,2 (0,2)				
Greece	3.1	3.0	2.1	3.9	14.4	-2,3 (-0,2)				
Ireland	2.7	2.6	2.1	2.8	15.2	1,3 (0,1)				
Italy	2.2	2.1	1.5	2.0	10.6	1,4 (0,1)				
Luxembourg	3.9	1.8	2.2	2.2	14.0	-2,8 (-0,3)				
Netherlands	1.4	1.4	0.6	1.0	9.5	3,6 (0,4)				
Portugal	3.0	2.3	1.7	2.3	13.2	1,0 (0,1)				
Slovenia	2.3	2.3	0.9	2.7	12.2	-1,5 (-0,2)				
Spain	4.1	2.5	2.8	2.6	13.4	-1,7 (-0,2)				
Euro zone	2.3	1.8	1.2	1.9	12.5	0,7 (0,1)				

Table 2 Euro-zone inflation by country

* In last column, energy-component contribution to overall inflation shown in parentheses

Sources: Eurostat, INSEE computations

Inflation gap between euro-zone countries expected to narrow

Between October 2006 and February 2007, the gap between the highest and lowest inflation rates in the euro zone narrowed from 2.5 points to 1.8 points. The lowest inflation rate moved up from 0.6% to 1.2%, while the highest decreased slightly (*Chart 3*). Today, the country with the mildest inflation is France (*Table 2*).

Slovenia's entry into the euro zone in January 2007 had no perceptible impact on the Harmonised Index of Consumer Prices (HICP). Slovenian inflation, which has stabilized at about 2.5% since early 2005, is currently below the highest rate of the euro-zone countries. Moreover, Slovenia's weight in the euro-zone HICP is only a modest 0.3%.









Lastly, the inflation gap between the French and euro-zone HICPs widened to a negative 0.6 points in February, largely owing to the effect of Germany's VAT increase (*Chart 4*). Between now and the end of H1, it should ease slightly and fluctuate around -0.4 points.

Impact of Germany's VAT increase on prices of selected key items

On January 1, 2007, Germany raised its standard value added tax (VAT) rate from 16% to 19%. In the December issue of "Conjoncture in France," we assumed—on the basis of past increases—that two-thirds of the VAT hike would be passed on to consumer prices in early 2007, generating an impact of 1.7 points on all items taxed at the standard rate and adding 1.0 point to the overall index. However, the effect seems to have been milder, at least initially. Using the German data to January 2007, we have attempted to measure the impact of the VAT increase on prices of selected items by computing the deviation from the underlying trend (extrapolated by means of ARIMA models).

Some firms appear to have raised their prices by Q4 2006 in order to take advantage of consumers' purchases ahead of the tax hike. The additional rise in tobacco prices was even steeper than the total expected impact (*Table*).¹ In January

1. Two types of cigarettes are sold in Germany: major-brand cigarettes, and retailers' "discount" brands. The latter are subject to a specific tax, determined by the prices of major-brand cigarettes at the end of the previous year. By raising their prices at end-2006, the major brands made sure that the effects of the VAT hike on the special tax on "discount" cigarettes would already be felt in 2007 and not delayed until 2008. In addition to the VAT hike, retailers lifted their net-of-tax prices by slightly over 2%. As a result, the total increase comes to 5%, exceeding the VAT-hike effect alone.

2007, prices for the "purchases of vehicles" item seem to be the only ones for which the effect exceeded the forecast (2.0 points). The impact on the "clothing and footwear" category—where January clearance sales typically entail heavy promotional price-cutting—was smaller than expected at 1.3 points. Retailers probably curbed the repercussion of the VAT increase on their prices in order to bolster sales of their winter collections after the mild fall weather. In the service sector, the strongest impact was on telecommunications (1.5 points), but, again, the figure was more moderate than projected. For the aggregate of all items studied, the additional price increase due to the VAT hike was smaller than the expected effect, at 1.0 point excluding tobacco. This finding could portend a further impact in the months to come. However, this scenario is not supported by the February German data, which indicate a stable year-on-year change.

Expected and estimated effects of VAT hike on German consumer prices

	expected effect*		estimated effect	
		Q4 2006	January 2007	total
Alcoholic beverages (1.9 %)	1.7	0.4	0.0	0.4
_ Tobacco (3.3 %)	1.7	2.6	0.0	2.6
Clothing and footwear (5.6 %)	1.7	0.7	0.5	1.3
Maintenance and repair of the dwelling (1.3 %)	1.7	0.7	0.4	1.1
Electricity, gas and other fuels (7.0 %)	1.7	0.6	0.0	0.6
Furniture and furnishings (3.6 %)	1.7	0.3	0.2	0.5
Major household appliances (1.1 %)	1.7	0.0	0.4	0.4
Purchases of vehicles (4.1 %)	1.7	0.0	2.0	2.0
Telecommunication equipment and services (2.1 %)	1.7	0.0	1.5	1.5
Average of all items above	1.7			1.2
Average excluding tobacco	1.7			1.0

*assuming two-thirds of VAT hike passed on to prices Source: INSEE

