Box 3

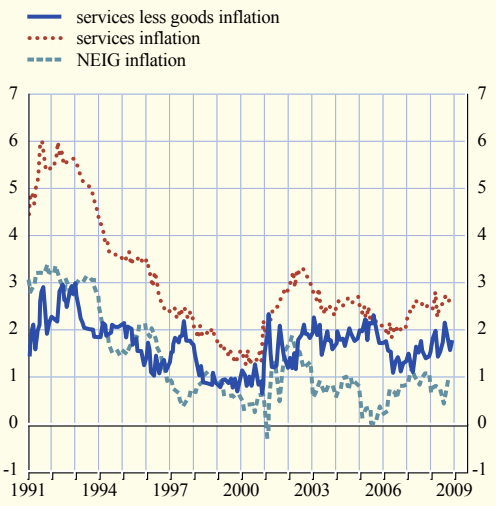
WHY IS SERVICES INFLATION HIGHER THAN GOODS INFLATION IN THE EURO AREA?

When analysing economic activities, it is common to distinguish between services and goods. This box looks at the nature and possible explanations for the gap between services inflation and industrial goods price inflation in the euro area, paying particular attention to the tendency for this gap to persist over time.

Over the past two to three decades, the prices of services have risen more rapidly than the prices of goods in the euro area. This can be seen in both HICP data and gross value added deflators from the latest EU KLEMS database (see the chart and table respectively).[1] The concept of "goods" used here refers to manufacturing as the relevant national accounts category in the EU KLEMS database and to non-energy industrial goods (NEIG) when looking at HICP data. For both types of data, the gap between market-related services price inflation and goods price inflation has tended to be persistently positive over time. The gap has hovered at around 2 percentage points in the case of HICP data (1991-2008) and at 1.2 percentage points using EU KLEMS data (1981-2005). Moreover, the gap between services price inflation and goods price inflation has persisted regardless of the inflation rate. For example, growth in services prices outpaced growth in goods prices as much during periods when inflation was relatively high (e.g. during the 1980s and early 1990s) as it did when inflation was lower (since the mid-1990s).

Gap between services and goods HICP inflation

(annual percentage changes)



Source: Eurostat.
Note: The latest data are for November 2008.

There are a number of reasons why services prices tend to rise more rapidly than goods prices. One argument sometimes presented is higher growth in the demand for services as per capita income rises and the population ages. The share of services in gross value added rose from slightly more than 60% in 1980 to some 70% in 2005 (around 50% in the case of market services and 20% for non-market services). Increases in the demand for services relative to the demand for goods may at times explain some short-run increases in services prices relative to those for goods. Nevertheless, this factor fails to account for this phenomenon in the medium to long run as supply should have been able to match the trend rise in demand over time.

1 On the EU KLEMS database, see Timmer, M., van Moergaestel, T., Stuivenwold, E., Ypma, G., O'Mahony, M., Kangasniemi, M.: *EU KLEMS Growth and Productivity Accounts Version 1.0*, March 2007. Although ESA-95 national accounts data from Eurostat are more timely, EU KLEMS data are used here for two reasons. First, they are available for a long period (from 1970 compared with the ESA-95 data, which are only available from the early 1990s). Second, EU KLEMS data report labour productivity per hour worked, while the ESA-95 statistics only report labour productuivity per person employed. For an analysis of ESA-95 data on services inflation, see the box entitled "Judging sectoral inflation developments on the basis of national accounts data" in the May 2008 issue of the Monthly Bulletin.

Inflation, productivity and competition

(five-year averages, annual percentage changes)

	1981-2005	1981-1985	1986-1990	1991-1995	1996-2000	2001-2005
Gross value added deflator						
Market services	3.8	7.2	4.2	3.7	1.4	2.5
Manufacturing	2.6	6.2	3.1	2.0	1.0	0.7
Market services minus manufacturing	1.2	1.0	1.1	1.7	0.4	1.7
Labour productivity growth per hour worked						
Market services	1.5	1.5	2.0	1.9	1.2	0.8
Manufacturing	2.8	3.7	2.4	3.3	2.6	2.1
Market services minus manufacturing	-1.3	-2.2	-0.4	-1.4	-1.4	-1.3
Profit mark-up						
Market services	36.4	32.7	36.5	38.3	37.9	36.7
Manufacturing	10.2	9.9	11.9	9.6	10.0	9.6
Market services minus manufacturing	26.2	22.8	24.7	28.7	27.9	27.1

Source: EU KLEMS.
Note: The profit mark-up is defined as the ratio of output to production costs. The euro area data exclude Cyprus, Malta, Slovakia and Slovenia.

