

Roads to Riches: Trade, Environment and Productivity in 2006

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ABSTRACTS

Commodity Booms and Busts: Prospects for the Poorest Countries

Harry Bloch

The world's poorest countries tend to depend on primary commodities for the bulk of their export earnings. The Prebisch-Singer hypothesis predicts a long-run declining price for primary commodities relative to manufactured goods. Actual identification of long-run trends has been complicated by the high level of volatility in commodity prices in the short run. Both a long-run decline and short-run volatility pose difficulties for economic progress in the poorest countries. We identify drivers of both long-run and short-run movements in the prices of primary commodities relative to manufactured goods and then use the results of our analysis to appraise prospects for export earnings of the poorest countries.

An Optimal Border Quarantine Measure: OJD in WA and FMD in the USA

Tom Kompas

Quarantine programs provide an essential protection against the importation of exotic diseases, thus protecting both consumers and producers from major health concerns and pests that can potentially destroy local agricultural production. However, quarantine measures also impose costs in the form of expenditures on the quarantine program itself and the welfare losses that are associated with such trade restrictions. This paper develops a stochastic control model to determine the optimal level of quarantine activity for imported livestock by minimizing the present-value of the direct costs of the disease, the cost of the quarantine program and any resulting welfare losses. The result defines a practical measure for the optimal number of infected livestock that may potentially enter a region in a given year. Applications to the case Ovine Johne's Disease and its potential entry to the sheep industry in Western Australia and Foot and Mouth Disease on beef livestock in the USA are presented. In both cases, current quarantine expenditures are far less than optimal.

Intergenerational Allocations of Environmental Resources: Equity and Efficiency Issues

Ngo Van Long (McGill University)

This paper reviews the criteria for ranking allocations of resources across generations, and examines various definitions of equity. We revisit the Kantian concern about intergenerational equity and the Rawlsian concern about insufficient savings. The consequences of concepts such as sequential maximin and limited intergenerational altruism are explored. The paper discusses desirable properties such as envy-free allocation, non-dictatorship of the present, non-dictatorship of the future, and non-dictatorship of the least advantaged. A new welfare criterion is proposed that encompasses the three non-dictatorship criteria. Some examples illustrate the reasonableness of the new criterion.

Comparing augmented sustainability measures for Scotland: Is there a mismatch?

John C.V. Pezzey, Nick Hanley, Karen Turner, Dugald Tinch

We estimate and compare two empirical measures of the weak sustainability of an economy for the first time: the change in augmented Green Net National Product (GNNP), and the interest on augmented Genuine Savings (GS). Yearly calculations are given for each measure for Scotland during 1992-1999. Augmentation means including, using projections to 2020, changed production possibilities enabled by exogenous technical progress or changing oil prices. The change in augmented GNNP and the interest on augmented GS are both always positive, showing no sustainability problem for Scotland then, according to the assumptions underlying our weak sustainability calculations. However, the former greatly exceeds the latter, even when macroeconomic fluctuations are taken into account. This is a mismatch which poses an unresolved problem with the theory. Resolving it may require respecifying the utility functions used in mainstream growth theory.