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PRESS RELEASE

The pricing behaviour of firms in the euro area: new survey evidence

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This working paper presents the results of the ad hoc surveys conducted in the course of 2003 and 2004 in nine euro area countries, examining the pricing behaviour of a total of more than 11,000 firms. The paper has also been published in the ECB Working Paper Series, and its main findings have been summarized in the article "Pricing behaviour in the euro area: results of a Eurosysteem survey" (NBB Economic Review, 3rd quarter of 2005).

The surveys formed part of the activities of the "Eurosysteem Inflation Persistence Network" (IPN), a research network set up by the euro area's twelve national central banks, the ECB and the academic world. This research network examines both pricing behaviour and the scale and causes of inflation persistence in the euro area. In order to gain an accurate insight into pricing behaviour, the IPN deemed it useful to conduct an ad hoc survey in the various euro area countries. The comparative advantage of such surveys lies in the possibility of investigating the underlying motives for the pricing behaviour observed, while the latter are more difficult to ascertain on the basis of quantitative databases of consumer and producer prices. Nine countries – Austria, Belgium, France, Germany, Italy, Luxembourg, the Netherlands, Portugal and Spain – responded to this request.

Despite methodological differences between the surveys of the nine countries, the results are similar in many respects. This suggests that the national survey results are decidedly robust and therefore provide a valuable insight into the reasons behind the pricing behaviour observed. Several stylized facts have been found:

1. Prices are changed infrequently. The median firm changes its price once a year. Prices are stickier in the services sector and more flexible in the trade sector. In most countries, firms facing strong competitive pressures adjust their prices more frequently, especially in the case of demand shocks.
2. Both time- and state-dependent pricing strategies are used by euro area firms. Around one-third of the companies follows mostly time-dependent pricing rules - which means that these companies fix their prices at regular intervals (e.g. in the beginning of the year) - , while the remaining two-thirds use pricing rules with some elements of state-dependence. With state-dependent pricing, the timing of the price adjustment is not given in advance, but depends on the economic environment.
3. Implicit and explicit contracts are the most relevant explanations for sticky prices, which suggests that price rigidities are associated with customers' preferences for stable nominal prices. Other relevant explanations rely on cost-based pricing and co-ordination failure. These results suggest that the main impediments to more frequent price adjustments are associated with the price change stage rather than with the price review stage of the price-setting process.
4. This is confirmed by the fact that price changes are less frequent than price reviews. In most countries, the modal number of price reviews lies within the range of one to three times a year. Services firms review prices less frequently than firms in the other sectors. Firms facing high competitive pressure review their prices more frequently.
5. Around half of the firms review their prices taking into account a wide range of information, including both past and expected economic developments; one-third of them adopts a backward-looking behaviour. The latter behaviour can be a source of inflation persistence.
6. Cost shocks are more relevant in driving prices upwards than downwards, while shocks to market conditions (changes in demand as well as the competitor's price) matter more for price decreases than for price increases.

7. Mark-up pricing is the dominant price-setting practice adopted by firms in the euro area. The majority of the firms indeed sets its prices as a mark-up over marginal costs. The lower the level of competition, the more frequently used this method is. However, prices of around 30 p.c. of euro area firms are shaped by competitors' prices.
8. Pricing-to-market and other forms of price discrimination are common practice for euro area firms. Competitors' prices on the foreign market and transportation costs are the most relevant factors for pricing-to-market behaviour.

Overall, these survey results tend to confirm, to a considerable extent, some basic assumptions underlying the new generation of dynamic general equilibrium macro models, such as the fact that prices are set as a mark-up over marginal costs, the fact that they are changed rather infrequently and in a predominantly forward-looking way. Other results are less in line with the standard assumptions of these models, which, generally speaking, assume price adjustment to be time-dependent, whereas in the surveys a substantial fraction of state-dependence was found as well.