

ARTICLE – Price rises are spreading in the economy

For some time now, a large share of the prices of energy, food and other goods has been increasing faster than normal. Now many service prices have also started to increase more rapidly, which illustrates that the rise in inflation is broad. There are also some signs that prices are being raised even when this is not clearly justifiable on the basis of higher costs. The wage statistics so far do not show higher wage increases, but respondents to the Riksbank's Business Survey are expecting a larger wage drift and they state that more new employees are now entering the workplace on higher salary levels to compensate for the high inflation. This could be a first sign of spillover effects via expectations and wages. The Riksbank assesses that the risk of the high inflation becoming entrenched in price-setting and wage formation has increased. Inflation is now expected to be higher this year and next year in relation to the previous assessment.

Inflation has risen since the middle of 2021. Initially, it was driven by rising global energy prices. Now a large share of the prices of energy, food and other goods is increasing faster than normal. During the most recent months, the rate of increase on many service prices has also increased, which is a sign of more domestically generated inflationary pressures.

In this article we discuss the question of whether the upturn in inflation in Sweden can be explained by rapidly rising internationally determined costs, or whether other mechanisms play a major role. Inflation has been low for many years. For instance, companies have experienced that substantial competition has made it difficult for them to raise prices without losing market shares. If there is now a generally increased acceptance for higher prices, it may mean that even companies that have not been affected so much by increased costs and the effects of the pandemic will raise their prices. This can in turn be a sign of changed price-setting behaviour and ultimately changed wage formation behaviour, and will then become a central issue for monetary policy.

In this article, we also discuss the development of more long-term inflation expectations and whether there is any tendency towards wages having been affected. This kind of delayed effect, in which higher inflation expectations in turn generate higher prices and wages via higher marginal costs, is usually called a *secondary effect*.

Pricing of goods and services according to theory

Theoretically, corporate pricing of goods and services is determined by marginal costs and mark-ups. *Marginal costs*, which measure the cost of producing one further unit of a manufactured item, can be explained by the price of production factors and are therefore affected by wages, capital costs (such as rent and costs for machinery) and prices for input goods.²⁶ *Mark-ups*, which usually depend on the competition and demand situation, capture companies' need and opportunity to set a price higher than the production cost to obtain a return on invested capital.²⁷

Last year, many companies in various sectors stated that costs had risen gradually. According to the responses to the Riksbank's Business Survey in September, this was due to rising prices on energy and input goods and to sharply rising costs for transport, warehousing and logistics.²⁸

In 2021, the Riksbank assessed that consumer prices would be affected by factors such as *indirect effects* of the higher costs and that inflation would rise, particularly in 2022.²⁹ In particular, prices for food and other goods were expected to rise faster, as were prices for some services. However, developments have been significantly faster and the price increases have spread more than expected. If costs continue to increase rapidly, inflation will probably be pushed up even further. However, given that prices of many commodities and deliveries have stabilised, it is reasonable to expect that several cost increases will gradually wane. One important factor for the development of inflation in the long run will thus be domestic cost development and companies' expectations of the general price situation.

Service prices have risen rapidly in recent months

More expensive input goods and higher freight costs should not affect the service sector as directly as other sectors, but according to the Riksbank's Business Surveys last year, service companies also saw rising costs and higher expected sales prices. This picture is also confirmed by statistics from the Economic Tendency Survey (see Figure 51).

According to the theoretical framework above, price rises can be explained by increasing costs and mark-ups in addition to costs. The price mark-up can be regarded in this context as a merger of the factors 'competition' and 'demand'. According to the bars in Figure 51, the price mark-up has become gradually more positive and attained its

²⁶ Productivity also affects marginal costs, as does the exchange rate. Fewer resources are needed to produce one more unit if productivity is high. If the krona is strong, Swedish companies pay less in Swedish kronor for imported input goods.

²⁷ For a discussion of corporate pricing, see the article "Cost developments and inflation" in *Monetary Policy Report*, July 2013, Sveriges Riksbank.

²⁸ See "As soon as you find one component, you realise you're missing another", *The Riksbank's Business Survey*, September 2021, Sveriges Riksbank.

²⁹ One example of an indirect effect would be higher fuel costs leading to more expensive transport and thus to higher costs for all goods transported by road.

