

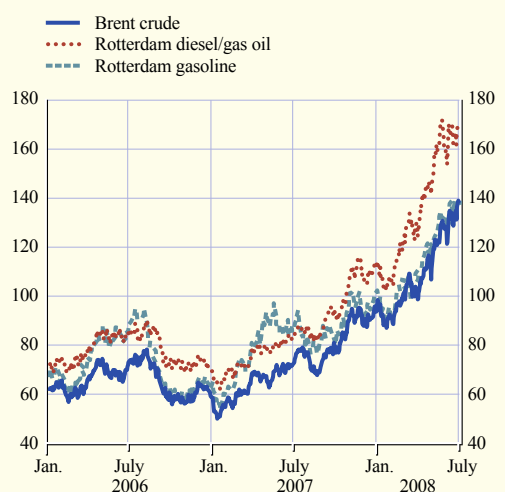
Box 3

RECENT DEVELOPMENTS IN CONSUMER OIL ENERGY PRICES

Tight demand/supply balances have recently driven oil prices to unprecedented levels, which has given rise to strong increases in consumer prices for oil energy products (in particular car fuel – petrol and diesel – and heating fuel). This box considers the relationship between oil prices on world markets and consumer prices for oil energy products in the euro area. It should be noted that oil prices on world markets are usually quoted in dollar terms. Over the last few years the increase in oil prices in euro terms has been less substantial. There are a number of additional factors which may have an impact on the transmission channel. First, before it can be used by consumers, crude oil must be delivered to refineries and be refined either into gasoline (i.e. petrol) or into gas oil (i.e. for diesel or heating fuel). Second, refined products must be distributed from the refineries to retail outlets. Finally, owing to specific excise and value added taxes, there is

Chart A Crude and Rotterdam refined oil prices

(USD per barrel)



Source: Reuters.

Note: From January 2007 "gasoline" refers to the 10 ppm specification.

a difference between the price the consumer pays and the price the retailer receives. This box focuses mainly on developments in refining margins and the likely implications for HICP inflation in the euro area.

Developments in refining margins

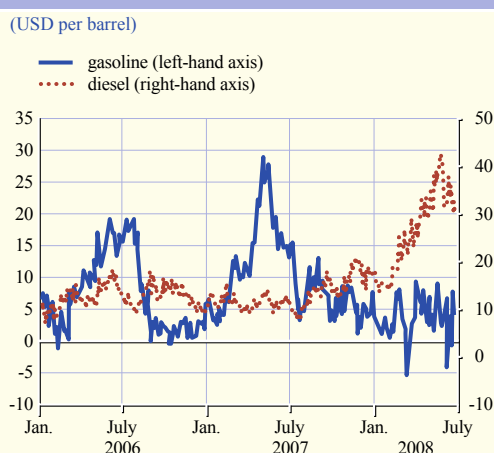
Examining the relationship between the price for crude oil and the price for refined products, Chart A illustrates that these are generally, although not always, co-moving. However, in the past six months diesel prices have increased at a notably faster rate than the prices of gasoline and of crude oil itself. Indeed, looking at the “refining margin”, namely the difference in price of a barrel of refined product and a barrel of crude oil, it becomes apparent that the margin for diesel has strongly increased in recent months, reaching a peak in May 2008 (see Chart B). Refining margins have generally been very volatile in the last few years, and a similar phenomenon occurred in April 2007 in the gasoline market.

The market for diesel fuel has been very tight recently. Despite the recently recorded high prices, the demand for diesel has continued to increase, although at a slower pace than that witnessed over the past ten years, when the demand for diesel fuel in euro area countries steadily increased at a much faster rate than the demand for gasoline (see Chart C). Demand for diesel has also been affected by the sharp increase in diesel cars, which now account for more than half of the newly registered passenger cars in the euro area. Diesel is also the primary fuel used in the road transport sector. Furthermore, demand for diesel has been very strong in emerging economies, in particular China, where the International Energy Agency projects that diesel demand will grow by 10% in 2008.

This strong demand has put pressure on the supply side, which has been exacerbated by strikes and other disruptions, and European refineries have not managed to catch up with demand. In June 2008, for example, more than 900,000 tonnes of gas oil were shipped to Europe. Although such pressure could ease in the coming months as temporary factors unwind, market tightness has been an important factor affecting the recent evolution of refining margins.

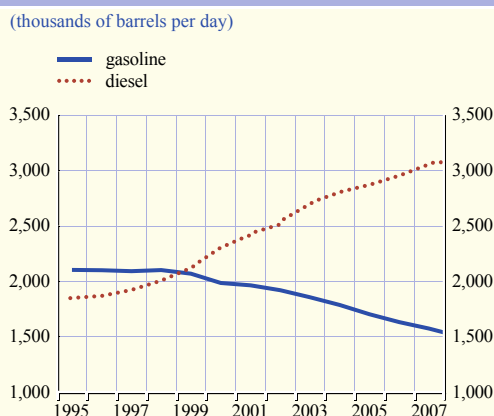
Another factor that may have had an impact on the developments in diesel refining margins is the increasing quality, i.e. lower sulphur

Chart B Refining margins



Sources: Reuters and ECB calculations.
Note: The refining margins are calculated as the difference between the Rotterdam price of refined product and the price of Brent crude oil.

