Píldora Económica nº 12
The hedonic approach offers opportunities to the analysis of job quality

Manuel Sanchis i Marco[1]

One important issue in today's economics concerns how to measure quality change. Although one often observes quality differentials among goods at a given point in time, quality changes also occur over time, owing in part to the forces of technological change. Within the framework of the Lisbon European Council, it has become more and more important for the European Commission to analyse and measure the transformations in the job quality that will be induced by the technological change associated with the development of the new economy.

The economic analysis, however, did not focussed first on the issue of job quality but rather on price indexes. One of the most important defects of these indexes is its failure to take full account of quality changes. The hedonic price analysis forms the basis of the measurement of quality change while the construction of hedonic or quality-adjusted price indexes for different types of goods using multiple regression methods have solved the problem of taking properly account for the effects of quality change. To sum up, the hedonic technique converts the "quality" problem into a quantity measure.

The father of hedonic price analysis is Zvi Griliches (1961) with his research entitled "Hedonic Price Indexes for Automobiles: An Econometric Analysis of Quality change" which is widely recognised as having formed the basis of modern hedonic price analysis. But already earlier, a study by Andrew T. Court (1939) assessed the effects of auto price changes on the total volume of auto sales by following an alternative approach that he called hedonic pricing method.

Invoking the utilitarian philosophies that promoted hedonistic thinking – seeking the greatest happiness for the community as a whole – Andrew T. Court defined hedonic price comparisons as those which recognise the potential contribution of any commodity, a motor car in this instance, to the welfare and happiness of its purchasers and the community. Automobiles, he noted, provides a number of services that consumers enjoy. It would be desirable to measure directly the amount of happiness and increased welfare provided by automobile services, but such quantification would, of course, be impossible. However, it might be reasonable to relate the enjoyment that consumers receive from automobiles to physical design and operating characteristics, such as power, speed, internal room, safety, and the like. The data reflecting these characteristics could be combined into an index of usefulness and desirability. Prices per vehicle divided by this index of hedonic content would yield valid comparisons.

With all the above in mind, it could be interesting to explore the possibilities that the hedonic approach offers to the analyses of job quality. It might me relatively easy transpose the hedonic procedure used to construct quality-adjusted price indexes to construct quality-adjusted job earnings indexes. As in the study of Andrew T. Court, it would be plausible to associate workers' satisfaction in a job to a bundle this job's characteristics.

---

[1] Manuel Sanchis i Marco es Profesor de Economía Aplicada de la Universitat de València y funcionario de la Comisión Europea en excedencia.

While earnings are a major quality element of a job, they are not the only one. However, as there is a close relation between job quality and earnings, it would be reasonable to consider earnings as a good proxy of job quality and, thus, claim that the quality of a job, as measured by the level of earnings, could be adjusted for a bundle of additional quality characteristics that may evolve over time such as those already identified in an earlier note entitled "Employment performance and job quality".

These characteristics are: the level of education (LFS 1995-99 all EU), the skills (LFS 1995-99 all EU), vocational education and training (LFS 1996 all EU), health conditions at the work place (ECHP 1994-96 all EU except Sweden); safety at the work place (ECHP 1994-96 all EU except Sweden), job satisfaction due to distance travelled to work/commuting (ECHP 1994-96 all EU except Sweden) and type of work (LFS 1995-99 all EU by NACE), and contract conditions in terms of full-time/part time status and permanent/temporary work (LFS 1995-99 all EU).

Therefore, the construction of an hedonic or quality adjusted earnings index could be a useful path to measure job quality changes over time.

REFERENCES

Court, Andrew T. (1939) “Hedonic Price Indexes with Automotive Examples”, in *The Dynamics of Automobile Demand*, New York: The General Motors Corporation, pp. 99-117.

Griliches, Zvi (1961) “Hedonic Price Indexes for Automobiles: An Econometric Analysis of Quality change”, in *The Price Statistics of the Federal Government*, General Series, n° 73, New York: Columbia University Press for the National Bureau of Economic Research, pp.137-196.