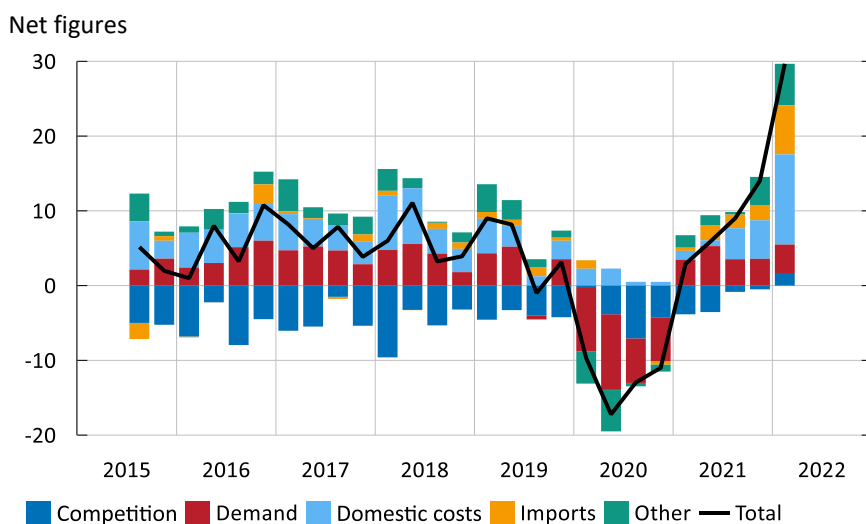
highest value during the first quarter of 2022. These survey responses thus indicate that service companies' price mark-ups are rising.

The rate of increase in Swedish service prices was low during 2020 as pandemic restrictions limited the demand for services. The rate of increase rose in 2021, partly due to many pandemic restrictions being lifted, and the demand for services rose quickly. This development has continued this year and according to the Riksbank's most recent Business Survey, sales of travel, restaurant visits and hotel nights are continuing to increase.³⁰

However, what stands out most clearly in Figure 51 are factors that could be itemised under the term marginal costs. Domestic costs have always made a positive contribution but never as high as during the first quarter of 2022. According to the Riksbank's Business Survey, costs developments in the service sector are currently mainly affected by rising wages. This in turn is due to the shortage of labour and the tough competition for it. It is also probable that the service sector is experiencing higher operating costs and rents for premises as well as increased transport costs, although these posts generally comprise a smaller share of the service sector's production costs. The factor 'imported costs' has also risen rapidly and the weakening of the exchange rate may play a certain part in this.

The factor 'other' has also contributed to the higher prices, according to survey responses, which could be a sign that some prices are being raised without any direct link to higher costs or strong demand.

Figure 51. The driving forces behind price changes among companies in the service sectors



Note. Companies in the service sector answer whether prices have risen or fallen in the most recent quarter and which factor has been the most significant price development driver.

Sources: The National Institute of Economic Research and the Riksbank.

³⁰ See "Everyone is talking about the problems, no one about how well things are going", *The Riksbank's Business Survey*, May 2022, Sveriges Riksbank.

Is the high inflation also affecting sectors where costs have not increased?

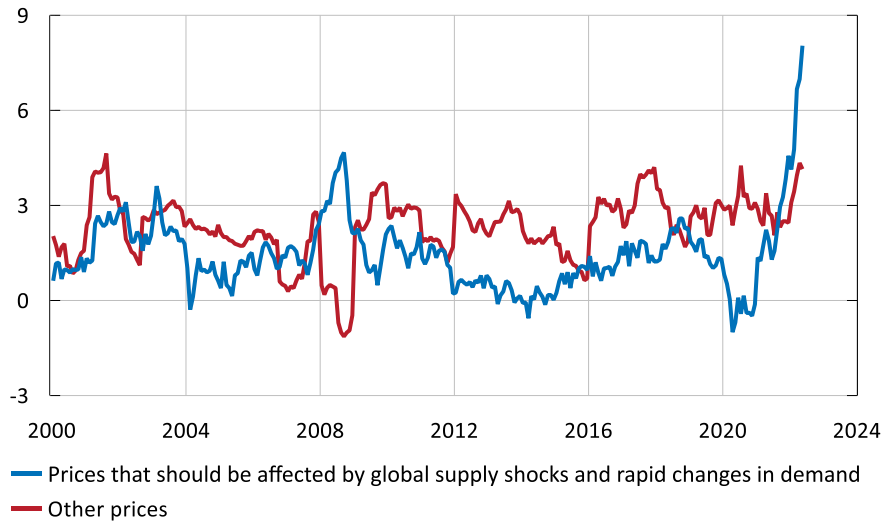
The issue is whether parts of the general rise in prices can be explained by other mechanisms than the direct and indirect effects of higher costs and more expensive input goods. Inflation has been low for many years and, in such an environment, it is difficult to raise prices without standing out, particularly when competition is also tough. Now that a number of prices have risen at the same time in different sectors, there may be a pent-up need to adjust prices upwards, even if this is not actually justifiable on the basis of higher costs.