Turning to the supply-side factors that could be behind the sustained gap between services inflation and goods price inflation, one explanation relates to sectoral productivity growth differentials. Concerning the growth in gross value added prices and the increase in labour productivity, on average a quantitatively similar gap can be observed between market services and manufacturing (see the table). For the period 1981-2005, gross value added annual inflation in market services exceeded that in manufacturing by 1.2 percentage points. The corresponding gap between manufacturing and services was 1.3 percentage points for labour productivity growth.

Another factor that could lead to higher relative prices of services is a rising mark-up induced by the lack of competition in this sector.[2] In this regard, mark-up increases in market services above those seen in manufacturing appeared to contribute to driving the inflation gap between the two sectors during the 1980s and until the mid-1990s as indicated by the rising gap in the profit mark-up (see the table). While since the mid-1990s this has ceased to be the case, it is worth mentioning that market services have continued to exhibit a relatively high level of mark-ups. Indeed, over the period 1996-2005 the "profit mark-up" – i.e. the ratio of output to production costs – averaged 37.3% in market services, compared with the much lower value of 9.8% in manufacturing.

Finally, two open economy-related factors are sometimes mentioned, namely the increased openness to foreign trade and the value of the euro. With regard to increased openness to foreign trade, it is argued that greater global competition affects goods price inflation more than services price inflation because the international trade in goods is considerably larger. The degree of euro area trade openness (measured in terms of exports plus imports as a percentage of GDP) has risen steadily from about 20% in 1990 to some 35% of GDP in 2008 (excluding intra-euro area trade). This increase has been fuelled by the contribution from regions with lower labour costs, notably the new European Union Member States and South-East Asia, which are able to produce and sell goods at relatively low prices. To maintain price competitiveness, euro area firms must find ways to cut their costs and prices. Both the low prices of goods produced in lower cost

2 In practice, competition affects not only mark-ups but also productivity. See Task Force of the Monetary Policy Committee of the ESCB: "Competition, productivity and prices in the euro area services sector", ECB Occasional Paper No 44, 2006; and the article entitled "Competition in and economic performance of the euro area services sector" in the May 2007 issue of the Monthly Bulletin.

countries and sold within the euro area and the price responses of local producers help to keep prices for manufactured products low and to widen the gap between services and goods price inflation. In practice, however, the steady rise in euro area trade openness seen since the 1990s has not been matched by any detectable trend in the inflation gap. This lack of correlation is clear in the medium run, even if some co-movement can be found for shorter periods of time.

With regard to the value of the euro, a nominal exchange rate appreciation is expected to lower overall consumer goods inflation by making imports cheaper. Since international trade in goods is considerably greater than international trade in services, a rise in the value of the euro may thus cause goods prices to drop relative to services prices, contributing to the inflation gap. Conversely, an exchange rate depreciation would be conducive to a fall in the inflation gap between services and goods. However, since the 1990s the value of the euro has exhibited wide fluctuations and no clear trend. The exchange rate cannot therefore explain the persistence in the inflation gap in the medium to long run. This notwithstanding, in some instances exchange rate fluctuations may have temporarily influenced inflation gap developments.

In sum, over the past two to three decades services price inflation has been higher than goods price inflation in the euro area. The persistent inflation gap between services and goods has been associated with poor labour productivity growth. Other factors appear to have played only a transient role in driving inflation in services higher than inflation in goods, including higher demand for services relative to goods, open economy considerations (in the form of heightened foreign competition and fluctuations in the euro exchange rate) and rising mark-ups. With regard to the latter factor, it is worth mentioning that the services sector has continued to display relatively high mark-ups since the mid-1990s. All this suggests that structural reforms aimed at raising productivity growth and reducing profit margins, such as an increase in market competition in the services sector, would contribute to making relative prices more flexible and to reducing overall inflationary pressure from services prices in the euro area.