Chart C Euro area demand for gasoline and diesel



Sources: International Energy Agency and ECB calculations.

content, of diesel fuel sold in European markets. The fact that low-sulphur diesel can be produced from sour (high-sulphur) crude oil only in appropriately specialised refineries, and that the spread between the prices of sweet and sour crude oil has increased, may have put additional pressure on the refining margins.

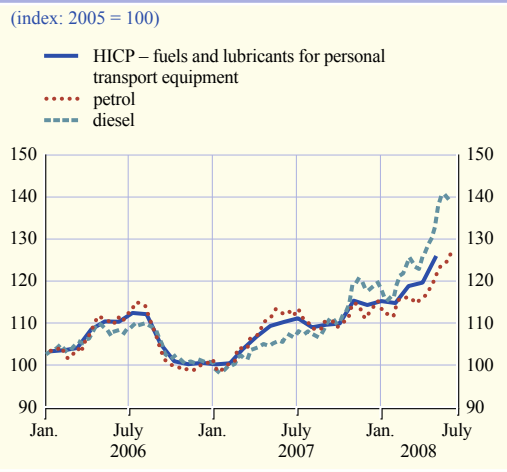
Impact on consumer energy prices

The impact of the differing developments in the refining margins for gasoline and those for diesel on consumer energy prices is illustrated in Chart D, which shows the evolution of the HICP series for transport energy, together with petrol and diesel prices obtained from the European Commission's weekly Oil Bulletin. Unlike the period between mid-2006 and mid-2007, when petrol prices increased more rapidly than diesel prices (owing to the rise in gasoline refining margins – see Chart B),¹ since the end of 2007 diesel prices have increased at a significantly higher rate than petrol prices. This has resulted in the near closing of the previously existing gap between the prices of petrol and diesel, notwithstanding an average difference of approximately 20 cent per litre in taxes on the two products.

The data from the weekly Oil Bulletin provide information on prices before and after taxes, which makes it possible to calculate an indicator of the distribution and retail margins. It is calculated as the difference between consumer prices excluding taxes and the price of refined oil products. Chart E suggests that, although there has been some short-term volatility in the distribution and retail margins, they generally have not exhibited any strong trend over the recent period. As there tends to be some lag (of approximately three to five weeks) in the full pass-through of developments in refined prices to consumer prices, this suggests that retail margins to some extent buffer the increase in “upstream” prices (i.e. crude and refined oil prices).

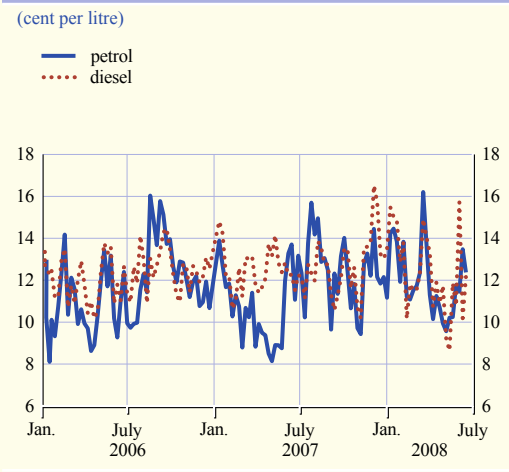
¹ For more information, see the box entitled “Recent developments in oil and petrol prices” in the November 2006 issue of the Monthly Bulletin.

Chart D Consumer prices for transport energy



Sources: Eurostat, the European Commission's weekly Oil Bulletin and ECB calculations.

Chart E Indicators of distribution and retail margins



Sources: Reuters, European Commission and ECB calculations.

Another factor which affects final consumer prices is taxes, which comprise a very significant portion of final consumer prices (currently accounting for around 60% and 50% respectively of final petrol and diesel consumer prices).² However, taxes appear to have played a minor role in recent energy price developments at the consumer level, mainly owing to the fact that there have not been any significant changes in average excise or value added taxes on fuel across the euro area in recent years. That said, value added taxes move automatically with pre-tax prices as they are levied as a percentage. Thus, although the overall absolute tax content of consumer oil energy prices has increased somewhat in recent years as a result of value added taxes, the share of final consumer prices accounted for by taxes has declined as the price of crude and refined oil has risen owing to relatively stable excise taxes.

In summary, the renewed surge observed in consumer oil energy prices is primarily due to developments in both crude and refined petroleum products. In particular, diesel prices have increased by more than petrol prices owing to a significant increase in the diesel refining margin. Further down the pricing chain, there is little evidence that distribution and retail margins have contributed significantly to the increase in consumer prices on average across the euro area.

² On average across the euro area, taxes on diesel have been lower than those on petrol. Thus, although refined diesel has generally been more expensive to produce, the consumer prices of diesel had until recently been notably lower than those of petrol. In 2007, on average, taxes accounted for approximately 60% of petrol prices, while crude and refined oil inputs together accounted for 30%, and distribution and retail margins represented approximately 10%. For diesel, the percentages were 50%, 35% and 12% respectively.