DEPRECIATION OF DURABLE GOODS

IN AN UNSTABLE ECONOMY:

THE CASE OF ARGENTINA

A Hulten & Wycoff approach

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"The measurement of capital is one of the nastiest jobs that economists have set to statisticians"
(J. Hicks 1981), quoted by Ch. Hulten (1990)

"The fundamental problem of accounting is how to determine end of the accounting period prices for durable assets that are held by the business unit for multiple accounting periods" Diewert (2003)

Abstract

The main purpose of this paper is to identify the depreciation pattern in an unstable economy: the Argentina case, using vintage asset prices by means of Hulten and Wycoff (1981) approach.

The example of Argentina during 1998-2002 is very important because during that period, there was the biggest & longest economic depression of its modern economic history. As a consequence, the country abandoned the Convertibility Plan with currency mega devaluation (default & desdoralization) DDD which caused a high instability in relative prices that could challenge the measure of capital stock, gdp and productivity performance in so unstable economy.

The paper briefly discusses the depreciation concept, the importance in economic analyses and the information problems in the used durable goods markets according to SNA93, OECD Measuring Capital Manual and the most recent literature.

Applying the Hulten and Wykoff (1981) approach to Argentine case (farm tractors, aircrafts, cars, buses, trucks and light commercial vehicles), the econometric analysis would confirm the hypothesis of convex depreciation for almost every case under analyses, but overall, it would not confirm any geometric case.

We also found that there was a high instability of age price profile in the argentine economy and important distortions on price of durables goods capture by "representative official index".

This findings support the importance of valuation of the stock of durable goods taking into account the age price profile performance; instead of the use of standard depreciation without empirical support in the PIM context or the imputation of an age price profile of the reference year to the whole stock series supposing its stability.