

## Summaries

### *Small Business Participation Procurement Policy: Subcontracting vs Allotment*

François Maréchal

Pierre-Henri Morand

Allotment and subcontracting are the two procedures enabling small businesses to participate in procurement. We compare these two procedures in the context of a procurement contract awarded by a first-price sealed-bid auction. We assume that the public buyer wishes to fulfil two different goals: to minimize expected costs of the contract for the public buyer and to maximize small businesses' profit. We show that, under specific cost-technology conditions we determine, the allotment procedure not only enables extensive participation by small businesses but also can achieve the goal of minimizing expected total costs for the public buyer.

**Keywords:** small business, auction, procurement.

JEL classification: D44; L51.

### *Bundling Commodities and Attached Services with Nonlinear Pricing*

Marion Podesta

Jean-Christophe Poudou

This paper analyzes optimal nonlinear pricing for a monopoly supplying a bundle of a commodity and a related service, where the consumers' private information is captured by scalar variable. With constant marginal costs, we find the standard result where the good and the service in the bundle are lower than separately. However, under the increasing cost assumption, when the degree of the complementarity becomes sufficiently high, the marginal price of separate good is lower than the good price in the bundle. Contrary to Martimort (1992), when good and service are perfectly complementary, we can not conclude that it is costly for consumers to sign two contracts from different shops than to buy the bundle. Because of asymmetric properties in the utility function, profitability result of bundling strategy depends, on the one hand, on the degree of complementarity between commodity and related service and on the other hand, on the degree of the optional service.

**Keywords :** *bundling, nonlinear pricing, energy market.*

JEL classification: D42, L12, Q4.

*Econometric treatment of few protest responses in willingness-to-pay studies:  
An application in health care*

Nathalie Havet

Magali Morelle

Raphael Remonnay

Marie-Odile Carrere

In contingent valuation surveys, there is a range of possible explanations for zero bids, from true zero responses consistent with economic decisions to protest responses. According to the empirical literature, which analyzes the determinants of willingness-to-pay (WTP) values from a bidding process, the double-hurdle is the most appropriate econometric approach to account for zero and protest WTP. However, when the number of protest responses is too small to be explicitly modelled, this approach is not applicable. This frequently occurs in critical health care situations, where large samples are not easily available. We discuss the possible econometric strategies for use in such cases. For illustrative purposes, the different models were applied to an empirical situation, which refers to the location preference (i.e. home versus hospital) from French cancer patients for blood transfusion. Our results show that protest responses should not be discarded, even if present in small numbers, and that the type II Tobit and the standard truncated regression model could both be applied. However, since from small finite samples, the most robust estimation is obtained from the bootstrap method with a high number of replications, the truncated regression model, easily applicable, weakly computer time-consuming and not subject to identification problems in this case contrary to the type II Tobit, should be the econometric strategy of choice for various WTP studies in the healthcare field.

**Keywords:** *protest responses, econometric specifications, contingent valuation, home care.*

JEL classification: I18, C13, C24.

*Fisher, Macaulay and Allais vis-a-vis the “Gibson’s paradox”*

Jean-Jacques Durand

Georges Prat

According to the quantitative theory of money, an expansion of the money supply leads both to a decrease of interest rates and an increase of the general level of good prices. This negative correlation expected between these

two variables being contradicted by the positive correlation observed - pointed out by Gibson and confirmed by further studies - Keynes refers to the so-called "Gibson's paradox". I. Fisher proposed an explanation of this "paradox" with the slowness of the adjustments of interest rates to the rate of inflation. However, F.R. Macaulay showed that, since the delays of influence found by Fisher go up far in the past, this implies a necessary correlation between the price level and the weighted average of past rates of change in the price level calculated by Fisher. This arises the following question: does the correlation between interest rates and the price level result from a fisherian behaviour of agents or, on the contrary, do Fisher's results spurious since due to the correlation between price level and interest rates? However, Macaulay's criticism loses its relevance when the speed of adjustment is high (i.e. delays of influence are short), as observed during periods of hyperinflation and after the world war II. With respect to this debate, the merit of the Allais' Hereditary and Relativist (HR) theory is to suggest a synthesis with the "psychological rate of interest  $i$ " hypothesis. Depending on past values of the rate of change in price level and production, the rate  $i$ , which equals the "rate of forgetfulness", represents the general trend of market interest rates. When the memory is long (i.e. the "rate of forgetfulness" is weak), the psychological rate of interest is necessarily correlated with the price level and then explains the positive correlation - which may be more or less stable due to the production effects - between market interest rates and the price level. But when the memory is short (i.e. the rate of forgetfulness high), the HR theory implies both the disappearance of the correlation between interest rate and the price level and the existence of a positive correlation between interest rate and the rate of change in the price level, which is often observed.

**Keywords:** interest rates, price level, inflation.

JEL classification: E31, E43, N01.