

about one per cent of the OECD area's aggregate GDP. But financial shocks and persistently low raw materials prices could have global effects, mainly on countries in Asia, the Middle East and Latin America that have a large proportion of raw materials in their exports and substantial current-account deficits.

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Inflation in the OECD area as a whole is judged to be somewhat more subdued than foreseen in the June Report, largely because of continued *price falls for oil and other raw materials* that affect consumer price inflation directly and also imply lower production costs. The effects can be expected to show up successively in the future development of consumer prices. OECD area inflation is now expected to average about 1.6 per cent in 1998, about 1.7 per cent in 1999 and almost 2.0 per cent in 2000. This is a small downward revision compared to the June Report.

Calculated in national currencies, prices for *manufactured exports* from the rest of the world have also been revised downwards since the June Report and are expected to be more subdued than consumer prices in the coming twenty-four months. A slight price fall is now envisaged for 1998, followed by price increases of about 1 per cent in 1999 and about 1.5 per cent in 2000. Export prices are being held down by increased global competitive pressure in the wake of the slowing of world market growth that results from the drop in demand in South-east Asia and Japan, as well as by the price fall for oil and other raw materials.

*To sum up, since the June Report no dramatic reassessments have been made as regards the prospects for international economic activity and inflation in the main scenario. Growth in the OECD area is judged to be somewhat weaker. The development of international export prices also appears to be weaker than expected earlier and the inflationary impulses in the Swedish economy are therefore likely to be small.*

## HOW IS THE SWEDISH ECONOMY AFFECTED BY INCREASING INTERNATIONAL COMPETITION

During the 1990s inflation has been subdued in almost the whole of the industrialised world. This is notably different from the 1970s and early '80s as regards both the level of inflation and its fluctuations.

A number of interacting factors have contributed to this. Presumably the foremost explanation is that more and more countries have realised that high inflation is economically harmful and have therefore chosen to conduct monetary policies aimed at low, stable inflation. A conceivable additional explanation, the importance of which is less documented, may be a successive increase in international competition, for instance as a result of the growing possibility of locating even comparatively advanced production in countries where the wage level is considerably lower than in the West.<sup>15</sup>

While a monetary policy realignment has permanent consequences for inflation, it is reasonable to sup-

pose that increased competition has the primary effect of depressing inflation temporarily. In the latter case it is rather a matter of a one-off effect—albeit a protracted one—on the *price level*, in that firms are obliged to adjust prices downwards as long as competition is intense. In an inflationary environment this shows up as lower inflation.<sup>16</sup>

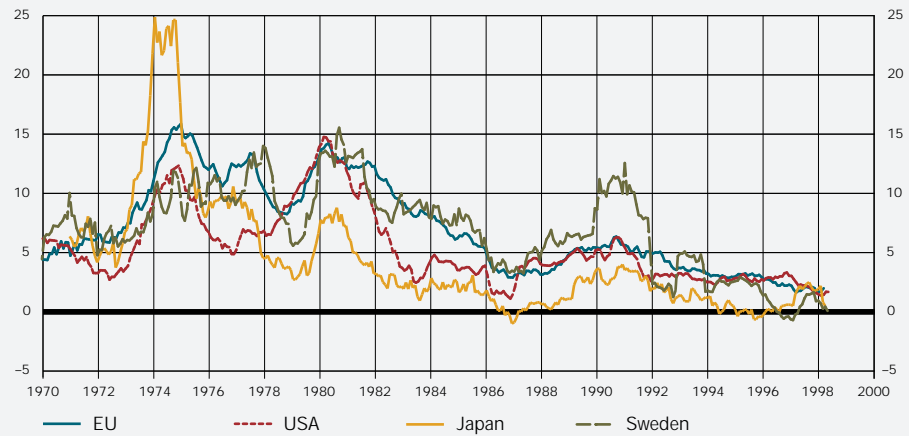
Ways in which growing international competition may affect Sweden's economy can be illustrated with a highly simplified macro model:

$$\pi_t^c = \delta \pi_t + (1 - \delta) (\pi_t^* + s_t - s_{t-1}) \quad (1)$$

$$\pi_t = \pi_t^e + \alpha (y_t - \bar{y}_t) + \beta Z_t \quad (2)$$

where  $\pi_t^c$  stands for CPI inflation,  $\pi_t$  for the component of inflation that is determined by domestic

**Figure B6.**  
Inflation: European Union, United States, Japan and Sweden. Percentage 12-month change



Sources: OECD, Bureau of Labour Statistics, Management and Coordination Agency and Statistics Sweden.

conditions,  $\pi_t^*$  for international inflation,  $s_t$  for the exchange rate,  $\pi_t$  for the general public's expectations of inflation's long-term domestic component,  $(y_t - \bar{y}_t)$  for the domestic demand situation as represented by some measure of capacity utilisation, and  $z_t$  for other factors that affect domestic price formation, for example tax changes.

