## Box 4 Macro-financial risks associated with rising oil prices

Starting from around USD 20 per barrel in early 2002, oil prices had surged to a record high around USD 50 per barrel in October 2004 before declining somewhat in November. For households, rising oil prices can adversely impact real disposable income for discretionary spending. This may impair the ability of highly indebted households to service their debts. For non-financial corporations – particularly those with high levels of energy consumption - rising oil prices can adversely impact on profit margins. In turn, as cash flows deteriorate, the ability of corporations to service their debts may be hampered. Whether or not recent oil market developments pose financial stability risks for the euro area ultimately depends on whether oil prices remain persistently elevated, and on the degree to which the balance sheets of households and firms are affected.

Looking ahead, according to futures prices, market participants had by November expected oil prices to remain high for the remainder of 2004, only declining gradually thereafter (see Chart B4.1). However, these expectations are surrounded by a high degree of uncertainty. While global demand may remain high, it has been proven in the past that persistently high oil prices can bring new oil production on stream that may previously have been unprofitable, possibly alleviating concerns about long term supply.

Uncertainty about oil price developments can have adverse consequences for economic activity by clouding the economic outlook. Risk-averse consumers may hold off on major purchases, while



firms may postpone investment projects or stretch out those projects that cannot be put on hold. If consumers and firms perceive the spike in oil prices to be transient, they may not fully reduce their expenditures in line with their decline in real disposable income, but instead pursue a strategy of expenditure smoothing. Should the rise be perceived as being likely to prove more long-lasting, the impact on economic activity would undoubtedly be more severe.

Three factors contribute to the assessment that the impact of the recent rise in oil prices on euro area growth may be more limited than the impact of large oil price increases in the past. First, the lower oil intensity of economic activity in the euro area than in the 1970s, for instance, implies that the impact on household and corporate balance sheets should be less severe. Second, the wider availability of hedging instruments in financial markets and their increasing use by corporations enables the latter to shelter their earnings from unexpected oil price swings. Third, unlike in earlier oil price surges, the strength of global demand appears to have been an important contributing factor apart from supply-side concerns.

Assessing the impact of a sizeable increase in oil prices on the economy carries a significant degree of uncertainty. While estimates of the magnitude of the impact can be derived from macroeconomic models, such models are typically unable to adequately address all aspects. First of all, model predictions are usually based on typical historical experience, where, for the most part, oil price fluctuations tend to be moderate. This makes it difficult to capture adequately the adverse effects of less frequent oil price spikes on the economy. Moreover, as the estimates reflect the average experience over the sample period used to estimate the model, the impact of structural changes in the economy may not be sufficiently taken into account, such as declines in oil intensity over time. In addition, the literature generally finds that the absolute impact of oil price changes on economic activity than oil price declines of the same magnitude. This means that symmetric model specifications are likely to underestimate the negative impact of oil price rises on the economy. For example, a certain level of oil prices might render investment projects



unviable, a threshold effect that most models are unable to capture. Finally, models usually concentrate on demand side effects stemming from lower disposable income. Supply side effects would most likely, via higher input costs, increase the estimated impact of oil prices on economic activity.

All in all, the recent rise in oil prices is expected to have a rather limited impact on euro area growth, especially when compared with the large oil price shocks of the past. Financial stability risks – which mostly arise through indirect channels – do not therefore appear to be material. Nevertheless, given the degree of uncertainty about likely future developments in oil prices and in particular about their probable effects, this assessment is clouded by a considerable degree of uncertainty.

