

Designing optimal benefit rules for flexible retirement

Péter Eső and András Simonovits

This paper applies mechanism design to find an optimal non-linear pension benefit rule for flexible retirement. It is assumed that individuals have private information regarding their expected lifespans. The government's goal is to design a pension system (a payroll tax and a function that relates benefits to length of employment) that maximizes a social welfare function and satisfies a social budget constraint. Since individuals with different expected lifespans optimize their employment lengths conditional on the benefit function, the government must also take incentive constraints into account. The solution to this problem is defined for various social welfare functions. Under utilitarianism, the solution is a completely inflexible system, where all individuals retire at the same age with the same (yearly) benefits, and surprisingly, the first-best (complete-information) aggregate welfare is attained. If the social welfare function is strictly concave, then individuals with shorter expected lifespans retire earlier with benefits that are lower than in the first-best case. In the optimal pension system, individuals with shorter expected lifespans subsidize those who expect to live longer. Also computed in the paper is the optimal benefit rule for several specifications with CRRA utility functions and realistic parametric values, with discussion of the numerical results.

Proportion, pace and shape. Towards a morphology of cycles

András Bródy

From the coefficients of current expenditures and capital balances it is possible to calculate approximately the growth rate, the proportions of equilibrium, and the content and form of the main cycles. This study presents the treatment of discrete and continuous time and the characteristics of the basic mathematical equations giving rise to the cycle and the shapes of the cycles emerging. The qualitative conclusions to be drawn reflect that cyclical movement is the original, basic and indispensable shape of economic activity.

The stability of a competitive economy with delayed price adjustment

Gergely Kőhegyi and Gábor Stépán

One of the central themes of general equilibrium theory, alongside the existence, uniqueness and efficiency of competitive equilibrium, is its stability. This study examines the question in detail, assuming a special price-adjustment rule. Instead of the standard assumption of

simultaneous reactions, allowance is made for producers making a delayed reaction to the changes in demand. To make comparison easier, the presentation of the findings is preceded by a summary of the stability results for non-delayed price adjustment and by an account of the special mathematical methods required for the analysis.

Intra-industry trade in vertically and horizontally differentiated agricultural products, between Hungary and the European Union

Imre Fertő and Lionel J. Hubbard

In this investigation of horizontal and vertical intra-industry trade (IIT) in agri-food products between Hungary and the EU, intra-industry trade is separated into its horizontal and vertical components, based on differences in unit values. Three different approaches to measuring IIT are employed and then tested using standard regression models. The results show that horizontal IIT in agri-food products is low, but that vertical-type trade is more prevalent, although still less important than inter-industry trade. The results lend support to the contention that there are different determinants for horizontal and vertical IIT. More importantly, using a measure of IIT that reflects the level of trade produces better regression results than those based on the degree or share of IIT. The model relating to Hungary's vertical IIT in agri-food products yields the most promising results in terms of *a priori* expectations.

On the history of economic measurement – data, theory and economic policy

Antónia Hüttl

It is taken to be self-evident these days that economics cannot exist without numbers and data. A decisive proportion of applied economic research consists of examinations of an econometric nature. The public has become accustomed to invariably hearing numbers in items of news about economic events, production, inflation, employment, external equilibrium, the fiscal situation and similar events. Reference to factual statistics is a necessary condition for economic knowledge from the theoretical level right across to daily communication. The study presents the historical path by which this situation, now seen as natural, came to pass.