Equation (1) states that CPI inflation consists of one component determined by domestic conditions and another influenced by external inflation adjusted for exchange rate movements. Equation (2) states that inflation's domestic component is determined by expected domestic inflation, the domestic demand situation and various types of shock. The second term in (1) represents prices for imported goods but can also be said to mirror prices for domestic products that are exposed to strong international competition.<sup>17</sup>

The model envisages that increased international competition has three main effects on Swedish inflation in the short and medium term, though it should be underscored that both the relative importance of the effects and their aggregate magnitude in practice are highly uncertain.<sup>18</sup>

Firstly, international inflation,  $\pi_t^*$ , would fall as a result of global pressure on prices. Imported goods and those that compete with imports would become cheaper. Besides having a direct impact on consumer prices, this would presumably have indirect effects via lower prices for intermediate goods and investment goods.<sup>19</sup>

Secondly, more domestic firms than previously would be likely to experience foreign competition, which would contribute to downward pressure on domestic product prices. A simplified illustration of this in the model would be for inflation to be expressed to a growing extent by the second term in (1), that is, the weight  $\delta$  decreases.<sup>20</sup>

Thirdly, it seems reasonable that even domestic firms with some room for adapting prices to domestic

15 It should be noted that a contrary force could arise if mergers between multinational companies result in the global market being dominated by just a few entities. In the longer run, increased internationalisation can also lead to a greater degree of specialisation, in that the production of certain goods is concentrated to certain countries or regions.

16 A fuller account of, above all, the empirical relationships between competition and inflation is to be presented in an article by Asplund, M. & Friberg R. in a forthcoming issue of the Riksbank's *Quarterly Review*.

17 In practice, of course, the goods and services in consumption can hardly be dichotomised into items that are fully subject to external pricing and those that are solely influenced by domestic conditions. It is rather a matter of a sliding scale, with a large proportion of goods and services that are susceptible both to the domestic demand situation and to international prices. Goods manufactured in Sweden, for example, may contain imported components or be produced with imported machinery, just as the pricing of certain imported goods may be affected by the domestic demand situation.

18 In the long run one can expect inflation, in Sweden as well as elsewhere, to follow the explicit or implicit inflation targets, mainly because deviations from the targets would elicit countermeasures from the central banks.

19 These effects could be diminished or augmented in practice by exchange rate fluctuations. For the sake of simplicity, a constant nominal exchange rate has been assumed here.

20 A contrary effect can arise if lower prices for imported goods and goods that compete with these result in lower relative weights in the CPI basket.

demand would be obliged to make their production more efficient. In the model this would amount to potential output,  $\bar{y}_t$ , being higher than would otherwise be the case, that is, higher demand,  $y_t$ , can be met without capacity restrictions generating appreciable inflationary pressure.

One implication of a process whereby a growing share of domestic output is exposed to international competition is that conventional measurements of domestic capacity utilisation may become less useful indicators of future inflation.<sup>21</sup> A situation may arise, for example, where capacity utilisation is very high among firms facing strong international competition but moderate among firms that are in a better position to adapt their pricing to Swedish demand. The measured aggregate capacity utilisation would then indicate a comparatively high level that might be interpreted as a sign of rather high inflationary pressure even though the firms whose capacity is strained have limited possibilities of raising prices.

At the same time it should be born in mind that

even if increased international competition may lessen the usefulness of the demand situation or capacity utilisation as an indicator of future price tendencies in *product markets*, it is not certain that their informative value as indicators of wage tendencies in the *labour market* would be reduced to the same extent. A situation with high demand, for example, might lead to appreciable wage increases but only moderate price increases. That would ultimately result in a weak development of employment.

21 The possibility that the relationship between the real economy and inflation has changed in recent years has been discussed by the Riksbank in various contexts; see e.g. Berg, C. & Lundkvist, P. (1997), Has the inflation process changed?, *Quarterly Review No. 2*, Sveriges Riksbank, and Borg, T. & Croneborg, M. (1997), Structural change and price formation, *Quarterly Review No. 1*, Sveriges Riksbank. However, increased competition is just one of several conceivable explanations; another is that, compared with the fixed exchange rate, the inflation target functions as a more credible and concrete benchmark for price and wage setting.

## Interest rates and exchange rate

The assessment of inflation is highly dependent on the development of interest rates and the exchange rate and this in turn is affected to some extent by the technical assumption that the repo rate is left unchanged in the forecast period—the coming twenty-four months. The effect of this assumption is most evident in short-term interest rates; the three-month rate is presumed to be virtually stationary during the forecast period. The assumption is of less consequence for the development of interest rates with longer maturities. Both international and Swedish long bond rates are assumed to rise somewhat from today's historically low levels.

An appreciation of the Swedish krona is foreseen in the forecast period. This assumption rests on the perception that the real exchange rate is weaker than

its long-term equilibrium level.<sup>22</sup> With the recent marked weakening of the krona, however, the adjustment towards the equilibrium level is assumed to start from a level that is lower than expected in the June Report. At the same time, the factors which have weakened the krona are considered to be mostly of a rather transitory nature and their importance is therefore assumed to decline relatively quickly. An appreciation of the krona is also indicated by the economic fundamentals, with good growth, low inflation, a growing general government surplus and strong confidence in economic policy.

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The economic fundamentals, with good growth, low inflation, a growing general government surplus and strong confidence in economic policy, point to an appreciation of the krona.

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22 See box "The krona's long-term path" on p. 27 in this section or "Determinants of the Exchange Rate", *Inflation Report 1997:2*, pp. 21–22.