Figure 52 shows an overall index of prices that has most likely been affected much by global supply shocks and rapid changes in demand in recent years. The figure also shows an index that includes prices that have probably been less affected by these factors. The latter index should therefore more closely capture domestic costs and price mark-ups. The prices are gathered from 70 sub-groups that together make up the CPIF. The first index (the blue line in the figure) includes all energy prices and food prices, as well as prices for most other goods. Some service prices have also been located to this group, including rent, travel, entertainment, accommodation and restaurant visits. These service prices are deemed to have been affected primarily by changes in demand due to earlier pandemic restrictions. The weight for these goods and services comprises almost 80 per cent of the CPIF. The other index (red line in the figure) includes most of the service prices and some goods prices, such as newspapers and pharmaceuticals, that are not assessed to have been affected as much by the international cost increase. The weight for these prices, which are also listed in table 1 below, amounts to just over 20 per cent in the CPIF.

The way they have been sorted is rather rough, but the figure nevertheless indicates that prices that are not directly related to higher costs and input prices are rising just now. This in turn indicates that the price increases are spreading.

Figure 52. Prices that should have been affected by higher international costs and other prices

Annual percentage change



Note. The weight for prices that should have been affected by recent years’ higher costs, higher input prices and shifting demand amounts to 79.6 per cent. The weight for other prices amounts to 20.4 per cent.

Sources: Statistics Sweden and the Riksbank.

Table 1. Prices that should have been less affected by higher costs

Weight		Weight	
3.4	Capital stock index (housing)	0.7	Health and medical care items
2.8	Funerals, insurance, banking, education	0.7	Own housing: Site leasehold, property tax
2.1	Telecommunications services	0.6	Own housing: Repairs, goods
1.9	Vehicle inspection, driving lessons, vehicle insurance	0.5	Newspapers and magazines
1.8	Medical care	0.4	Books
1.5	Personal hygiene, services	0.4	Own housing: Insurance fees
1.1	Pharmaceuticals	0.4	Repairs, household services
1.0	Own housing: Water and sewerage, refuse collection	0.1	Mail
0.9	Dental fees		

Note. Weight refers to the weight in the CPIF in per cent. The total of these weights amounts to 20.4 per cent in the CPIF.

Sources: Statistics Sweden and the Riksbank.

The Riksbank follows price-setting and wage formation closely

There can be a tendency to now ‘take the chance’ to raise prices, as a price increase will not stand out in the same way as when inflation is low. One sign of this is that the profitability assessment by companies in the business sector has increased, according to the Economic Tendency Survey, and is at a high level. Despite costs having in-

creased rapidly for many companies, they have nevertheless increased their profitability by passing on the cost increases, and more than that, to the consumers. If it continues, this behaviour could prolong the period of high inflation.

The upturn in more long-term inflation expectations, according to Kantar Sifo's Prospera survey, is clear but as yet there are no concrete signs of rapidly rising wages in the statistics. According to the Riksbank's Business Survey, some companies testify to rising payroll costs and say that job seekers are now trying to get higher salaries on employment as compensation for the higher inflation. This may be a first sign of secondary effects, and that price-setting and wage formation have been affected.³¹ The Riksbank's forecast assumes that negotiations between employer organisations and employee organisations, together with local wage formation, will result in wages increasing slightly faster than in recent years, but that the secondary effects on wage formation will be limited.

If inflation becomes entrenched in price-setting and wage formation, the period of high inflation will be prolonged. This makes it more difficult for households and companies to plan, which can dampen investment and growth in the long run. It could also mean that monetary policy needs to be tightened further. How inflation develops in the slightly longer term largely depends on how the inflation expectations of companies and households are affected. And this in turn depends on how monetary policy is designed. The Riksbank regularly analyses how price-setting and wage formation are developing and will adapt its monetary policy to bring inflation close to the target.

³¹ See "Everyone is talking about the problems, no one about how well things are going", *The Riksbank's Business Survey*, May 2022, Sveriges Riksbank.