Available online at www.sciencedirect.com
ScienceDirect
ELSEVIER
Journal of Economic Dynamics & Control 31 (2007) 277–303
JOURNAL OF Economic Dynamics & Control
www.elsevier.com/locate/jedc

Effects of inflation on wealth distribution: Do stock market participation fees and capital income taxation matter?

Burkhard Heer[a,b,*], Bernd Süssmuth[c]

[a] *Free University of Bolzano-Bozen, School of Economics and Management, Via Sernesi 1, 39100 Bolzano, Italy*
[b] *CESifo, Munich, Germany*
[c] *Munich University of Technology, Germany*

Received 15 January 2004; accepted 24 November 2005
Available online 20 March 2006

Abstract

The effects of a permanent change in inflation on the distribution of wealth are analyzed in a general equilibrium OLG model that is calibrated with regard to the characteristics of the US economy. Poor agents accumulate savings predominantly in the form of money, while rich agents participate in the stock market and accumulate equity. Higher inflation results in higher nominal interest rates and a higher real tax burden on interest income. Surprisingly, an increase in inflation results in a lower stock market participation rate; in addition, savings decrease and the distribution of wealth becomes even more unequal.

JEL classification: D31; E52; E44; E31

Keywords: Inflation; Nominal interest taxation; Welfare costs; Wealth distribution; Stock market participation

*Corresponding author. Free University of Bolzano-Bozen, School of Economics and Management, Via Sernesi 1, 39100 Bolzano, Italy, Tel.: +39 0471 013200; fax: +39 0471 013009.
E-mail address: Burkhard.Heer@unibz.it (B. Heer).

0165-1889/$ - see front matter
doi:10.1016/j.jedc.2005.11.003

1. Introduction

The literature discusses several channels through which inflation may alter income, earnings, or wealth distributions. Among others, these channels include differential indexation of wages across income groups, disproportionally allocated subsidized loans, the income tax bracket effect, and the Tanzi–Olivera effect on taxes and governmental revenues. This paper aims to examine two different channels that stress the role of capital markets and the portfolio composition of financial wealth in money and equity. Both channels are operative even if a change of inflation is anticipated. First, we model the portfolio decision of households to invest in money and interest-bearing assets endogenously. Our presumption is that in times of high inflation, households may reallocate their wealth from money to capital. Given transaction costs and stock market participation fees, wealth-poor and income-poor agents may experience difficulties in accomplishing such a move. Many younger and poorer US households, in particular, do not hold equities at all.[1] As a consequence, wealth concentration should increase with higher inflation. Second, we introduce the 'Feldstein channel' that occurs through the impact of inflation on the distortionary nominal tax system. As Feldstein (1982) pointed out, loose monetary policy can increase the real capital income tax burden in a nominally based tax system. As a corollary, higher inflation reduces the return on savings. The effect of inflation on the distribution of wealth via the 'Feldstein channel' then depends on the distribution of the savings rates across income.

The effect of inflation on the inequality of the income distribution has been analyzed in numerous empirical studies of the US economy. A comprehensive survey of this literature is given in Galli and van der Hoeven (2001). The majority of these studies finds a significant progressive effect of inflation on US income distribution, although it is of negligible size in quantitative terms. About half of the studies, however, do not find a statistically significant effect once some basic control variables are considered. The effect of inflation on the concentration of wealth is nevertheless much less understood, one possible reason being the lack of equidistant and/or comparable time-series data.[2] We know of only a few empirical studies that consider the relationship of inflation and wealth heterogeneity, as, for example, Bach and Ando (1957), Budd and Seiders (1971), Bach and Stephenson (1974), or Wolff (1979). These studies mostly compare two different periods only and are concerned with the differences in wealth holdings of relatively disaggregated demographic and/or racial groups with regard to different types of assets. The broad overall picture conveyed in this early strand of empirical literature is that during the mid 1950s to

[1] Romer and Romer (1998) note that for US households from the quintile reporting the lowest total income only about one fifth holds a positive amount of financial assets, including nonpublic stocks (figure based on data from the Federal Reserve's 1995 Survey of Consumer Finances, henceforth SCF).

[2] One should also be very careful to apply the evidence for income distribution to the redistributional effects of inflation on the wealth distribution because, at least in the case of the US, the correlation between wealth and income, though positive, is far from strong (see Díaz-Giménez et al., 1997) and may change over time.