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PRESS RELEASE

How are firms' wages and prices linked: survey evidence in Europe

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This paper studies the frequency, timing and interaction of wage and price changes across firms, economic sectors and a broad range of European countries. It uses a new and unique cross-country dataset – unprecedented by international standards in terms of both geographical and sectoral coverage – based on an ad-hoc survey on wage and pricing policies at the firm level. The survey was developed within the Wage Dynamics Network, a research network grouping 23 central banks in the EU and coordinated by the European Central Bank. It was carried out by 17 national central banks (from 12 euro area countries and 5 new EU Member States) between the end of 2007 and the first half of 2008, on the basis of a harmonised questionnaire. Overall, more than 17,000 firms were interviewed.

The survey can be regarded as the “natural” follow-up to some of the evidence on price behaviour revealed by the Inflation Persistence Network. Indeed, one of the network's most interesting findings is the substantial heterogeneity in the degree of price stickiness across products and sectors. This evidence raises the question whether the observed dispersion in the frequency of price changes is the result of wage inertial behaviour, placing firms’ wage-setting policies at the heart of our research interests.

Several dimensions of wage-setting are explored in this paper, which focuses explicitly on how firms set and adjust prices and wages and on the relationship between the two policies.

As for the frequency of adjustment, the paper shows that firms change their wages less often than their prices. The former tend to remain unchanged for about 15 months on average, while the latter for around 10 months.

The cross-sectoral variation in the frequency of price adjustment is wide compared to that of wage adjustment. Instead, country differences are larger for wage change frequencies than for price change frequencies. This evidence possibly reflects the crucial importance for pricing strategies of the economic context in which individual firms operate, which is likely to differ substantially across sectors, whereas the institutional setting, which is strongly country-specific, matters mostly in shaping wage adjustment strategies. Indeed, a multivariate analysis of the determinants of price and wage rigidity at the firm level confirms that more frequent price adjustments are associated with higher intensity of competitive pressures and exposure to foreign markets, as well as with a lower share of labour costs in total costs (consistently, prices are found to be stickier in business services). Conversely, wages tend to be more flexible in the presence of firm-level collective wage agreements, whereas the stringency of employment protection legislation and the coverage of collective agreements act in the opposite direction. There is also a correlation between frequency of wage changes and the presence of (formal or informal) mechanisms for index-linking wages to inflation.

The extent of wage and price rigidities is also related to the adjustment mechanisms adopted by firms, with time-dependent strategies generally leading to higher rigidity. On average, 54 p.c. of firms report that wage changes are concentrated in a particular month, mostly January. On the contrary, only one-third of firms adopt time-dependent pricing rules. For both prices and wages, the concentration of adjustments in particular months is significantly higher in euro area countries than in new EU Member States. In the case of wages, this might reflect the more widespread adoption of indexation clauses in the euro area, as well as the higher importance of collective wage agreements, which enhance coordinated wage adjustments.

Various pieces of evidence confirm that wages and prices feed into each other at the micro level and that there is a relationship between wage and price rigidity. First, around half of the firms that change prices in January also change wages in that month. Second, 40 p.c. of the firms surveyed acknowledge a relationship (formal or informal) between the timing of their wage and price adjustment decisions. Third,

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when asked to assess the relevance of different adjustment policies to a common, permanent and unexpected increase in wages, about 60 p.c. of firms report that they would raise prices. Fourth, firm-level wage changes appear to be related to the general inflationary outlook, whether due to the existence of internal policies adapting wages to inflation or to the national institutional setting. Fifth, firms with a high labour cost share report a tighter link between price and wage changes and a lower frequency of price adjustment. Finally, even accounting for the likely simultaneity between price and wage changes, a statistically significant relationship is found, running from the frequency of wage changes to that of prices.