

Box 3

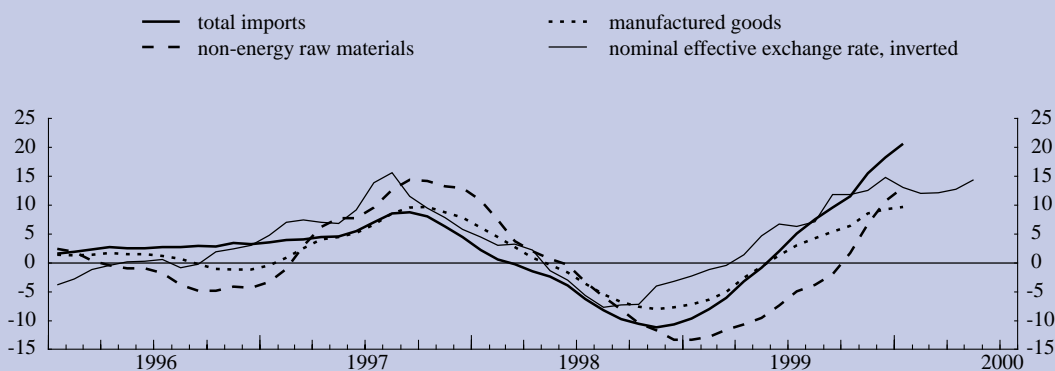
Impact of import price developments on euro area consumer prices

By contrast with the individual Member States, the euro area as a whole is a relatively closed economy. Imports of goods and services from the rest of the world correspond to 15% of euro area GDP, significantly less than for the individual euro area countries. This is the result of extensive trade within the euro area. However, even though the degree of openness in the euro area is smaller than for individual countries, import prices remain a factor which can potentially have a significant impact on euro area consumer price developments. This box explains three channels through which import price developments feed into euro area consumer prices and describes the risks to price stability associated with recent import price developments.

A study of these channels is important because of recent developments in the prices of goods imported by the euro area from the rest of the world, which, as measured by import unit values, have risen significantly since late 1998, with an annual rate of increase of above 20% in early 2000.¹ On the one hand, this increase is attributable to developments in energy prices, which have risen strongly owing to developments in world market oil prices. On the other, the depreciation of the effective exchange rate of the euro has also contributed to the rise in import prices in general, as reflected in the developments in the import prices for non-energy raw materials and manufactured goods (see the chart below).

Import unit value indices and nominal effective exchange rate of the euro

(annual percentage changes; monthly data)



Sources: Eurostat and ECB calculations.

Note: Unit value indices refer to transactions between the euro area and the rest of the world; calculations are based on three-month centred moving averages.

Three channels can be identified through which euro area import price developments are likely to affect the euro area HICP. These channels are (i) direct effects which occur almost immediately or, in other cases, with a short time-lag; (ii) indirect effects which arise as import price changes are gradually passed along the production chain; and (iii) possible second-round effects on wages and underlying inflation. It should be noted that the estimates of the impact on consumer prices via these three channels presented in this box are of a mechanical nature and, while being useful as an illustration of these effects, they should, therefore, be interpreted with caution.

The most prominent example of the *direct effects* on euro area consumer prices has recently been the impact of developments in the price of oil imports on the energy component of the HICP. As a reflection of oil price increases since the beginning of 1999, the annual rate of increase in the energy component of the HICP peaked

¹ Unit value indices are calculated by dividing the value by the volume of foreign trade and are not price indices based on data for the same basket of goods throughout the year (as is the case for consumer price indices). Nevertheless, in the absence of an alternative, import unit values are a useful indicator for developments in actual import prices.

at 15.3% in March 2000. The direct effects of higher prices for imported oil were most evident in the price of liquid fuels for households and fuels and lubricants for transportation. With regard to a quantitative impression of the direct effect of oil price changes on the HICP, a common rule of thumb is that a 10% increase in oil prices (measured in euro) is associated with an almost immediate 1% increase in the energy component of the HICP. Since energy has a weight of 9% in the HICP, such an increase in oil prices would tend to raise the overall HICP level by around 0.1%. In addition to energy prices, changes in the price of imported consumer goods may also have a direct effect on other individual items in the HICP. For example, imported passenger cars or photographic equipment (non-energy industrial goods) feed directly into private consumption without entering the domestic manufacturing process. However, foreign producers of these goods compete with domestic producers, and a price increase which fully reflects the exchange rate depreciation of the euro could lead to substantial losses in the market share on the part of foreign producers. This leads to the phenomenon known as “pricing to the market”, according to which foreign producers charge different prices for their products depending on the price level in different countries. Therefore, in particular, short-term fluctuations in the exchange rate may not be reflected in the consumer price of these imported goods, while more sustained exchange rate changes are likely to be partially transmitted to consumer prices with a time-lag. While difficult to quantify, given the substantial and sustained depreciation of the euro over the past year, the direct effect of import prices of final goods is expected to materialise.

With regard to the *indirect effects* of changes in the price of imported goods, the prices of imported raw materials and also of imported intermediate goods affect the intermediate goods component of the euro area industrial producer price index. Such effects are likely to be particularly significant in the case of price increases for imported goods (such as oil), for which there are only limited possibilities available for substituting them for other inputs, and when the price of the domestic production of inputs closely follows world market price developments. Indeed, reflecting higher import prices, in the year to March 2000, intermediate goods prices in the euro area increased by 10.2%. Changes in intermediate goods prices are expected subsequently to affect industrial producer prices of final goods in the euro area (consumer and capital goods). Indeed, a rise in the annual rate of increase in the latter two components has occurred over recent months, albeit still at a moderate level. Finally, such effects on producer prices are, in turn, likely to have an impact on retail prices for consumer goods or services, as measured in the HICP. It will probably take some time before the above-mentioned indirect effects are fully incorporated into consumer prices at the retail level. A rough estimate based on historical experience suggests that the recent 20% increase in import prices, if sustained, is likely to contribute around 1 percentage point to the cumulative increase in euro area consumer prices via indirect effects over a two to three-year period. It should be noted that this comes in addition to the direct impact of import price developments as discussed above.

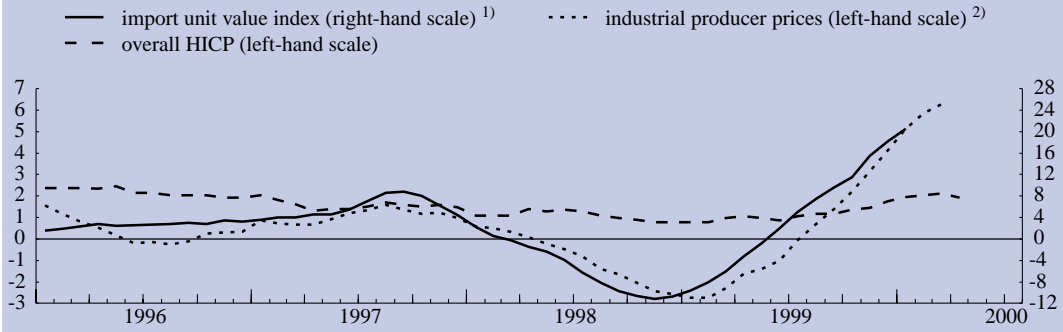
Finally, the occurrence and scale of possible *second-round effects* caused by changes in import prices is likely to depend on the complex interaction between wages, inflation expectations, the business cycle and the macroeconomic policy reaction. In addition to potential wage-price spirals, an exchange rate depreciation can lead to price pressures owing to an increase in economic activity as a result of the ensuing increase in competitiveness, which leads to growth in exports and a dampening effect on imports. Past experience suggests that second-round effects on inflation resulting from earlier oil price and exchange rate developments have, on occasion, been significant. In terms of inflation, the second-round effect will be smaller the less accommodating the monetary policy reaction. Both the current situation of strong economic growth in the euro area and the prospect that growth will be clearly above trend in the coming years point to substantial risks that recent import price increases may lead to second-round effects on euro area consumer price inflation. For further information on prospects for the euro area economy, see Box 4, which is entitled “A review of economic prospects for the euro area up to 2001” in the “Output, demand and labour market developments” section.

Overall, import prices have had a substantial upward impact on euro area consumer price inflation over the past year and are likely to continue to exert upward pressure on consumer prices (see the chart below). This is

a result of the time-lag with which import prices work through to consumer prices. In addition, there is a risk of second-round effects arising from developments in labour costs.

Consumer, producer and import prices in the euro area

(annual percentage changes; monthly data)



Sources: Eurostat and ECB calculations.

- 1) Unit value indices refer to transactions between the euro area and the rest of the world; calculations are based on three-month centred moving averages.
- 2) Excluding construction.